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Mr. John Kelly
Orlando Public Library System
101 East Central Boulevard
Orlando, Florida 32801

**Subject: Report of Survey for Asbestos-Containing Materials
Orlando Public Library
Orlando, Florida
MACTEC Project 6380-03-0039.06**

Dear Mr. Kelly:

MACTEC Engineering and Consulting of Georgia, Inc. f/k/a Law Engineering and Environmental Services, Inc. (MACTEC) has completed the authorized survey, sampling and evaluation for asbestos-containing materials within the Orlando Public Library located at 101 East Central Boulevard in Orlando, Florida. The field work was performed between February and May of 2003 by Mr. Robert N. Frasard and Robert Newton, AHERA accredited inspectors from MACTEC in accordance with our Proposal PA-40299-2-0000/1741 Revision 1, dated February 17, 2003 and PROP03ORLA.0353, dated May 7, 2003.

The attached report gives a brief background of the project, the procedures used in the field and in laboratory analysis. A summary of the laboratory analyses, drawings, photographs, and cost estimate are included as an appendix.

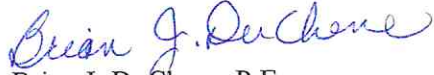
This report has been prepared on behalf of and exclusively for the use by The Orlando Public Library. This report and the findings contained herein shall not, in whole or in part, be disseminated or conveyed to any other party without MACTEC's prior written consent.

MACTEC appreciates the opportunity to have been of assistance to you on this project and is looking forward to working with you as your consultant in the future. If you have any questions concerning this report or if we can be of further service, please contact us.

Sincerely,

**MACTEC ENGINEERING AND CONSULTING, INC.
F/K/A LAW ENGINEERING AND ENVIRONMENTAL SERVICES, INC.**


Shawn E. Brigham, CIE
Project Manager


Brian J. DuChene, P.E.
FL Asbestos Consultant
License No. EA 0000075

FLAC# ZA00000116

Attachments: Asbestos Laboratory Reports
Drawings

By plg with permission

P:\LAW-Groups\Asbestos\PROJECTS\2003 Projects\0039 OC Public Library\Task 06 1985 Addition Survey\0039 06 Orlando Public Library survey.doc

MACTEC Engineering and Consulting, Inc.
4150 N. John Young Parkway • Orlando, FL 32804-2620
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1.0 PROJECT INFORMATION

MACTEC performed an asbestos survey of the Orlando Public Library facility located at 101 East Central Boulevard to assist the Orange County Library System in compliance with the OSHA asbestos regulation requirements for buildings constructed prior to 1980. The original structure constructed in 1966 consists of 60,000 square feet of floor space. The original structure consisted of a basement, first and second floors, and third floor mechanical room and lounge. In 1985, an addition was constructed to the west that added approximately 170,000 square feet. The addition consisted of an expansion of the basement, first, second and third floors, and the addition of a fourth and fifth floor in the new section of the building.

The foundation and structure are constructed of concrete. The interior finishes consist of various lay-in ceiling panels, concrete and plaster walls, carpet and vinyl floor tile. The HVAC systems consist of supply and return ducts from roof top air handlers. Exterior insulated sheet metal ductwork distributes condition air to the occupied spaces.

The field survey of the original portion of the building was performed on February 28 and March 2, 2003. A preliminary report of the findings of that survey was issued on April 30, 2003. Subsequently, MACTEC was authorized to perform a survey of the remainder of the building. The survey of the 1985 addition was performed on May 14, 15, and 16, 2003. This report incorporates the results of the initial survey and the results of the survey of the 1985 addition into one comprehensive report for the facility.

2.0 SURVEY PROCEDURES

2.1 General

The survey was performed by observing accessible materials throughout the interior of original 1966 building and the 1985 addition. In order to preserve the waterproofing integrity, and warranty of the roof systems, no sampling of the roofs was conducted. The suspect materials associated with the roofs were assumed to contain asbestos. The visual survey determines only general locations of suspect materials but does not determine exact boundaries.

No attempt was made to disassemble equipment or demolish structural elements and finishes as this is beyond the scope of our authorized services. Visual observations were made at convenient locations for the presence of resilient flooring and mastic below existing floor finishes. Due to these limitations, wall voids, building cavities and mechanical equipment, and other areas may contain unreported asbestos-containing materials.

The primary purpose of the survey was to locate, identify and assess friable (or potentially friable) building materials, which may contain asbestos materials, evaluate the potential risk to occupants, and make recommendations for control measures, as necessary. Friable materials are those that can be pulverized or reduced to powder by hand pressure.

2.2 Bulk Sampling

The bulk sampling procedures utilized for the collection of suspect materials first required the establishment of a homogeneous sampling area. A homogeneous sampling area is defined as an area of the same type, color, and texture that was applied during the same general time period.

The individual sampling areas were then examined and representative samples of the suspect materials were randomly taken. The bulk samples were collected in general accordance with the AHERA protocol (40 CFR 763.86) as referenced in the OSHA asbestos regulations (29 CFR 1926.1101(k) and 29 CFR 1910.1001 (j)). Bulk samples collected during the survey were delivered using Chain of Custody procedures to EMSL Analytical in Westmont, New Jersey, an AIHA and NVLAP accredited laboratory (No. 101048-0). The samples were analyzed by Polarized Light Microscopy (PLM) coupled with dispersion staining in accordance with EPA Method 600/R-93/116.

Polarized Light Microscopy (PLM) is an analytical method for asbestos identification, which depends on the unique optical properties of mineral forms in the samples, and specifically identifies the various asbestos types. This is the mandated method of analysis by EPA and OSHA for asbestos identification in bulk samples.

2.3 Homogeneous Sampling Areas

The following suspect materials (materials thought to possibly contain asbestos) were sampled during the survey.

Original Building (1966)

1. HVAC Duct Seam Mastic (Gray)
2. HVAC Duct Seam Mastic (Brown)
3. HVAC Duct Seam Mastic (Black)
4. Chilled Water Fitting Insulation
5. Chilled Water Line Insulation
6. Vibration Damper
7. Packing Material
8. Fiberglass Duct Insulation
9. Plaster
10. Various Lay-in Ceiling Panels
11. Carpet Adhesive
12. Cove Base Adhesive
13. Duct Seam Mastic (Red)
14. Various Vinyl Floor Tiles/Mastic
15. Cementitious Mudded Pipe Elbow Insulation
16. Cork Sound Insulation
17. Window Caulk

Addition (1985)

1. Spray Applied Fireproofing
2. Chilled Water Pipe and Fitting Insulation
3. Various Ceiling Tiles
4. Ceiling Plaster
5. Chilled Water Pipe Insulation Wrap
6. Various Vinyl Floor Tiles and Mastics
7. HVAC Duct Seam Mastic (White)
8. HVAC Duct Seam Mastic (Dark Brown)
9. HVAC Duct Seam Mastic (Red)
10. HVAC Duct Seam Mastic (Light Grey)
11. HVAC Duct Seam Mastic (Light Brown)
12. Wall Plaster (Skimcoat) over Wallboard
13. Pink Sink Insulation
14. Gypsum Wallboard and Joint Compound
15. Soffit Stucco
16. Floor Leveling Compound

3.0 BULK SAMPLE RESULTS

Based upon our visual observations, bulk sampling of suspect materials and subsequent microscopic analysis, we have determined that regulated amounts of asbestos minerals were detected within the following samples of suspect materials:

Sample No(s).	Material Sampled	Sample Location	Lab Results
Original Building (1966)			
OPLA-2A	HVAC Duct Seam Mastic-Brown	Roof Air Handler Room	10% Chrysotile
OPLA-5A	HVAC Duct Seam Mastic – Black	NE Roof Air Handler Room	15% Chrysotile
OPLA-6A/WHITE LYR	Mud Coated Fittings	Roof Air Handler Room – CW Supply Room	50% Chrysotile
OPLA-11A	Packing Material	Roof Air Handler Room – AHU B	40% Chrysotile
OPLA-12A/TOP	HVAC Duct Coating	First Floor Restrooms – OLD HVAC Ducts	8% Chrysotile
OPLA-26A	Mud Fitting Insulation	Basement-Custodian Room	2% Chrysotile
OPLA-30A/T	12"x12" Floor Tile – Beige	Basement-Storage Room	10% Chrysotile
OPLA-31A/M	Black Mastic Associated with 12"x12" Floor Tile-Beige/Brown	Basement-North Area	10% Chrysotile
Addition (1985)			
OPL-9A	HVAC White Duct Mastic Coating	Basement AHU-1 Room Below Stairs	5% Chrysotile
OPL-17A	Black Mastic Associated with 12" x 12" Floor Tile - White	First Floor – West End	5% Chrysotile
OPL-18A	Pink Sink Undercoating	First Floor - West End	3% Chrysotile

These materials are discussed in the following paragraphs:

3.1 HVAC Duct Mastic (Brown)

The brown duct mastic (Sample OPLA-2A) was found to contain 10% Chrysotile asbestos. This mastic was found in the roof air handler room. This material is defined as a category I nonfriable asbestos-containing material and was observed to be in good condition.

3.2 HVAC Duct Mastic (Black)

The black duct mastic (Sample OPLA-5A) was found to contain 15% Chrysotile asbestos. This mastic was found inside the roof air handler duct chases and throughout the first and second floors. This material is defined as Category I nonfriable asbestos-containing material and was observed to be in good condition.

3.3 Mud Coating on Foam Glass Insulation (Fittings)

The mud (Sample OPLA-6A) was found to contain 50% Chrysotile asbestos. The insulation was found on the chilled water supply/return fittings in the roof air handler room. This material is defined as a friable asbestos-containing material and was observed to be in good condition.

3.4 Packing Material

The packing material (Sample OPLA-11A) was found to contain 40% Chrysotile asbestos. The material was found inside the roof air handler room (AHU B and AHU A). This material is defined as a friable asbestos-containing material and was observed to be in fair condition.

3.5 Felt Associated with Fiberglass Insulation with foil Jacket

The felt (Sample OPLA-12A) was found to contain 8% Chrysotile asbestos. This insulation was found throughout the HVAC duct system inside the Basement, first, and second floors. This material is defined as a Category I nonfriable asbestos-containing material and was observed to be in good condition.

3.6 Mud Fitting Insulation

The mud fitting insulation (Sample OPLA-26A) was found to contain 2% Chrysotile asbestos. This insulation was found inside the Basement custodial room. This material is defined as a friable asbestos-containing material and was observed to be damaged. X

3.7 12"x12" Floor Tile (Beige)

The floor tile (Sample OPLA-30A) was found to contain 10% Chrysotile asbestos. The floor tile was found inside the Basement storage ("Cork" Room) room. This material is defined as a Category I non-friable asbestos-containing material and was found to be in good condition.

3.8 Black Mastic Associated With 12"x12" Beige/Brown Floor Tile

The mastic (Sample OPLA-31A) was found to contain 10% Chrysotile asbestos. The mastic is underneath the floor tile inside the Technical Services area on the east end of the Basement. No asbestos was detected in the floor tile portion of this sample. This material is defined as a Category I non-friable asbestos-containing material and was observed to be in good condition.

3.9 Roofing Materials

The existing roofing materials were assumed to contain asbestos. These material are defined as a Category I non-friable asbestos-containing material and were observed to be in good condition.

3.10 Black Mastic Associated With 12"x 12" White Floor Tile

The mastic (Sample OPL-17A and 6A) was found to contain 5-10% Chrysotile asbestos. The mastic is underneath the floor tile in a small area that formerly housed a room in the northwest corner of the first floor behind the elevators, corridors north of the worker/freight elevators on the basement, first and fifth floors, first floor mail room, third floor breakroom, the fifth floor northwest and southwest storage rooms. No asbestos was detected in the floor tile portion of this sample. This material is defined as a Category I non-friable asbestos-containing material and was observed to be in good condition.

3.11 Pink Sink Undercoating

The pink sink undercoating (Sample OPL-17A) was found to contain 3% Chrysotile asbestos. The mastic is on the underside of the sink in a former break area in the northwest corner of the first floor behind the

elevators, and in the 2nd, 3rd, 5th floors northwest Common Areas. This material is defined as a Category I non-friable asbestos-containing material and was observed to be in good condition.

3.12 White HVAC Duct Mastic

The white duct mastic coating (Sample OPLA-9A) was found to contain **5% Chrysotile asbestos**. This mastic coating was found on HVAC duct located in the basement air handling room 1, below the stairs. This material is defined as Category I non-friable asbestos-containing material and was observed to be in good condition.

4.0 RECOMMENDATIONS

4.1 General Recommendations

There are four recognized alternative courses of action to control asbestos-containing materials in buildings: (1) asbestos removal and disposal; (2) enclosure; (3) encapsulation; and, (4) special operations, maintenance and re-observation programs. The selection of a particular alternative should be based upon intended usage of the building, actual exposure rates and cost.

Regarding Item No. 1, the EPA has recently revised its Federal regulations regarding asbestos. The National Emissions Standard for Hazardous Air Pollutants (NESHAP) Final Rule Revision (EPA 40 CFR Part 61) dated November 20, 1990, include several modifications and additions. The modification which greatly affects abatement alternatives is the re-categorization of asbestos-containing materials (ACM). These are categorized as follows:

- **Friable** means any material that can be reduced to powder by hand pressure when dry.
- **Category I Non-Friable ACM** means packing, gaskets, resilient floor coverings and roofing products that contain more than one- percent asbestos.
- **Category II Non-Friable ACM** means any material, excluding Category I Non-Friable ACM that contains more than one- percent asbestos, and is not friable.
- **Regulated ACM (RACM)** includes all friable ACM; Category I Non-Friable ACM that will be or has been subject to sanding, grinding, cutting or abrading; Category II Non-Friable ACM that has become friable; and Category II Non-Friable ACM that has a high probability of becoming, or has become crumbled, pulverized, or reduced to a powder by forces expected to act on the material in the course of demolition or renovation operations.

The revised definition for **Friable ACM** includes a requirement for verification, by point counting, if it is determined by PLM analysis that asbestos is present in amounts less than 10 percent.

4.2 Specific Recommendations

4.2.1 Chilled and Hot Water Fittings and Packing Material

These materials were found to contain greater than one-percent asbestos. The EPA NESHAP (40 CFR Part 61, Subpart M) further classifies this material as friable ACM. Removal is required by NESHAP prior to any activities that would dislodge, break up, or similarly disturb these materials during renovation or demolition of structures with this material as a Class I asbestos work which requires specialized training and engineering controls.

4.2.2 Brown, Black, and White Duct Mastic, Black Felt Mastic, Floor Tile and Mastic, and Sink Undercoating

The EPA NESHAP (40 CFR Part 61, Subpart M) classifies these materials as Category I non-friable ACM. Removal is required by NESHAP prior to any activities that subject this material to cuttings, sanding, grinding, abrading, or otherwise rendering them friable during renovation or demolition activities. The OSHA Construction Standard (29 CFR 1926.1101) classifies disturbance, removal, or demolition of structures with this material as Class II asbestos work which requires specialized training and engineering controls.

4.2.3 Assumed Roofing Materials

The EPA NESHAP (40 CFR Part 61, Subpart M) classifies these materials as Category I non-friable ACM. Removal is required by NESHAP prior to any activities that subject this material to cuttings, sanding, grinding, abrading, or otherwise rendering them friable during renovation or demolition activities. The OSHA Construction Standard (29 CFR 1926.1101) classifies disturbance, removal, or demolition of structures with this material as Class II asbestos work which requires specialized training and engineering controls. The assumed roofing materials should be tested to confirm the presence or absence of asbestos prior to disturbance during re-roofing or repair activities.

4.3 State of Florida Asbestos Regulations

Chapter 469 of the Florida Statutes requires that a state licensed asbestos abatement contractor perform the removal, repair, or encapsulation to the types of ACM identified in this report

4.4 Interim Measures

Regardless of the type of asbestos abatement action chosen, and the time frame involved, we strongly recommend that during the interim time period prior to abatement action, control measures be established for the employees and occupants working in the building to minimize their exposure to asbestos. The identified asbestos-containing materials should be managed in place, in good condition under a site specific, written asbestos Operations and Maintenance (O&M) program. This program should include, at a minimum, training in the proper safety precautions and cleaning methods to be used by personnel when work must be performed in and around asbestos-containing materials. Also, periodic reassessment of the condition of the asbestos-containing materials should be undertaken and precautions and procedures should be thoroughly documented.

4.5 Legal and Medical Considerations

Due to the health hazards and legal ramifications involved in asbestos exposure in public buildings, an interdisciplinary approach between the engineering, medical and legal communities should be involved when determining an asbestos control program. There is presently a tremendous amount of litigation in the courts concerning present and past asbestos exposure in public and private facilities, as well as in the workplace environment. One basis for much of the litigation stems from adequate notification or lack thereof, by the building owner to building occupants/employees following the identification of asbestos in a building. As a minimum, the notification requirements of 29 CFR 1926.1101 and 29 CFR 1910.1001 should be implemented.

We recommend that you involve appropriate legal counsel in your asbestos control program to address these very important issues.

ASBESTOS LABORATORY REPORTS

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Project: 6380030039.01

Customer ID: LAWE52H

Customer PO:

Received: 03/04/03 10:29 AM

EMSL Order: 040303133

EMSL Project ID:

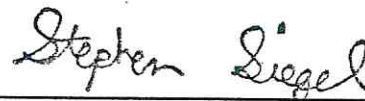
Analysis Date: 3/8/03

Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Location	Appearance	Treatment	Non-Asbestos		Asbestos
				% Fibrous	% Non-Fibrous	% Type
OPL-1A 040303133-0001	ROOF AIR HANDLER ROOM	Gray Non-Fibrous Heterogeneous	Dissolved		100% Non-fibrous (other)	None Detected
OPL-1B 040303133-0002	1ST FLOOR - SW AREA	Gray Non-Fibrous Heterogeneous	Dissolved		100% Non-fibrous (other)	None Detected
OPL-2A 040303133-0003	ROOF AIR HANDLER ROOM	Brown/Black/Silver Fibrous Heterogeneous	Dissolved	40% Cellulose	50% Non-fibrous (other)	10% Chrysotile
OPL-3A 040303133-0004	AIR HANDLER B - ROOF AIR HANDLER ROOM	Green Fibrous Heterogeneous	Dissolved	15% Cellulose	85% Non-fibrous (other)	None Detected
OPL-4A 040303133-0005	ROOF AIR HANDLER ROOM	White Non-Fibrous Homogeneous	Dissolved		100% Non-fibrous (other)	None Detected
OPL-4B 040303133-0006	1ST FLOOR - NW BOOK STORAGE	White/Tan/Silver Fibrous Heterogeneous	Dissolved	20% Glass	80% Non-fibrous (other)	None Detected
OPL-4C 040303133-0007	1ST FLOOR - EAST AREA	White Non-Fibrous Homogeneous	Dissolved		100% Non-fibrous (other)	None Detected
OPL-4D 040303133-0008	2ND FLOOR - NORTH WEST ROOM	White/Yellow/Silver Fibrous Heterogeneous	Dissolved	30% Glass	70% Non-fibrous (other)	None Detected
OPL-5A 040303133-0009	NE ROOF AIR HANDLER ROOM	Black/Silver/Tan Fibrous Heterogeneous	Dissolved	10% Glass	75% Non-fibrous (other)	15% Chrysotile

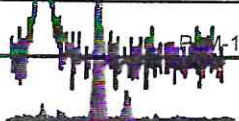
Analyst(s)

Linda Price (77)

Stephen Siegel, CIH
or other approved signatory

has been known to miss asbestos in a small percentage of samples which contain asbestos. Negative PLM results cannot be guaranteed. Samples reported as <1% or none detected should be tested with TEM. The above test report relates only to the items tested. This report may not be reproduced, except in full, without written approval by EMSL Analytical, Inc. The above test must not be used by the client to claim product endorsement by NVLAP nor any agency of the United States Government.

Analysis performed by EMSL Westmont (NVLAP #101048-0), NY ELAP 10872



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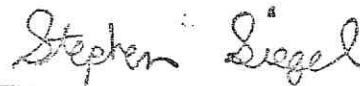
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Sample	Location	Appearance	Treatment	Non-Asbestos		Asbestos
				% Fibrous	% Non-Fibrous	% Type
OPL-5B 040303133-0010	1ST FLOOR - NORTHWEST RESTROOMS					Not Analyzed
OPL-5C 040303133-0011	2ND FLOOR DUCTS - NORTHWEST AREA					Not Analyzed
OPL-6A/WHITE LYR 040303133-0012	ROOF AIR HANDLER ROOM - CW SUPPLY ROOM	White/Gray Fibrous Heterogeneous	Teased	20% Cellulose	30% Non-fibrous (other)	50% Chrysotile
OPL-6A/BLK LYR 040303133-0054	ROOF AIR HANDLER ROOM - CW SUPPLY ROOM	Black Non-Fibrous Homogeneous	Teased		100% Non-fibrous (other)	None Detected
OPL-6B 040303133-0013	ROOF AIR HANDLER ROOM - CW RETURN LINE					Not Analyzed
OPL-7A/TOP 040303133-0014	ROOF AIR HANDLER ROOM - CW SUPPLY LINE	Gray/Black Fibrous Heterogeneous	Dissolved	80% Cellulose	20% Non-fibrous (other)	None Detected
OPL-7A/BOTTOM 040303133-0055	ROOF AIR HANDLER ROOM - CW SUPPLY LINE	Tan Fibrous Heterogeneous	Teased	98% Min. Wool	2% Non-fibrous (other)	None Detected

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Sample	Location	Appearance	Treatment	Non-Asbestos		Asbestos	
				% Fibrous	% Non-Fibrous	% Type	
OPL-7B/TOP 040303133-0015	ROOF AIR HANDLER ROOM - CW RETURN LINE	Gray/Black Fibrous Heterogeneous	Dissolved	80% Cellulose	20% Non-fibrous (other)	None Detected	
OPL-7B/BOTTOM 040303133-0056	ROOF AIR HANDLER ROOM - CW RETURN LINE	Tan Fibrous Heterogeneous	Teased	90% Min. Wool	10% Non-fibrous (other)	None Detected	
OPL-8A/TOP 040303133-0016	ROOF AIR HANDLER ROOM - AIR HANDLER A	Gray/Silver/Tan Fibrous Heterogeneous	Teased Dissolved	30% Cellulose	70% Non-fibrous (other)	None Detected	
OPL-8A/BOTTOM 040303133-0057	ROOF AIR HANDLER ROOM - AIR HANDLER A	Yellow Fibrous Heterogeneous	Teased	95% Min. Wool	5% Non-fibrous (other)	None Detected	
OPL-8B/TOP 040303133-0017	ROOF AIR HANDLER ROOM - AIR HANDLER B	Tan/Silver Fibrous Heterogeneous	Teased Dissolved	50% Cellulose	50% Non-fibrous (other)	None Detected	
OPL-8B/BOTTOM 040303133-0058	ROOF AIR HANDLER ROOM - AIR HANDLER B	Yellow Fibrous Homogeneous	Teased	100% Min. Wool		None Detected	
OPL-9A/TOP 040303133-0018	ROOF AIR HANDLER ROOM - DRAIN LINE	Gray/White Fibrous Heterogeneous	Dissolved	15% Synthetic	85% Non-fibrous (other)	None Detected	

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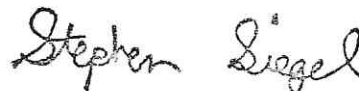
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Sample	Location	Appearance	Treatment	Non-Asbestos		Asbestos	
				% Fibrous	% Non-Fibrous	% Type	
OPL-9A/BOTTOM 040303133-0059	ROOF AIR HANDLER ROOM - DRAIN LINE	Yellow Fibrous Homogeneous	Teased	95% Min. Wool	5% Non-fibrous (other)	None Detected	
OPL-10A 040303133-0019	ROOF AIR HANDLER ROOM - AIR HANDLER B	Black/Gray Fibrous Heterogeneous	Dissolved	30% Glass	70% Non-fibrous (other)	None Detected	
OPL-11A 303133-0020	ROOF AIR HANDLER ROOM - AHU B	White Fibrous Heterogeneous	Teased	50% Synthetic	10% Non-fibrous (other)	40%	Chrysotile
OPL-12A/TOP 040303133-0021	1ST FLOOR RESTROOMS - OLD HVAC DUCTS	White/Black/Silver Fibrous Heterogeneous	Dissolved	5% Glass	87% Non-fibrous (other)	8%	Chrysotile
OPL-12A/BOTTOM 040303133-0060	1ST FLOOR RESTROOMS - OLD HVAC DUCTS	Yellow Fibrous Homogeneous	Teased	100% Min. Wool	None Detected		
OPL-12B/TOP 040303133-0022	1ST FLOOR RESTROOMS - OLD HVAC DUCTS						Not Analyzed
OPL-12B/BOTTOM 040303133-0061	1ST FLOOR RESTROOMS - OLD HVAC DUCTS	Yellow Fibrous Homogeneous	Teased	100% Min. Wool	None Detected		

Analyst(s)

Linda Price (77)

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or other approved signatory

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Analysis performed by EMSL Westmont (NVLAP #101048-0), NY ELAP 10872

EMSL Analytical, Inc.

107 Haddon Ave., Westmont, NJ 08108

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EMSL

Attn: Shawn Brigham
MACTEC Engineering and Consulting, Inc.
605 East Robinson St.
Suite 230
Orlando, FL 32801

Fax: (407) 246-1566

Phone: 407-246-0066

Project: 6380030039.01

Customer ID: LAWE52H

Customer PO:

Received: 03/04/03 10:29 AM

EMSL Order: 040303133

EMSL Project ID:

Analysis Date: 3/8/03

Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Location	Appearance	Treatment	Non-Asbestos		Asbestos
				% Fibrous	% Non-Fibrous	% Type
OPL-12C/TOP 040303133-0023	BASEMENT CUSTODIAN ROOM					Not Analyzed
OPL-12C/BOTTOM 040303133-0062	BASEMENT CUSTODIAN ROOM	Yellow Fibrous Homogeneous	Teased	100% Min. Wool		None Detected
OPL-13A/SKIM 040303133-0024	3RD FLOOR ROOF - KITCHEN AREA WALL	White Non-Fibrous Heterogeneous	Crushed		100% Non-fibrous (other)	None Detected
OPL-13A/ROUGH 040303133-0063	3RD FLOOR ROOF - KITCHEN AREA WALL	Gray Non-Fibrous Heterogeneous	Crushed	1% Hair	99% Non-fibrous (other)	None Detected
OPL-13B/SKIM 040303133-0025	2ND FLOOR - NORTH STORAGE AREA	White Non-Fibrous Heterogeneous	Crushed		100% Non-fibrous (other)	None Detected
OPL-13B/ROUGH 040303133-0064	2ND FLOOR - NORTH STORAGE AREA	Gray Non-Fibrous Heterogeneous	Crushed	<1% Hair	100% Non-fibrous (other)	None Detected
OPL-13C/SKIM 040303133-0026	BSMT FLOOR CENTER - HALL WALL	White Non-Fibrous Heterogeneous	Crushed		100% Non-fibrous (other)	None Detected
OPL-13C/ROUGH 040303133-0065	BSMT FLOOR CENTER - HALL WALL	Gray Non-Fibrous Heterogeneous	Crushed	1% Hair	99% Non-fibrous (other)	None Detected
OPL-14A 040303133-0027	2ND FLOOR - NORTH AREA	Tan/White Fibrous Heterogeneous	Teased	50% Cellulose 30% Min. Wool	20% Non-fibrous (other)	None Detected

Analyst(s)

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Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Location	Appearance	Treatment	Non-Asbestos		Asbestos
				% Fibrous	% Non-Fibrous	% Type
OPL-15A 040303133-0028	2ND FLOOR - NORTH STORAGE AREA	Tan/Brown Fibrous Heterogeneous	Dissolved	2% Synthetic	98% Non-fibrous (other)	None Detected
OPL-16A/C.B. 040303133-0029	2ND FLOOR - NORTH STORAGE AREA	Black Non-Fibrous Homogeneous	Dissolved		100% Non-fibrous (other)	None Detected
OPL-16A/M 040303133-0066	2ND FLOOR - NORTH STORAGE AREA	White/Blue Non-Fibrous Heterogeneous	Dissolved		100% Non-fibrous (other)	None Detected
OPL-17A 040303133-0030	2ND FLOOR - STAFF LOUNGE	Red Fibrous Homogeneous	Dissolved	10% Wollastonite	90% Non-fibrous (other)	None Detected
OPL-18A 040303133-0031	2ND FLOOR - STAFF LOUNGE	Tan/White Fibrous Heterogeneous	Teased	50% Cellulose 40% Min. Wool	10% Non-fibrous (other)	None Detected
OPL-19A/T 040303133-0032	2ND FLOOR - STAFF LOUNGE	Beige Non-Fibrous Homogeneous	Dissolved		100% Non-fibrous (other)	None Detected
OPL-19A/M 040303133-0067	2ND FLOOR - STAFF LOUNGE	Gold Fibrous Heterogeneous	Dissolved	10% Cellulose	90% Non-fibrous (other)	None Detected
OPL-20A 040303133-0033	2ND FLOOR - STAFF LOUNGE KITCHEN	Tan/White/Silver Fibrous Heterogeneous	Dissolved	40% Cellulose 10% Min. Wool	50% Non-fibrous (other)	None Detected
OPL-21A 040303133-0034	1ST FLOOR - NW AREA	White/Tan Fibrous Heterogeneous	Teased	50% Cellulose	50% Non-fibrous (other)	None Detected

Analyst(s)

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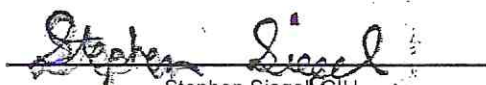
Analysis Date: 3/8/03

Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Location	Appearance	Treatment	Non-Asbestos		Asbestos
				% Fibrous	% Non-Fibrous	% Type
OPL-21B 040303133-0035	1ST FLOOR - SE AREA	White/Tan Fibrous Heterogeneous	Teased	30% Cellulose	70% Non-fibrous (other)	None Detected
OPL-21C 040303133-0036	1ST FLOOR - SW AREA	White/Tan Fibrous Heterogeneous	Teased	30% Cellulose	70% Non-fibrous (other)	None Detected
OPL-22A 040303133-0037	NW AREA	Tan/White Fibrous Heterogeneous	Teased	50% Cellulose 30% Min. Wool	20% Non-fibrous (other)	None Detected
L-23A 040303133-0038	1ST FLOOR - BOOK STORAGE	Tan/White Fibrous Heterogeneous	Teased	50% Cellulose 30% Min. Wool	20% Non-fibrous (other)	None Detected
OPL-24A/T 040303133-0039	1ST FLOOR - NE COMMON AREA	Tan Non-Fibrous Heterogeneous	Dissolved		100% Non-fibrous (other)	None Detected
OPL-24A/M 040303133-0068	1ST FLOOR - NE COMMON AREA	Tan/White Fibrous Heterogeneous	Dissolved	20% Synthetic	80% Non-fibrous (other)	None Detected
OPL-25A/T 040303133-0040	1ST FLOOR - NE COMMON AREA	Green Fibrous Homogeneous	Dissolved	10% Cellulose	90% Non-fibrous (other)	None Detected
OPL-25A/M 040303133-0069	1ST FLOOR - NE COMMON AREA	Tan Fibrous Heterogeneous	Dissolved	30% Synthetic	70% Non-fibrous (other)	None Detected
OPL-26A 040303133-0041	BSMT - CUSTODIAN ROOM	Gray Fibrous Heterogeneous	Teased	40% Min. Wool	58% Non-fibrous (other)	2% Chrysotile

Analyst(s)

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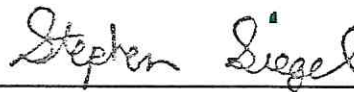
Analysis Date: 3/8/03

Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Location	Appearance	Treatment	Non-Asbestos		Asbestos
				% Fibrous	% Non-Fibrous	% Type
OPL-26B 040303133-0042	BSMT - CUSTODIAN ROOM					Not Analyzed
OPL-27A 040303133-0043	BSMT - CUSTODIAN ROOM	Tan/Silver Fibrous Heterogeneous	Dissolved	50% Glass	50% Non-fibrous (other)	None Detected
OPL-28A/TOP 040303133-0044	BSMT - CUSTODIAN ROOM	White/Silver/Black Fibrous Heterogeneous	Dissolved Teased	20% Glass	80% Non-fibrous (other)	None Detected
OPL-28A/BOTTOM 040303133-0070	BSMT - CUSTODIAN ROOM	Yellow Fibrous Homogeneous	Teased	100% Min. Wool		None Detected
OPL-29A/CORK 040303133-0045	BSMT - STORAGE NW	Brown Non-Fibrous Homogeneous	Teased		100% Non-fibrous (other)	None Detected
OPL-29A/GLUE 040303133-0071	BSMT - STORAGE NW	Brown Fibrous Homogeneous	Dissolved	5% Cellulose	95% Non-fibrous (other)	None Detected
OPL-30A/T 040303133-0046	BSMT - STORAGE NW	Tan Fibrous Homogeneous	Dissolved		90% Non-fibrous (other)	10% Chrysotile
OPL-30A/M 040303133-0072	BSMT - STORAGE NW	Gold Fibrous Homogeneous	Dissolved	5% Cellulose	95% Non-fibrous (other)	None Detected
OPL-31A/T 040303133-0047	BSMT - NORTH AREA	Gray Non-Fibrous Homogeneous	Dissolved		100% Non-fibrous (other)	None Detected

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Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Location	Appearance	Treatment	Non-Asbestos		Asbestos
				% Fibrous	% Non-Fibrous	% Type
OPL-31A/M 040303133-0073	BSMT - NORTH AREA	Black Fibrous Homogeneous	Dissolved		90% Non-fibrous (other)	10% Chrysotile
OPL-31B/T 040303133-0048	BSMT - NORTH AREA	Gray Non-Fibrous Homogeneous	Dissolved		100% Non-fibrous (other)	None Detected
OPL-31B/M 040303133-0074	BSMT - NORTH AREA					Not Analyzed
L-32A/T 040303133-0049	BSMT - SOUTHEAST AREA	Beige Non-Fibrous Homogeneous	Dissolved		100% Non-fibrous (other)	None Detected
OPL-32A/M 040303133-0075	BSMT - SOUTHEAST AREA	Gold Fibrous Homogeneous	Dissolved	5% Cellulose	95% Non-fibrous (other)	None Detected
OPL-33A/WHITE LYR 040303133-0050	OUTSIDE CW LINES - NORTH SIDE OF BLDG	White Fibrous Heterogeneous	Dissolved	20% Glass	80% Non-fibrous (other)	None Detected
OPL-33A/BLK LYR 040303133-0076	OUTSIDE CW LINES - NORTH SIDE OF BLDG	Black Non-Fibrous Homogeneous	Teased		100% Non-fibrous (other)	None Detected
OPL-33B/WHITE LYR 040303133-0051	OUTSIDE CW LINES - NORTH SIDE OF BLDG	White Fibrous Heterogeneous	Dissolved	15% Glass	85% Non-fibrous (other)	None Detected
OPL-33B/BLK LYR 040303133-0077	OUTSIDE CW LINES - NORTH SIDE OF BLDG	Black Non-Fibrous Homogeneous	Teased		100% Non-fibrous (other)	None Detected

Analyst(s)

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EMSL Order: 040303133

EMSL Project ID:

Analysis Date: 3/8/03

Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Location	Appearance	Treatment	<u>Non-Asbestos</u>		<u>Asbestos</u>
				% Fibrous	% Non-Fibrous	% Type
OPL-34A 040303133-0052	ROOF DRAIN LINE - EAST EXTERIOR - STREET LEVEL	Black Fibrous Heterogeneous	Dissolved	30% Cellulose	70% Non-fibrous (other)	None Detected
OPL-35A 040303133-0053	OUTSIDE - NORTH SIDE OF BLDG	Black Fibrous Heterogeneous	Dissolved	2% Cellulose 3% Glass	95% Non-fibrous (other)	<1% Chrysotile

Stephen Siegel

Analyst(s)

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ANALYTICAL

OLD BUILDING AREA
CHAIN OF CUSTODY

SHT. 1 OF 3

ASBESTOS

EMSL Representative: RAY WILLIAMS
 Your Company Name: MACTEC ENGR. & CONSULTING, INC.
 Street: 605 E. ROBINSON STREET
 Box #: SUITE 230
 City/State: ORLANDO, FL. Zip: 32801
 Verbal Results to: _____
 Telephone #: 407-246-0066
 Project Name/Number: 6380030039,01

EMSL-Bill to: MACTEC ENGINEERING & CONSULTING
 Street: 1105 SANCTUARY PARKWAY
 Box #: SUITE 300
 City/State: ALPHABETTA, GA. Zip: 30004
 Fax Results to: SHAWN BRIGHAM
 Fax #: 407-246-1566
 Purchase Order # _____

MATRIX

- ☐ Air ☐ Floor Tile ☐ Soil ☐ Wipe
☒ Bulk ☐ Drinking Water ☐ Dust ☐ Wastewater

TURNAROUND TIME

- ☐ 6 Hours ☐ 12 Hours ☐ 24 Hours ☐ 48 Hours
☒ 3 Days ☐ 5 Days ☐ 6-10 Days ☐ RUSH

Contact Lab

PCM - AIA

- ☐ NIOSH 7400
☐ OSHA
☐ Other:

TEM AIR

- ☐ AHERA
☐ NIOSH 7402
☐ Level I
☐ Level II

PLM

- ☒ EPA 600
☐ NOB
☐ Point Count
☐ Other:

SEM

- ☐ Qualitative
☐ Quantitative

TEM BULK

- ☐ Drop Mount (Qualitative)
☐ Chatfield
☐ Chatfield / SEM QC
☐ Conventional (Quantitative)
☐ EMSL Method
☐ NOB
☐ NOB / SEM QC
☐ Micro Vac - Quantitative
☐ Micro Vac - Qualitative

TEM WATER

- ☐ Wastewater
☐ Drinking Water EPA 100.1
☐ Water - NY Wastewater
☐ Water-NY Drinking Water

TEM WIPE

- ☐ Quantitative
☐ Qualitative

XRD

- ☐ Asbestos
☐ Silica

OTHER

COMMENTS

"STOP AT FIRST POSITIVE"

03 MAR - 5/10
AM 10WEST
NORTH
EAST
SOUTH

Client Sample # (s)

Relinquished: ROBERT A. FRASARD

Total Samples:

Received:

Date: 3-3-03

Time:

Received:

Date:

Time:

Date:

Time:

SAMPLE DATE	SAMPLE NUMBER	MATERIAL	LOCATION	DESCRIPTION	VOLUME (if applicable)
2-28-03/3-2-03	OPL-1A	HVAC DUCT SEAM MASTIC - GRAY	VERGUS LOCATIONS	ROOF AIR HANDLER ROOM	
"	OPL-1B	HVAC DUCT SEAM MASTIC - GRAY	VERGUS LOCATIONS	ROOF AIR HANDLER ROOM	
"	OPL-2A	HVAC DUCT SEAM MASTIC - BROWN	VERGUS LOCATIONS	ROOF AIR HANDLER ROOM	
"	OPL-3A	HVAC DUCT SEAM MASTIC - LIGHT GREEN	VERGUS LOCATIONS	ROOF AIR HANDLER ROOM	
"	OPL-4A	HVAC DUCT SEAM MASTIC - WHITE	VERGUS LOCATIONS	ROOF AIR HANDLER ROOM	
"	OPL-4B	" " " - WHITE	VERGUS LOCATIONS	ROOF AIR HANDLER ROOM	
"	OPL-4C	" " " - WHITE	VERGUS LOCATIONS	ROOF AIR HANDLER ROOM	
"	OPL-4D	" " " - WHITE	VERGUS LOCATIONS	ROOF AIR HANDLER ROOM	
"	OPL-5A	HVAC DUCT SEAM MASTIC - BLACK	VERGUS LOCATIONS	ROOF AIR HANDLER ROOM	
"	OPL-5B	" " " - BLACK	VERGUS LOCATIONS	ROOF AIR HANDLER ROOM	
"	OPL-5C	" " " - BLACK	VERGUS LOCATIONS	ROOF AIR HANDLER ROOM	
"	OPL-6A	PAN GLASS, AND CAT - ELBOW	VERGUS LOCATIONS	ROOF AIR HANDLER ROOM	
"	OPL-6B	PAN GLASS, AND CAT - ELBOW	VERGUS LOCATIONS	ROOF AIR HANDLER ROOM	

28-03/3-2-03

18-3-8-03



EMSL Analytical, Inc.
Revised 07/07/99

CHAIN OF CUSTODY

DATE 2-28-03 / 3-2-03

ASBESTOS

DATE

MACTEC ENGR. & CONSULTING, INC.

PROJECT NAME: ORANGE COUNTY PUBLIC LIBRARY
PROJECT # 6380030039.01

03
2-03

SAMPLE NUMBER	MATERIAL	LOCATION DESCRIPTION	VOLUME (if Applicable)
OPL-7A	FIBERGLASS INSUL, FELT, CANVAS WRAP	Roof AIR HANDLER ROOM	LOCATED
OPL-7B	FIBERGLASS INSUL, FELT, CANVAS WRAP	C.W. SUPPLY LINE	Roof AIR HANDLER ROOM
OPL-8A	FIBERGLASS INSUL, FOIL & CANVAS WRAP	C.W. RETURN LINE	Roof AIR HANDLER ROOM
OPL-8B	FIBERGLASS INSUL, FOIL & CANVAS WRAP	AIR HANDLER A	Roof AIR HANDLER ROOM
OPL-9A	FIBERGLASS INSUL, MESH & CANVAS WRAP	AIR HANDLER B	Roof AIR HANDLER ROOM
OPL-10A	VIBRATION DAMPENER MATERIAL	Roof AIR HANDLER ROOM	DRAIN LINE
OPL-11A	PACKING MATERIAL	AIR HANDLER "B"	Roof AIR HANDLER ROOM
OPL-12A	FIBERGLASS INSUL, FELT, FOIL, CANVAS WRAP	AHU B - AT MSC-2 ELEC. RM	1ST FLOOR RESTROOMS
OPL-12B	" " " " "	OLD HVAC DUCTS	
OPL-12C	" " " " "	BASEMENT	
OPL-13A	PLASTER	CESTADIAN ROOM	
OPL-13B	PLASTER	3RD FLOOR - ROOF RELEC	
OPL-13C	PLASTER	KITCHEN AREA WALL	
OPL-14A	2'x4' CEILING TILE, TAPERED, FISSURED, PIN HOLES, NON-DIRECTIONAL	2ND FLOOR NORTH STORAGE SPACE	BEAUTY FLOOR CEILING MAIL WALL & CHW
OPL-15A	CARPET ADHESIVE - BROWN	2ND FLOOR NORTH AREA	
OPL-16A	COVE BASE/MASTIC - BLACK	2ND FLOOR NORTH STORAGE AREA	
OPL-17A	DUCT SEAM MASTIC - RED	2ND FLOOR NORTH STORAGE AREA	
OPL-18A	2'x2' RECESSED, CEILING TILE	2ND FLOOR NORTH STORAGE AREA	
OPL-19A	1'x1' FLOOR TILE/TAN ADHESIVE - BEIGE	2ND FLOOR NORTH STORAGE AREA	
OPL-20A	FIBERGLASS INSUL - FOIL/PAPER WRAP	2ND FLOOR NORTH STORAGE AREA	
OPL-21A	TROWELED ON SKIN WALL (GATING OVER GYP BOARD)	2ND FLOOR NORTH STORAGE AREA	
OPL-21B	" " " " "	2ND FLOOR NORTH STORAGE AREA	
OPL-21C	" " " " "	2ND FLOOR NORTH STORAGE AREA	
OPL-22A	2'x4' & 2'x2' CEILING TILE - LIGHT FISSURED, PIN HOLES	2ND FLOOR NORTH STORAGE AREA	
OPL-23A	2'x4' CEILING TILE, FISSURED, GRATES LONG	2ND FLOOR NORTH STORAGE AREA	
OPL-24A	19 1/2" x 19 1/2" FLOOR TILE, MESH ADHESIVE - TAN	2ND FLOOR NORTH STORAGE AREA	
OPL-25A	19 1/2" x 18 1/2" FLOOR TILE, MESH ADHESIVE - GREEN	2ND FLOOR NORTH STORAGE AREA	

03
2-03

29

DATE 2-28-03 / 3-2-03

100%

MACTEC ENGR. & CONSULTING, INC.

PROJECT NAME: ORANGE COUNTY PUBLIC LIBRARY
PROJECT#: 6380030039.01

DYE

2. 03
7-2-03

11

4

11

14

2

1

7

4

14

1

1

SAMPLE NUMBER	MATERIAL	LOCATION DESCRIPTION	VOLUME (if applicable)
OPL-26A	CEMENTIOUS MUDDED ELBOW	B'SMT. CUSTODIAN ROOM	
OPL-26B	CEMENTIOUS MUDDED ELBOW	H.W. HEATER LINE	
OPL-27A	CANVAS (WRAP-HVAC RETURN DUCT	B'SMT. CUSTODIAN ROOM	
OPL-28A	FIBERGLASS, FELT, FGL, CANVAS WRAP	B'SMT. CUSTODIAN ROOM	
OPL-29A	ADHESIVE / CORK - SOUND BATT	WATER LINE	
OPL-30A	12"X12" FLOOR TILE / BEIGE - PITTED PAINTED	B'SMT. STORAGE N.W.	
OPL-31A	12"X12" FLOOR TILE / BEIGE - YELLOW ADHESIVE	ROOM (W/ LGS) ELEVATOR	
OPL-31B	" " " " " " " "	ROOM @ ELEVATOR	
OPL-32A	12"X12" FLOOR TILE - CREAM / BEIGE GROUTS	B'SMT. NORTH AREA	
OPL-33A	" " " " " " " "	B'SMT. NORTH AREA	
OPL-33B	" " " " " " " "	B'SMT. SOUTHEAST AREA	
OPL-34A	FIBERGLASS, CANVAS WRAP, WHITE MASTIC	OUTSIDE C.W. LINES	
OPL-35A	FIBERGLASS, CANVAS WRAP, WHITE MASTIC	NORTH SIDE OF Bldg.	
OPL-36A	CANVAS WRAP - B/K -	" " "	
OPL-37A	WINDING CAULK - 1' WIDE GLASS	ROOF DRAIN LINE	
		EAST EXTERIOR STREET	
		OUTSIDE	
		NORTH SIDE OF Bldg.	

RECEIVED
 WESTMONT, N.J.
 03 MAR -4 AM 10:29

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WESTMONT, N.J.
MAR - 4 AM 10:29

EMSL Analytical, Inc.

107 Haddon Ave., Westmont, NJ 08108

Phone: (856) 858-4800 Fax: (856) 858-4960 Email: salegal@EMSL.com**EMSL**

Attn: Shawn Brigham
 MACTEC Engineering and Consulting, Inc.
 4150 North John Young Parkway
 Orlando, FL 32809
 Fax: (407) 522-7576 Phone: (407) 522-7570
 Project: 6380030037.06 / ORLANDO PUBLIC LIBRARY

Customer ID: LAWE52H
 Customer PO:
 Received: 05/19/03 11:51 AM
 EMSL Order: 040308007
 EMSL Project ID:
 Analysis Date: 5/26/2003

Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Location	Appearance	Treatment	Non-Asbestos		Asbestos
				% Fibrous	% Non-Fibrous	% Type
OPL-1A 040308007-0001	BASEMENT PARKING N.E.	Gray Fibrous Heterogeneous	Teased	<1% Cellulose 90% Min. Wool	10% Non-fibrous (other)	None Detected
OPL-1B 040308007-0002	BASEMENT PARKING S.E.	Gray Fibrous Heterogeneous	Teased	<1% Cellulose 90% Min. Wool	10% Non-fibrous (other)	None Detected
OPL-1C 040308007-0003	BASEMENT PARKING CENTER	Gray Fibrous Heterogeneous	Teased	<1% Cellulose 90% Min. Wool	10% Non-fibrous (other)	None Detected
OPL-1D 040308007-0004	BASEMENT PARKING S.W.	Gray Fibrous Heterogeneous	Teased	<1% Cellulose 90% Min. Wool	10% Non-fibrous (other)	None Detected
OPL-1E 040308007-0005	BASEMENT PARKING N.W.	Gray Fibrous Heterogeneous	Teased	<1% Cellulose 90% Min. Wool	10% Non-fibrous (other)	None Detected
OPL-2A 040308007-0006	BASEMENT PARKING N.E. AREA	Gray/Green Non-Fibrous Heterogeneous	Teased Dissolved	5% Cellulose 15% Min. Wool	80% Non-fibrous (other)	None Detected
OPL-2B 040308007-0007	CHILLER ROOM @ CHILLER 2	Gray/Green Non-Fibrous Heterogeneous	Teased Dissolved	5% Cellulose 15% Min. Wool	80% Non-fibrous (other)	None Detected
OPL-2C 040308007-0008	CHILLER ROOM	Gray/Green Non-Fibrous Heterogeneous	Teased Dissolved	5% Cellulose 15% Min. Wool	80% Non-fibrous (other)	None Detected
OPL-3A 040308007-0009	BASEMENT CHILLER ROOM OVER CHILLER #2	Tan Fibrous Heterogeneous	Teased	40% Cellulose 40% Min. Wool	20% Non-fibrous (other)	None Detected

Analyst(s)

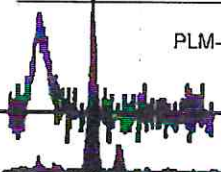
Joseph Nihill (55)

Stephen Siegel, CIH
 or other approved signatory

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Analysis performed by EMSL Westmont (NVLAP #101048-0), NY ELAP 10872

PLM-1



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Orlando, FL 32809

Fax: (407) 522-7576 Phone: (407) 522-7570

Project: 6380030037.06 / ORLANDO PUBLIC LIBRARY

Customer ID: LAWE52H

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Analysis Date: 5/26/2003

Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Location	Appearance	Treatment	Non-Asbestos		Asbestos
				% Fibrous	% Non-Fibrous	% Type
OPL-4A 040308007-0010	BASEMENT CHILLER ROOM THROUGHOUT	Gray Non-Fibrous Heterogeneous	Teased Crushed	<1% Cellulose	100% Non-fibrous (other)	None Detected
OPL-4B 040308007-0011	BASEMENT CHILLER ROOM THROUGHOUT	Gray Non-Fibrous Heterogeneous	Teased Crushed	<1% Cellulose	100% Non-fibrous (other)	None Detected
OPL-5A 040308007-0012	BASEMENT CHILLER ROOM PUMP HOUSING	Gray Non-Fibrous Heterogeneous	Teased Dissolved	5% Cellulose 10% Min. Wool	85% Non-fibrous (other)	None Detected
OPL-5B 040308007-0013	BASEMENT CHILLER ROOM PUMP HOUSING	Gray Non-Fibrous Heterogeneous	Teased Dissolved	5% Cellulose 10% Min. Wool	85% Non-fibrous (other)	None Detected
OPL-5C 040308007-0014	CHILLER ROOM ELBOW	Gray Non-Fibrous Heterogeneous	Teased Dissolved	5% Cellulose 10% Min. Wool	85% Non-fibrous (other)	None Detected
OPL-6A TILE 040308007-0015	BASEMENT	White Non-Fibrous Heterogeneous	Crushed Dissolved	<1% Cellulose	100% Non-fibrous (other)	None Detected
OPL-6A MASTIC 040308007-0052	BASEMENT	Black Non-Fibrous Heterogeneous	Teased Dissolved	3% Cellulose	87% Non-fibrous (other)	10% Chrysotile
OPL-6B TILE 040308007-0016	5TH FLOOR NORTH HALLWAY	White Non-Fibrous Heterogeneous	Crushed Dissolved	<1% Cellulose	100% Non-fibrous (other)	None Detected
OPL-6B MASTIC 040308007-0053	5TH FLOOR NORTH HALLWAY					Not Analyzed

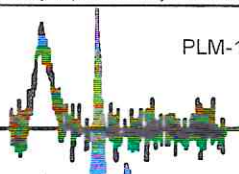
Analyst(s)

Joseph Nihill (55)

Stephen Siegel, CIH
or other approved signatory

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Analysis performed by EMSL Westmont (NVLAP #101048-0), NY ELAP 10872

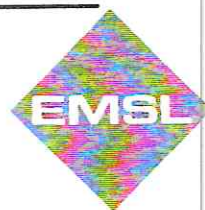


PLM-1

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Analysis Date: 5/26/2003

Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Location	Appearance	Treatment	Non-Asbestos		Asbestos
				% Fibrous	% Non-Fibrous	% Type
OPL-7A 040308007-0017	BASEMENT	Gray Fibrous Heterogeneous	Teased	40% Cellulose 40% Min. Wool	20% Non-fibrous (other)	None Detected
OPL-7B 040308007-0018	BASEMENT	Gray Fibrous Heterogeneous	Teased	40% Cellulose 40% Min. Wool	20% Non-fibrous (other)	None Detected
OPL-8A 040308007-0019	BASEMENT CUSTODIAN ROOM	White Fibrous Heterogeneous	Teased	50% Cellulose	50% Non-fibrous (other)	None Detected
OPL-8B 040308007-0020	5TH FLOOR DWG ROOM	White Fibrous Heterogeneous	Teased	50% Cellulose	50% Non-fibrous (other)	None Detected
OPL-9A 040308007-0021	BASEMENT AHU- 1 ROOM BELOW STAIRS	White Non-Fibrous Heterogeneous	Teased Dissolved	15% Cellulose	80% Non-fibrous (other)	5% Chrysotile
OPL-10A 040308007-0022	BASEMENT AHU- 1 ROOM BELOW STAIR 3 FLOOR	Brown Non-Fibrous Heterogeneous	Teased Dissolved	10% Cellulose	90% Non-fibrous (other)	None Detected
OPL-10B 040308007-0023	BASEMENT AHU- 1 ROOM BELOW STAIR 3 FLOOR	Brown Non-Fibrous Heterogeneous	Teased Dissolved	10% Cellulose	90% Non-fibrous (other)	None Detected
OPL-11A 040308007-0024	4TH FLOOR AHU- 13	Red Non-Fibrous Heterogeneous	Teased Dissolved	10% Cellulose	90% Non-fibrous (other)	None Detected
OPL-11B 040308007-0025	4TH FLOOR AHU- 13	Red Non-Fibrous Heterogeneous	Teased Dissolved	10% Cellulose	90% Non-fibrous (other)	None Detected

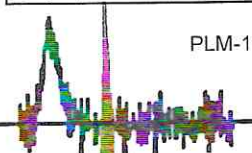
Analyst(s)

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Stephen Siegel, CIH
or other approved signatory

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 EMSL Order: 040308007
 EMSL Project ID:
 Analysis Date: 5/26/2003

Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Location	Appearance	Treatment	Non-Asbestos		Asbestos
				% Fibrous	% Non-Fibrous	% Type
OPL-15A 040308007-0035	BASEMENT TALKING BOOKS AREA	White Fibrous Heterogeneous	Teased	40% Cellulose 40% Min. Wool	20% Non-fibrous (other)	None Detected
OPL-15B 040308007-0036	4TH FLOOR LAW AREA	White Fibrous Heterogeneous	Teased	40% Cellulose 40% Min. Wool	20% Non-fibrous (other)	None Detected
OPL-16A 040308007-0037	1ST FLOOR ELECT. ROOM	White Fibrous Heterogeneous	Teased	40% Cellulose 40% Min. Wool	20% Non-fibrous (other)	None Detected
OPL-16B 040308007-0038	3RD FLOOR ELECT. ROOM	White Fibrous Heterogeneous	Teased	40% Cellulose 40% Min. Wool	20% Non-fibrous (other)	None Detected
OPL-17A TILE 040308007-0039	1ST FLOOR WEST END	White Non-Fibrous Heterogeneous	Crushed Dissolved	<1% Cellulose	100% Non-fibrous (other)	None Detected
OPL-17A MASTIC 040308007-0054	1ST FLOOR WEST END	Black Non-Fibrous Heterogeneous	Teased Dissolved	5% Cellulose	90% Non-fibrous (other)	5% Chrysotile
OPL-18A 040308007-0040	1ST FLOOR WEST END	Gray Non-Fibrous Heterogeneous	Teased Dissolved	2% Cellulose	95% Non-fibrous (other)	3% Chrysotile
OPL-19A 040308007-0041	1ST FLOOR NORTH AREA HALLWAY WALL	White Non-Fibrous Heterogeneous	Teased	15% Cellulose	85% Non-fibrous (other)	None Detected
OPL-19B 040308007-0042	2ND FLOOR NORTH AREA HALLWAY	White Non-Fibrous Heterogeneous	Teased	15% Cellulose	85% Non-fibrous (other)	None Detected

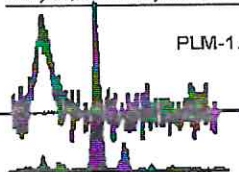
Analyst(s)

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EMSL Order: 040308007

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Analysis Date: 5/26/2003

Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Location	Appearance	Treatment	Non-Asbestos		Asbestos
				% Fibrous	% Non-Fibrous	% Type
OPL-19C 040308007-0043	5TH FLOOR WEST HALLWAY	White Non-Fibrous Heterogeneous	Teased	20% Cellulose	80% Non-fibrous (other)	None Detected
OPL-19D 040308007-0044	4TH FLOOR WEST STUDY ROOM	White Non-Fibrous Heterogeneous	Teased	15% Cellulose	85% Non-fibrous (other)	None Detected
OPL-20A 040308007-0045	4TH FLOOR NORTH	Gray Non-Fibrous Heterogeneous	Teased	2% Cellulose	98% Non-fibrous (other)	None Detected
OPL-20B 040308007-0046	4TH FLOOR S.E.	Gray Non-Fibrous Heterogeneous	Teased	2% Cellulose	98% Non-fibrous (other)	None Detected
OPL-20C 040308007-0047	4TH FLOOR SOUTH	Gray Non-Fibrous Heterogeneous	Teased	2% Cellulose	98% Non-fibrous (other)	None Detected
OPL-21A 040308007-0048	5TH FLOOR EAST HALLWAY	Tan Fibrous Heterogeneous	Teased	40% Cellulose 40% Min. Wool	20% Non-fibrous (other)	None Detected
OPL-21B 040308007-0049	5TH FLOOR NORTHEAST CONFERENCE ROOM	Tan Fibrous Heterogeneous	Teased	40% Cellulose 40% Min. Wool	20% Non-fibrous (other)	None Detected
OPL-21C 040308007-0050	5TH FLOOR EAST CENTER OFFICE	Tan Fibrous Heterogeneous	Teased	40% Cellulose 40% Min. Wool	20% Non-fibrous (other)	None Detected
OPL-22A TILE 040308007-0051	5TH FLOOR QUEST LINE OFFICE	Gray Non-Fibrous Heterogeneous	Crushed Dissolved	<1% Cellulose	100% Non-fibrous (other)	None Detected

Analyst(s)

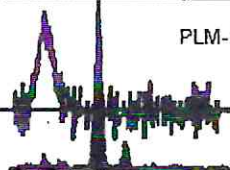
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PLM-1



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Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Location	Appearance - Color	Treatment	% Fibrous	Non-Asbestos		Asbestos
					% Non-Fibrous	% Type	
OPL-22A MASTIC	5TH FLOOR	Yellow	Teased	2% Cellulose	95% Non-fibrous (other)		None Detected
040308007-0055	QUEST LINE	Non-Fibrous	Dissolved	3% Synthetic			
	OFFICE	Heterogeneous					

Analyst(s)

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PLM-1

**THIS IS THE LAST PAGE OF THE REPORT.**

PROJECT NAME: ORLANDO Public Library

040308001

PROJECT NUMBER: 6380030037.06

SHT. 1 of 4

ANALYTICAL

CHAIN OF CUSTODY

ASBESTOS

EMSL Representative:

Your Company Name: MACTEC ENGR. & CONSULTING, INC.EMSL-Bill to: MACTEC ENGINEERING & CONSULTING, INC.Street: 4150 NORTH BAY VIEWING BLVDStreet: 1105 SANCTUARY PARKWAYBox #: Box #: SUITE 300City/State: ORLANDO, FL Zip: 32804City/State: ALPHABETTA, GA Zip: 30004Verbal Results to: Fax Results to: SHAWN BRIGHTONTelephone #: 407-522-7570Fax #: 407-522-7576Purchase Order #

MATRIX				TURNAROUND TIME			
<input type="checkbox"/> Air	<input type="checkbox"/> Floor Tile	<input type="checkbox"/> Soil	<input type="checkbox"/> Wipe	<input type="checkbox"/> 6 Hours	<input type="checkbox"/> 12 Hours	<input type="checkbox"/> 24 Hours	<input type="checkbox"/> 48 Hours
<input checked="" type="checkbox"/> Bulk	<input type="checkbox"/> Drinking Water	<input type="checkbox"/> Dust	<input type="checkbox"/> Wastewater	<input type="checkbox"/> 3 Days	<input checked="" type="checkbox"/> 5 Days	<input type="checkbox"/> 6-10 Days	<input type="checkbox"/> RUSH

PCM - AIA	PLM	TEM BULK	TEM WATER
<input checked="" type="checkbox"/> NIOSH 7400	<input checked="" type="checkbox"/> EPA 600	<input type="checkbox"/> Drop Mount (Qualitative)	<input type="checkbox"/> Wastewater
<input type="checkbox"/> OSHA	<input type="checkbox"/> NOB	<input type="checkbox"/> Chatfield	<input type="checkbox"/> Drinking Water EPA 100.1
<input type="checkbox"/> Other:	<input type="checkbox"/> Point Count	<input type="checkbox"/> Chatfield / SEM QC	<input type="checkbox"/> Water - NY Wastewater
TEM AIR	<input type="checkbox"/> Other:	<input type="checkbox"/> Conventional (Quantitative)	<input type="checkbox"/> Water-NY Drinking Water
<input type="checkbox"/> AHERA	SEM	<input type="checkbox"/> EMSL Method	
<input type="checkbox"/> NIOSH 7402	<input type="checkbox"/> Qualitative	<input type="checkbox"/> NOB	TEM WIPE
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<input type="checkbox"/> Level II		<input type="checkbox"/> Micro Vac - Quantitative	<input type="checkbox"/> Qualitative
		<input type="checkbox"/> Micro Vac - Qualitative	

XRD

☐ Asbestos☐ Silica☐ OTHER☐ COMMENTS

STOP AT 1ST POSITIVE

Client Sample # (s)

Relinquished:

Received:

Received:

OPL-1A
ROBERT J. FRASER

OPL-2A

Total Samples:

51

Date: 5-16-03

Time:

Date:

Time:

Date:

Time:

SAMPLE DATE	SAMPLE NUMBER	MATERIAL DESCRIPTION	LOCATION
5-14-03	OPL-1A	CEILING POCKETS - SPRAY ON FIREPROOFING - GRAY	BASEMENT PARKING - N.E.
5-14-03	OPL-1B	" " " "	" - S.E.
5-14-03	OPL-1C	" " " "	" - CENTER
5-14-03	OPL-1D	" " " "	" - S.W.
5-14-03	OPL-1E	" " " "	" - N.W.
5-14-03	OPL-2A	CHILL WATER SUPPLY/RETURN LINES FITTING WRAP - GRAY	BASEMENT PARKING - N.E. FROM CHILLER ROOM & CHILLER
5-14-03	OPL-2B	" " " "	CHILLER ROOM
5-14-03	OPL-2C	" " " "	CHILLER ROOM
5-14-03	OPL-3A	8'x4' CEILING TILE (solid)	BASEMENT CHILLER ROOM - CHILLER #2
5-14-03	OPL-4A	Ceiling Plaster - GRAY	BASEMENT CHILLER ROOM - THROUGHOUT
5-14-03	OPL-4B	" " " "	

Japsh66n

040308007

SHT. 2 OF 4

DATE 5-14/15-03


 EMSL Analytical, Inc.
 Revised 07/07/99

CHAIN OF CUSTODY

PROJECT NAME: ARLAKID Public Library

Asbestos

MASTEC ENGR. & CONSULTING, INC.

PROJECT#1 6380030039.06

SAMPLE NUMBER	MATERIAL	LOCATION	DESCRIPTION	VOLUME (if applicable)
5-14-03 OPL-5A	CANVAS WRAP / WHITE MASTIC OVER FORM / GLASS TACK.	BEHIND CHILLER ROOM	RAIL HOUSING	
5-14-03 OPL-5B	" " " "	" " "	" " "	
5-14-03 OPL-5C	" " " "	" " "	CHILLER ROOM ELBOW	
5-14-03 OPL-6A	12"X12" FLOOR TILE w/ BLK MASTIC BEIGE w/ CEMENT LIGHT & DARK BEIGE	BEHIND	5th Floor North	
5-14-03 OPL-6B	12"X12" FLOOR TILE w/ BLK MASTIC		HALLWAY	
5-14-03 OPL-7A	2'X4' CEILING TILES LIGHT FIGURED - PINKISH - LONG PLANK		BEHIND	
5-14-03 OPL-7B	4th Floor North Hallway			
5-14-03 OPL-8A	MASTEC DUCT CLOTH SEAM TAPE w/ WHITE MASTIC		BEHIND (CUSTOMER) ROOM	
5-14-03 OPL-8B	" " " "		5th Floor Dwg. Room	
5-14-03 OPL-9A	MASTEC DUCT SEAM MASTIC (COATING) WHITE		BEHIND AHU-1 ROOM BELOW STAIRS	
5-14-03 OPL-10A	MASTEC DUCT SEAM MASTIC - DARK BROWN		BEHIND AHU-1 ROOM BELOW STAIRS	
5-14-03 OPL-10B	" " " "		3RD FLOOR	
5-14-03 OPL-11A	MASTEC DUCT SEAM MASTIC - RED		BEHIND AHU-1 ROOM	
5-14-03 OPL-11B	" " " "		4th Floor AHU-13	
5-14-03 OPL-12A	MASTEC DUCT SEAM MASTIC - LIGHT GRAY		BEHIND AHU-1 ROOM	
5-14-03 OPL-12B	" " " "		3RD FLOOR AHU-11 Room	
5-14-03 OPL-13A	MASTEC DUCT SEAM MASTIC - LIGHT BROWN		BEHIND AHU-1 ROOM	

040308007

SHT. 3 of 4

DATE 5-14/15-03



EMSL Analytical, Inc.
Revised 07/07/99

CHAIN OF CUSTODY

Asbestos

PROJECT NAME: OPLAND Public Library

MACTEC ENGR. & CONSULTING, INC.

PROJECT#: 6380030039.06

	SAMPLE NUMBER	MATERIAL	LOCATION	DESCRIBE	PREP	VOLUME (if applicable)
						LOCATED
5-14-03	OPL-14A	PLASTER	SKIN (BAT OVER WALLBOARD)			Basement, Coll. Del.
5-14-03	OPL-14B	" " "	" " "			1st Floor, West Side
5-14-03	OPL-14C	" " "	" " "			2nd Floor, North Hallway
5-14-03	OPL-14D	" " "	" " "			4th Floor N.E. Hallway
5-14-03	OPL-14E	" " "	" " "			5th Floor West Hallway
5-14-03	OPL-14F	" " "	" " "			4th Floor, West Study Room
	OPL-14G					
5-14-03	OPL-15A	2'x4' CEILING TILES, FIBERED, FINISHES - NEW	DIRECTIONAL			Basement - Talking Books Area
5-14-03	OPL-15B	" " "	" " "			4th Floor Law Area
5-14-03	OPL-16A	2'x4' CEILING TILE - DEEP FIBERED, FINISHES - NEW	DIRECTIONAL			1st Floor Electric Room
5-14-03	OPL-16B	" " "	" " "			3rd Floor Electric Room
5-14-03	OPL-17A	11"x12" FLOOR TILE: B/LK. MAJESTIC				1st Floor West Side (REMOVED)
5-15-03	OPL-18A	COUNTER SINKS	UPPER BARRIER CONTAINING - PINK			1st Floor West Side
5-15-03	OPL-19A	Gypsum Wallboard / Dry Compound				1st Floor North Area Hallway / West
5-15-03	OPL-19B	" " "	" " "			2nd Floor North Area Hallway
5-15-03	OPL-19C	" " "	" " "			5th Floor West Hallway
5-15-03	OPL-19D	" " "	" " "			4th Floor West Study Room
	OPL-19E					
5-15-03	OPL-20A	SOFFIT STUCCO (EXTERIOR)				4th Floor North
5-15-03	OPL-20B	" " "	" " "			4th Floor S.E.
5-15-03	OPL-20C	" " "	" " "			4th Floor South

0403 08007

SHT. 4 OF 4

DATE 5/15/16-03

EMSL Analytical, Inc.
Revised 07/07/99

CHAIN OF CUSTODY

PROJECT NAME: ORLANDO PUBLIC LIBRARY

Asbestos

MACTEC ENGR. & CONSULTING, INC.

PROJECT# 63800300 R39.06

5-15-03

OPL-21A

2'x2' CEILING TILE DEEP
FISSURED, NON-DIRECTIONALVOLUME (if applicable)
LOCATION5TH FLOOR
EAST HALLWAY

5-15-03

OPL-21B

" " "

5TH FLOOR NORTHWEST
CONFERENCE ROOM

5-15-03

OPL-21C

" " "

5TH FLOOR EAST
CENTER OFFICE

5-15-03

OPL-22A

BUR-W-PLACE FLOORING

5TH FLOOR QUEST
ONE OFFICE

DRAWINGS