

HOWARD COUNTY HEALTH DEPARTMENT

JOYCE M. BOYD, M.D., M.P.H.
COUNTY HEALTH OFFICER



Bureau of Environmental Health
3525 Ellicott Mills Drive
Ellicott City, Maryland 21043

Director - 461-9956
Water & Sewerage, Permits - 461-9933
Community Environmental Health - 461-9944
Technical Services - 461-9955

April 20, 1989

Ms. Renee Broom
5495 Cedar Lane, #109
Columbia, MD 21044

Dear Ms. Broom:

Please contact Mr. Bert Nixon or Mr. Gregory Mellon of this office at 461-9955 to schedule an inspection of your unit for damage to the asbestos containing covering.

Thank you.

Sincerely,

G.S. Mellon, Assitant Director
Technical Services Program

GSM:vf

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MS. RENEE BROOM
5495 CEDAR LANE, #109
COLUMBIA, MD 21044

4. Article Number

P 923-680-058

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Ellicott City, MD 21043

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HEALTH DEPT.
ELLICOTT CITY, MD.

APR 26 11 08 AM '89

HOWARD COUNTY
HEALTH DEPT.
76 4 15 PM '89
DIVISION OF
ENVIRONMENTAL
HEALTH





Energy Ventures Analysis, Inc.

1901 N. MOORE STREET, SUITE 1200 ARLINGTON, VIRGINIA 22209-1706

PENN CENTER WEST-ONE, SUITE 300 PITTSBURGH, PENNSYLVANIA 15276

TELE: (703) 276-8900

FAX: (703) 276-9541

TELE: (412) 787-8624

FAX: (412) 788-1914

October 17, 1988

Mr. Greg Mellon
Howard County Health Department
3525 Ellicott Mills Drive, Suite H
Ellicott City, Maryland 21043

Dear Mr. Mellon:

Enclosed is our report on the "Inspection of the Asbestos Containing Acoustical Plaster Ceiling at the Abbott House Apartment Building."

If you have any questions, please call.

Sincerely,

John B. Stamberg, P.E.

JBS/dmw

L/A

Certified

HOWARD COUNTY HEALTH DEPARTMENT

JOYCE M. BOYD, M.D., M.P.H.
COUNTY HEALTH OFFICER



Bureau of Environmental Health
3525 Ellicott Mills Drive
Ellicott City, Maryland 21043

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Technical Services - 461-9955

January 10, 1988

Renee V. Broom
5495 Cedar Lane, #109
Columbia, Maryland 21044

Dear M's Broom:

I am writing in reply to your letter received December 19, 1988.

I was informed of the presence of a report that cited an inspection of your apartment by M's Rita Benton just minutes before entering your unit on October 13, 1988.

Mr. John B. Stan^mberg, P.E., of Energy Venture Analysis, Inc., was the engineer, and a Dr. Esposito of Atec Associates (per Mr. Stanberg in a meeting on January 4, 1988) was the certified industrial hygienist.

The report and the inspection were contracted for by the Columbia Residential Management, Inc., and the Columbia Cedar Limited Partnership as noted on the cover of the report (copy enclosed). You will have to contact them for the contract specifications.

Enclosed you will find I have included the "Criteria and Inspection Approach" information citing the procedures, and the results of the inspection "Summary of Abbott House Survey of Ceiling Treatment Conditions in Apartments and Common Areas".

I am sorry for the delay.

Sincerely,

Gregory S. Mellon, Assistant Director
Bureau of Environmental Health

GSM:hs

Enclosures

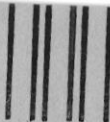
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BUREAU OF ENVIRONMENTAL HEALTH
3525-H ELLICOTT MILLS DRIVE
ELLICOTT CITY, MD 21043

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3. Article Addressed to:

M's Renee V. Broom
5495 Cedar Lane, #109
Columbia, Maryland 21044

4. Article Number

P-923-680-050

Type of Service:

- Registered Insured
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X *Renee Broom*

6. Signature — Agent

X *[Signature]*

7. Date of Delivery

1-12-89

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1901 N. MOORE STREET, SUITE 1200, ARLINGTON, VIRGINIA 22209

Energy Ventures Analysis, Inc.

John B. Stamberg, P.E.
VICE PRESIDENT

703/276-8900



Rec'd 12/19/88
Jane Reeves had to sign
a receipt for the letter

5495 Cedar Lane, #109
Columbia, Maryland 21044
November 29, 1988

Mr. Gregory S. Mellon, Assistant Director
Bureau of Environmental Health
Howard County Health Dept.
3525 Ellicott Mills Dr.
Ellicott City, MD 21043

Dear Mr. Gregory,

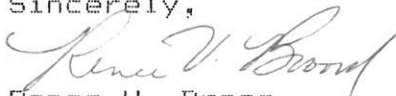
Thank you for your letter of November 14th in which you informed me that my apartment had been evaluated. I am disturbed that you did not inform me earlier that this inspection had been undertaken and that, when you visited my apartment on October 13th, you did not share this information or the report with me, even though I had requested all information you had on my apartment.

I am now formally requesting that you send me a copy of the report generated on my apartment, along with the names of the engineer and the certified industrial hygienist who inspected the apartment. Please include with the copy of the report the contract specifications for this work, the report on procedures used in the inspection and/or any other documentation which reflects the methods and procedures used in the inspection.

I am making this request under the federal Freedom of Information Act. I understand that you must provide me with this information within 15 days under the terms of the act.

I am looking forward to hearing from you.

Sincerely,


Renee V. Broom

HOWARD COUNTY HEALTH DEPARTMENT

JOYCE M. BOYD, M.D., M.P.H.
COUNTY HEALTH OFFICER



Bureau of Environmental Health
3525 Ellicott Mills Drive
Ellicott City, Maryland 21043

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Technical Services - 461-9955

November 14, 1988

Ms. Renee V. Broom
5495 Cedar Lane, #109
Columbia, Maryland 21044

Dear Madam:

The Howard County Health Department inspection of your unit at Abbott House Apartment on April 8, 1987 prompted our request of the Columbia Residential Management, Inc. to procure the services of a certified asbestos contractor to assess the health threat of the asbestos in the units and to repair as necessary.

The Abbott House Apartment's management did have Falcon Associates do repairs to your unit in October, 1987. In January and February of 1988, Abbott House had another contractor evaluate all apartments to identify and record the condition of the building's asbestos containing acoustical plaster. The contractor team, consisting of an engineer and a certified industrial hygienist, found your unit's ceiling to be in good condition and stable.

My visual inspection of your unit was conducted on October 13, 1988, in the company of Clyde Shippe, Howard County Bureau of Inspections, Licenses and Permits, and Rita Benton, Columbia Residential Management. I found nothing to indicate any changes in the evaluation of the contractor team.

Sincerely,

A handwritten signature in cursive script, appearing to read "G. Mellon".

Gregory S. Mellon, Assistant Director
Bureau of Environmental Health

GSM:hs

HOWARD COUNTY HEALTH DEPARTMENT

JOYCE M. BOYD, M.D., M.P.H.
COUNTY HEALTH OFFICER



Bureau of Environmental Health
3525 Ellicott Mills Drive
Ellicott City, Maryland 21043

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Community Environmental Health - 461-9944
Technical Services - 461-9955

November 14, 1988

Ms. Renee V. Broom
5495 Cedar Lane, #109
Columbia, Maryland 21044

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Sincerely,

A handwritten signature in cursive script, appearing to read "G. Mellon".

Gregory S. Mellon, Assistant Director
Bureau of Environmental Health

GSM:hs

Ms. Renee Br

5495 Cedar

109

Columbia,

21044



Howard County Health Dept.
Mr. Gregory S. Mellon
Bureau of Environmental Health
3525 Ellicott City, Md.
21043

November 7, 1988
~~October 21~~, 1988

Mr. Clyde S. Shippe
Bureau of Inspections, License and Permits
Public Works Annex
11226 Route 216
Laurel, MD 20707

Dear Mr. Shippe,

I am awaiting your report of your inspection of my unit, (Abbott House, #109) conducted by yourself and Mr. Mellon on October 13, 1988. I need this report immediately at the request of the housing department.

Please include in your letter to me your assessment of the condition of the material in my unit and the methods by which you made this assessment.

I will expect to hear from you within five days. The urgency of this situation is compounded by the threat to my son's present and future health by the exposure to asbestos he suffers in our apartment. I would appreciate your prompt attention to this matter.

Sincerely,

Renee Vanessa Broom

Renee Vanessa Broom

5495 Cedar La. #109
Columbia, 21044

C/A

Howard County Health Department

To: _____

Joe Warkoczywski

71

92

4.9

AACE (Asbestos
Abatement

Consulting Eng)

Dept Box 38

Hampstead NJ - 08036

609-778-0189

From: _____

Norm or Julie Cohen

Date: _____

Tom Camp

HD-170

Note: 12/15/88 called Falcon Assoc.

They in turn are subcontracting out
to AACE (Asbestos Abatement Consulting Eng)
Dept Box 38
Hampersport N.J. 08036
(609 778-0189)



Energy Ventures Analysis, Inc.

1901 N. MOORE STREET, SUITE 1200 ARLINGTON, VIRGINIA 22209-1706

PENN CENTER WEST-ONE, SUITE 300 PITTSBURGH, PENNSYLVANIA 15276

TELE: (703) 276-8900

FAX: (703) 276-9541

TELE: (412) 787-8624

FAX: (412) 788-1914

December 9, 1988

Mr. Burt Nixon
Bureau of Environmental Health
3525 Ellicot Mills, Suite H
Ellicot City, Maryland 21043

Dear Mr. Nixon:

Abbott House has made arrangements (per attached letter) to remove ACM textured paint in the five units identified as "level 3" condition in our August 1988 report entitled "Inspection of the Asbestos Containing Accoustical Plaster Ceilings at the Abbott House Apartment Building." The work will be performed according to the specifications in our July 1987 report entitled "Inspection and Special Operations and Maintenance Program for Asbestos Containing Accoustical Plaster Ceilings at Abbott House Apartments."

The work is scheduled to start January 9, 1989 and the work is expected to be complete within a weeks time. During this time our firm along with ATEC will reinspect Abbott House Apartments.

We will see on January 4, 1989 at your office to review the scope of the above work. If you have any questions please feel free to contact us.

Sincerely,

John B. Stamberg, P.E.

JBS/dmw

Enclosures

cc: Mr. Earl Glover

Romee Brown
5495 Cedar Lane #109

Columbus, Ga. 31904

P 923 674 537

MAIL



Environmental Health
3525 Ellicott Mills Drive
Suite Rt.
Ellicott City, Maryland 21043

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0177152

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NO.

1/10/84

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DATE

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2ND NOTICE

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PS Form 3849-A
Oct. 1980

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Mr. Mel

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LEGAL AID BUREAU, INCORPORATED

HOWARD COUNTY OFFICE

COURTHOUSE SQUARE

3525 ELLICOTT MILLS DRIVE, SUITE A

ELLICOTT CITY, MARYLAND 21043

(301) 992-0660

(301) 725-6060 (LAUREL LINE)

JOHN C. LOVE, PRESIDENT

CHARLES H. DORSEY, JR.
B. HARRIETTE TAYLOR

DORIS GREEN WALKER

July 23, 1987

Mr. Clyde S. Shippe
Bureau of Inspections, License, and Permits
Public Works Annex
11226 Route 216
Laurel, MD. 20707

RE: Broom vs. Columbia Residential Management, et. al.
Case No.: 2052-87

Dear Mr. Shippe:

Based on our telephone conversation of the above date you are already aware that this office represents Ms. Renee Vanessa Broom in the above-styled matter. I would appreciate your sharing with me any copies of written materials relevant to this matter.

Thank you in advance for your assistance.

Most Sincerely,


Leslie S. Turner, Esq.

LST:aag

4/A

Best,

We need to schedule a meeting
with Abboth House to review

A. Schedule of future inspections

B. Status of those units and common
areas that were found to be in
need of repairs

C. Instruction of occupants to prevent
disturbances of the acoustical plaster.

D. Verify contents of check lists to
be used during inspections.

11/28/88 Reported need for meeting to Kzepiennik

Abbot House

- ① Have occupants been instructed and prohibited from hanging lights, plant holders, curtains, and etc from the ceiling. Any penetration will generate fibers.
- ② Encapsulation should only be used on acoustical plaster. Is the ceiling so protected. (EPA recommendation pg 5-8, 1985 Guidance) Latex paint has been used.
- ③ Do building records note the presence of ACM.
- ④ Routine inspections ^{to note} for potential for fiber release
 - A. Disturbances
 1. water damage
 2. erosion from air ducts or scrapes
 3. vibration

delamination
friable
- ⑤ Scheduling for continued surveillance

CHAPTER 4. ASBESTOS CONTROL BEYOND SPECIAL OPERATIONS AND MAINTENANCE

6/85
EPA manual
Guidance for
control

If a building contains ACM, implementing a special O&M program will remove asbestos fibers and limit further fiber release. Once the program is operational, the need for additional asbestos control or abatement should be considered. Three questions need to be answered:

- Is abatement necessary?
- When should abatement be done?
- What abatement method should be used?

In some situations, assessing the need for abatement is a straightforward process. Badly damaged ACM in public areas should be removed immediately. ACM in good condition with virtually no chance of being disturbed except under controlled conditions (e.g., during scheduled repairs) requires no additional action, at least not immediately. (An example of the latter is tightly bound, undamaged ACM insulation wrapped around heating or water pipes.) Deciding how to control ACM is complicated; assessment requires simultaneous consideration of the type and condition of the material, timing and alternative abatement methods, as well as constraints that are specific to individual buildings.

This chapter contains an approach to assessing the need for abatement, determining its timing, and choosing an abatement method. Factors used in the decision-making process are introduced and discussed. The three types of ACM — surface material, pipe and boiler insulation and miscellaneous products — are treated separately. Constraints that affect individual owners or buildings are also discussed.

SUMMARY

Assessment Information:

- The likelihood of fiber release from ACM is based on evaluating its current condition and the potential for future disturbance, damage, or erosion.
- Air monitoring alone should not be used for assessment.

The Assessment Process:

The likelihood of fiber release from ACM determines the need for and timing of additional action. The nature and location of the material determines the abatement method.

• Surfacing Materials

Need: Surfacing material in good condition and with a low potential for future disturbance, damage, or erosion may need no further action.

Timing: ACM in poor condition should be dealt with first. If ACM is in good condition but has a high potential for future fiber release, abatement can be scheduled with building renovation or maintenance.

Method: Removing the ACM is the only permanent solution. Enclosure and encapsulation are temporary solutions to be implemented in special circumstances.

- **Pipe and Boiler Insulation**

Need: If the insulation is intact, no further action is needed.

Timing: Damaged insulation should be repaired or replaced as soon as possible.

Method: Removal is appropriate where the insulation is extensively damaged or deteriorated.
Repair is appropriate where the insulation has minor damage.

- **Other Types of ACM**

A special O&M program is usually all that is needed.

Further Considerations in Selecting an Abatement Schedule:

- If an abatement project is not urgent, it will be less costly if combined with building repair, renovation, or expansion, or with scheduled maintenance to equipment and building systems.
- Other factors that may influence the timing of abatement include:
 - The pattern of normal building operations;
 - The building owner's legal liability;
 - Pressures from building occupants and the public; and
 - Expected useful life of the building.

4.1 Assessment Information

The need for asbestos control beyond a special O&M program depends on the likelihood of fiber release from ACM. The possibility of fiber release should be assessed by evaluating the material's condition, physical characteristics, and location. Another approach is to measure the current levels of asbestos in the air. As explained below, however, assessment by air monitoring alone is not recommended because it reflects conditions only at the time of sampling. In addition, air monitoring is technically difficult and expensive.

4.1.1 Potential Fiber Release

Factors for assessing fiber release potential are listed in Table 1. (Figures 7 and 8 illustrate some of these factors.) The first set of factors focuses on the current condition of ACM. If water or physical damage, deterioration, or delamination of the material is evident, then fiber release has occurred, is occurring, or is likely to occur. The appearance of the material and the presence of broken or crumbled material on horizontal surfaces indicate fiber release.

Factors under the second heading in Table 1 reflect potential fiber release due to disturbance or erosion. Visible, highly accessible materials in areas frequently used or needing periodic maintenance are most vulnerable to physical damage. Also in this category are materials subject to vibration from mechanical equipment, sound, or athletic activities — for example, materials near a gymnasium or band room, or in buildings near an airport or highway. ACM in an air plenum or near a forced airstream (e.g., air from a heating vent) is likely to suffer surface erosion. In addition, fibers released into an airstream may be transported to other parts of the building, possibly exposing more people. Any planned changes in building use should also be considered when assessing potential fiber release.

Table 1. Factors for Assessing Potential Fiber Release
(See Appendix H for more detail.)

Current Condition of ACM

- Evidence of deterioration or delamination from the underlying surface (substrate)
- Evidence of physical damage (e.g., presence of debris)
- Evidence of water damage

Potential for Future Disturbance, Damage, or Erosion of ACM

- Proximity to air plenum or direct airstream
 - Visibility, accessibility (to building occupants and maintenance personnel), and degree of activity (air movement, vibration, movement of building occupants)
 - Change in building use
-

The factors in Table 1 are fully described in Appendix H. The descriptions should assist the evaluator in assessing ACM at individual sites.

A simple "present" or "absent," "high" or "low" rating should be used for each factor. More elaborate rating schemes have been tried. For example, factors have been assigned numerical scores and, using mathematical formulas, the scores have been combined into indices to reflect potential exposure.¹ These "exposure indices" have met with mixed success. In tests, several indices showed wide variation from one rater to the next and often did not indicate current, elevated airborne asbestos levels (e.g., USEPA 1983b). Assigning numerical ratings to assessment factors and combining them into a single score cannot be recommended. However, the factors are useful when they are scored with a simple, nonnumerical rating scheme.

4.1.2 Air Monitoring

Another way to assess asbestos fiber release is to measure asbestos fibers in the air. This approach is appealing because it quantitatively measures airborne asbestos contamination. However, it measures only current conditions and provides no information about fiber release potential and future air levels. Moreover, implementing an effective monitoring program to measure current levels of airborne asbestos is difficult and can be expensive.

One proposed method for measuring airborne asbestos in buildings was developed by the National Institute for Occupational Safety and Health (NIOSH) in connection with the OSHA asbestos exposure standard for workplace settings. This method uses phase contrast microscopy (PCM), which may be effective for industrial measurements where most airborne fibers are asbestos, but is less useful in settings with much lower asbestos levels. PCM is not sensitive to fibers with diameters less than 0.2 micrometers.² In addition, the NIOSH method excludes fibers shorter than 5 micrometers and does not distinguish between

¹ See, for example, Lory 1980, Pinchin 1982, and USEPA 1979.

² A micrometer is one-millionth of a meter. See Appendix B for a simple discussion of measurement units used to describe and measure asbestos fibers.

5.1.3 Encapsulation with Sealants

e.g. Abbott

Encapsulation refers to the spraying of ACM with a sealant. The sealant should bind together the asbestos fibers and other material components and offer some resistance to damage from impact. Figure 13 shows an asbestos encapsulation project.

Encapsulation should be used only on granular, cementitious material—commonly known as acoustical plaster. A sealant should penetrate the ACM and adhere to the substrate (or form a tough skin over the material), withstand moderate impact, be flexible and flame-retardant, resist deterioration over time, and be non-toxic. EPA evaluated over 100 sealants, using five criteria: impact resistance, flame spread, smoke generation, toxic gas release during combustion, and adhesive/cohesive strength (USEPA 1981). The American Society of Testing and Materials (ASTM) also is developing laboratory testing criteria for sealants. Additional information on the EPA sealant study can be obtained from EPA's Office of Toxic Substances, TSCA Assistance Office (see Appendix E for phone numbers).

Although the EPA study can help building owners choose a sealant, its effectiveness on the particular ACM should still be tested on-site over several days. (ASTM is developing criteria and procedures for such on-site tests.) Do not encapsulate material that is delaminated or deteriorated, or that shows extensive damage. If delaminated, the material will be pulled down by the additional weight; if deteriorated, the ACM may be blown off by sealant application; if extensively damaged, the material may be repeatedly abused and the sealant will not hold up. The condition of the sealant on previously encapsulated materials also should be inspected. Reapplication of sealant may be necessary.

Latex paint has been used as a sealant for granular, cementitious materials. Select a brand with a high vehicle content (at least 60 percent by weight) and at least 25 percent by weight vehicle resin.⁴ For encapsulating ACM, apply paint considerably thicker than recommended for painting. Coverage should be no more than 100 sq. ft. per gallon, and should create a continuous, unbroken coating.

Apply sealants with airless spray equipment.⁵ One recommended method is to apply a light (mist) coat, then a full coat applied at a 90 degree angle to the direction of the first. If latex paint is used, the full coat can also be applied by roller before the mist coat dries.

Record the type of sealant used and the nature of the material and substrate encapsulated. This information is needed to avoid unintentional release of fibers during later remodeling or demolition.

5.2 Abatement Methods for Pipe and Boiler Insulation

Abatement methods for ACM used to insulate pipes, boilers, ducts, tanks, and related equipment are somewhat different from methods for asbestos sprayed or troweled on surfaces. When damage to pipe or boiler covering is limited, repair is the recommended abatement approach. Non-asbestos plastering can restore open joints, wrapped or plastered areas that are damaged, and areas around valves and flanges. Encapsulants can also be used as a temporary measure. Do not use duct tape; it becomes brittle after exposure to high temperatures.

Where large portions of pipe and boiler insulation must be removed, erect containment barriers and employ the full range of worker protections (see Section 5.1). Containment bags may be used instead of constructing containment barriers around the work area. These bags are available commercially. As shown in Figure 14, the bags are positioned around the pipe insulation to be removed, and sealed to the pipe with tape.

⁴ Paint constituents appear on the label of the can.

⁵ The use of respirators is recommended for applying any sealant. Solvent-based (as compared to water-based) sealants may require the use of a supplied air (Type C) respirator due to hazards from the solvents.

CHAPTER 5. ABATEMENT METHODS: CHARACTERISTICS AND RECOMMENDED WORK PRACTICES

This chapter provides more detailed information on the advantages, disadvantages, applicability, and relative costs of alternative abatement methods. Information is also given on recommended work practices for worker protection, work site containment, and project surveillance. This information is provided to help building owners determine which method is most appropriate for their situation and what the abatement effort will involve. It is not intended as an instruction manual for abatement.

5.1 Abatement Methods for Sprayed- or Troweled-on Surfacing Material

Each abatement method (removal, enclosure or encapsulation) is a separate and distinct alternative. They share, however, several features. The first is the need to conduct a more detailed inspection of both the ACM to be treated and the underlying surface. Each separate, homogeneous area of ACM, usually a single room, hallway, or central space, should be reinspected. (Remember that seemingly homogeneous areas can be composed of different materials and thus require separate inspections.) It is especially important to inspect for hidden material above a suspended ceiling with lay-in panels (see Figure 9). A second round of material sampling in selected areas may help to confirm the presence of asbestos and better delineate areas needing further corrective action.

The following information should be collected on each area with ACM:

- size of the area, since this affects the cost of abatement;
- type of ceiling construction if the ceiling is coated (for example, concrete joist and beam, concrete waffle slab, steel beam or bar joist, suspended metal lath, suspended lay-in panels, tile, metal, corrugated steel), since different construction types present different control problems;
- ceiling height, which may determine the practicality of enclosing the material;
- type of wall (for example, smooth or rough concrete, block or brick, plasterboard), which may indicate whether an encapsulant is needed if material is removed;
- average thickness of ACM (and variation in thickness), since encapsulants should not be applied to thick material.

A form for collecting the necessary information was developed by EPA's Region VII Office and is included in Appendix I for illustrative purposes.

The second common feature of the three abatement methods is the need for worker protection during abatement activities. Worker protection entails not only proper training and specified work practices, but also protective equipment (special coveralls and respirators) for the workers. The OSHA standards specify three different respirators depending on the expected concentration of fibers in the work area: (1) a full- or half-face mask with either a single-use or replaceable filter, (2) a full-face mask with replaceable filter and a pump to assist breathing, and (3) a full-face mask with a self-contained or remote air supply.

NIOSH now recommends that the first type of respirator with a single-use filter not be used, because these filters have not been tested for effectiveness specifically against asbestos fibers and because they are difficult to seal properly around the face.¹ Supplied air (type "C") units offer the most protection. Respirators

¹ A letter setting forth NIOSH's concerns about these respirators was sent to respirator manufacturers on August 25, 1980. A copy of this letter appeared in the December 1980 issue of the *Journal of the American Industrial Hygiene Association*. An industrial hygienist or other appropriately trained professional should assist workers in fitting any type of respirators.

Abbott House

10/14/88 Tel Call
John Stanberg =

Aug 88 Report Coming early next week.

ANERA Oct '87 Regs for Schools as tie
into what's prudent

1/4/89 - meeting

ATEC + E-V-

Joint inspection done w/ initial investigation
To have both disciplines present
engineer - bldg / structural / bldg specs
Ind hyg - human health aspects

Dr Espisto - I.H. was initially used for
1st inspection

Falcon Associates - will do it.

usually will use a 6-8 worth of exp.

maybe
suspect

MD doesn't license firms per say, but rather
individuals who do work

* NJ - 2 tests OSHA, then NJ tests; must
pass both \rightarrow (1 week long course)

In repairs - negative air pressure

damp scraping; can't exceed .1 g/cc

then in living area .01 g/cc

Presently once a year inspect of entire (unit)
w/ HUD



Energy Ventures Analysis, Inc.

1901 N. MOORE STREET, SUITE 1200 ARLINGTON, VIRGINIA 22209-1706

PENN CENTER WEST-ONE, SUITE 300 PITTSBURGH, PENNSYLVANIA 15276

TELE: (703) 276-8900

FAX: (703) 276-9541

TELE: (412) 787-8624

FAX: (412) 788-1914

December 9, 1988

Mr. Burt Nixon
Bureau of Environmental Health
3525 Ellicot Mills, Suite H
Ellicot City, Maryland 21043

Dear Mr. Nixon:

Abbott House has made arrangements (per attached letter) to remove ACM textured paint in the five units identified as "level 3" condition in our August 1988 report entitled "Inspection of the Asbestos Containing Accoustical Plaster Ceilings at the Abbott House Apartment Building." The work will be performed according to the specifications in our July 1987 report entitled "Inspection and Special Operations and Maintenance Program for Asbestos Containing Accoustical Plaster Ceilings at Abbott House Apartments."

The work is scheduled to start January 9, 1989 and the work is expected to be complete within a weeks time. During this time our firm along with ATEC will reinspect Abbott House Apartments.

We will see on January 4, 1989 at your office to review the scope of the above work. If you have any questions please feel free to contact us.

Sincerely,

John B. Stamberg, P.E.

JBS/dmw

Enclosures

cc: Mr. Earl Glover



December 8, 1988

Energy Ventures Analysis
1901 North Moore Street
Suite 1200
Arlington, Virginia 22209

Attention: John Stamberg

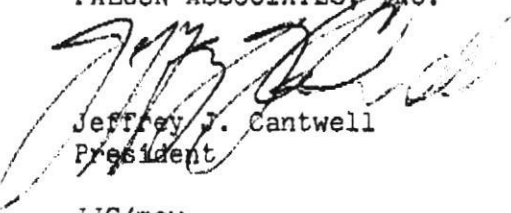
Reference: ABBOTT HOUSE
UNITS 501, 506, 606, 701, and 801

Gentlemen:

We propose to supply all labor materials and insurance to remove or patch asbestos containing materials in the above referenced units. All work will be done in accordance with scope specifications for ABBOTT HOUSE written by EVA.

We will perform this work for the sum of \$9,600.00 (Nine Thousand Six Hundred Dollars). Work is tentatively scheduled to start 1/09/89.

Respectfully,
FALCON ASSOCIATES, INC.



Jeffrey J. Cantwell
President

JJC/maw

Bert



Department of Public Works
BUREAU OF INSPECTIONS, LICENSES & PERMITS

M. Robert Gemmill, Bureau Chief

October 26, 1988

Mr. Philip Glover
Property Manager
Columbia Resident Management, Inc.
P.O. Box 816
Columbia, MD 21044

SUBJ: Abbott House - Rental
License/Fire Safety In-
spection

Dear Mr. Glover:

On October 13, 1988, the annual rental license renewal/fire safety inspection was conducted at Abbott House with the following results:

1. Elevators are lacking fire alarm automatic recall system. NFPA 7-4.3. Have fire alarm recall system installed on both elevators by qualified personnel no later than November 28, 1988.
2. Enclosed is a fire/safety form with checked off items. You will be required to furnish our office certification in writing no later than November 28, 1988, that the checked off items are functioning properly.
3. Driveway & parking area have holes & breaks in same. Repair by November 28, 1988. Howard County Housing Code Section 41.01.2.
4. Request that copies of all future air quality findings be sent to the Howard County Department of Environmental Health. Howard County Housing Code Section 41.01.2 when completed.

The Abbott House rental license will be held in obedience until compliance of above items.

Sincerely,

Clyde S. Shippe, Housing Inspector
Inspections & Enforcement Division

cc: Capt. E. Shilling
HC FD Admin Office

Nick Artim, HC Fire Engineer

Burt Nixon, HCHD

CERTIFIED MAIL - P 446 562 918 Elizabeth Bobo, County Executive
RETURN RECEIPT REQUESTED James M. Irvin, Director of Public Works



Department of Public Works
BUREAU OF INSPECTIONS, LICENSES & PERMITS

M. Robert Gemmill, Bureau Chief

October 26, 1988

Mr. Philip Glover
Property Manager
Columbia Resident Management, Inc.
P.O. Box 816
Columbia, MD 21044

SUBJ: Abbott House - Rental
License/Fire Safety In-
spection

Dear Mr. Glover:

As a result of your rental license/fire safety code inspection at the above referenced property on October 13, 1988, the following requirement(s) is/are to be met by filing a written certification relating to the following checked item(s) for our files by November 25, 1988.

- (X) That all fire extinguishers are the proper size, type, tagged and updated (Howard County Housing Code, Section 35.01 and NFPA 10, Section 4-4.1).
- (X) That all pull stations are working properly and that fire instructional signs are visible (Howard County Housing Code, Section 35.01).
- (X) That all sprinkler systems are functioning properly (Howard County Housing Code, Section 35.01 and NFPA 13, Section 1-5.0).
- (X) That all smoke detectors are functioning properly (Howard County Housing Code, Section 17.113(G) and The Annotated Code of Maryland, Article 38A, Section 12A).
- (X) That all emergency lights are functioning properly (Howard County Housing Code, Section 35.01).

If you have any questions regarding these requirements, you may contact me at (301) 880-3430 between 8:00 and 9:00 A.M.

Sincerely,


Clyde S. Shippe, Housing Inspector
Inspections & Enforcement Division
(301) 880-3430

*Elizabeth Bobo, County Executive
James M. Irvin, Director of Public Works*

0 COUNTY HEALTH DEPARTMENT
DIVISION OF INSPECTIONS
AND ENFORCEMENT

'87 MAY 13 AM 7:33



Bureau of Environmental Health
3525 Ellicott Mills Drive
Ellicott City, Maryland 21043

Director - 461-9956
Water & Sewerage, Permits - 461-9933
Community Environmental Health - 461-9944
Technical Services - 461-9955

May 11, 1987

Mr. Clyde S. Shippe
Bureau of Inspections, License, and Permits
Public Works Annex
11226 Route 216
Laurel, MD 20707

Dear Mr. Shippe:

On April 8, 1987, we conducted a joint inspection of Ms. Renee Broom's unit at Abbott House (#109). Ms. Broom was concerned about her son who has respiratory problems, being exposed to asbestos. This concern was heightened by the fact that the ceiling had incurred water damage to the ACM acoustical plaster.

At that time Ms. Broom presented us with a letter from her physician indicating that her son should be removed from the unit, at least until the asbestos problem is abated.

I discussed this matter with Bob Sheesley, the Bureau Director, and it was determined that Columbia Residential Management should procure the services of a certified asbestos contractor to address units where the asbestos may present an imminent health threat. This determination will be based on a joint inspection between this Bureau and Mr. Clyde Shippe of the Bureau of Inspections, Licenses, and Permits.

This activity shall not be contingent upon securing the loan to abate the asbestos problem in the entire building, but shall be done as soon as possible in situations where an imminent health threat is found.

I will be contacting Mr. Garver with Columbia Residential Management to discuss this and other issues on April 16, 1987.

Please contact me with any comments or questions at 461-9955.

Very truly yours,

Michael J. Caughlin, Director
Technical Services Program

1/4/88

Meeting @
3525-N Ellicott Mills Dr
E H Bureau

John Stenberg - EVA
Phillip Glover - Columbia Management
Kate Benton - Columbia M

Dr Esposito
- Ind. Hygienist
for Atec

3's

5 A pts w/ ceiling in poor condition

A) 12/9/88 letter cited 1/9/89 as starting date for remediation.

① Stenberg says not to be subbed but Falcon Assoc says so

B. Stenberg certification (he subs out) wants at least a week long course

→ \$20 K for original inspection + 5 unit repair

→ Stenberg suggests rather than every 6 mos

① Every 3 yrs like Hera go full w/ Hyg.

② " 6 mos by management ^{inspect} of the minor, # 2's. (and request ^{our} notification)

③ They have a yearly inspection of every unit by HUD (not looking at ~~that~~)

④ Possible log of maintenance ^{there} for our inspection + their i

Criteria -

- Since inspection and repair to be conducted on 1/9/88. ~~1/9/88~~. (SV Elevator inspection this date) Our employee + Abbott to meet w/ Stanberg.

Proposal to change schedule, citing Alera regs, and cite a mutually agreed criteria to be proposed in writing by Stanberg.

Additional Copy

INSPECTION OF THE
ASBESTOS CONTAINING ACOUSTICAL PLASTER CEILING
AT THE ABBOTT HOUSE APARTMENT BUILDING
4539 CEDAR LANE IN COLUMBIA, MARYLAND

INSPECTION FOR:

COLUMBIA RESIDENTIAL MANAGEMENT, INC.
AND
COLUMBIA CEDAR LIMITED PARTNERSHIP
POST OFFICE BOX 1816
COLUMBIA, MARYLAND 21044-0816

INSPECTION BY:

ENERGY VENTURES ANALYSIS, INC.
1901 N. MOORE STREET, SUITE 1200
ARLINGTON, VIRGINIA 22209-1751

AND

ATEC ASSOCIATES
8918 HERMAN DRIVE
COLUMBIA, MARYLAND 21045

AUGUST 1988

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SUMMARY OF INSPECTION FINDINGS

In January and February 1988, EVA and its subcontractor ATEC Associates conducted an apartment by apartment inspection at the Abbott House Apartments at 4539 Cedar Lane in Columbia, Maryland for the building owners - Columbia Residential Management Inc and Columbia Cedar Limited Partnership. The purpose of this inspection was to identify and record the condition of the building's acoustical plaster which contained asbestos containing materials (ACM). This inspection was the first step in the ACM Abatement Program developed by EVA, reviewed/discussed with the Howard County Health Department and approved by the building owners. The findings of this inspection will be used to trigger certain actions as defined in the program report entitled, "Inspection and Special Operations and Maintenance Program For Asbestos Containing Acoustical Plaster Ceiling at Abbott House Apartments" (July 1987).

The inspection found the acoustical plaster to be in the following condition in the residential apartments and common areas of the building:

<u>Condition</u>	<u>Apartments</u>	<u>Common Areas</u>	<u>% of Total Areas</u>	<u># Dust Samples</u>	<u>#Air Samples</u>
Good	74	19	68	3	5
Minor Repairs Needed	20	16	26	21	10
Poor	5	2	5	4	7
No Access	<u>1</u>	<u>-</u>	<u><1</u>	<u>-</u>	<u>-</u>
Total	100	37	100	28	22

As is shown above, 28 dust samples and 22 air samples were taken to determine if the asbestos encapsulated in the plaster was being released into either the dust load or the air. Twenty five dust samples had no detectable levels of asbestos. Three samples taken in apartments requiring minor repairs did have ACM plaster in the dust. However, in all cases, no asbestos fibers were found in the dust. The asbestos was encapsulated in the plaster and paint with a low probability of being released into the air.

The 22 air samples taken verified that all areas were safe with respect to asbestos and that asbestos was not being released into the air in significant quantities. Total ambient fiber concentrations (asbestos and non asbestos fibers) ranged from non detectable (<0.001 f/cc) to 0.006 f/cc which are lower than the OSHA asbestos permissible emission level of 0.1 f/cc and the project asbestos clearance level of 0.01 f/cc. Since the total fiber levels found are characteristic of levels found in most residential dwellings and below the project clearance levels set for asbestos, further more sophisticated testing to determine if any of the fibers in the samples were asbestos was considered unnecessary.

The conclusions of the inspection were:

- (1) Based upon the plaster condition, dust samples and air monitoring results, the Abbott House Apartments building is safe with respect

to asbestos. The asbestos has been effectively encapsulated in the plaster and paint to minimize its potential for release into the air.

- (2) The areas in poor condition outlined in this report should be repaired following the project specifications outlined in the original July 1987 Report entitled, "Inspection and Special Operations and Maintenance Program For Asbestos Containing Acoustical Plaster Ceiling at Abbott House Apartments".
- (3) Areas where minor repair work was needed can be done as apartments are turned over unless subsequent inspections have found a further deterioration in its condition.
- (4) It appears that the plaster found in poor condition in the apartments resulted from two water leaks - one leak in the laundry room and the other water leak from apartment 706. If measures can be taken to minimize future water leaks, the ceiling plasters should remain in good condition.

CLYDE S. SHIPPE

Housing Inspector

Bureau of Inspections, Licenses & Permits

(301) 880-3430

Public Works Annex

11226 Route 216

Laurel, MD 20707



703/ 276-8900



John B. Stamberg, P.E.
VICE PRESIDENT

Energy Ventures Analysis, Inc.

1901 N. MOORE STREET, SUITE 1200, ARLINGTON, VIRGINIA 22209

CRITERIA AND INSPECTION APPROACH

The purpose of this inspection was to identify and document the condition of the acoustical plaster in the Abbott House Apartments. This plaster does contain chrysotile asbestos for holding the texture material together and help it adhere to the cement ceilings. To assure that the asbestos was in good condition and not posing a health hazard to the residents, an inspection by a qualified engineer (EVA) and a certified industrial hygienist (ATEC) was conducted in January and February 1988. This inspection was supplemented with dust sample testing and air monitoring to confirm that asbestos fibers were not being released into the air.

During this inspection, apartments and hallways were examined and placed into one of three categories based upon the ceiling treatment condition. These conditions are as follows:

- 3 - Ceilings in poor condition with areas where ceiling treatments were in powdery condition. In these areas, both air and dust samples were taken to establish if asbestos had been released into the air.
- 2 - Ceilings had areas where the ceiling treatments had become partially detached in either taped areas along seams or flaking from mechanical disturbances/water damage.
- 1 - Ceilings in good condition and stable. Ceiling treatments may have some minor cracks that are stable.

OVERVIEW OF FINDINGS

The results of the apartment by apartment inspection report are shown in Table 1. This table can be supplemented with the detailed site notes showing the location of the damaged areas in apartments which had ceilings with condition ratings of either 2 or 3 that are contained in Appendix A. Below is the summary of these apartment inspections by condition rating.

- * There were 5 apartments (Apt # 501, 506, 606, 701, and 801) where ceiling treatments were in poor condition. In no apartment was asbestos found in detectable levels in the dust or being released into the air in significant quantities. Apartments 501, 701 and 801 are the three apartments located directly below the apartment laundry room which had a leak in a water line during the time of inspection that had contributed to the poor condition of the ceiling treatments. Apartments 506 and 606 also are also in line. Both apartments had severe ceiling damage in the same area in the master bedroom and were likely caused by the same water source.

The dust was sampled in three of these apartments and no detectable levels of asbestos were found. Dust load

TABLE 1
SUMMARY OF ACoustICAL PLASTER CONDITIONS
FOUND IN THE RESIDENTIAL APARTMENTS
AT ABBOTT HOUSE APARTMENTS

APT #	CRACKS	PAINT	SCRAPS	SCRAP COND-	PARTIAL DETACH	AREA (FT ²)	FLAKING FOUND	REMARKS- CEILING TREATMENT CONDITION IN EACH APARTMENT
#	ALONG WALL & SEAMS	OVER CRACK (Y/N)	ON CEILING (Y/N)	COND- ITION (Y/N)	DETACH FLAKES (Y/N)	(FT ²)	FOUND (Y/N)	
** PLASTER CONDITION RATING: 3								
501 U		Y		Flake	Y	3	Y	0.5 sq ft spot in bedroom area where flaking observed, crack in seam in entranceway partially detached in 3 ft long section, seam crack along kitchen/livingroom wall partially detached. Air and dust samples taken. Dust sample showed no detectable levels of asbestos. Air test showed 0.003 f/cc level which is below the 0.01 f/cc level of concern and well within health standards.
506 U		Y			Y	1	Y	Patch behind large bedroom door in poor condition and detached. Two places where ACM partially detached- corners of living room and master bedroom. Rest stable cracks. Air and dust samples taken. Dust sample showed no detectable levels of asbestos. Air sample was 0.001 f/cc which is well below the 0.01 f/cc level of concern and well within health standards
606 U		N			Y	3	Y	2 sq ft area in master bedroom had severe ceiling damage. Partially detached cracks in livingroom and hallway. Dust samples taken showed no detectable levels of asbestos. Air samples taken had overloaded filters that could not be read. Based upon dust sample the filter was likely overloaded with chalk, cellulose, synthetic fibers and other non asbestos dust.
701 S	N	Y		paint	Y	1	Y	1ftx8in area detached in bedroom. 6 foot long water damage on outside wall was still wet with history of leaking. Area outside detachment had some large hanging flakes. Outside is immediate area of flaking, ACM appeared stable although discolored. Closet area also leaking but ACM appears stable. Area by window missing piece but no signs of flaking. 2 scraps stable. Air sample showed ambient fiber concentration of 0.001 f/cc which is well below OSHA action level for asbestos of 0.1 f/cc.
801 U	N	N			Y	3	Y	Active water leak in bedroom and closet area. Leak caused detachment of ceiling in bedroom. Water damage extends to 3 sq ft area. Closet area active dripping cause partial detachment but currently condition #2 may turn into condition#3 after drying. Minor cracks elsewhere are stable. Air sample showed no detectable level of fibers in air (<0.001 f/cc) verifying that no asbestos was being or had been released into air at time of test.
** PLASTER CONDITION RATING: 2								
107 U		N			Y	2	N	Tape partially detached in bedroom and hallway. Air sample taken showed no detectable fiber release (0.001 f/cc).
108 U		N			Y	1	N	Small (1 sq in) patch detached from tape. Dust samples taken.
110 U		N			Y	1	N	Small detached spot in hallway from tape. Dust samples taken.
403 U		N			Y	1	N	Master bedroom door had partially detached ACM. Dust samples taken showed no detectable level of asbestos.
405 U		Y		Poor	Y	1	N	Scrap in livingroom showed sign of hanging flakes from lamp fixture. Air and dust samples taken. Dust sample showed intact chips of 25-40% chrysotile that were encapsulated in paint. Air sample showed fiber

TABLE 1
SUMMARY OF ACoustICAL PLASTER CONDITIONS
FOUND IN THE RESIDENTIAL APARTMENTS
AT ABBOTT HOUSE APARTMENTS

APT #	CRACKS ALONG WALL & SEAMS (Y/N)	PAINT OVER CRACK (Y/N)	SCRAPS ON CEILING (Y/N)	SCRAP COND-ITION (Y/N)	PARTIAL DETACH FLAKES (Y/N)	AREA FLAKING (FT2) FOUND (Y/N)	REMARKS- CEILING TREATMENT CONDITION IN EACH APARTMENT
503 U			Y	Good	Y	3 N	level <0.001 f/cc verifying that no asbestos released in detectable quantity. Area behind master bedroom door partially detached. Chip missing along window. Patch missing in living room by window. Dust sample taken showed no detectable levels of asbestos.
508 U	N		N		2	1 N	Bedroom window shows signs of some past detachment inside doorway signs of partial detachment. Dust samples taken showed no detectable levels of asbestos.
509 U			N		Y	2 N	Partial detached tape in hallway. Questionable if material is ACM or patch. Dust samples taken showed no detectable levels of asbestos.
612 U			N		Y	1 N	Master bedroom had 2 places in middle seam where tape partially detached. Some flakes (#2) in livingroom. Dust samples taken showed no detectable levels of asbestos. Air samples taken showed ambient total fiber concentration of 0.002 f/cc which is well within all OSHA health/safety standards for asbestos.
702 U	Y		N		Y	1 N	One piece partially detached in bedroom by vent. Otherwise, cracks minor and stable.
704 U	Y		Y1	good	Y	2 N	Tape partially detached in hallway in 3 areas for approx 2-4' in length. Significant crack also in hallway entrance but is stable. Minor crack in livingroom painted over and stable. Scraps in Bedroom closet door damage are stable. Dust sample showed 25-30% asbestos encased in plaster. Air sample taken verified that no fibers were being or had been released at time of test since concentrations were below detectable limits (<0.001 f/cc).
706 U	N		N		Y	1 N	Partially detached small chips/flakes found in bedroom closet and above smoke detector in hallway. Prescrapped area near livingroom vent. Minor stable cracks elsewhere. Some discoloration from old water damage evident but ACM stable. Dust sample showed no detectable level of asbestos.
707 U	Y		N		Y	1 N	2 partially detached pieces in large bedroom by vent. Remaining cracks minor, painted and stable. Dust sample showed no detectable level of asbestos.
709 U	N		N		Y	3 N	3' long area by doorway in large bedroom partially detached. One plate partially detached in small bedroom. Significant crack in livingroom by window is stable. Dust sample showed no detectable level of asbestos.
804 U	Y		N		Y	3 N	Partially detached tape in large bedroom by door. Partially detached chips observed in 2 locations in large bedroom and 1 in livingroom. Missing area of ceiling by vent prescrapped but painted over and stable. Remaining cracks minor and stable. Dust samples showed no detectable levels of asbestos. Living room air sample showed a total fiber level of 0.005 f/cc which is well within OSHA standards.
806 B	Y		N		Y	1 N	Repair patches in livingroom and large bedroom are painted and stable. Cracks painted over and stable except in kitchen where one area partially detached but securely held. Appears to be large pieces of ceiling treatment on top of cabinets but no sign of poor condition of

TABLE 1
SUMMARY OF ACOUSTICAL PLASTER CONDITIONS
FOUND IN THE RESIDENTIAL APARTMENTS
AT ABBOTT HOUSE APARTMENTS

APT #	CRACKS ALONG WALL SEAMS	PAINT OVER CRACK (Y/N)	SCRAPS ON CEILING (Y/N)	SCRAP COND-ITION (Y/N)	PARTIAL DETACH FLAKES (Y/N)	AREA (FT ²)	FLAKING FOUND (Y/N)	REMARKS- CEILING TREATMENT CONDITION IN EACH APARTMENT
812 U	Y	Y	paint	Y	1	N	ceiling. These pieces were found to contain 25-35% asbestos. Chips partially detached in bedroom. Signs of water damage in bedroom but remaining ceiling appears stable. Chip missing by vent.	
904 U	N	Y	paint	Y	1	N	Two chips loose observed in small bedroom. One chip missing and not painted over in large bedroom but area stable. Significant cracks observed in living room and large bedroom were all stable. Dust samples taken appear to be paint chips from wall and may be from wall water damage.	
906 U	Y	N		Y	1	N	Partial detached area in hallway with chip missing from previously patched area. Signs of water damage in large bedroom but ceiling stable. Dust samples taken show no detectable levels of asbestos.	
911 U	N	N		Y	2	N	Partially detached area by living room vent measuring 2' by 1' apparently from past water damage. All remaining cracks are minor and stable.	
** PLASTER CONDITION RATING: 1								
109 S	Y	N		N	0	N	Repair work by ACM contractor (Falcon Associates) in October 1987. Small cracks in small bedroom.	
111 S		N		N	0	N	Only minor cracks- all stable.	
201 S	Y	N		N	0	N	Seam crack in room patched and painted.	
202 S	Y	N		N	0	N	Only minor cracks- all painted over and stable	
203 S		Y	paint	N	0	N	Small patch missing by vent.	
204 S		N		N	0	N	Unique- has ACM on bathroom ceiling and duct enclosures. ACM in good condition.	
205 S		N		N	0	N	Only minor cracks- all stable	
206 S	Y	N		N	0	N	Only minor cracks- all painted over and stable	
207 S		N		N	0	N	Minor cracks- all stable.	
208 S	Y	Y	paint	N	0	N	Resident said white powder but no signs of ceiling in poor condition. No cracks except by vent. Vent scrape painted over and stable. Air sample taken showed total fiber concentration of 0.002 f/cc which is well within all OSHA fiber standards.	
209 O		N		N	0	N	No cracks	
210 S	Y	Y	paint	N	0	N	Vacant- Scrape by vent painted over. Crack in hallway stable.	
211 S		Y	good	N	0	N	Prescapes painted over. Few cracks all stable.	
212 S		N		N	0	N	Vacant- Water damage in closet. Seam repaired and painted. Light pole touching ceiling.	
301 S		N		N	0	N	Crack repaired	
302 S	Y	Y	paint	N	0	N	Some scraps but painted over and stable	
303 S		Y	good	N	0	N	Some scraps but all stable. Air sample taken showed ambient total fiber concentration of 0.002 f/cc which is 50 times below OSHA's action limit for asbestos.	
304 S		Y	Good	N	0	N	Minor stable scrapes. Minor stable crack in master bedroom	
305 S		N		N	0	N	Minor stable cracks	
307 S		N		N	0	N	Minor cracks- all stable	
308 S		N		N	0	N	Minor cracks- all stable	

TABLE 1
SUMMARY OF ACOUSTICAL PLASTER CONDITIONS
FOUND IN THE RESIDENTIAL APARTMENTS
AT ABBOTT HOUSE APARTMENTS

APT #	CRACKS ALONG WALL & SEAMS	PAINT OVER CRACK (Y/N)	SCRAPS ON CEILING (Y/N)	SCRAP COND- ITION (Y/N)	PARTIAL DETACH FLAKES (Y/N)	AREA (FT ²) FOUND (Y/N)	REMARKS- CEILING TREATMENT CONDITION IN EACH APARTMENT
309 S			N	N		0 N	Minor cracks- all stable
310 O			N	N		0 N	No cracks
311 S			N	N		0 N	Minor cracks- all stable.
312 S			N	N		0 N	Minor cracks- all stable
401 S			N	N		0 N	Minor cracks throughout- all stable
402 S			Y	Good	N	0 N	Minor scrapes- all stable
404 S			N	N		0 N	Minor cracks- all stable. Dust samples showed no detectable levels of asbestos.
406 S			Y	N		0 N	Minor cracking and scrapes- all stable. Prior evidence of flaking- now stable.
407 S			N	N		0 N	Minor Cracking- all stable
408 S			N	N		0 N	Some holes in ACM but all stable
409 S			N	N		0 N	Minor cracking- all stable.
410 S			N	N		0 N	Patch missing in corner of master bedroom. Stable
411 S			N	N		0 N	Patch missing adjacent to vent- all stable and painted over.
412 S			Y	N		0 N	Prior scrapes are stable. Minor cracking- all stable
502 S			N	N		0 N	Some signs of water stains in bedroom but all cracks stable
504 S			N	N		0 N	All stable minor cracks
505 S			N	N		0 N	All stable minor cracks
507 S			N	N		0 N	3 wider cracks along outer wall but all in stable condition. Dust sample taken showed no asbestos fibers detected
509 S			Y	Good	N	0 N	Missing patches in livingroom by window and behind large bedroom door. Stable cracks elsewhere. Air sample taken showed reading of 0.001 f/ft level which is 100 times below the EPA action level.
510 S			N	N		0 N	Only stable cracks observed along outer walls and ceiling
511 S			N	N		0 N	Minor cracks all stable
512 S			N	N		0 N	All stable cracks along windows
601 S	Y	Y	Y	paint	N	0 N	Scrape stable and painted over. Some discoloration but all seams and cracks stable.
602 S			N	N		0 N	Minor cracks- all stable
603 S			N	N		0 N	Minor cracks in hallway and livingroom. All stable.
604 S			N	N		0 N	Minor cracks in hallway. All stable.
605 S			N	N		0 N	Minor cracks- all stable
607 S			N	N		0 N	Some water spots and cracks. All stable
608 S			N	N		0 N	Wide crack in livingroom and bedroom are stable
610 S			N	N		0 N	Significant crack in livingroom but stable. Prior evidence of flaking on exterior wall- now stable
611 S			N	N		0 N	Chalking in closet partially detached but ACM in good condition.
703 B	Y	N	N	N		0 N	Signs of old detachment from curtain rod installation/ wall settling. Significant cracks in large bedroom but stable. Minor stable cracks elsewhere.
705 S	Y	N	N	N		0 N	Piece missing by vent but ceiling stable and detachment could be old. Minor stable painted over cracks elsewhere.
708 S	N	Y	Y	good	N	0 N	Patch of ACM missing in livingroom appears to be old. Ceiling stable.
710 S	Y	N	N	N		0 N	Vacant apartment- recently painted. Minor cracks painted over and

TABLE 1
SUMMARY OF ACoustICAL PLASTER CONDITIONS
FOUND IN THE RESIDENTIAL APARTMENTS
AT ABBOTT HOUSE APARTMENTS

APT #	CRACKS ALONG WALL & SEAMS	PAINT OVER CRACK (Y/N)	SCRAPS ON CEILING (Y/N)	SCRAP COND- ITION (Y/N)	PARTIAL DETACH FLAKES (Y/N)	AREA (FT ²)	FLAKING FOUND (Y/N)	REMARKS- CEILING TREATMENT CONDITION IN EACH APARTMENT
711 S	N	N	N	N	0	N	stable. Significant crack above Bedroom vent was stable. Remaining cracks minor and stable.	
712 S	Y	N	N	N	0	N	Prescrap by vent, minor cracks are stable and painted over, one area patch of ceiling missing but painted over and stable.	
802 S	Y	N	N	N	0	N	Minor cracks all painted over and are stable.	
803 S	Y	N	N	N	0	N	Crack in hallway shows signs of beginning detachment. Patches in kitchen painted over. Chalking missing in small piece of closet. Cracks all minor and painted over/stable.	
805 B	Y	N	N	N	0	N	One chip shows signs of beginning to detach and may turn into a condition #2 in 1-2 years.	
807 S	Y	N	N	N	0	N	Minor cracks all stable and painted over.	
808 S	Y	N	N	N	0	N	All minor cracks that are stable and painted over.	
809 S	Y	N	N	N	0	N	Bedroom tape shows signs of beginning to detach and could turn into a condition #2 in 1-2 years. Significant crack in living room that is stable. Hallway repair patch is stable.	
810 B	N	N	N	N	0	N	Livingroom seam is beginning to detached. Currently stable but may become a condition #2 in 1-2 years. Remaining cracks are minor and stable.	
811 S	Y	N	N	N	0	N	Telephone line attached to ceiling. Significant crack in livingroom is stable. Discoloration from water in bedroom but ceiling stable.	
902 S	Y	Y	paint	N	0	N	Some water damage along exterior livingroom wall. Minor cracks stable. Some scraps painted over and stable.	
903 S	Y	Y	paint	N	0	N	Prescrap by vent and minor cracks all stable and painted.	
905 S	Y	Y	paint	N	0	N	Patch over livingroom vent, major patch in bedroom entrance area, significant cracks in bedroom all stable and painted.	
907 B	Y	N	N	N	0	N	Repair patch in hallway is stable. Crack in livingroom stable but one area shows signs of beginning to detach and turn into condition #2 in next 1-2 years.	
908 S	N	N	N	N	0	N	Water discoloration at bedroom entrance but area stable. Minor cracks all stable.	
909 S	Y	N	N	N	0	N	Vacant- Just painted. All cracks minor and stable and recently painted.	
910 S	Y	Y	paint	N	0	N	Minor cracks are stable and painted.	
912 S	Y	N	N	N	0	N	Hole in bedroom small closet but ceiling stable and in good condition and no signs of detachment. Recent repair on bedroom entrance stable but area showed signs of water discoloration.	
** PLASTER CONDITION RATING: 0								
306					0		No access to apartment during inspection	

contained mostly cellulose, hair, synthetic fibers (from rugs) and non fibrous dusts. Air samples were also taken in each apartment. With the exception of the sample taken in apartment #606, the ambient total fiber concentrations were at or below 0.003 f/cc. Since this level is over 33 times lower than OSHA action limit for asbestos, it was determined that no further testing to determine if any of the fibers were asbestos was necessary. The air test for Apartment #606 was run too long and the filter was overloaded. Given the dust sample results in this apartment, the filter was likely clogged with non asbestos materials.

- * There were 25 apartments which had areas of their ceiling treatments which had a condition rating of 2. In most cases, the tape used along the cement seams had become partially detached. Dust samples were taken in 19 apartments. Only Apartments #405, 704 and 806 did the dust samples taken show detectable levels of asbestos. In these three cases, the samples contained 25-35% asbestos which was encapsulated in paint and plaster and therefore had a low probability of release into the air. Air samples taken in Apartments 405 and 704 showed no detectable fiber concentrations verifying that no asbestos fibers were being released in measurable quantities. For the 16 apartments in which no asbestos was detected in the dust, 3 air samples were taken to measure the total ambient fiber (asbestos and non asbestos) concentrations. The ambient fiber concentrations (0.001 f/cc Apt 107; 0.002 f/cc Apt 612; and 0.006 f/cc Apt 804) were 15 to 100 times lower than OSHA's action level for asbestos and therefore further testing to determine if any of the fibers were asbestos was considered unnecessary.
- * The ceiling treatments in 74 apartments were in good condition. Although many apartments were found to have cracks along the outer windows and along the seams of the cement, all cracks were stable and often painted over. Three air samples were randomly taken in three of these apartments. The ambient total fiber (asbestos and non asbestos) concentrations found ranged from 0.001 (Apt 509) to 0.002 f/cc (Apt 208, 303) which are 50 to 100 times lower than the OSHA action limit for asbestos. At such low fiber concentrations, no further testing to determine if any of the fibers were asbestos was considered necessary.
- * There was only one apartment which was not inspected. Apartment 306 could not be entered since the resident had changed the locks without giving a key to the apartment management and was not at home.

In addition to the residential apartment inspections, the common area hallways and facilities were also inspected. The asbestos ceiling treatments were

generally limited to the hallways and exit foyers located at the end of the corridors. The maintenance rooms, storage areas and laundry rooms had no asbestos ceiling treatments. The condition of the common area corridors and foyers are shown in Table 2 and summarized below.

- * Two common areas had ceiling treatments which were in poor condition and had a rate of 3: (1) the North foyer on the fifth floor and (2) the southeast corner of the fourth floor corridor. The fifth floor North foyer had an active disturbance from wall movement when doors were closed. This disturbance caused some flaking of the ceiling treatment. The southeast corner of the fourth floor corridor had been water damaged from leaks by the window. Some partially detached chips of treatment was visible. Based upon finding no asbestos in the dust load and fiber concentrations (from <0.001 to 0.002 f/cc) which are much lower than the OSHA safety standards, these two areas were considered safe and posed no immediate danger.

 - * The West Foyer on three floors (Floors 5, 6 and 8) and the North Foyer on the sixth floor had some partially detached flakes in the ceiling treatments. Dust samples taken in one foyer showed no detectable levels of asbestos showing it unlikely that any asbestos was being released in the air. This fact was verified by an additional air sample which showed no detectable levels of fibers.
- All other foyers outside those listed above were found to have minor cracks along the walls but these cracks were stable and often painted.
- * The Southeast corner of the building by the apartment elevators did show some past water damage which had in turned created some partial detachment (condition rating #2) of the ceiling treatments on floors 1 and 3-6. Air samples taken on these floors ranged from less than detectable limits (<0.001 f/cc on floors 1, 3 and 6) to 0.001 f/cc (floor 8) to 0.002 f/cc (floor 4) of total fibers (asbestos and non asbestos). Given that these levels are 50-100 times lower than the OSHA action level, no additional testing to determine if any of the fibers were asbestos was considered necessary.

 - * Many of the cement seams in the corridors showed some minor cracks which were stable. However in a few areas (108/109, 408/409, 403/404, 508/511, 608/609), the tape over the seams had become partially detached and had a condition rating of 2. As discussed above, the ambient air sampling done in the corridors by the elevators showed no significant fiber concentrations in the air.

TABLE 2
SUMMARY OF ACoustICAL PLASTER CONDITIONS
FOUND IN THE COMMON AREAS
AT ABBOTT HOUSE APARTMENTS

APT #	CRACKS ALONG WALL & SEAMS	PAINT OVER CRACK (Y/N)	SCRAPS ON CEILING (Y/N)	SCRAP COND-ITION (Y/N)	PARTIAL DETACH FLAKES (Y/N)	AREA (FT ²)	FLAKING FOUND (Y/N)	REMARKS- CEILING TREATMENT CONDITION IN EACH APARTMENT
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** PLASTER CONDITION RATING: 3

4H	Y	P	Y		Y	0	N	<p>North Corridor- Scraps by 404/403 have partially detached flakes. Condition rating #2. Remaining cracks minor and stable.</p> <p>West Corridor- Seam by fire door is partially detached. Condition rating #2. Remaining cracks minor and stable.</p> <p>SE Corner- Damaged area by window with partially detached flakes. Condition rating #3. Air sample showed ambient total fiber concentration was 0.002 f/cc which 50 times below EPA action level for asbestos of 0.1 f/cc.</p> <p>North Foyer- Minor cracking and some scraps.</p> <p>West Foyer- Cracks minor and stable. Condition rating #1.</p>
5H	Y	Y	N		Y	12	Y	<p>North Exit Foyer- West wall has area 7 ft by 3.5 ft with unstable crack with pressure from door closing. South and North walls have cracks with partial detached flakes. Condition rating #3. Dust samples had no detectable asbestos. Air samples verify no fibers were being released as air concentrations for total fibers were below detectable limits.</p> <p>SE Corner- 0.5 sq-ft area was damaged and patched. Partial damage Condition rating #2</p> <p>West hallway- seam crack between 508/511 partially detached, end of corridor seam crack stable but discolored. Condition rating #2.</p> <p>West Exit Foyer- Crack along all 4 walls which are active when door is shut in stairway/corridor. Condition rating #2. Dust samples showed no detectable levels of asbestos.</p> <p>North Corridor- Seam crack between 503/504 shows signs of partial detachment but fairly stable. Other seam cracks 502/505 & 501/506 are stable and good condition. Condition rating #1</p>

** PLASTER CONDITION RATING: 2

1H	Y	Y	Y		Y	1	N	<p>West Corridor- Seam between 108/109/111 repaired but partially detached. Scrapes in hallway stable except in one area. Condition rating #2. Air samples showed no detectable fiber release (<0.001 f/cc).</p> <p>West Foyer- Minor cracks</p>
3H	Y	Y	Y	good	Y	1	N	<p>Storage Door- Core 10-15 % Amosite but completely enclosed.</p> <p>SE Corner Window- 2 areas damaged and partially detached- Condition rating #2. Few other scraps minor and stable. Air sample showed ambient total fiber concentration was below the detectable limit of 0.001 f/cc.</p> <p>West/North Corridors- All seam cracks minor and stable. Condition rating #1</p>
6H	Y	Y	Y		Y	1	N	<p>West/North Foyers- All minor cracks and stable. Condition rating #1</p> <p>SE Corner Window- Partial detached damaged area approx 2 sq in Condition rating #2</p>

TABLE 2
SUMMARY OF ACOUSTICAL PLASTER CONDITIONS
FOUND IN THE COMMON AREAS
AT ABBOTT HOUSE APARTMENTS

APT #	CRACKS ALONG WALL & SEAMS	PAINT OVER CRACK (Y/N)	SCRAPS ON CEILING (Y/N)	SCRAP COND- ITION (Y/N)	PARTIAL DETACH FLAKES (Y/N)	AREA (FT ²)	FLAKING FOUND (Y/N)	REMARKS- CEILING TREATMENT CONDITION IN EACH APARTMENT
								West Corridor- Seam tape partially detached by fire door. Condition rating #2. Remaining cracks minor and stable. West Foyer- Some partial detached flakes. Minor seam cracks were stable. Overall condition rating #2. Air sample taken showed no detectable release of fibers (0.001 f/cc) verifying that area was well within OSHA standards. North Foyer- Flaking found in NW corner. Condition rating #2
7H	Y	Y	Y	2 flk	N		0	N SE Corner- 2 sq-ft area was repaired and patched. Few areas ceiling treatment missing. Some recent scraps and some painted old scraps. All stable. Condition rating #2. Dust sample showed no detectable level of asbestos. Air sample showed ambient fiber concentration of 0.001 f/cc which is well within all OSHA standards. West Corridor- Area by #712 had one hanging flake. Some scraps. All cracks minor and stable. Condition Rating #2 North Corridor- Scrap by 402/404/405/402 had one hanging flake. Generally cracks minor and stable. North Foyer- Hanging plaster partially detached- Condition rating #2. West Foyer- All cracks minor and painted over. Condition Rating #1.
8H	Y	Y	Y	Good	Y		0	N West Foyer- 2 bridle long flakes partially detached. SE Corner- 1 partially detached flake. Air sample showed ambient fiber concentration of 0.001 f/cc verifying no asbestos release. North/West Corridors & North Foyer- All cracks minor and stable. All scraps stable and mostly painted over. Overall Flakes make condition rating #2
** PLASTER CONDITION RATING: 1								
2H	Y	Y	N		N		0	N SE Corner window- Area patched/repared in good condition. West Corridor- Crack by fire door repaired and painted over. Stable. Minor cracks elsewhere. Air sample showed ambient total fiber concentration of 0.002 f/cc which is 50 times below OSHA's action limit for asbestos. North Corridor- All cracks minor and stable North/West Foyers- All cracks minor and stable.
9H							0	No ceiling treatment. Access door to roof has asbestos in door that is partially exposed from damage to lock assembly and one support. Was taped but needed repair. Dust samples taken in hallway showed no detectable level of asbestos. Air sample also confirmed no detectable fiber release (<0.001 f/cc).

APPENDIX A

INSPECTION REPORT FOR CEILING CONDITION
AND DUST/AIR MONITORING RESULTS
BY FLOOR

SUMMARY OF ABBOTT HOUSE SURVEY OF CEILING TREATMENT
CONDITIONS IN APARTMENTS AND COMMON AREAS
----FIRST FLOOR----

COND RATING #	APT	CRACKS ALONG WALL & SEAMS	PAINT OVER CRACK (Y/N)	SCRAPS ON CEILING (Y/N)	SCRAP COND- ITION (Y/N)	PARTIAL DETACH FLAKES (Y/N)	AREA (FT ²) FOUND (Y/N)	FLAKING REMARKS- CEILING TREATMENT CONDITION IN EACH APARTMENT	
2	107	U		N		Y	2	N	Tape partially detached in bedroom and hallway. Air sample taken showed no detectable fiber release (0.001 f/cc).
2	108	U		N		Y	1	N	Small (1 sq in) patch detached from tape. Dust samples taken.
1	109	S	Y	N		N	0	N	Repair work by ACM contractor (Falcon Associates) in October 1987. Small cracks in small bedroom.
2	110	U		N		Y	1	N	Small detached spot in hallway from tape. Dust samples taken.
1	111	S		N		N	0	N	Only minor cracks- all stable.
2	1H	Y	Y	Y		Y	1	N	West Corridor- Seam between 108/109/111 repaired but partially detached. Scrapes in hallway stable except in one area. Condition rating #2. Air samples showed no detectable fiber release (<0.001 f/cc). West Foyer- Minor cracks Storage Door- Core 10-15 % Amosite but completely enclosed.

ABBOTT HOUSE
5495 Cedar Lane
Columbia, Maryland 21044
301-730-3430

Abbott House high-rise apartments are located in Columbia's Village of Harper's Choice. An elevated pedestrian walkway connects the building with Kahler Hall, the Community Center. Across the street from Abbott House is Joseph Square with several shops and stores: a pizza parlor, a dry cleaner, a branch of the Maryland National Bank, a hair stylist, a supermarket, a sub-shop/restaurant, and an optician. Nearby are an elementary school, a recreation area and Howard County General Hospital.

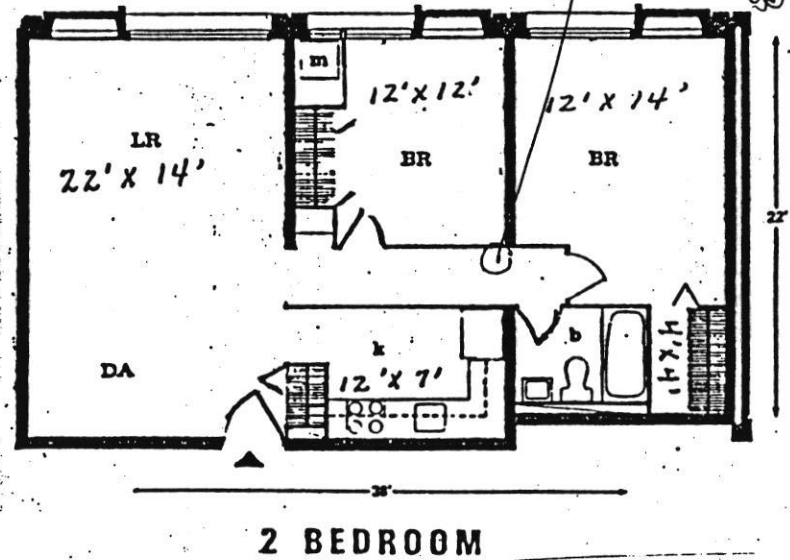
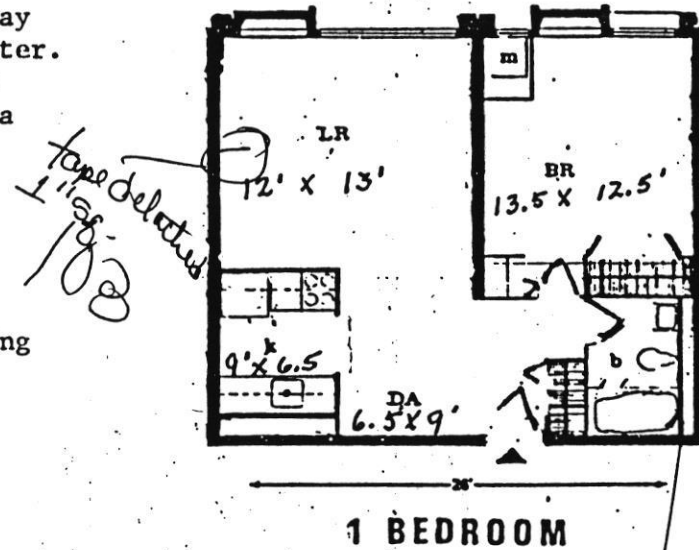
Abbott House Apartments feature:

- Individually controlled heat and air conditioning
- Garbage disposals
- Gas ranges
- Refrigerators

Large main lobby
Laundry room

Utilities included in rent: gas, electricity, heat, water, and air conditioning.

For additional information, call 301-730-3430



Room sizes are approximate

SUMMARY OF ABBOTT HOUSE SURVEY OF CEILING TREATMENT
CONDITIONS IN APARTMENTS AND COMMON AREAS
----SECOND FLOOR----

COND RATING	APT #	CRACKS ALONG WALL & SEAMS	PAINT OVER CRACK (Y/N)	SCRAPS ON CEILING (Y/N)	SCRAP COND- ITION (Y/N)	PARTIAL DETACH FLAKES (Y/N)	AREA (FT2)	FLAKING FOUND (Y/N)	REMARKS- CEILING TREATMENT CONDITION IN EACH APARTMENT
1	201 S	Y	N	N	N	N	0	N	Seam crack in room patched and painted.
1	202 S	Y	N	N	N	N	0	N	Only minor cracks- all painted over and stable
1	203 S		Y	paint	N	N	0	N	Small patch missing by vent.
1	204 S		N	N	N	N	0	N	Unique- has ACM on bathroom ceiling and duct enclosures. ACM in good condition.
1	205 S		N	N	N	N	0	N	Only minor cracks- all stable
1	206 S	Y	N	N	N	N	0	N	Only minor cracks- all painted over and stable
1	207 S		N	N	N	N	0	N	Minor cracks- all stable.
1	208 S	Y	Y	paint	N	N	0	N	Resident said white powder but no signs of ceiling in poor condition. No cracks except by vent. Vent scraps painted over and stable. Air sample taken showed total fiber concentration of 0.002 f/cc which is well within all OSHA fiber standards.
1	209 0		N	N	N	N	0	N	No cracks
1	210 S	Y	Y	paint	N	N	0	N	Vacant- Scrape by vent painted over. Crack in hallway stable.
1	211 S		Y	good	N	N	0	N	Prescapes painted over. Few cracks all stable.
1	212 S		N	N	N	N	0	N	Vacant- Water damage in closet. Seam repaired and painted. Light pole touching ceiling.
1	2H	Y	Y	N	N	N	0	N	SE Corner window- Area patched/repared in good condition. West Corridor- Crack by fire door repaired and painted over. Stable. Minor cracks elsewhere. Air sample showed amount total fiber concentration of 0.002 f/cc which is 50 times below OSHA's action limit for asbestos. North Corridor- All cracks minor and stable. North/West Foyers- All cracks minor and stable.

SUMMARY OF ABBOTT HOUSE SURVEY OF CEILING TREATMENT
CONDITIONS IN APARTMENTS AND COMMON AREAS
----THIRD FLOOR----

COND RATING	APT #	CRACKS ALONG WALL & SEAMS	PAINT OVER CRACK (Y/N)	SCRAPS ON CEILING (Y/N)	SCRAP COND- ITION (Y/N)	PARTIAL DETACH FLAKES (Y/N)	AREA (FT ²)	FLAKING FOUND (Y/N)	REMARKS- CEILING TREATMENT CONDITION IN EACH APARTMENT
1	301	S		N		N	0	N	Crack repaired
1	302	S	Y	Y	paint	N	0	N	Some scraps but painted over and stable
1	303	S		Y	good	N	0	N	Some scraps but all stable. Air sample taken showed ambient total fiber concentration of 0.002 f/cc which is 50 times below OSHA's action limit for asbestos.
1	304	S		Y	Good	N	0	N	Minor stable scrapes. Minor stable crack in master bedroom
1	305	S		N		N	0	N	Minor stable cracks
0	306						0		No access to apartment during inspection
1	307	S		N		N	0	N	Minor cracks- all stable
1	308	S		N		N	0	N	Minor cracks- all stable
1	309	S		N		N	0	N	Minor cracks- all stable
1	310	0		N		N	0	N	No cracks
1	311	S		N		N	0	N	Minor cracks- all stable.
1	312	S		N		N	0	N	Minor cracks- all stable
2	3H	Y	Y	Y	good	Y	1	N	SE Corner Window- 2 areas damaged and partially detached- Condition rating #2. Few other scraps minor and stable. Air sample showed ambient total fiber concentration was below the detectable limit of 0.001 f/cc. West/North Corridors- All seam cracks minor and stable. Condition rating #1 West/North Foyers- All minor cracks and stable. Condition rating #1

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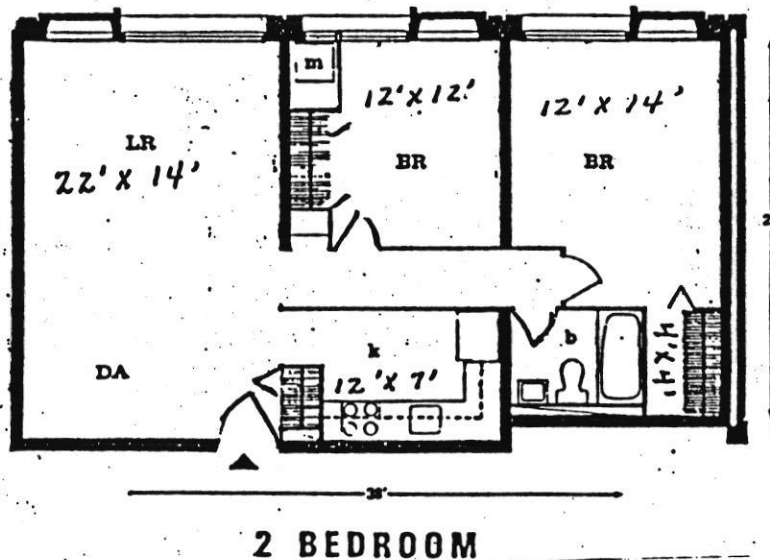
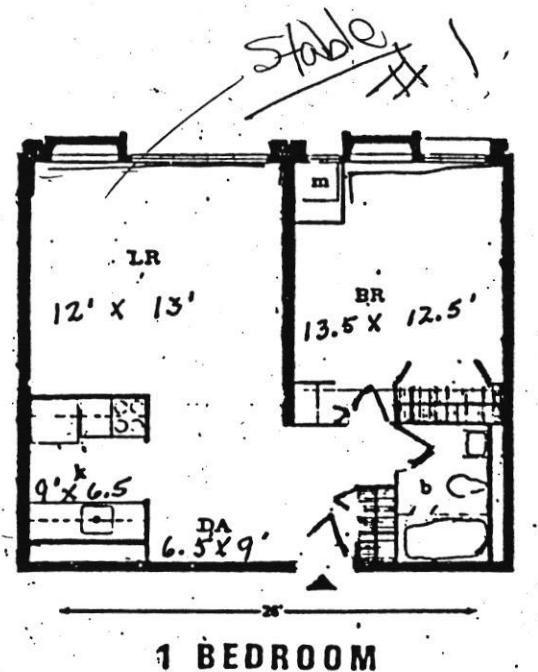
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