



ASBESTOS SURVEY REPORT

Prepared For:
Mr. Alan Kahn
Kahn Family, L.L.C.
PO Box 1608
Cola, South Carolina

Regarding:
300 University Ridge & 211 Century Drive,
Greenville, South Carolina
F&R Project No. A63-002D

Prepared By:
FROEHLING & ROBERTSON, INC.
2806 N. Graham Street
Charlotte, North Carolina 28206

September 29, 1999

Prepared by:

A large, stylized handwritten signature in black ink, appearing to read 'Sam E. Phifer'.

Sam E. Phifer, P.G.
Environmental Project Manager
SC Asbestos Inspector #21441

Reviewed by:

A handwritten signature in black ink, appearing to read 'M.A.' or similar initials.

for Christopher J. Chapman, CIH
Senior Industrial Hygienist
Environmental Services



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F&R, by virtue of providing the services described in this report, does not assume the responsibility of the person(s) in charge of the site, or otherwise undertake responsibility for reporting to any local, state, or federal public agencies any conditions at the site that may present a potential danger to public health, safety, or the environment. It is the Client's responsibility to notify the appropriate local, state, or federal public agencies as required by law, or otherwise to disclose, in a timely manner, any information that may be necessary to prevent any danger to public health, safety, or the environment.

Under this scope of services, F&R assumes no responsibility regarding response actions (e.g. O&M plan, encapsulation, abatement, removal, etc.) initiated as a result of these findings. Response actions are the sole responsibility of the Client and should be conducted in accordance with local, state, and/or federal requirements, and should be performed by appropriate licensed-asbestos personnel, as warrant.

2.0 BACKGROUND

The building at 300 University Ridge and the four buildings at 211 Century Drive are of masonry construction with concrete floors and built up roofs on steel decking. Interior walls are sheet rock. Floor coverings are carpet or vinyl floor tiles except in the bathrooms, which have ceramic tile floors. The present building roof is covered with a rubberized membrane at the 300 University Ridge location. At the 211 Century Drive location, the two older buildings have tar/felt built-up roof fields with a covering of roof ballast. The two newer buildings at this location have rubberized membrane roofs. The buildings are used as office spaces. ~~The building at 300 University Drive was constructed in 1974.~~ The 211 Century Drive buildings were constructed at different dates. The first two buildings at this location were constructed in 1971, while the last two buildings were constructed in 1972.

*Not property
owner is
buying.*

This preliminary survey for asbestos-containing building material was undertaken at the request of the Kahn Family L.L.C. F&R understands that the Kahn Family L.L.C. ~~is contemplating the purchase and renovation of the buildings at the subject sites.~~



3.0 PROCEDURE

A total of fourteen bulk samples of suspect ACBMs were collected from various parts of the buildings at 300 University Ridge. The samples of suspect ACBMs included floor tiles and mastic, sheet rock, roof flashing, HVAC duct covering, pipe insulation, kick strip and mastic. Some of the bulk samples were split into parts A and B (vinyl floor tile – A and mastic- B). A total of six bulk samples of suspect ACBMs were collected from various parts of the buildings at 211 Century Drive. F&R did not sample the main roof membranes on the buildings at either site in order to avoid compromising the roof's integrity. Until these materials are sampled and tested, they should be considered to contain asbestos. The building roofs at both sites appeared to be in reasonably good condition at the time of the site visit.

The bulk samples of suspect ACBMs were shipped with a completed chain of custody to an NVLAP and a South Carolina accredited asbestos testing laboratory for testing. The samples analyzed by the PLM method.

4.0 FINDINGS

300 University Ridge Site

Based on the results of the PLM analysis of the fourteen samples submitted for testing, one sample collected of the vinyl floor tile in the hallways to the bathrooms at the 300 University Ridge site contain approximately 3% to 8 % Chrysotile asbestos. In addition, samples collected of the flashing sealant around roof vents and machinery at this site contain 27% Chrysotile asbestos. Finally, samples collected of the black patching material on the hot water line in the mechanical room were found to contain 25% Chrysotile asbestos. On the date of the asbestos survey, these materials were observed to be in good condition and were non-friable. No asbestos was detected in the samples collected of the 2' by 4' ceiling panels, HVAC duct insulation, kick strips/mastic or sheet rock walls.



211 Century Drive

No asbestos was detected in six samples of suspect ACBMs collected from these buildings. Suspect materials sampled included various ceiling panels of different design, window sealant, and spray-on surfacing at the fountain.

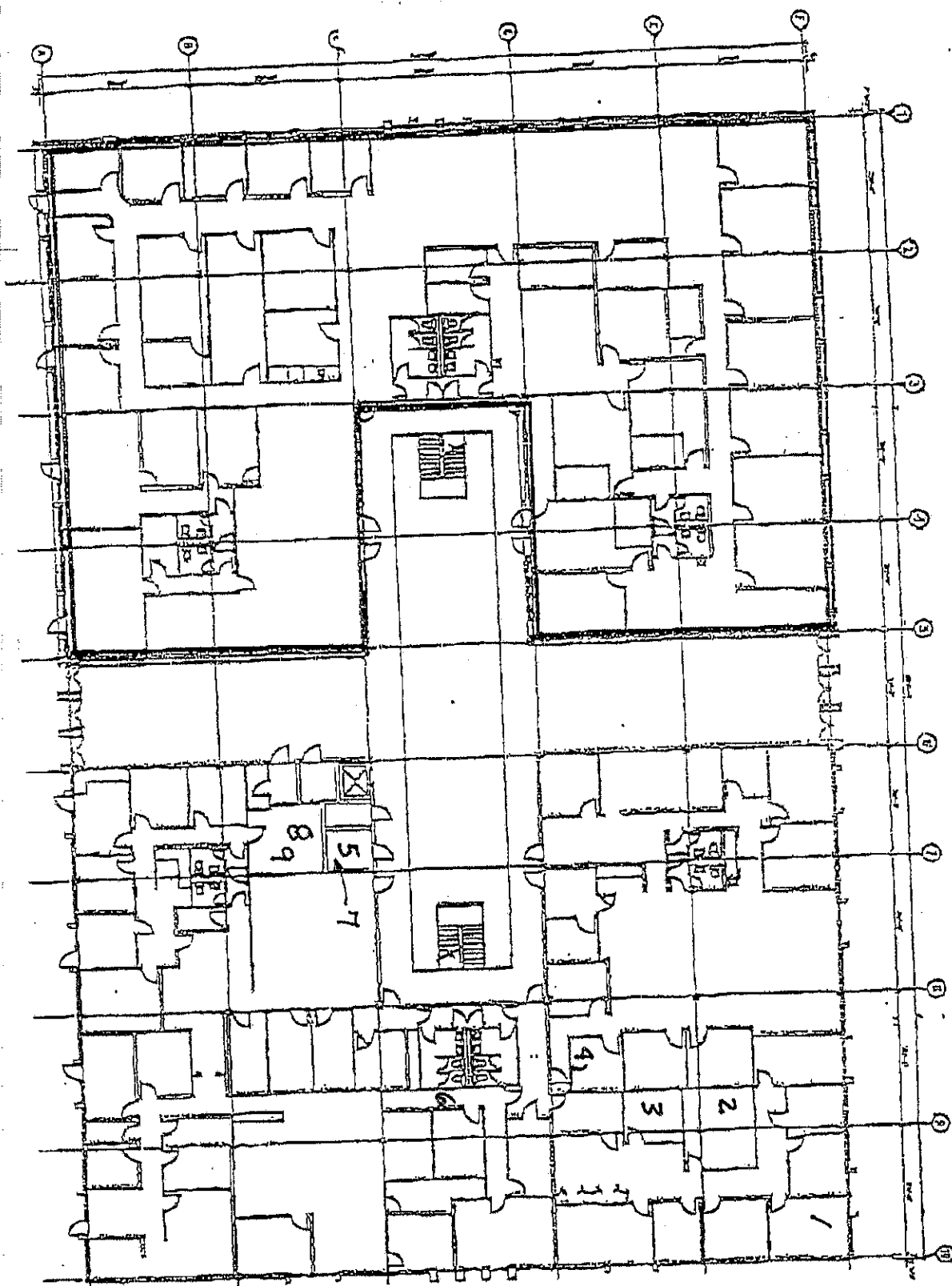
No samples were collected from the roofs of the four buildings at this location. These materials should be considered to contain asbestos. If these materials are to be disturbed as a part of future planned renovation activity, it is recommended they be sampled by a South Carolina accredited asbestos inspector.

It is recommended that an O & M Plan be developed to manage all known or suspect ACBMs found at both sites.

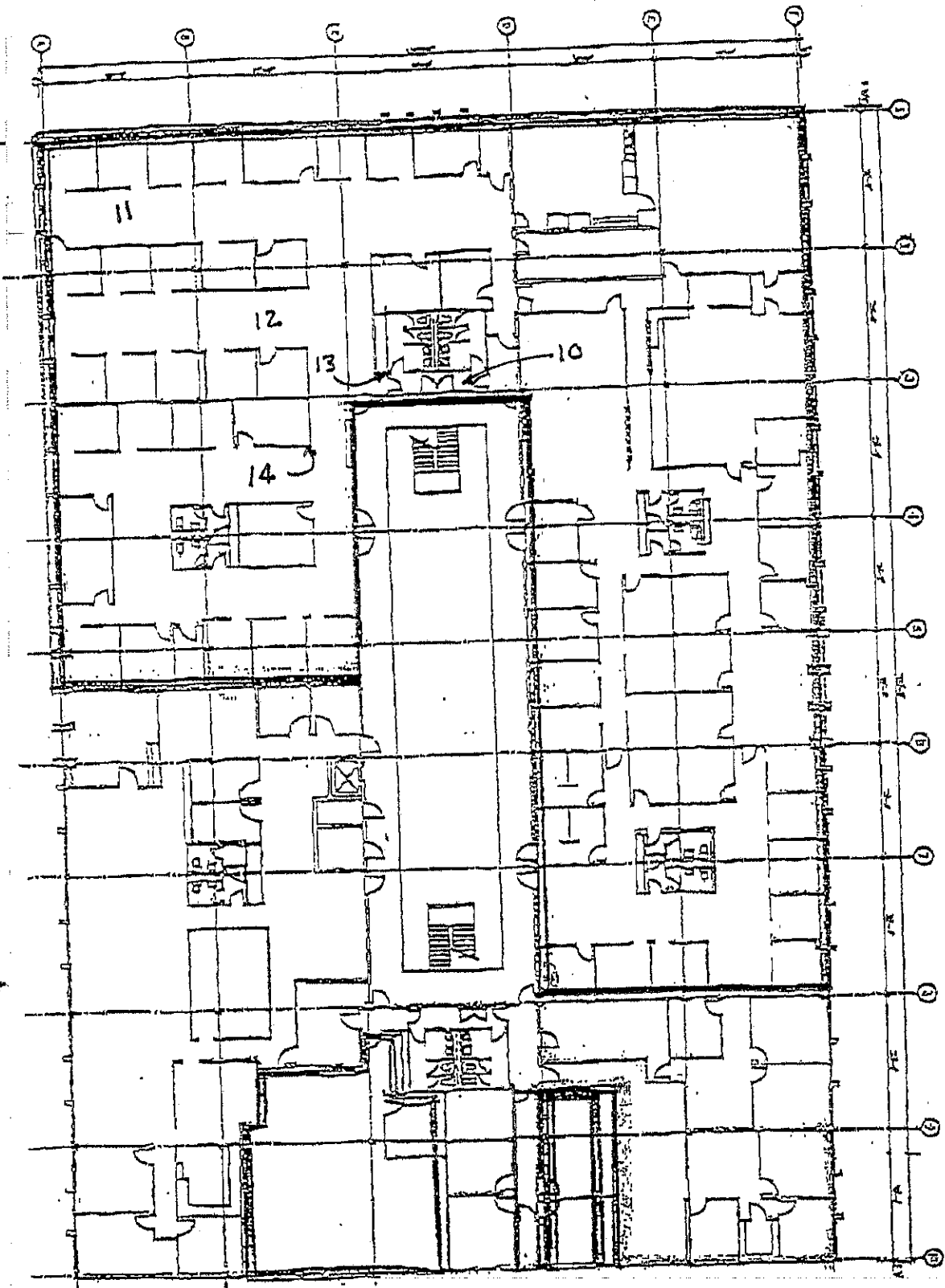
If any known ACBMs are to be disturbed by planned renovation/demolition work, it is recommended they be removed in accordance with all local, state, and federal regulations by a qualified asbestos abatement contractor.

Client should be aware that this was a preliminary study only. If the buildings are to be impacted by future renovation/demolition work, a more comprehensive asbestos survey is required under Federal and State regulations (reference 40 CFR 61 and 29 CFR 1826.1101).





ASBESTOS SAMPLE LOCATIONS - 1ST FLOOR
 300 UNIVERSITY RIDGE SITE
 GREENVILLE, SOUTH CAROLINA



ASBESTOS SAMPLE LOCATIONS - 2ND FLOOR
 300 UNIVERSITY RIDGE SITE
 GREENVILLE, SOUTH CAROLINA

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P. 1 of 2

**CHAIN OF CUSTODY
 ASBESTOS ANALYSIS REQUEST**

Client : MR. ALAN KAHN Date: 9/13/99

Address : C/O F&R
CHARLOTTE, NC

Phone #: 704-376-1596

Fax #: 343-9026

DATE SHIPPED <u>9/13/99</u>	# OF SAMPLES <u>14</u>	PRIORITY ANALYSIS Extra Charge: <u>✓</u>	RETURN SAMPLES Extra Charge: _____
PROJECT: <u>ASBESTOS INSP. @ 300 UNIVERSITY RIDGE</u>			PROJECT #: <u>A63-002D</u>
SAMPLE ANALYSIS	NOTES OR SPECIAL INSTRUCTIONS		
	<u>TEST BY PLM</u>		
Laboratory use only	SAMPLE DATE	SAMPLE #	SAMPLE DESCRIPTION
	<u>9-9-99</u>	<u>01</u>	<u>2X4 CEILING PANEL VAC. OFFICE, 1ST FLOOR</u>
		<u>02</u>	<u>CEILING PANEL STORAGE OFFICE, 1ST FL.</u>
		<u>03</u>	<u>AC DUCT WRAP VAC. OFFICE - 1ST FLOOR</u>
		<u>04 (A+B)</u>	<u>KICK STRIP MASTIC 1ST FLOOR</u>
		<u>05</u>	<u>MECH. RM 1-INCH PIPE WRAP</u>
		<u>06 (A+B)</u>	<u>BATH RM HALLWAY TILE + MASTIC</u>
		<u>07 (A+B)</u>	<u>PIPE PATCH - BLACK PIPE WRAP - YELLOW</u>
		<u>08</u>	<u>ROOF FLASHING AT VENT</u>
		<u>09</u>	<u>ROOF FLASHING</u>
	<u>Y</u>	<u>10 (A+B)</u>	<u>SUITE 200 - FLOOR TILE + MASTIC</u>
Chain of Custody Request			
Date/Time	Sample Condition	Sample Released by	Sample Received by
<u>9/13/99 2:00</u>	<u>NON-FRIABLE</u>	<u>[Signature]</u>	

HEADQUARTERS: 3015 DUMBARTON ROAD • BOX 27524 • RICHMOND, VA 23261-7524
 TELEPHONE (804) 264-2701 • FAX (804) 264-1202

FORM NO. 201

BRANCHES: ASHEVILLE, NC • BALTIMORE, MD • CHARLOTTE, NC • CHESAPEAKE, VA
 CROZET, VA • FAYETTEVILLE, NC • FREDERICKSBURG, VA
 GREENVILLE, SC • RALEIGH, NC • ROANOKE, VA • STERLING, VA



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P. 2 of 2

**CHAIN OF CUSTODY
 ASBESTOS ANALYSIS REQUEST**

Client: MR. ALAN KAHN Date: 9/13/99

Address: PO F&R
CHARLOTTE

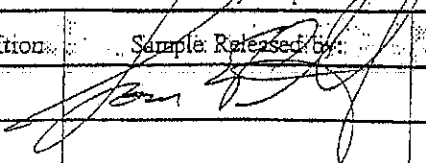
Phone #: _____ Fax #: _____

DATE SHIPPED <u>9/13/99</u>	# OF SAMPLES <u>14</u>	PRIORITY ANALYSIS Extra Charge: <input checked="" type="checkbox"/>	RETURN SAMPLES Extra Charge: _____
PROJECT: <u>ASBESTOS INSP. @ 300 UNIVERSITY RDGE</u>			PROJECT #: <u>A63-002D</u>

SAMPLE ANALYSIS	NOTES OR SPECIAL INSTRUCTIONS
	<u>TEST BY PLM</u>

<small>laboratory use only</small>	SAMPLE DATE	SAMPLE #	SAMPLE DESCRIPTION
	<u>9/9/99</u>	<u>11</u>	<u>2x4 CEILING PANEL SUITE 200</u>
		<u>12</u>	<u>2x4 CEILING PANEL SUITE 200</u>
		<u>13</u>	<u>SUITE 200 SHT. PCK WALL</u>
		<u>14 A+B</u>	<u>SUITE 200 KICK STRIP (A) KICK STRIP MASTIC (B)</u>
	↓		

Chain of Custody Request

Date/Time	Sample Condition	Sample Released by:	Sample Received by:
<u>9/13/99 2:00</u>	<u>NON/FRI</u>		

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**CHAIN OF CUSTODY
 ASBESTOS ANALYSIS REQUEST**

Client : MR. ALAN KAHN Date: 9/13/99

Address : C/O F&R
CHARLOTTE, NC

Phone #: 704-376-1596 Fax #: 343-9026

DATE SHIPPED <u>9/13/99</u>	# OF SAMPLES <u>6</u>	PRIORITY ANALYSIS Extra Charge: <input checked="" type="checkbox"/>	RETURN SAMPLES Extra Charge: _____
PROJECT : <u>ASBESTOS INSP AT 211 CENTURY DR.</u>			PROJECT #: <u>A63-002D</u>
SAMPLE ANALYSIS	NOTES OR SPECIAL INSTRUCTIONS		
	<u>TEST BY PLM</u>		
<small>Laboratory Use Only</small>	SAMPLE DATE	SAMPLE #	SAMPLE DESCRIPTION
	<u>9/9/99</u>	<u>01</u>	<u>2X4 CEILING PANEL ROUGH TEX.</u>
		<u>02</u>	<u>WINDOW FLASHING</u>
		<u>03</u>	<u>REG. CEILING PANEL 2X4</u>
		<u>04</u>	<u>FOIL BACKED 2X4 CEILING PANEL</u>
		<u>05</u>	<u>X-PATTERNED CEILING PANEL</u>
		<u>06</u>	<u>SURFACING MAT'G @ FOUNTAIN</u>
Chain of Custody Request			
Date/Time	Sample Condition	Sample Released by	Sample Received by
<u>9/13/99 2:00</u>	<u>NON-FRIABLE</u>		

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September 16, 1999

Lab #: 9909105
 Client: F&R Charlotte
 ATTN: Sam Phifer/Alan Kahn

Project: Asbestos Inspection @ 300 University Ridge
 Analyst: sub to EHS

Date Sampled: 09/09/99
 Date Received: 09/14/99
 Date Analyzed: 09/15/99

Lab ID	Client ID	Laboratory Sample Description	Homogenous	% Asbestos Fibers	% Other Fibers	% Non-Fibrous
9909105-01	01	Beige/Gray, Fibrous; White, Brittle		ND	45 CF, 30 FG	25
9909105-02	02	Beige/Gray, Fibrous; White, Brittle		ND	45 CF, 30 FG	25
9909105-03	03	Yellow, Fibrous; Gold/Orange, Adhesive		ND	2 CF, 90 FG	8
9909105-04	04A	Black, Vinyl-like		ND		100
9909105-05	04B	Off-White, Adhesive		ND	3 CF	97
9909105-06	05	Yellow, Fibrous; Silver, Metallic		ND	.92 FG	8
9909105-07	06A	Off-White, Granular		5 CH		95
9909105-08	06B	Gold, Adhesive		ND	6 CF, 1 FG, 1 AH	92

- AC - Actinolite
- AM - Amosite
- AN - Anthophyllite
- CH - Chrysotile
- CR - Crocidolite
- FT - Fibrous Tremolite
- ND - None Detected
- CF - Cellulose Fiber
- FG - Fibrous Glass
- MG - Mineral Wool
- OF - Other Fiber
- SF - Synthetic Fiber
- T - Talc
- WL - Wollastonite
- AH - Animal Hair
- CA - Carbonate
- MF - Metal Foil
- NF - Other Non-Fibrous
- PP - Perlite/Pumice
- Q - Quartz
- MI - Mica

Samples were analyzed by EPA 600/R93/116 methodology. This report shall not be reproduced except in full, without the written approval of this laboratory. This report may not be used to claim product endorsement by NVLAP or any US Government agency. Report does not imply results for anything other than samples tested. PLM is not consistently reliable in detecting the presence of asbestos in non-friable, organically bound material. AEM is recommended for confirmation.

Audrey N. Brubeck/gel
Audrey N. Brubeck
 ANB/spt

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 TELEPHONE (804) 264-2701 • FAX (804) 264-1202

CERTIFICATIONS: AIHA ELLAP - 8942
 VIRGINIA DRINKING WATER - 00150
 NORTH CAROLINA DEHNR - 432
 SOUTH CAROLINA DHEC - 93010001 & 93010002
 MARYLAND DRINKING WATER - 279

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September 15, 1999

Lab #: 9909104
 Client: F&R Charlotte
 ATTN: Alan Kahn

Project: Asbestos Inspection at 211 Century Dr.
 Analyst: Sub to Environmental Hazards Services

Date Sampled: 09/09/99
 Date Received: 09/14/99
 Date Analyzed: 09/15/99

Lab ID	Client ID	Laboratory Sample Description	Homogenous	% Asbestos Fibers	% Other Fibers	% Non-Fibrous
9909104-01	2x4 Ceiling panel, Rough texture	White, Fibrous, Foil		ND	5 CF, 85 FG	10
9909104-02	Window flashing	Brown, Rubbery		ND		100
9909104-03	Reg. Ceiling panel, 2x4	Gray, Fibrous		ND	70 CF, 10 FG	20
9909104-04	Foil-back 2x4 Ceiling panel	White, Fibrous, Foil		ND	5 CF, 90 FG	5
9909104-05	X-patterned Ceiling panel	Gray, Fibrous		ND	70 CF, 10 FG	20
9909104-06	Surfacing mat'l at fountain	Gray, Powder		ND		100

AC - Actinolite
 AM - Amosite
 AN - Anthophyllite
 CH - Chrysotile
 CR - Crocidolite
 FT - Fibrous Tremolite
 ND - None Detected

CF - Cellulose Fiber
 FG - Fibrous Glass
 MG - Mineral Wool
 OF - Other Fiber
 SF - Synthetic Fiber
 T - Tale
 WL - Wollastonite
 AH - Animal Hair

CA - Carbonate
 MF - Metal Foil
 NF - Other Non-Fibrous
 PP - Perlite/Pumice
 Q - Quartz
 MI - Mica

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Audrey Brubeck/gae
Audrey N. Brubeck

ANB/spt
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