



Memorandum

Memorandum No: 21-025

Date: April 5, 2021

To: Honorable Mayor & Members of the

Fort Lauderdale City Commission

From: Christopher Lagerbloom, ICMA-CM, City Manager

Re: Mold and Asbestos Assessments at City Hall

On Sunday February 14, 2021, a fire suppression sprinkler broke while replacing ceiling tiles in the 8th floor Commission Offices, causing the flooding of the 8th floor offices and the water to find its way on to all other floors of City Hall. A remediation company, United Restoration, was called out and began the water extraction process immediately, however many areas remained wet for several days. City staff reached out to environmental services firm, Terracon, to conduct air quality assessments for mold and asbestos to ensure the safety of those working and doing business in City Hall. The asbestos report found no evidence of asbestos fibers in the 55 samples collected over the three-day collection period. Another 55 samples were taken of the indoor and outdoor environment for the mold assessment. Mold spores are common in the outdoor natural environment and are brought into buildings on the feet and clothing of those who travel in and out of the building. The mold spore concentration indoors should be lower than the outdoor environment. According to the EPA, there are no standards or thresholds for airborne mold contaminants. More information is available on the EPA Website, https://www.epa.gov/mold/mold-testing-or-sampling. The mold assessment compares the outdoor environment to the indoor environment since mold in the indoor environment should be lower than the outdoor environment. During this assessment, there were several areas where the indoor samples were higher than the outside samples. The attached report contains the specific readings taken at all 55 locations. Terracon noted that the outdoor samples had a very low count so even though the indoor count is higher, there is no cause for immediate concern. The building is safe to occupy, however in an abundance of caution all areas have been receiving a deep cleaning which will be complete the evening of April 1st. Terracon will return Friday April 2nd in the morning to take new samples and confirm the cleaning was successful and the air samples are back in line with the outdoor environment.

If you have any further questions regarding this process, please contact Corey Callier, Facilities Manager, at ccallier@fortlauderdale.gov or 954-828-5873.

Attachments: Limited IAQ Assessment Report TEM Air Sampling

c: Tarlesha W. Smith, Esq., Assistant City Manager Greg Chavarria, Assistant City Manager Alain Boileau, City Attorney Jeff Modarelli, City Clerk John C. Herbst, City Auditor Department Directors CMO Managers



Limited Indoor Air Quality Assessment

Fort Lauderdale – City Hall All Floors (1-8)

100 N. Andrews Avenue Fort Lauderdale, Florida 33301

> March 24, 2021 Terracon Project 34217037



Prepared for:

City of Fort Lauderdale Parks and Recreation Department Fort Lauderdale, Florida

Prepared by:

Terracon Consultants, Inc. Fort Lauderdale, Florida

March 24, 2021

City of Fort Lauderdale Parks and Recreation Department 220 SW 14th Avenue, Bldg. #3 Fort Lauderdale, Florida 33312

Attn: Mr. Corey Callier

O: 945.828.5873

E: ccallier@fortlauderdale.gov

Re: Limited Indoor Air Quality/Mold Assessment Report

Fort Lauderdale City Hall – All floors (1-8)

100 N. Andrews Avenue

Fort Lauderdale, Florida 33301 Terracon Project 34217037

Dear Mr. Callier:

Terracon Consultants, Inc. (Terracon) is pleased to present the results of the limited indoor air quality/mold assessment conducted on March 12 and 13, 20217 at the above referenced building in Fort Lauderdale, Florida. This assessment was conducted in general accordance with Terracon Proposal P34217037 dated March 8, 2021.

Terracon appreciates the opportunity to provide these services to City of Fort Lauderdale Parks and Recreation Department. If you have any questions or concerns, please contact us at (954) 741-8282.

Sincerely,

Terracon Consultants, Inc.

Sergio A. Adasme
Environmental Services

Senior Industrial Hygienist

Tom Holley, CHMM, CIH, CSP, MRSA Mold Related Services Assessor 2749

Senior Industrial Hygienist

to talles

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LIMITED INDOOR AIR QUALITY/MOLD ASSESSMENT Fort Lauderdale City Hall – All Floors – (1-8) 100 N. Andrews Avenue Fort Lauderdale, Florida

Project No. 34217037 Report Date: March 24, 2021

1.0 PROJECT DESCRIPTION

Terracon Consultants, Inc. (Terracon) conducted a limited mold and moisture assessment in designated areas of the Fort Lauderdale City Hall located at 100 N. Andrews Avenue in Fort Lauderdale, Florida. The assessment was conducted on March 12 and 13, 2021 by Mr. Ryan Nanan and Mr. Sergio A. Adasme, a Licensed Mold Assessor. The assessment was conducted in general accordance with Terracon Proposal P34217037 dated March 8, 20217. We understand that this assessment was requested in response to health concerns expressed by employees.

1.1 Scope of Services

Terracon performed a visual evaluation limited to the interior unoccupied space for suspect mold growth, water intrusion and/or sources of potential moisture. Material moisture content measurements were collected from representative building materials. Terracon visually assessed the presence and extent (document location, affected material types and estimated quantities) of readily visible mold growth. Terracon did not identify all possible microbial reservoirs or growth sites, as walls and floors may hide certain building materials with potential fungal growth.

Destructive inspection (e.g., removal of drywall for access into ceiling or wall cavities or cutting into ductwork) was not performed during this evaluation.

Terracon collected air samples for analysis of fungal spores. The purpose of the air sampling was to evaluate whether airborne concentrations of fungi collected indoors are higher than airborne concentrations of fungi collected outdoors. The presence of a higher airborne concentration of fungi in the test areas than in the outdoors samples may suggest that there is an indoor mold growth site or reservoir.

A total of fifty-five non-cultured air samples were collected from select indoor and outdoor locations of the building. Two outdoor sample were collected before and two after indoor sample collection. Air samples for total fungal structures were collected using a spore trap technique. Analytical results included enumeration and presumptive identification of fungi. Identification beyond the genus level is not generally possible using this sampling technique.

Terracon collected direct-reading environmental measurements for carbon dioxide, a by-product of human respiration, as a cursory assessment of the outdoor air ventilation rate. Elevated indoor concentrations of carbon dioxide may indicate that the ventilation system is not providing enough outdoor air to dilute this by-product of respiration and that any other potential indoor chemical irritants may also be accumulating in the indoor space.

Terracon performed direct-reading measurements of temperature and relative humidity to evaluate if there is a potential for conditions within the space being at or close to the dew point temperature, which can result in mold growth.

Terracon collected fourteen surface swab samples of suspect fungal / biological growth from representative surfaces based on visible observation.

Samples were submitted under secure chain of custody to a laboratory accredited by the American Industrial Hygiene Association (AIHA) Environmental Microbiology Laboratory Accreditation Program (EMLAP) and participates in AIHA's Environmental Microbiology Proficiency Analytical Testing (EMPAT) Program.

1.2 Standard of Care

This assessment was conducted at the subject building on March 12 and 13, 2021 based on information provided to Terracon relating to building conditions and occupant complaints. Terracon did not attempt to identify every potential exposure or hazard present in the subject building.

This assessment was conducted in a manner consistent with the level of care and skill ordinarily exercised by members of the profession currently practicing under similar conditions in the same locale. The results, findings, conclusions, and recommendations expressed in this report are based on conditions observed during our investigation. Many factors, such as weather conditions, building occupancy, ventilation patterns, and local sources of volatile chemicals, can affect the conditions observed. The information contained in this report should not be relied upon to represent conditions that existed prior to or after this investigation. Terracon does not warrant the services of regulatory agencies, laboratories, or other third parties supplying information that may have been used in the preparation of this report.

1.3 Reliance

The limited IAQ Mold assessment has been prepared for the exclusive use and reliance of the City of Fort Lauderdale. Use or reliance by any other party is prohibited without the written authorization of City of Fort Lauderdale and Terracon.

Reliance on the limited IAQ Mold assessment report by the client and all authorized parties will be subject to the terms, conditions and limitations stated in this report, and in our proposal P34217037

dated March 8, 2021. The limitation of liability defined in the Agreement is the aggregate limit of Terracon's liability to the client and all relying parties.

2.0 ASSESSMENT CRITERIA AND METHODS

2.1 Visual Assessment

Based on the multiple sources of potential indoor contaminants that can affect indoor air quality, the visual assessment was conducted to determine general indoor hygiene, building maintenance practices, the HVAC system and hygiene, moisture intrusion and uncontrolled condensate formation, and odors. The assessment focused primarily on collecting observational data (i.e., information obtained by visual assessment of the building). The visual assessment can help to formulate plans for more in-depth investigation.

The visual assessment included:

- An examination of the physical structure and potential indoor and outdoor sources of moisture intrusion;
- The determination of the type of enclosure (walls, windows, roof, and foundation), age, location, and condition;
- The determination of the types of finishes on walls, floors, and ceilings, the types of furnishings;
- The identification of housekeeping activities and products, office equipment, and any renovation activities;
- The identification of any discoloration or odor that could indicate moisture intrusion, water damage, and/or fungal growth; and

Terracon conducted the scope of services in general accordance with mold and indoor air quality assessment guidelines published by the American Industrial Hygiene Association (AIHA) in Recognition, Evaluation, and Control of Indoor Mold, 2008; Assessment, Remediation, and Post-Remediation Verification of Mold in Buildings (AIHA Guideline 3-2004); the US Environmental Protection Agency (EPA), Mold Remediation in Schools and Commercial Buildings, 2008; ASTM D7338-10, Standard Guide for Assessment of Fungal Growth in Buildings, 2010; U.S. Occupational Safety and Health Administration's (OSHA) Indoor Air Quality Technical Manual; and the AIHA, The IAQ Investigator's Guide (AIHA – 2006). Destructive sampling or testing to inspect interior wall cavity spaces or mechanical enclosures was not within the scope of work for this project. A summary of general building information and results of the visual assessment on are contained in Table 1.0.

2.2 Temperature and Relative Humidity Measurements

Indoor air temperature and relative humidity are physical conditions important to the perception of comfort. ASHRAE has published recommendations regarding thermal comfort. ASHRAE

Standard 55-2013, Thermal Environmental Conditions for Human Occupancy, identifies six primary factors that affect comfort: metabolic rate (affected by the activity being performed); clothing insulation; air temperature; radiant temperature; air speed; and humidity.

Although the relationships are complex, a temperature range between 73 and 79 degrees Fahrenheit (°F) with relative humidity between 20 and 60 percent (%) are recommended for persons performing "office" work and wearing light summer clothing. Higher temperatures require lower humidity for comfort. For persons in winter clothing, temperatures can range between 68 and 75°F, with relative humidity between 20% and 60% with preferred conditions falling between 30% and 50% for both winter and summer temperatures.

Temperature and relative humidity 'spot' or 'grab' measurements were taken using an Amprobe CO2-100 Handheld Meter. Measurements were obtained inside and outside of the building.

2.3 Carbon Dioxide (CO₂) Measurements

Elevated CO₂ concentrations can be used in evaluations of indoor air quality and building ventilation system. CO₂ is a colorless, odorless gas that, in the indoor environment, is generated mainly by human respiration. The amount of CO₂ generated is dependent upon the level of activity, i.e., more CO₂ will be generated as activity levels increase. Microbial fermentation and combustion processes can also generate CO₂. According to ASHRAE Standard 62.1-2016, *Ventilation for Acceptable Indoor Air Quality*, the indoor to outdoor differential concentration should not be greater than about 700 parts per million (ppm) of CO₂, with a maximum concentration of 5,000 ppm. Indoor levels rarely reach the 5,000 ppm level; however, levels may rise above the 700 ppm differential. At this level occupants may perceive the air to be "stale" and contain objectionable body odors.

CO₂ 'spot' or 'grab' measurements were taken using an Amprobe CO₂-100 Handheld Meter. Measurements were obtained simultaneously with temperature and relative humidity measurements.

2.4 Surface Swab Sampling

Terracon collected fourteen surface swab samples from locations of observed suspect mold and/or staining, or to verify if fungal growth was occurring in areas where suspect visible fungal growth was not observed.

The surface swab samples were collected using laboratory-supplied swabs pressed over the suspect mold-impacted areas. Samples were placed inside a sampling container, labeled, and submitted to Environmental Microbiology Laboratory for direct microscopic examination for fungal spores reported to the genus. Copies of laboratory reports are included in Appendix A.

2.5 Airborne Mold Sampling

Molds are ubiquitous to the environment and have somewhat specific requirements for survival and growth. Elevated mold concentrations in indoor environments occur when both moisture and a food source are present. Indoor food sources for mold growth can include organic materials such as those resulting from a flood or sewer back up, or building materials high in cellulose such as, but not limited to, carpet backing, drywall paper, or ceiling panels. Moisture sources in buildings can occur because of leaks from water or sewer lines, moisture intrusion through walls and foundations, or as condensation in HVAC systems. In some areas of the United States, relative humidity during certain times of the year is high enough to serve as a moisture source. In order to reduce the potential occurrence or recurrence of mold growth in indoor environments, sources of indoor moisture must be eliminated or controlled.

There are no State or Federal exposure limits established for fungal aerosols. There are currently no regulatory standards or medically based threshold limit or dose-response relationships for exposure to airborne or surface concentrations of fungal spores. Terracon relies upon experience, professional judgment, current scientific literature, guidelines and recommendations made by professional organizations and experts, and statistical methods in interpreting fungal sampling results.

High variability in airborne fungal spore concentrations can exist in different geographic locations, during different seasons, and weather patterns, and over the course of a given day. As a general rule, indoor air fungal spore concentrations in mechanically ventilated buildings are typically less than, but qualitatively similar to, fungal spore concentrations found in the outside environment. To help interpret the sampling results, we compared indoor air and outdoor air measurements.

- 1. The mold spore concentration in indoor air should generally be quantitatively lower than, but qualitatively similar to, that of outdoor air.
- 2. The presence of one or more fungal genera at significant levels indoors but not outdoors is evidence of indoor amplification (i.e., fungal growth occurring in the indoor environment).
- 3. Pathogenic (disease-causing) and toxigenic (toxin-producing) molds should not be present in quantities indicative of indoor amplification.

3.0 FINDINGS

This section includes the findings and a discussion of our visual assessment and fungal sampling results. Appendix B includes photos of notable features and/or findings associated with this assessment.

3.1 Visual Assessment

Table 1.0 contains an overview of findings from the visual assessment. Significant findings are discussed in the section that follows.

Table 1.0 Visual Assessment Findings

Assessment Parameters	Observation Comments
Year Constructed	1966
Type of Occupancy	Office
Major Renovations	Not Reported
Floors Above Grade	8
Physical Examination (odors, housekeeping)	No odors, generally orderly housekeeping
Type of Enclosure	Concrete Block building with painted stucco façade,
	steel-framed windows and doors.
Types of Finishes	Types of Finishes
Walls	Painted drywall gypsum wallboard
Ceilings	Drywall gypsum wallboard
Floors	Carpet over concrete slab
Exterior	Painted Stucco
Discoloration/Water Staining	Minor water staining on ceiling tiles and carpet.
HVAC Type	The floors were cooled by HVAC air handler units
	located on each floor and by smaller units located
	above the drop ceiling. The units were operational at
	the time of Terracon's assessment.

The building total area is approximately 106,000 square feet (s.f.) divided into offices and office cubicles, elevator lobby (per floor), entrance and restrooms.

At the time of the assessment, the building was occupied with the air conditioning systems running. The supply and return vents were visually inspected for potential signs of bacterial growth.

At the time of the visual assessment, minor staining or missing ceiling tiles were observed. Selected photographs taken during this assessment are in Appendix B.

3.2 Temperature, %RH, CO₂ Measurements

Table 2.0 below summarizes the temperature, relative humidity (RH) and carbon dioxide 'spot' or 'grab' readings obtained during the assessment. These readings should only be used as a snapshot of conditions at the particular time the reading was obtained.

Table 2.0 Temperature, Relative Humidity and Carbon Dioxide Measurements

Location next to Collected Air samples	Temperature	Relative Humidity	Carbon Dioxide (ppm)
Target Levels	73-79º F	<60	<1,156 ppm
	3-12-2021		
(A-1) Outside prior	75 °F	45%	454 ppm
(A-2) 8 th floor – Elevator Lobby	74 °F	55%	730 ppm
(A-3) 8th floor – West cubicle/hallway	74 °F	52%	698 ppm
(A-4) 8 th floor – next to lobby door	72 °F	56%	707 ppm
(A-5) 8 th floor – commission conference room	73 °F	54%	680 ppm
(A-6) 7 th floor – Elevator Lobby	73 °F	57%	1077 ppm
(A-7) 7th floor – NW office/hallway	71 °F	58%	1177 ppm
(A-8) 7th floor – West hallway	69 °F	61%	1303 ppm
(A-9) 7 th floor – Legal conference room	71 °F	61%	1385 ppm
(A-12) 6 th floor – Elevator Lobby	70 °F	60%	860 ppm
(A-13) 6 th floor – North Offices/cubicles	70 °F	60%	887 ppm
(A-16) 6 th floor – Account payable	71 ºF	57%	937 ppm
(A-18) 6 th floor – Director of Finance	71 ºF	57%	948 ppm
(A-19) 5 th floor – Elevator Lobby	72 °F	57%	809 ppm
(A-21) 5 th floor – NW hallway/offices	71 °F	59%	833 ppm
(A-23) 5 th floor – Division Manager	67 °F	60%	898 ppm
(A-25) 5 th floor – SE cubicles	71 °F	60%	880 ppm
(A-26) 4 th floor – Elevator Lobby	73 °F	56%	882 ppm
(A-28) 4 th floor – NW hallway/offices	71 °F	60%	1034 ppm
(A-31) 4 th floor – Chief Engineer	73 °F	55%	1052 ppm
(A-32) 4th floor – Conference room	69 °F	58%	1017 ppm
(A-33) Outside After	77 °F	45%	458 ppm

Location next to Collected Air samples	Temperature	Relative Humidity	Carbon Dioxide (ppm)
Target Levels	73-79° F	<60	<1,152 ppm
	3-13-2021		
(A-34) Outside prior	75 °F	61%	456 ppm
(A-35) 3 rd floor – Elevator Lobby	71 °F	55%	712 ppm
(A-37) 3 rd floor – NW hallway/offices	70 °F	59%	742 ppm
(A-39) 3 rd floor – Human Resources	70 °F	58%	701 ppm
(A-40) 3 rd floor – Training Room	68 °F	61%	680 ppm
(A-41) 2 nd floor – Elevator Lobby	72 °F	56%	605 ppm
(A-43) 2 nd floor – S. Hallway/cubicles	71 ºF	56%	588 ppm
(A-45) 2 nd floor – NW hallway/cubicles	70 °F	57%	586 ppm
(A-47) 2 nd floor – Application Services office	70 ºF	58%	613 ppm
(A-48) 1st floor – Elevator Lobby	71 °F	59%	679 ppm
(A-50) 1 st floor – Commission Chambers	71 °F	55%	490 ppm
(A-52) 1st floor – NW cubicles	72 °F	56%	515 ppm
(A-54) 1st floor – Waiting area	71 °F	57%	537 ppm
(A-55) Outside After	77 °F	54%	448 ppm

Values in **bold are not within** ASHRAE recommended values

The two Carbon Dioxide measurements obtained during the assessment were higher than acceptable guidelines for indoor comfort; twenty-six indoor temperature reading in the building were slightly below the recommended guidance value. Three of the Relative Humidity (RH) measurements taken inside were slightly higher than the recommended criteria.

3.3 Surface Swab Sampling

Total fungal/mold concentrations were reported in samples **above** 1,000 counts/cm², a recognized industry criterion indicating elevated fungal/mold spore concentrations as summarized below

Sample #	Location	Fungal Levels (Counts/cm²) *
S1	8th Floor - Conference room – A/C Return Vent	Cladosporium (64,229/cm²)
31	6 Floor - Conference room – A/C Return Vent	hyphal elements (48,172/cm²)
	8th Floor – Commission Conference room – A/C	Cladosporium (224,802/cm²)
S2		hyphal elements (80,286/cm²)
	Return Vent	Penicillium/Aspergillus Group (185,622/cm²)
S3	7th Floor City Manager A/C Beturn Vent	Aspergillus (1,445,155/cm²)
	7 th Floor – City Manager – A/C Return Vent	hyphal elements (109,189/cm²)

Sample #	Location	Fungal Levels (Counts/cm²) *
S4	7 th Floor – West hallway Carpet	None
S 5	7 th Floor – Assistant City Attorney – A/C Supply Vent	hyphal elements (27,297/cm²) Penicillium (41,428/cm²)
S 6	6 th Floor – Deputy Director of Finance –A/C Return Vent	Cladosporium (40/cm²) hyphal elements (1,640/cm²) Penicillium/Aspergillus Group (100/cm²)
S 7	6 th Floor – Accountant 2 – A/C Return Vent	Cladosporium (104,372/cm²) hyphal elements (195,096/cm²) Penicillium (818,921/cm²)
S8	5 th Floor – Project Manager – A/C Return Vent	Cladosporium (147,727/cm²) hyphal elements (78,681/cm²)
S 9	5 th Floor – Administration Assistant – A/C Supply Vent	None
S10	4 th Floor – Senior Administration Assistant – A/C Supply Vent	Cladosporium (995,551/cm²) hyphal elements (481,718/cm²)
S11	3 rd Floor – Human Resources Office – Ceiling Tile	hyphal elements (4,379/cm²)
S12	3 rd Floor – Human Resources Manager – A/C Supply Vent	Cladosporium (140,501/cm²) hyphal elements (521,861/cm²) Penicillium/Aspergillus Group (1,115,980/cm²)
S13	2 nd Floor – South Cubicles – Ceiling Tile	None
S14	1st Floor – Waiting area/Bill pay – Drywall Ceiling	hyphal elements (160,573/cm²) Stachybotrys (1,252,467/cm²)

^{*}Count/square centimeter

3.4 Airborne Mold Sampling

A total of fifty-five non-cultured air samples were collected from select indoor and outdoor locations of the building. Two outdoor sample were collected before and two after indoor sample collection. Based on the comparison approach previously mentioned in this report, the fungal types and the numbers of spores present in each sample, revealed the following:

- The total spore counts for the outdoor samples results ranged from 27 spores per cubic meter (spr/m³) to 40 spr/m³, while the total highest spore count for the indoor sample result was 520 spr/m³.
 - The outdoor samples generally contained a similar diversity of spores as the sample collected indoors. Two (2) spore types were identified on the outdoor samples, while one (1) to four (4) spore types were identified on the indoor samples. The predominant indoor fungal type was *Penicillium/Aspergillus*. The predominant outdoor fungal type was *Basidiospores*. Spore types were identified in a greater quantity indoors than in the average of outdoor samples. Based on these results, indoor mold amplification is indicated in the following areas:
 - 7th Floor Southeast cubicle areas (A-10)

- 7th Floor Southwest Cubicle/offices (A-11)
- 5th Floor West hallway (A-22)
- 4th Floor NW hallway/offices (A-28)

Refer to Appendix A for the Surfaces & Air Sample Laboratory Results Sheets.

4.0 CONCLUSIONS

4.1 Visual Assessment

Carpet is in good condition with minor staining on the 7th floor and 4th floor. The eight and seventh floor have missing ceiling tiles. The ceiling tiles in the remaining floors are in fair condition with sporadic staining. Walls are in good condition. Air conditioning supply vents have some minor staining. The Air conditioning return air vent register has some minor staining.

4.2 Temperature, %RH, CO₂

The temperature reading for the interior area sampled is considered moderate for summer environments. The average temperature reading was 71°F, which is below the acceptable range established by ASHRAE. The average relative humidity measurement was 57.5%, which is within the acceptable range established by ASHRAE. There are three areas with slightly higher humidity: 7th floor west hallway, 7th floor – Legal conference room and 3th floor – Training Room. CO₂ readings are within the ASHRAE's acceptable range and indicate adequate ventilation within the building except for two areas located on the 7th floor – West hallway and Legal conference room.

4.3 Airborne Mold

Based on the comparison criteria referenced in Section 3.0, Evaluation Criteria of this report, the results do indicate mold amplification in areas of the 7th, 5th and 4th floors.

5.0 RECOMMENDATIONS

Based on the results of the mold assessment, Terracon recommends the following:

- A consultation with an HVAC technician to adjust the temperature to align with the ASHRAE recommended values.
- We recommend that a thorough cleaning/sanitization with an EPA registered antimicrobial of the HVAC supply and return vents located throughout the building.
- We recommend a thorough cleaning of the 1st floor drywall ceiling in the waiting area/BillPay.

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Replacement of all missing or stained ceiling tiles.

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APPENDIX A

AIRBORNE AND SURFACE MOLD LABORATORY ANALYTICAL REPORTS



5253B NW 33rd Avenue Ft. Lauderdale, Florida 33309 (954) 451-3725 www.aerobiology.net

Terracon Consultants Inc. - Ft. Lauderdale

5371 NW 33rd Ave Suite 201 Fort Lauderdale, Florida 33309

Attn: Sergio Adasme

Project: **34217037/Ft. Lauderdale City Hall**Condition of Sample(s) Upon Receipt: Acceptable

A Pace Analytical® Laboratory

Date Collected: 03/12/2021
Date Received: 03/15/2021
Date Analyzed: 03/15/2021
Date Reported: 03/16/2021
Project ID: 21009406

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1054 Spore Trap Analysis: SOP 3.8

Client Sample Number	1004 06	A1				A55		
Sample Location		Outside	9		Outside			
Sample Volume (L)		75				75		
Lab Sample Number		21009406-	001			21009406	-055	
Spore Identification	Raw Ct	spr/m³	% Ttl	In/Out	Raw Ct	spr/m³	% Ttl	In/Out
ascospores	-	-	-	-	1	13	33	-
basidiospores	1	13	50	1/2	2	27	67	-
Clear brown	1	13	50	-	-	-	-	-
		Debris Ratir	ng 1			Debris Rati	ng 2	
Analytical Sensitivity	Analyt	Analytical Sensitivity: 13 spr/m³				tical Sensitivit	y: 13 s	pr/m³
Comments								
Total *See Footnotes	2	27	~100%	1/2	3	40	~100%	-

Client Sample Number	A2					A55		
Sample Location	Ele	vator Lobby	8th Flo	or	Outside			
Sample Volume (L)		75				75		
Lab Sample Number		21009406-	002			21009406	-055	
Spore Identification	Raw Ct	spr/m³	% Ttl	In/Out	Raw Ct	spr/m³	% Ttl	In/Out
ascospores	-	-	-	-	1	13	33	-
basidiospores	-	-	-	_	2	27	67	-
hyphal elements	1	13	33	_	-	-	-	_
Pestalotiopsis	1	13	33	-	-	-	-	-
Smuts,Periconia,Myxomycetes	1	13	33	_	-	-	-	_
		Debris Ratir	ng 2			Debris Rati	ng 2	
Analytical Sensitivity	Analy	Analytical Sensitivity: 13 spr/m³			Analy	tical Sensitivit	ty: 13 s	pr/m³
Comments								
Total *See Footnotes	3	40	~100%	1/1	3	40	~100%	-



5253B NW 33rd Avenue Ft. Lauderdale, Florida 33309 (954) 451-3725 www.aerobiology.net

A Pace Analytical® Laboratory

Terracon Consultants Inc. - Ft. Lauderdale

5371 NW 33rd Ave Suite 201 Fort Lauderdale, Florida 33309

Attn: Sergio Adasme

Project: **34217037/Ft. Lauderdale City Hall**Condition of Sample(s) Upon Receipt: Acceptable

Date Collected: 03/12/2021
Date Received: 03/15/2021
Date Analyzed: 03/15/2021
Date Reported: 03/16/2021
Project ID: 21009406

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Client Sample Number		A3				A55		
Sample Location	West 0	Cubicles/Hallv	vay 8th	Floor	Outside			
Sample Volume (L)		75				75		
Lab Sample Number		21009406-	003			21009406-	-055	
Spore Identification	Raw Ct	spr/m³	% Ttl	In/Out	Raw Ct	spr/m³	% Ttl	In/Out
ascospores	-	-	-	-	1	13	33	-
basidiospores	-	-	-	_	2	27	67	-
Cladosporium	2	27	18	-	-	-	-	-
hyphal elements	3	40	27	-	-	-	-	-
Penicillium/Aspergillus group	6	80	55	_	-	-	-	-
		Debris Ratir	ng 2			Debris Ratir	ng 2	
Analytical Sensitivity	Analy	Analytical Sensitivity: 13 spr/m³			Analy	tical Sensitivit	y: 13 s	pr/m³
Comments								
Total *See Footnotes	11	147	~100%	4/1	3	40	~100%	-

Client Sample Number	A4					A55		
Sample Location	North Cubicles/Hallway 8th Floor					Outside	Э	
Sample Volume (L)		75				75		
Lab Sample Number		21009406-	004			21009406-	055	
Spore Identification	Raw Ct	spr/m³	% Ttl	In/Out	Raw Ct	spr/m³	% Ttl	In/Out
ascospores	-	-	-	_	1	13	33	_
basidiospores	-	-	-	_	2	27	67	_
Curvularia	2	27	33	-	-	=	-	_
hyphal elements	2	27	33	-	-	=	-	-
Penicillium/Aspergillus group	1	13	17	-	-	-	-	-
Smuts,Periconia,Myxomycetes	1	13	17	-	-	-	-	-
		Debris Ratir	ng 3			Debris Ratir	ng 2	
Analytical Sensitivity	Analytical Sensitivity: 13 spr/m³				Analyt	ical Sensitivity	y: 13 s	pr/m³
Comments								
Total *See Footnotes	6	80	~100%	2/1	3	40	~100%	-



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Project: **34217037/Ft. Lauderdale City Hall**Condition of Sample(s) Upon Receipt: Acceptable

Date Collected: 03/12/2021
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Client Sample Number	A5					A55			
Sample Location	Commis	Commission Conference Room 8th Floor				Outside			
Sample Volume (L)		75				75			
Lab Sample Number		21009406-	005			21009406	-055		
Spore Identification	Raw Ct	spr/m³	% Ttl	In/Out	Raw Ct	spr/m³	% Ttl	In/Out	
ascospores	-	-	-	-	1	13	33	-	
basidiospores	-	-	-	-	2	27	67	_	
Chaetomium	1	13	12	-	-	-	_	_	
Penicillium/Aspergillus group	6	80	75	-	-	-	_	_	
Smuts,Periconia,Myxomycetes	1	13	12	-	-	-	_	-	
		Debris Ratir	ng 2			Debris Rati	ng 2		
Analytical Sensitivity	Analy	Analytical Sensitivity: 13 spr/m³			Analyt	tical Sensitivit	y: 13 s	pr/m³	
Comments									
Total *See Footnotes	8	107	~100%	3/1	3	40	~100%	-	

Client Sample Number		A6				A55		
Sample Location	Ele	vator Lobby	7th Flo	or				
Sample Volume (L)		75				75		
Lab Sample Number		21009406-006				21009406	-055	
Spore Identification	Raw Ct	spr/m³	% Ttl	In/Out	Raw Ct	spr/m³	% Ttl	In/Out
ascospores	1	13	25	1/1	1	13	33	-
basidiospores	-	-	-	-	2	27	67	-
Penicillium/Aspergillus group	3	40	75	-	-	-	-	-
		Debris Ratir	ng 1			Debris Rat	ing 2	
Analytical Sensitivity	Analy	Analytical Sensitivity: 13 spr/m³				tical Sensitivi	ty: 13 s	pr/m³
Comments								
Total *See Footnotes	4	53	~100%	1/1	3	40	~100%	-



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Client Sample Number		A7				A55				
Sample Location	Norht	west Offices	/Hallwa	y 7th						
Sample Volume (L)	75					75				
Lab Sample Number	21009406-007				21009406	-055	In/Out			
Spore Identification	Raw Ct	Raw Ct spr/m³ % Ttl In/Out Raw Ct spr/m³					% Ttl	In/Out		
ascospores	-	-	-	-	1	33	-			
basidiospores	1	13	14	1/2	2 27 6			_		
Chaetomium	1	13	14	-	-	-	-	_		
Curvularia	1	13	14	-	-	-	-	_		
Penicillium/Aspergillus group	4	53	57	-	-	-	-	-		
		Debris Ratir	ng 1			Debris Rati	ing 2			
Analytical Sensitivity	Analy	Analytical Sensitivity: 13 spr/m³ Analytical Sensitivity: 13					ty: 13 s	pr/m³		
Comments										
Total *See Footnotes	7	93	~100%	2/1	3	40	~100%	-		

Client Sample Number		A8				A55				
Sample Location	W	West Hallway 7th Floor				Outsid	Outside			
Sample Volume (L)	75					75				
Lab Sample Number	21009406-008				21009406	6-055				
Spore Identification	Raw Ct spr/m³ % Ttl In/Out Raw Ct spr/m³					% Ttl	In/Out			
ascospores	-	-	-	-	1	13	33	-		
basidiospores	-	-	-	-	2	27	67	-		
Penicillium/Aspergillus group	7	93	100	-	-	-	-	-		
		Debris Ratir	ng 1			Debris Rat	ing 2			
Analytical Sensitivity	Analytical Sensitivity: 13 spr/m³ Analytical Sensitivity: 13 spr						pr/m³			
Comments							•			
Total *See Footnotes	7	93	~100%	2/1	3	40	~100%	-		



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Client Sample Number		A9				A55		
Sample Location	Legal C	onference R	oom 7tl	n Floor		Outsid	le	
Sample Volume (L)	75					75		
Lab Sample Number	21009406-009				21009406	-055		
Spore Identification	Raw Ct	spr/m³	% Ttl	In/Out	In/Out Raw Ct spr/m³ % Ttl			
ascospores	-	-	-	-	1	13	33	-
basidiospores	-	-	-	-	2	27	67	_
Penicillium/Aspergillus group	2	27	100	-	-	-	-	_
		Debris Ratir	ng 1			Debris Rat	ing 2	
Analytical Sensitivity	Analytical Sensitivity: 13 spr/m³ Analytical Sensitivity: 13 spr/m						pr/m³	
Comments								
Total *See Footnotes	2	27	~100%	1/2	3	40	~100%	-

Client Sample Number		A10				A55		
Sample Location	Southeast Cubicles 7th Floor 75					Outsid	е	
Sample Volume (L)						75		
Lab Sample Number	21009406-010					21009406	-055	
Spore Identification	Raw Ct spr/m³ % Ttl In/Out Raw Ct spr/m³ 0					% Ttl	In/Out	
ascospores	8	107	32	8/1	1	33	-	
basidiospores	1	13	4	1/2	2	27	67	_
Penicillium/Aspergillus group	16	213	64	-	-	-	-	_
		Debris Ratir	ng 1			Debris Rati	ng 2	
Analytical Sensitivity	Analytical Sensitivity: 13 spr/m³ Analytical Sensitivity: 13 spr/r						pr/m³	
Comments								
Total *See Footnotes	25	333	~100%	8/1	3	40	~100%	-



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Client Sample Number		A11				A55		
Sample Location	South	west Cubicle Floor	s/Office	s 7th	Outside			
Sample Volume (L)	75					75		
Lab Sample Number	21009406-011					21009406	-055	
Spore Identification	Raw Ct	spr/m³	% Ttl	In/Out	Raw Ct	In/Out		
ascospores	-	-	-	-	1	-		
basidiospores	-	-	_	-	2	27	67	-
Penicillium/Aspergillus group	22	293	100	-	-	-	-	-
		Debris Ratir	ng 1			Debris Rati	ing 2	
Analytical Sensitivity	Analy	Analytical Sensitivity: 13 spr/m³				tical Sensitivi	ty: 13 s	pr/m³
Comments								
Total *See Footnotes	22 293 ~100% 7/1 3 40 ~100					~100%	-	

Client Sample Number		A12				A55		
Sample Location	Ele	vator Lobby	6th Flo	oor Outside				
Sample Volume (L)		75 7						
Lab Sample Number	21009406-012					21009406	-055	
Spore Identification	Raw Ct spr/m³ % Ttl In/Out Raw Ct spr/m³					spr/m³	% Ttl	In/Out
ascospores	-	-	-	-	1	13	33	-
basidiospores	-	-	-	_	2	27	67	-
Clear brown	1	13	25	_	-	-	-	-
Curvularia	1	13	25	_	-	-	-	-
Penicillium/Aspergillus group	2	27	50	-	-	-	-	-
		Debris Ratir	ng 1			Debris Rati	ng 2	
Analytical Sensitivity	Analytical Sensitivity: 13 spr/m³ Analytical Sensitivity: 13					y: 13 s	pr/m³	
Comments						_		
Total *See Footnotes	4	53	~100%	1/1	3	40	~100%	-



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Client Sample Number		A13				A55			
Sample Location	North	North Offices/Cubicles 6th Floor Outside					le		
Sample Volume (L)	75				75	75			
Lab Sample Number	21009406-013				21009406	-055			
Spore Identification	Raw Ct	spr/m³	% Ttl	In/Out	Raw Ct	In/Out			
ascospores	-	-	-	-	1	13	33	-	
basidiospores	-	-	-	-	2	27	67	-	
Penicillium/Aspergillus group	3	40	100	-	-	-	-	-	
		Debris Ratir	ng 1			Debris Rat	ing 2		
Analytical Sensitivity	Analy	tical Sensitivit	y: 13 s	pr/m³	Analytical Sensitivity: 13 spr/m³				
Comments									
Total *See Footnotes	3	40	~100%	1/1	3	40	~100%	-	

Client Sample Number		A14				A55		
Sample Location		Treasury 6th Floor				Outsid	е	
Sample Volume (L)		75				75		
Lab Sample Number		21009406-014				21009406	-055	
Spore Identification	Raw Ct	spr/m³	% Ttl In/Out Raw Ct spr/m³ % Tt				% Ttl	In/Out
ascospores	-	-	-	-	1	-		
basidiospores	-	-	-	-	2	27	67	-
		Debris Ratir	ng 1			Debris Rati	ng 2	
Analytical Sensitivity	Analy	tical Sensitivity	/: 13 s	pr/m³	Analytical Sensitivity: 13 spr/m ³			
Comments	No	fungal spores	detecte	ed.				
Total *See Footnotes	0	0	_	_	3	40	~100%	-

Client Sample Number		A15				A55				
Sample Location	West Hallway 6th Floor					Outsid	Outside			
Sample Volume (L)	75					75				
Lab Sample Number	21009406-015					21009406	-055			
Spore Identification	Raw Ct	spr/m³	% Ttl	In/Out	Raw Ct	In/Out				
ascospores	-	-	-	-	1	-				
basidiospores	-	-	-	-	2	27	67	-		
		Debris Ratin	ng 2			Debris Rati	ng 2			
Analytical Sensitivity	Analy	tical Sensitivity	/: 13 s	pr/m³	Analytical Sensitivity: 13 spr/m					
Comments	No fungal spores detected						·			
Total *See Footnotes	0	0	-	-	3	40	~100%	-		



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Client Sample Number		A16				A55		
Sample Location	Account Payable 6th Floor Outside					de		
Sample Volume (L)	75					75		
Lab Sample Number	21009406-016					21009406	6-055	
Spore Identification	Raw Ct spr/m³ % Ttl In/Out Raw Ct spr/m³					spr/m³	% Ttl	In/Out
ascospores	-	-	-	-	1	33	-	
basidiospores	-	-	-	-	2 27 6			-
Curvularia	1	13	25	-	-	-	-	-
Penicillium/Aspergillus group	3	40	75	-	-	-	-	-
		Debris Ratir	ng 1			Debris Rat	ing 2	
Analytical Sensitivity	Analytical Sensitivity: 13 spr/m³ Analytical Sensitivity: 13 spr/						pr/m³	
Comments								
Total *See Footnotes	4	53	~100%	1/1	3	40	~100%	-

Client Sample Number	A17					A55		
Sample Location	Senior Accountant 6th Floor					Outsid	е	
Sample Volume (L)	75					75		
Lab Sample Number	21009406-017					21009406	-055	
Spore Identification	Raw Ct	spr/m³	% Ttl	In/Out	Raw Ct spr/m³ % Ttl In.			
ascospores	-	-	-	-	1	-		
basidiospores	-	-	-	-	2	27	67	_
		Debris Ratin	ng 1			Debris Rati	ng 2	
Analytical Sensitivity	Analy	tical Sensitivity	/: 13 s	pr/m³	Analytical Sensitivity: 13 spr/m³			
Comments	No fungal spores detected							
Total *See Footnotes	0	0	-	-	3	3 40 ~100%		



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Client Sample Number		A18				A55		
Sample Location	Direc	tor of Finan	ce 6th F	loor		Outsid	le	
Sample Volume (L)		75				75		
Lab Sample Number	21009406-018					21009406	-055	
Spore Identification	Raw Ct spr/m³ % Ttl In/Out Raw Ct spr/m³						% Ttl	In/Out
ascospores	-	-	-	-	1	13	-	
basidiospores	-	-	-	_	2	27	67	_
Penicillium/Aspergillus group	1	13	50	_	-	-	-	_
Pithomyces	1	13	50	_	-	-	-	_
		Debris Rati	ng 1			Debris Rat	ing 2	
Analytical Sensitivity	Analytical Sensitivity: 13 spr/m³ Analytical Sensitivity: 13 spr/						pr/m³	
Comments								
Total *See Footnotes	2	27	~100%	1/2	3	40	~100%	-

Client Sample Number		A19				A55		
Sample Location	Elevator Lobby 5th Floor Outside					е		
Sample Volume (L)	75					75		
Lab Sample Number	21009406-019					21009406	-055	
Spore Identification	Raw Ct	spr/m³	% Ttl	In/Out	ut Raw Ct spr/m³ % Ttl			
ascospores	-	-	-	-	1	33	_	
basidiospores	-	-	-	-	2	27	67	-
Curvularia	1	13	100	-	-	-	-	-
		Debris Ratir	ng 1			Debris Rati	ng 2	
Analytical Sensitivity	Analytical Sensitivity: 13 spr/m³ Analytical Sensitivity: 13 spr						pr/m³	
Comments							·	
Total *See Footnotes	1 13 ~100% 1/3 3 40 ~100					~100%	-	



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Client Sample Number		A20				A55		
Sample Location	North	east Hallway/ Floor	Cubicle	s 5th				
Sample Volume (L)		75						
Lab Sample Number	21009406-020					21009406	6-055	
Spore Identification	Raw Ct	spr/m³	% Ttl	In/Out	Raw Ct	In/Out		
ascospores	1	13	25	1/1	1	-		
basidiospores	-	-	-	-	2	27	67	-
Curvularia	1	13	25	-	-	-	-	-
Penicillium/Aspergillus group	2	27	50	_	-	-	-	-
		Debris Ratir	ng 1			Debris Rat	ing 2	
Analytical Sensitivity	Analytical Sensitivity: 13 spr/m³ Analytical Sensitivity: 13 spr/m³					ty: 13 s	pr/m³	
Comments								
Total *See Footnotes	4	53	~100%	1/1	3	40	~100%	-

Client Sample Number		A21				A55			
Sample Location	North	neast Hallway Floor	/Offices	5th	Outside				
Sample Volume (L)		75				75			
Lab Sample Number		21009406-	021			21009406-	055		
Spore Identification	Raw Ct	spr/m³	% Ttl	In/Out	Raw Ct spr/m³ % Ttl In				
ascospores	-	-	-	-	1	_			
basidiospores	-	-	-	-	2	27	67	_	
Pithomyces	1	13	100	-	-	-	-	_	
		Debris Ratir	ng 1			Debris Ratir	ng 2		
Analytical Sensitivity	Analy	tical Sensitivity	/: 13 s	or/m³	Analytical Sensitivity: 13 spr/m ³				
Comments									
Total *See Footnotes	1	13	~100%	1/3	3 40 ~100%				



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Client Sample Number		A22			A55				
Sample Location	W	est Hallway 5	th Floo	r		Outside			
Sample Volume (L)	75 75								
Lab Sample Number		21009406-022 21009406-05							
Spore Identification	Raw Ct	spr/m³	% Ttl	In/Out	Raw Ct	In/Out			
ascospores	-	-	-	-	1	1 13 33			
basidiospores	-	-	-	_	2	27	-		
Penicillium/Aspergillus group	11	147	92	-	-	-	-	-	
Stachybotrys	1	13	8	_	-	-	-	-	
		Debris Ratir	ng 1			Debris Rat	ing 2		
Analytical Sensitivity	Analy	tical Sensitivity	y: 13 s	pr/m³	Analytical Sensitivity: 13 spr/m				
Comments									
Total *See Footnotes	12	160	~100%	4/1	3	40	~100%	-	

Client Sample Number		A23				A55		
Sample Location	Division Manager 5th Floor					Outside	е	
Sample Volume (L)		75				75		
Lab Sample Number		21009406-023				21009406-	-055	
Spore Identification	Raw Ct	spr/m³	% Ttl	In/Out	Raw Ct spr/m³ % Ttl In.			
ascospores	-	-	-	-	1	-		
basidiospores	-	-	-	-	2	27	67	_
		Debris Ratir	ng 1			Debris Ratir	ng 2	
Analytical Sensitivity	Analy	tical Sensitivity	y: 13 s	pr/m³	Analytical Sensitivity: 13 spr/m³			
Comments	No	fungal spores	detecte	ed				
Total *See Footnotes	0	0	-	-	3	40	~100%	-



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Client Sample Number		A24				A55			
Sample Location	South	Hallway/Offic	ces 5th	Floor		Outside			
Sample Volume (L)		75			75				
Lab Sample Number		21009406-	024						
Spore Identification	Raw Ct	spr/m³	% Ttl	In/Out	Raw Ct	In/Out			
ascospores	-	-	-	-	1	13	-		
basidiospores	-	-	-	-	2	27	-		
Cladosporium	3	40	75	-	-	-	-	-	
Penicillium/Aspergillus group	1	13	25	_	-	-	-	-	
		Debris Ratir	ng 1			Debris Rati	ng 2		
Analytical Sensitivity	Analy	Analytical Sensitivity: 13 spr/m³ Analytical Sensitivity: 13 spr					pr/m³		
Comments									
Total *See Footnotes	4	53	~100%	1/1	3	40	~100%	-	

Client Sample Number		A25				A55			
Sample Location	Sout	heast Cubicle	s 5th F	loor		Outside			
Sample Volume (L)	75 75								
Lab Sample Number		21009406-025 21009406-05							
Spore Identification	Raw Ct	spr/m³	% Ttl	In/Out	Raw Ct spr/m³ % Ttl Ir				
ascospores	-	-	-	-	1	1 13 33			
basidiospores	-	-	-	-	2	27	-		
Curvularia	1	13	50	-	-	-	-	-	
hyphal elements	1	13	50	-	-	-	-	-	
		Debris Ratir	ng 1			Debris Rat	ng 2		
Analytical Sensitivity	Analy	tical Sensitivity	/: 13 s	pr/m³	Analytical Sensitivity: 13 spr/m				
Comments									
Total *See Footnotes	2	27	~100%	1/2	3	40	~100%	-	



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Client Sample Number		A26			A55				
Sample Location	Ele	vator Lobby	4th Flo	or		Outside			
Sample Volume (L)	75 75								
Lab Sample Number		21009406-026 21009406-0					6-055	 1	
Spore Identification	Raw Ct	spr/m³	% Ttl	In/Out	Raw Ct	In/Out			
ascospores	-	-	-	-	1	13 33			
basidiospores	-	-	-	_	2	27	-		
Clear brown	1	13	33	-	-	-	-	-	
hyphal elements	2	27	67	_	-	-	-	-	
		Debris Ratir	ng 2			Debris Rat	ing 2		
Analytical Sensitivity	Analy	tical Sensitivity	/: 13 s	pr/m³	Analytical Sensitivity: 13 spr/m				
Comments									
Total *See Footnotes	3	40	~100%	1/1	3	40	~100%	-	

Client Sample Number		A27				A55		
Sample Location	North	neast Hallway Floor	/Offices	s 4th	Outside 75			
Sample Volume (L)		75						
Lab Sample Number	21009406-027					21009406	-055	
Spore Identification	Raw Ct	spr/m³	% Ttl	In/Out	Raw Ct spr/m³ % Ttl Ir			
ascospores	-	-	-	-	1	-		
basidiospores	-	-	-	-	2	27	67	-
Penicillium/Aspergillus group	5	67	100	_	-	-	-	_
		Debris Ratir	ng 1			Debris Rat	ing 2	
Analytical Sensitivity	Analy	tical Sensitivity	y: 13 s	pr/m³	Analyt	ical Sensitivi	ty: 13 s	pr/m³
Comments								
Total *See Footnotes	5	67	~100%	2/1	3 40 ~100%			



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Attn: Sergio Adasme

Project: **34217037/Ft. Lauderdale City Hall**Condition of Sample(s) Upon Receipt: Acceptable

Date Collected: 03/12/2021
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Client Sample Number		A28				A55			
Sample Location	North	west Hallway Floor	/Office	s 4th		Outside			
Sample Volume (L)		75 75							
Lab Sample Number	21009406-028					21009406-	055		
Spore Identification	Raw Ct	Raw Ct spr/m³ % Ttl In/Out Raw Ct spr/m³ %					% Ttl	In/Out	
ascospores	-	-	-	-	1	33	_		
basidiospores	1	13	3	1/2	1/2 2 27 67				
Curvularia	1	13	3	_	-	-	-	_	
hyphal elements	1	13	3	_	-	-	-	_	
Penicillium/Aspergillus group	36	480	92	-	-	-	-	_	
		Debris Ratin	ng 2			Debris Ratir	ng 2		
Analytical Sensitivity	Analytical Sensitivity: 13 spr/m³ Analytic					tical Sensitivity	/: 13 s	pr/m³	
Comments									
Total *See Footnotes	39	520	~100%	13/1	3	40	~100%	_	

Client Sample Number		A29				A55 Outside			
Sample Location	Center	Hallway/Cubi	cles 4tl	h Floor					
Sample Volume (L)		75 75							
Lab Sample Number		21009406-029 21009406-05					-055		
Spore Identification	Raw Ct	spr/m³	% Ttl	In/Out	Raw Ct	In/Out			
ascospores	1	13	50	1/1	1	1 13 33			
basidiospores	-	-	-	-	2	27	67	-	
Cladosporium	1	13	50	-	-	-	-	-	
		Debris Ratir	ng 1			Debris Rat	ing 2		
Analytical Sensitivity	Analy	tical Sensitivity	y: 13 s	pr/m³	Analytical Sensitivity: 13 spr/m				
Comments									
Total *See Footnotes	2	27	~100%	1/2	3	40	~100%	-	



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Client Sample Number		A30				A55			
Sample Location	Ea	ast Cubicles 4	th Floc	or		Outside			
Sample Volume (L)	75 75								
Lab Sample Number	21009406-030 21009406-055						6-055		
Spore Identification	Raw Ct	spr/m³	% Ttl	In/Out	Raw Ct	In/Out			
ascospores	-	-	-	-	1	13	-		
basidiospores	1	13	14	1/2	2	27	-		
Cladosporium	1	13	14	-	-	-	-	-	
Penicillium/Aspergillus group	5	67	71	_	-	-	-	-	
		Debris Ratir	ng 2			Debris Rat	ing 2		
Analytical Sensitivity	Analy	tical Sensitivity	y: 13 s	pr/m³	Analytical Sensitivity: 13 spr/m				
Comments									
Total *See Footnotes	7	93	~100%	2/1	3	40	~100%	-	

Client Sample Number		A31 Chief Engineer Office 4th Floor				A55				
Sample Location	Chief					Outside				
Sample Volume (L)		75				75				
Lab Sample Number		21009406-031				21009406-055				
Spore Identification	Raw Ct	spr/m³	% Ttl	In/Out	Raw Ct	% Ttl	In/Out			
ascospores	-	-	-	-	1	13	33	-		
basidiospores	-	-	_	-	2	27	67	-		
Penicillium/Aspergillus group	2	27	100	-	-	-	-	-		
		Debris Ratir	ng 1			Debris Rati	ng 2			
Analytical Sensitivity	Analy	tical Sensitivity	y: 13 s	pr/m³	Analy	tical Sensitivit	y: 13 s	pr/m³		
Comments										
Total *See Footnotes	2	27	~100%	1/2	3	40	~100%	-		



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Client Sample Number		A32				A55				
Sample Location	Con	ference Roor	n 4th Fl	oor	Outside					
Sample Volume (L)		75				75				
Lab Sample Number		21009406-032				21009406-055				
Spore Identification	Raw Ct	spr/m³	% Ttl	In/Out	Raw Ct	spr/m³	% Ttl	In/Out		
ascospores	-	-	-	-	1	13	33	-		
basidiospores	-	-	-	-	2	27	67	_		
Ochroconis	1	13	100	_	-	-	-	-		
		Debris Ratir	ng 1			Debris Rat	ing 2			
Analytical Sensitivity	Analyt	tical Sensitivity	y: 13 s	pr/m³	Analytical Sensitivity: 13 spr/m³					
Comments										
Total *See Footnotes	1	13	~100%	1/3	3	40	~100%	-		

Client Sample Number	A33				A55			
Sample Location	Outside				Outside			
Sample Volume (L)	75					75		
Lab Sample Number	21009406-033					21009406	-055	
Spore Identification	Raw Ct	spr/m³	% Ttl	In/Out	Raw Ct	spr/m³	% Ttl	In/Out
ascospores	-	-	-	-	1	13	33	-
basidiospores	-	-	-	-	2	27	67	_
		Debris Ratin	ıg 1			Debris Rati	ng 2	
Analytical Sensitivity	Analy	tical Sensitivity	/: 13 s	pr/m³	Analyt	ical Sensitivit	y: 13 s	pr/m³
Comments	No fungal spores detected							
Total *See Footnotes	0	0	-	-	3	40	~100%	-

Client Sample Number	A34				A55				
Sample Location	Outside				Outside				
Sample Volume (L)	75					75			
Lab Sample Number	21009406-034					21009406	-055		
Spore Identification	Raw Ct	spr/m³	% Ttl	In/Out	Raw Ct	spr/m³	% Ttl	In/Out	
ascospores	-	-	-	-	1	13	33	-	
basidiospores	1	13	100	1/2	2	27	67	_	
		Debris Ratin	ıg 1		Debris Rating 2				
Analytical Sensitivity	Analy	tical Sensitivity	/: 13 s	pr/m³	Analytical Sensitivity: 13 spr/m³				
Comments									
Total *See Footnotes	1	13	~100%	1/3	3	40	~100%	-	



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Client Sample Number		A35 A55								
Sample Location	Ele	vator Lobby	3rd Flo	or		Outside				
Sample Volume (L)		75				75				
Lab Sample Number		21009406-035				21009406-055				
Spore Identification	Raw Ct	spr/m³	% Ttl	In/Out	Raw Ct	% Ttl	In/Out			
ascospores	-	-	-	-	1	13	33	-		
basidiospores	-	-	-	-	2	27	67	-		
Penicillium/Aspergillus group	2	27	100	-	-	-	-	_		
		Debris Ratir	ng 1			Debris Rat	ing 2			
Analytical Sensitivity	Analy	tical Sensitivit	y: 13 s	pr/m³	Analytical Sensitivity: 13 spr/m³					
Comments										
Total *See Footnotes	2	27	~100%	1/2	3	40	~100%	-		

Client Sample Number		A36 A55							
Sample Location	Risk	Managemei	nt 3rd Fl	oor		Outside			
Sample Volume (L)		75 7.					75		
Lab Sample Number		21009406-036 21009406-05					6-055		
Spore Identification	Raw Ct	spr/m³	% Ttl	In/Out	Raw Ct	% Ttl	In/Out		
ascospores	-	-	-	-	1	13	33	-	
basidiospores	-	-	-	-	2	27	67	-	
Cladosporium	2	27	67	-	-	-	-	_	
Penicillium/Aspergillus group	1	13	33	-	-	-	-	-	
		Debris Rati	ng 1			Debris Rat	ing 2		
Analytical Sensitivity	Analyt	ical Sensitivit	y: 13 s	pr/m³	Analyt	ical Sensitivi	ty: 13 s	pr/m³	
Comments									
Total *See Footnotes	3	40	~100%	1/1	3	40	~100%	-	



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Client Sample Number		A37			A55				
Sample Location	North	Northwest Hallway/Offices 3rd Floor				Outside			
Sample Volume (L)		75				75			
Lab Sample Number	21009406-037					21009406	-055		
Spore Identification	Raw Ct	spr/m³	% Ttl	In/Out	t Raw Ct spr/m³ % T			In/Out	
ascospores	-	-	-	-	1 13 33			-	
basidiospores	-	-	-	-	2	27	67	-	
Penicillium/Aspergillus group	15	200	100	-	-	-	-	-	
		Debris Ratir	ng 1			Debris Rati	ing 2		
Analytical Sensitivity	Analy	tical Sensitivity	y: 13 s	pr/m³	Analyt	tical Sensitivi	ty: 13 s	pr/m³	
Comments							•		
Total *See Footnotes	15	200	~100%	5/1	3	40	~100%	-	

Client Sample Number		A38 A55 West Hallway/Cubicles 3rd Floor Outside				A55			
Sample Location	West H								
Sample Volume (L)		75				75			
Lab Sample Number	21009406-038				21009406-055				
Spore Identification	Raw Ct	spr/m³	% Ttl	In/Out	Raw Ct	% Ttl	In/Out		
ascospores	-	-	-	-	1	13	33	_	
basidiospores	-	-	_	-	2 27 67			_	
Penicillium/Aspergillus group	9	120	100	_	-	-	-	-	
		Debris Ratir	ng 1			Debris Rati	ng 2		
Analytical Sensitivity	Analy	tical Sensitivity	/: 13 s	pr/m³	Analy	tical Sensitivit	ty: 13 s	pr/m³	
Comments									
Total *See Footnotes	9	120	~100%	3/1	3	40	~100%	-	



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Client Sample Number		A39			A55					
Sample Location	Human	Human Resources Department 3rd Floor 75				Outside				
Sample Volume (L)						75				
Lab Sample Number		21009406-039				21009406	6-055			
Spore Identification	Raw Ct	spr/m³	% Ttl	In/Out	Raw Ct	spr/m³	% Ttl	In/Out		
ascospores	-	-	-	-	1	13	33	-		
basidiospores	-	-	-	_	2	27	67	-		
Cladosporium	1	13	25	-	-	-	-	-		
Penicillium/Aspergillus group	3	40	75	-	-	-	_	_		
		Debris Ratir	ng 1			Debris Rat	ing 2			
Analytical Sensitivity	Analyt	Analytical Sensitivity: 13 spr/m³				Analytical Sensitivity: 13 spr/m³				
Comments										
Total *See Footnotes	4	53	~100%	1/1	3	40	~100%	-		

Client Sample Number						A55				
Sample Location	Tra					Outsid	ıtside			
Sample Volume (L)						75				
Lab Sample Number		21009406-040				21009406-055				
Spore Identification	Raw Ct	spr/m³	% Ttl	In/Out	Out Raw Ct spr/m³ (In/Out		
ascospores	-	-	-	-	1	13	33	-		
basidiospores	-	-	-	-	2	27	67	-		
Penicillium/Aspergillus group	3	40	100	-	-	-	_	-		
		Debris Rati	ng 1			Debris Rat	ing 2			
Analytical Sensitivity	Analy	tical Sensitivit	y: 13 s	pr/m³	Analy	tical Sensitivi	ty: 13 s	pr/m³		
Comments										
Total *See Footnotes	3	40	~100%	1/1	3	40	~100%	-		



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Client Sample Number		A41				A55		
Sample Location	Elevator Lobby 2nd Floor					Outsid	е	
Sample Volume (L)	75					75		
Lab Sample Number	21009406-041					21009406	-055	
Spore Identification	Raw Ct spr/m³ % Ttl In/Out F				Raw Ct	spr/m³	% Ttl	In/Out
ascospores	1 13					13	33	_
basidiospores	-	-	-	-	2	27	67	-
		Debris Ratin	ıg 1			Debris Rati	ng 2	
Analytical Sensitivity	Analytical Sensitivity: 13 spr/m³				Analy	tical Sensitivit	y: 13 s	pr/m³
Comments	No fungal spores detected							
Total *See Footnotes	0 0 3 40					~100%	-	

Client Sample Number		A42				A55		
Sample Location	Mail Room 2nd Floor					Outsid	е	
Sample Volume (L)	75					75		
Lab Sample Number	21009406-042					21009406	-055	
Spore Identification	Raw Ct spr/m³ % Ttl In/Out				Raw Ct	spr/m³	% Ttl	In/Out
ascospores	-	-	-	-	1	33	_	
basidiospores	-	1	-	-	2	27	67	-
		Debris Ratir	ng 1			Debris Rati	ng 2	
Analytical Sensitivity	Analy	tical Sensitivity	/: 13 s	pr/m³	Analy	tical Sensitivit	y: 13 s	pr/m³
Comments	No fungal spores detected							
Total *See Footnotes	0	0	_	-	3 40 ~100%			-

Client Sample Number		A43				A55				
Sample Location	South I	South Hallway/Cubicles 2nd Floor Outside					е			
Sample Volume (L)		75				75	5			
Lab Sample Number	21009406-043					21009406	-055			
Spore Identification	Raw Ct	spr/m³	spr/m³	% Ttl	In/Out					
ascospores	-	-	-	-	1	13	33	-		
basidiospores	-	-	-	-	2	27	67	_		
Chaetomium	1	13	12	-	-	-	-	_		
hyphal elements	1	13	12	-	-	-	_	_		
Penicillium/Aspergillus group	6	80	75	-	-	-	_	_		
		Debris Ratii	ng 1			Debris Rati	ng 2			
Analytical Sensitivity	Analy	Analytical Sensitivity: 13 spr/m³				ical Sensitivit	y: 13 s	pr/m³		
Comments										
Total *See Footnotes	8	107	~100%	3/1	3	40	~100%	-		



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Project: **34217037/Ft. Lauderdale City Hall**Condition of Sample(s) Upon Receipt: Acceptable

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Client Sample Number		A44				A55		
Sample Location	South	Southwest Offices/Cubicles 2nd Floor				Outsid	е	
Sample Volume (L)	75					75		
Lab Sample Number	21009406-044					21009406	-055	
Spore Identification	Raw Ct spr/m³ % Ttl In/Out Raw Ct spr/m³					% Ttl	In/Out	
ascospores					1	13	33	_
basidiospores	-	-	-	-	2	27	67	-
Penicillium/Aspergillus group	3	40	100	_	-	-	-	-
		Debris Ratir	ng 1			Debris Rati	ng 2	
Analytical Sensitivity	Analy	Analytical Sensitivity: 13 spr/m³				tical Sensitivit	y: 13 s	pr/m³
Comments								
Total *See Footnotes	3 40 ~100% 1/1				3	40	~100%	-

Client Sample Number		A45				A55		
Sample Location	Northy	Northwest Hallway/Cubicles 2nd Floor				Outsid	е	
Sample Volume (L)		75				75		
Lab Sample Number		21009406-045				21009406	-055	
Spore Identification	Raw Ct	Raw Ct spr/m³ % Ttl In/Out F			Raw Ct	spr/m³	% Ttl	In/Out
ascospores	-				1	13	33	-
basidiospores	-	-	-	_	2	27	67	-
Penicillium/Aspergillus group	4	53	100	-	-	-	-	-
		Debris Ratii	ng 1			Debris Rati	ng 2	
Analytical Sensitivity	Analyt	Analytical Sensitivity: 13 spr/m³				tical Sensitivit	y: 13 s	pr/m³
Comments								
Total *See Footnotes	4 53 ~100% 1/1			3	40	~100%	-	



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Certificate of Analysis AIHA-LAP EMLAP# 228303

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Client Sample Number		A46				A55		
Sample Location	North Cubicles 2nd Floor					Outsid	е	
Sample Volume (L)	75					75		
Lab Sample Number	21009406-046					21009406	-055	
Spore Identification	Raw Ct spr/m³ % Ttl In/Out I				Raw Ct	spr/m³	% Ttl	In/Out
ascospores	-	-	-	-	1	33	_	
basidiospores	-	-	-	-	2	27	67	-
		Debris Ratin	ng 1			Debris Rati	ng 2	
Analytical Sensitivity	Analytical Sensitivity: 13 spr/m³				Analy	tical Sensitivit	y: 13 s	pr/m³
Comments	No fungal spores detected							
Total *See Footnotes	0 0 - 3 40 ~1					~100%	-	

Client Sample Number		A47				A55			
Sample Location	Applic	Application Services Office 2nd Floor Outside					le		
Sample Volume (L)		75				75			
Lab Sample Number	21009406-047				21009406	-055			
Spore Identification	Raw Ct spr/m³ % Ttl In/Out I				Raw Ct	spr/m³	% Ttl	In/Out	
ascospores	1 13						33	-	
basidiospores	-	-	-	-	2	27	67	-	
hyphal elements	1	13	33	-	-	-	-	_	
Penicillium/Aspergillus group	2	27	67	-	-	-	-	_	
		Debris Rati	ng 1			Debris Rati	ing 2		
Analytical Sensitivity	Analyt	Analytical Sensitivity: 13 spr/m³				tical Sensitivi	ty: 13 s	- - - -	
Comments									
Total *See Footnotes	3 40 ~100% 1/1				3	40	~100%	-	

Client Sample Number		A48				A55				
Sample Location	Ele	Elevator Lobby 1st Floor 75				Outside				
Sample Volume (L)						75	5			
Lab Sample Number		21009406-048				21009406	-055			
Spore Identification	Raw Ct	Raw Ct spr/m³ % Ttl In/Out F				spr/m³	% Ttl	In/Out		
ascospores	-	-	-	-	1	33	-			
basidiospores	-	-	_	-	2	27	67	_		
		Debris Rati	ng 1			Debris Rati	Rating 2			
Analytical Sensitivity	Analyt	Analytical Sensitivity: 13 spr/m³				tical Sensitivi	tivity: 13 spr/m³			
Comments	No	No fungal spores detected								
Total *See Footnotes	0	0	-	-	3	40	~100%	-		



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Client Sample Number		A49				A55		
Sample Location		Security 1st Floor				Outsid	е	
Sample Volume (L)		75				75		
Lab Sample Number		21009406-049				21009406	-055	
Spore Identification	Raw Ct	Raw Ct spr/m³ % Ttl In/Out F				spr/m³	% Ttl	In/Out
ascospores	-	-	-	-	1	-		
basidiospores	-	-	-	-	2	27	67	-
		Debris Ratir	ng 1			Debris Rati	ng 2	
Analytical Sensitivity	Analy	Analytical Sensitivity: 13 spr/m³				tical Sensitivit	y: 13 s _l	pr/m³
Comments	No	No fungal spores detected						
Total *See Footnotes	0	0	-	-	3 40 ~100%			-

Client Sample Number		A50				A55				
Sample Location	Comm	Commission Chambers 1st Floor				Outsid	Outside			
Sample Volume (L)		75				75				
Lab Sample Number		21009406-050				21009406	-055			
Spore Identification	Raw Ct	Raw Ct spr/m³ % Ttl In/Out Raw Ct spr/m³ %					% Ttl	In/Out		
ascospores	-	-	-	-	1	_				
basidiospores	-	-	-	_	2	27	67	-		
		Debris Ratir	ng 1			Debris Rati	ng 2			
Analytical Sensitivity	Analy	Analytical Sensitivity: 13 spr/m³ Analytical Sensitivity					y: 13 s _l	or/m³		
Comments	No	No fungal spores detected								
Total *See Footnotes	0	0	-	-	3 40 ~100%					

Client Sample Number		A51				A55			
Sample Location	We	West Hallway 1st Floor				Outsid	le		
Sample Volume (L)		75				75			
Lab Sample Number		21009406-051				21009406	-055		
Spore Identification	Raw Ct	Raw Ct spr/m³ % Ttl In/Out F				spr/m³	% Ttl	In/Out	
ascospores	1 13 33 1/1 1 13					13	33	-	
basidiospores	1	13	33	1/2	2	27	67	-	
hyphal elements	1	13	33	-	-	-	-	-	
		Debris Ratii	ng 1			Debris Rat	ing 2		
Analytical Sensitivity	Analyt	Analytical Sensitivity: 13 spr/m³				nalytical Sensitivity: 13 spr/m³			
Comments									
Total *See Footnotes	3	40	~100%	1/1	3	40	~100%	_	



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Attn: Sergio Adasme

Project: **34217037/Ft. Lauderdale City Hall**Condition of Sample(s) Upon Receipt: Acceptable

Date Collected: 03/12/2021
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Client Sample Number		A52			A55			
Sample Location	Northwest Cubicles 1st Floor					Outsid	е	
Sample Volume (L)	75					75		
Lab Sample Number	21009406-052					21009406	-055	
Spore Identification	Raw Ct spr/m³ % Ttl In/Out F				Raw Ct	spr/m³	% Ttl	In/Out
ascospores	-	-	-	-	1	33	-	
basidiospores	-	-	-	_	2	27	67	-
		Debris Ratir	ng 1			Debris Rati	ng 2	
Analytical Sensitivity	Analy	Analytical Sensitivity: 13 spr/m³				tical Sensitivit	y: 13 s	pr/m³
Comments	No fungal spores detected							
Total *See Footnotes	0	0	-	-	3	40	~100%	-

Client Sample Number		A53				A55				
Sample Location	Te	Teller's/Offices 1st Floor				Outside				
Sample Volume (L)		75				75				
Lab Sample Number		21009406-053				21009406	-055			
Spore Identification	Raw Ct	spr/m³	% Ttl	In/Out	Raw Ct	spr/m³	% Ttl	In/Out		
ascospores	-	-	-	-	1	13	33	_		
basidiospores	-	-	-	_	2	27	67	-		
		Debris Ratir	ng 1			Debris Rati	ng 2			
Analytical Sensitivity	Analy	tical Sensitivity	/: 13 s	pr/m³	Analy	tical Sensitivit	y: 13 s	pr/m³		
Comments	No	No fungal spores detected								
Total *See Footnotes	0	0	-	-	3	40	~100%	-		

Client Sample Number		A54	A55						
Sample Location	Waitin	g Area/Bill P		Outside					
Sample Volume (L)		75		75					
Lab Sample Number		21009406-			21009406	-055			
Spore Identification	Raw Ct	spr/m³	% Ttl	In/Out	Raw Ct	spr/m³	% Ttl	In/Out	
ascospores	-	-	-	-	1	13	33	-	
basidiospores	-	=	-	-	2	27	67	-	
hyphal elements	1	13	14	-	-	-	-	-	
Stachybotrys	6	80	86	-	-	-	-	-	
		Debris Ratir	ng 1		Debris Rating 2				
Analytical Sensitivity	Analyt	ical Sensitivit	Analy	tical Sensitivit	y: 13 s	pr/m³			
Comments									
Total *See Footnotes	7	93	~100%	2/1	3	40	~100%	-	



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Footnotes and Additional Report Information

Debris Rating Table

1	Minimal (<5%) particulate present	Reported values are minimally affected by particulate load.
2	5% to 25% of the trace occluded with particulate	Negative bias is expected. The degree of bias increases directly with the percent of the trace that is occluded.
3	26% to 75% of the trace occluded with particulate	Negative bias is expected. The degree of bias increases directly with the percent of the trace that is occluded.
4	75% to 90% of the trace occluded with particulate	Negative bias is expected. The degree of bias increases directly with the percent of the trace that is occluded.
5	Greater than 90% of the trace occluded with particulate	Quantification not possible due to large negative bias. A new sample should be collected at a shorter time interval or other measures taken to reduce particulate load.

Aerobiology Laboratory Associates, Inc. shall be responsible for all the information provided in the report, except when information is provided by the customer. Data provided by a customer can affect the validity of results and shall be clearly identified. Results apply to the samples as received. Aerobiology Laboratory Associates, Inc. is not responsible for the sampling activity, such as air and water volume, area, and mass unit. The report shall not be reproduced except in full without the approval of the laboratory to ensure that parts of a report are not taken out of context. Data interpretation of this report will be the client responsibility based on their sampling.

- 1. Penicillium/Aspergillus group spores are characterized by their small size, round to ovoid shape, being unicellular, and usually colorless to lightly pigmented. There are numerous genera of fungi whose spore morphology is similar to that of the Penicillium/Aspergillus type. Two common examples would be Paecilomyces and Acremonium. Although the majority of spores placed in this group are Penicillium, Aspergillus, or a combination of both. Keep in mind that these are not the only two possibilities.
- 2. Ascospores are sexually produced fungal spores formed within an ascus. An ascus is a sac-like structure designed to discharge the ascospores into the environment, e.g. Ascobolus.
- 3. Basidiospores are typically blown indoors from outdoors and rarely have an indoor source. However, in certain situations a high basidiospore count indoors may be indicative of a wood decay problem or wet soil.
- 4. The colorless group contains colorless spores which were unidentifiable to a specific genus. Examples of this group include Acremonium, Aphanocladium, Beauveria, Chrysosporium, Engyodontium microconidia, yeast, some arthrospores, as well as many others.
- 5. Hyphae are the vegetative mode of fungi. Hyphal elements are fragments of individual Hyphae. They can break apart and become airborne much like spores and are potentially allergenic. A mass of hyphal elements is termed the mycelium. Hyphae in high concentration may be indicative of colonization.
- 6. Dash (-) in this report, under raw count column means 'not detected (ND)'; otherwise 'not applicable' (NA).
- 7. The positive-hole correction factor is a statistical tool which calculates a probable count from the raw count, taking into consideration that multiple particles can impact on the same hole; for this reason the sum of the calculated counts may be less than the positive hole corrected total.
- 8. Due to rounding totals may not equal 100%.
- 9. Analytical Sensitivity for each spores is different for Non-viable sample when the spores are read at different percentage. Analytical Sensitivity is calculated as spr/m³ divided by raw count. spr/m³ = raw counts x (100/ % read) x (1000/Sample volume). If Analytical Sensitivity is 13 spr/m³ at 100% read, Analytical Sensitivity at 50% read would be 27 spr/m³, which is 2 times higher. Analytical Sensitivity provided on the report is based on an assumed 100% of the trace being analyzed.
- 10. Minimum Reporting Limits (MRL) for BULKS, DUSTS, SWABS, and WATER samples are a calculation based on the sample size and the dilution plate on which the organism was counted. Results are a compilation of counts taken from multiple dilutions and multiple medias. This means that every genus of fungi or bacteria recovered can be counted on the plate on which it is best represented.
- 11. If the final quantitative result is corrected for contamination based on the blank, the blank correction is stated in the sample comments section of the report.
- 12. The results in this report are related to this project and these samples only.
- 13. For samples with an air volume of < 100L, the number of significant figures in the result should be considered (2) two. For samples with air volumes between 100-999L, the number of significant figures in the result should considered (3) three. For example, a sample with a result of 55,443 spr/m³ from a 75L sample using significant figures should be considered 55,000. The same result of 55,443 from a 150L sample using significant figures should be considered 55,400 spr/m³.
- 14. If the In/Out ratio is greater than 100 times it is indicated >100/1, rather than showing the real value.

Terminology Used in Direct Exam Reporting

Conidiophores are a type of modified hyphae from which spores are born. When seen on a surface sample in moderate to numerous concentrations they may be indicative of fungal growth.

Suzanne S. Blevins, B.S., SM (ASCP) Laboratory Director



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GLOSSARY

ascospores: Ascospores are the result of sexual reproduction and are produced by thousands of different fungi. They are found on a wide range of substrates. They are usually produced inside microscopic to macroscopic fruiting bodies before being forcibly ejected into the air for dispersal. They can have a wide range of shape, size, number of septations and can be colorless or darkly pigmented.

basidiospores: Basidiospores are extremely small, usually unicellular spores produced by many thousands of fungi as a result of sexual reproduction (these fungi include mushrooms, bracket fungi, puffballs, etc.) They are forcibly expelled from the fruiting bodies (mushrooms) into the air, and are especially numerous in Autumn. Most basidiospores recovered from buildings have entered with outside air. Basidiospores are not pathogenic or toxigenic, though some of the mushrooms themselves can be poisonous if eaten.

Chaetomium: Chaetomium produces its spores inside a microscopic fruiting body. It occurs worldwide and usually grows on substrates containing cellulose, such as paper, wallboard, textiles, seeds, etc. It produces brown, single-celled spores shaped like a lemon. Chaetomium produces mycotoxins including chaetoglobosins and sterigmatocystin. The spores may trigger asthma or hay fever in susceptible individuals. Chaetomium also produces cellulase enzymes and is used in fabric testing.

Cladosporium: Cladosporium is one of the most common fungi worldwide. It grows almost everywhere and on a wide variety of substrates. It is commonly found in buildings on wood or cellulose substrates and around the edges of windows.

Clear brown:

Curvularia: Curvularia occurs worldwide on leaves (especially those of grasses), on seeds, and in soil. It is found in buildings on various substrates, and enters with outdoor air. In immunocompromised humans, it can cause a variety of infections, though most of these conditions are rare. It is not known to produce toxins.

hyphal elements: Hyphal elements are fragments of the thallus of most true fungi. They are tubular, usually about 5 microns (one-five-thousandth of an inch) in width and very variable in length. They may be colorless or pigmented. Having been broken off, they are open at one or both ends, and usually empty. The walls consist of a mixture of chitin and glucans, which may be allergenic. In the absence of spores or other diagnostic structures, they cannot be identified. They usually enter buildings with outside air.

Ochroconis: Ochroconis is most closely related to Dactylaria and Scolecobasidium. This genus produces rough, pale, olivaceous brown spores with one septa and rounded ends. Many species within this genus are known pathogens to poultry, fish, and sometimes humans. In nature, it commonly grows on decaying leaves and in the soil.

Penicillium/Aspergillus group: Penicillium and Aspergillus are among the most common fungi worldwide, occurring on a very large number of substrates. They produce unicellular, usually globose, hydrophobic spores in unbranched chains. Some species may cause infections in humans, particularly in immunocompromised patients. Some species produce mycotoxins, and some may be allergenic. The spores, when present without the diagnostic structures that produce them, are impossible to differentiate visually from eachother.

Pestalotiopsis: Pestalotiopsis is a fungus known as a mold. It occurs worldwide on many plants, producing its spores in tiny embedded but erumpent fructifications (acervular conidiomata). The microscopic spores are highly characteristic, elongated, with 3-4 cells, central cells dark and terminal cells paler. The basal cell has one narrow tubular appendage, and the apical cell has 1-5 (usually 3 or 4) similar appendages. The spores are liberated in slime, so are not readily airborne. They are uncommon in houses, and do not appear to be allergenic, pathogenic, or toxigenic.

Pithomyces: Pithomyces is found worldwide. It grows on dead leaves and on paper. It produces dark, multicellular, dry spores which become airborne relatively easily but usually enter indoor environments with outside air.

Smuts, Periconia, Myxomycetes: Smuts/Periconia/Myxomycetes. The Smut, Periconia, Myxomycete group is composed of three different groups whose spores have similar morphologies. Smuts are plant pathogens, Periconia is a relatively uncommon mold indoors, and Myxomycetes are not fungi but slime molds. Although these organisms do not typically proliferate indoors, their spores are potentially allergenic. These are very different organisms which happen to produce similar spores, that tend to be globose, brown and with an ornamented wall. They occur on many different substrates. Smuts are parasitic on living plants, Periconia grows on dead plants, and myxomycetes usually eat bacteria and other microscopic food particles before producing spores.

Stachybotrys: Stachybotrys is a fungus that is often referred to as toxic black mold and occurs all around the world. It requires a damp environment and grows best on substrates containing cellulose, such as paper and cardboard, or textiles made of cotton. It grows commonly in damp buildings on the paper backing of wallboard. It can develop extensive dark colonies, producing small, single-celled, ellipsoidal black spores. These spores are initially produced in slime but when they eventually dry out they can become airborne and trigger respiratory allergies in susceptible individuals. Stachybotrys is a toxin producer but it is not a disease-causing organism for humans, and is able to grow only on dead organic substrates.

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Client Sample Number		S	-1			5	6-2		
Sample Location	Confe		n A/C Returr	1 Vent	Commission Conference Room A/C				
•			loor		Return Vent 8th Floor				
Sample Type			/ab		Swab				
Area			/ab				wab		
Lab Sample Number		21009406-056			21009406-057				
Spore Identification	Raw Ct	Calculated count/cm ²	Sensitivity count/cm ²	% total	Raw Ct	Calculated count/cm ²	Sensitivity count/cm ²	% total	
Alternaria	-	-	-	-	-	1	-	-	
ascospores	-	-	-	-	-	ı	-	-	
Aureobasidium	-	-	1	-	-	ı	-	-	
basidiospores	-	-	-	-	-	ı	-	-	
Cercospora	-	ı	ı	ī	ı	ı	-	-	
Chaetomium	-	ı	ı	-	ı	ı	-	-	
Cladosporium	200	64,229	321	57	700	224,802	321	46	
colorless	-	ı	1	-	ı	ı	-	-	
Curvularia	-	ı	1	-	ı	ı	-	-	
Drechslera/Bipolaris Group	-	ı	1	-	ı	ı	-	-	
Epicoccum	-	-	-	-	-	-	-	-	
hyphal elements	150	48,172	321	43	250	80,286	321	16	
Penicillium/Aspergillus Group	-	-	-	-	578	185,622	321	38	
Pithomyces	-	-	-	-	-	-	-	-	
Pyricularia	-	-	-	-	-	-	-	-	
rusts	-	-	-	-	-	-	-	-	
smuts, Periconia, myxomycetes	-	-	-	-	-	-	-	-	
Stachybotrys	-	-	-	-	ı	-	-	-	
Torula	-	-	-	-	ı	-	-	-	
Ulocladium	-	-	-	-	-	-	-	-	
unknown	-	-	-	-	-	-	-	-	
		Debris Rat	ing 3			Debris Rat	ing 3		
Comments	Evid	Evidence of fungal growth in situ				Evidence of fungal growth in situ			
Totals	350	112,401	-	~100	1,528	490,710	-	~100	

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	104	9 Quantitat	ive Direct E	xam					
Client Sample Number			-3		S-4				
Sample Location	City N	lanager A/C Flo	Return Ver	nt 7th	West Hallway Carpet 7th Floor				
Sample Type		Sw	<i>r</i> ab		Swab				
Area		Swab				Sv	vab		
Lab Sample Number		21009406-058				21009	406-059		
Spore Identification	Raw Ct	Calculated count/cm ²	Sensitivity count/cm ²	% total	Raw Ct	Calculated count/cm ²	Sensitivity count/cm ²	% tota	
Alternaria	-	-	-	-	-	-	-	-	
ascospores	-	-	-	-	-	-	-	-	
Aspergillus	1,800	1,445,155	803	93	-	-	-	-	
basidiospores	-	-	-	-	-	-	-	-	
Cercospora	-	-	-	-	-	-	-	-	
Chaetomium	-	-	-	-	-	-	-	-	
Cladosporium	-	-	-	-	-	-	-	-	
colorless	-	-	-	-	-	-	-	-	
Curvularia	-	-	-	-	-	-	-	-	
Drechslera/Bipolaris Group	-	-	-	-	-	-	-	-	
Epicoccum	-	-	-	-	-	-	-	-	
hyphal elements	136	109,189	803	7	-	-	-	-	
Penicillium/Aspergillus Group	-	-	-	-	-	-	-	-	
Pithomyces	-	-	-	-	-	-	-	-	
Pyricularia	-	-	-	-	-	-	-	-	
rusts	-	-	-	-	-	-	-	-	
smuts, Periconia, myxomycetes	-	-	-	-	-	-	-	-	
Stachybotrys	-	-	-	-	-	-	-	-	
Torula	-	-	-	-	-	-	-	-	
Ulocladium	-	-	-	-	-	-	-	-	
unknown	-	-	-	-	-	-	-	-	
		Debris Rat	ing 2	-		Debris Rat	ing 2	-	
Comments		Evidence of fungal growth in situ. Numerous Aspergillus conidiophores seen.				No fungal spores detected			
Totals	1936	1936 1,554,344 - ~100			0	#N/A	-	~100	

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Client Sample Number		_	-5			S-6				
Sample Location	Assist.	-	y A/C Supp Floor	ly Vent	Deputy Director of Finance A/C Return Vent 6th Floor					
Sample Type			<i>r</i> ab		Swab					
Area			<i>r</i> ab			Sv	vab			
Lab Sample Number		210094	106-060			21009	406-061			
Spore Identification	Raw Ct	Calculated count/cm ²	Sensitivity count/cm ²	% total	Raw Ct	Calculated count/cm ²	Sensitivity count/cm ²	% total		
Alternaria	-	-	-	-	-	-	-	-		
ascospores	-	-	-	-	-	-	-	-		
Aureobasidium	-	-	-	-	-	-	-	-		
basidiospores	-	-	-	-	-	-	-	-		
Cercospora	-	-	-	-	-	-	-	-		
Chaetomium	-	-	-	-	-	-	-	-		
Cladosporium	-	-	-	-	2	40	20	2		
colorless	-	-	-	-	-	-	-	-		
Curvularia	-	-	-	-	-	-	-	-		
Drechslera/Bipolaris Group	-	-	-	-	-	-	-	-		
Epicoccum	-	-	-	-	-	-	-	-		
hyphal elements	85	27,297	321	40	82	1,640	20	92		
Penicillium/Aspergillus Group	-	-	-	-	5	100	20	6		
Penicillium	129	41,428	321	60	-	-	-	-		
Pyricularia	-	-	-	-	-	-	-	-		
rusts	-	-	-	-	-	-	-	-		
smuts, Periconia, myxomycetes	-	-	-	-	-	-	-	-		
Stachybotrys	-	-	-	-	-	-	-	-		
Torula	-	-	-	-	-	-	-	-		
Ulocladium	-	-	-	-	-	-	-	-		
unknown	-	-	-	-	-	-	-	-		
		Debris Rat	ing 3	-		Debris Rat	ing 3	-		
Comments		Evidence of fungal growth in situ. Numerous Penicillium conidiophores seen.				Evidence of minimal fungal growth in situ				
Totals	214	68,725	-	~100	89	1,780	-	~100		

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	104	9 Quantitat	ive Direct E	xam					
Client Sample Number		_	-7			_	S-8		
Sample Location	Accou	untant 2 A/C Flo	Return Ver	nt 6th	Project Manager A/C Return 5th Floor				
Sample Type		Sw	<i>r</i> ab			Sv	vab		
Area		Sw	<i>r</i> ab			Sv	vab		
Lab Sample Number		210094	06-062			21009	406-063		
Spore Identification	Raw Ct	Calculated count/cm ²	Sensitivity count/cm ²	% total	Raw Ct	Calculated count/cm ²	Sensitivity count/cm ²	% tota	
Alternaria	-	-	-	-	-	-	-	-	
ascospores	-	-	-	-	-	-	-	-	
Aureobasidium	-	-	-	-	-	-	-	-	
basidiospores	-	-	-	-	-	-	-	-	
Cercospora	-	-	-	-	-	-	-	-	
Chaetomium	-	-	-	-	-	-	-	-	
Cladosporium	130	104,372	803	9	460	147,727	321	65	
colorless	-	-	-	-	-	-	-	-	
Curvularia	-	-	-	-	-	-	-	-	
Drechslera/Bipolaris Group	-	-	-	-	-	-	-	-	
Epicoccum	-	-	-	-	-	-	-	-	
hyphal elements	243	195,096	803	17	245	78,681	321	35	
Penicillium/Aspergillus Group	-	-	-	-	-	-	-	-	
Penicillium	1,020	818,921	803	73	-	-	-	-	
Pyricularia	-	-	-	-	-	-	-	-	
rusts	-	-	-	-	-	-	-	-	
smuts, Periconia, myxomycetes	-	-	-	-	-	-	-	-	
Stachybotrys	-	-	-	-	-	-	-	-	
Torula	-	-	-	-	-	-	-	-	
Ulocladium	-	-	-	-	-	-	-	-	
unknown	-	-	-	-	-	-	-	-	
		Debris Rat	ing 3	•		Debris Rat	ing 2	•	
Comments		Evidence of fungal growth in situ. Numerous Penicillium conidiophores seen.				Evidence of fungal growth in situ			
Totals	1393	1393 1,118,389 - ~100				226,408	-	~100	

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Client Sample Number	1		tive Direct E -9			S	-10			
Sample Location	Admini	stration As	sistant A/C	Supply	Senior Administration Assistant A/C Supply Vent 4th Floor					
Sample Type			/ab			Swab				
Area		Sw	/ab			Sv	vab			
Lab Sample Number		210094	106-064			21009	406-065			
Spore Identification	Raw Ct	Calculated count/cm²	Sensitivity count/cm ²	% total	Raw Ct	Calculated count/cm²	Sensitivity count/cm ²	% tota		
Alternaria	-	-	-	-	-	-	-	-		
ascospores	-	-	-	-	-	-	-	-		
Aureobasidium	-	-	-	-	-	-	-	-		
basidiospores	-	-	-	-	-	-	-	-		
Cercospora	-	-	-	-	-	-	-	-		
Chaetomium	-	-	-	-	-	-	-	-		
Cladosporium	-	-	-	-	1,240	995,551	803	67		
colorless	-	-	-	-	-	-	-	-		
Curvularia	-	-	-	-	-	-	-	-		
Drechslera/Bipolaris Group	-	-	-	-	-	-	-	-		
Epicoccum	-	-	-	-	-	-	-	-		
hyphal elements	-	-	-	-	600	481,718	803	33		
Penicillium/Aspergillus Group	-	-	-	-	-	-	-	-		
Pithomyces	-	-	-	-	-	-	-	-		
Pyricularia	-	-	-	-	-	-	-	-		
rusts	-	-	-	-	-	-	-	-		
smuts, Periconia, myxomycetes	-	-	-	-	-	-	-	-		
Stachybotrys	-	-	-	-	-	-	-	-		
Torula	-	-	-	-	-	-	-	-		
Ulocladium	-	-	-	-	-	-	-	-		
unknown	-	-	-	-	-	-	-	-		
		Debris Rat	ing 2			Debris Rat	ing 2			
Comments	N	lo fungal sp	ores detected	d	Evidence of fungal growth in situ					
Totals	0	#N/A	-	~100	1,840	1,477,269	-	~100		

5253B N.W. 33rd Avenue Fort Lauderdale, FL 33309 (954)-451-3748

www.aerobiology.net

Terracon Consultants, Inc. - Ft. Lauderdale

5371 NW 33rd Avenue, Suite 201 Fort Lauderdale, FL 33309

Atnn: Sergio Adasme

Project: 34217037/Ft. Lauderdale City Hall

Condition of Sample(s) Upon Receipt: Acceptable

Expertise Since 1997

Date Collected: 03/12/2021 Date Received: 03/15/2021

Date Analyzed: 03/15/2021 Date Reported: 03/16/2021 Project ID: 21009406

Page 6 of 8

	104		tive Direct E	xam					
Client Sample Number			11		S-12				
Sample Location	Huma		es Office Ce d Floor	eiling	Human Resources Manager A/C Supply Vent 3rd Floor				
Sample Type		Sw	<i>r</i> ab			Sv	vab		
Area		Sw	<i>r</i> ab			Sv	vab		
Lab Sample Number		210094	106-066			21009	406-067		
Spore Identification	Raw Ct	Calculated count/cm²	Sensitivity count/cm ²	% total	Raw Ct	Calculated count/cm ²	Sensitivity count/cm ²	% tota	
Alternaria	-	-	-	-	-	-	-	-	
ascospores	-	-	-	-	-	-	-	-	
Aureobasidium	-	-	-	-	-	-	-	-	
basidiospores	-	-	-	-	-	-	-	-	
Cercospora	-	-	-	-	-	-	-	-	
Chaetomium	-	-	-	-	-	-	-	-	
Cladosporium	-	-	-	-	175	140,501	803	8	
colorless	-	-	-	-	-	-	-	-	
Curvularia	-	-	-	-	-	-	-	-	
Drechslera/Bipolaris Group	-	-	-	-	-	-	-	-	
Epicoccum	-	-	-	-	-	-	-	-	
hyphal elements	219	4,379	20	100	650	521,861	803	29	
Penicillium/Aspergillus Group	-	-	-	-	1,390	1,115,980	803	63	
Pithomyces	-	-	-	-	-	-	-	-	
Pyricularia	-	-	-	-	-	-	-	-	
rusts	-	-	-	-	-	-	-	-	
smuts, Periconia, myxomycetes	-	-	-	-	-	-	-	-	
Stachybotrys	-	-	-	-	-	-	-	-	
Torula	-	-	-	-	-	-	-	-	
Ulocladium	-	-	-	-	-	-	-	-	
unknown	-	-	-	-	-	-	-	-	
		Debris Rat	ing 2	•		Debris Rat	ing 3	•	
Comments	Evider	Evidence of minimal fungal growth in situ				Evidence of fungal growth in situ			
Totals	219					1,778,342	-	~100	

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Terracon Consultants, Inc. - Ft. Lauderdale

5371 NW 33rd Avenue, Suite 201 Fort Lauderdale, FL 33309

Atnn: Sergio Adasme

Project: 34217037/Ft. Lauderdale City Hall

Condition of Sample(s) Upon Receipt: Acceptable

Expertise Since 1997

Date Collected: 03/12/2021 Date Received: 03/15/2021 Date Analyzed: 03/15/2021 Date Reported: 03/16/2021

Project ID: 21009406

Page 7 of 8

	104		tive Direct E	xam					
Client Sample Number		_	13			S-14			
Sample Location	Sout	Flo	Ceiling Tile oor	2nd	Waiting Area/Bill Pay Drywall Ceiling 1st Floor				
Sample Type		Sw	/ab			Sv	vab		
Area		Sw	/ab			Sv	vab		
Lab Sample Number		210094	106-068			210094	406-069		
Spore Identification	Raw Ct	Calculated count/cm ²	Sensitivity count/cm ²	% total	Raw Ct	Calculated count/cm ²	Sensitivity count/cm ²	% tota	
Alternaria	-	-	-	-	-	-	-	-	
ascospores	-	-	-	-	-	-	-	-	
Aureobasidium	-	-	-	-	-	-	-	-	
basidiospores	-	-	-	-	-	-	-	-	
Cercospora	-	-	-	-	-	-	-	-	
Chaetomium	-	-	-	-	-	-	-	-	
Cladosporium	-	-	-	-	-	-	-	-	
colorless	-	-	-	-	-	-	-	-	
Curvularia	-	-	-	-	-	-	-	-	
Drechslera/Bipolaris Group	-	-	-	-	-	-	-	-	
Epicoccum	-	-	-	-	-	-	-	-	
hyphal elements	-	-	-	-	500	160,573	321	11	
Penicillium/Aspergillus Group	-	-	-	-	-	-	-	-	
Pithomyces	-	-	-	-	-	-	-	-	
Pyricularia	-	-	-	-	-	-	-	-	
rusts	-	-	-	-	-	-	-	-	
smuts, Periconia, myxomycetes	-	-	-	-	-	-	-	-	
Stachybotrys	-	-	-	-	3,900	1,252,467	321	89	
Torula	-	-	-	-	-	-	-	-	
Ulocladium	-	-	-	-	-	-	-	-	
unknown	-	-	-	-	-	-	-	-	
		Debris Rat	ing 2	•		Debris Rat	ing 1	•	
Comments	١	No fungal spores detected				Evidence of fungal growth in situ			
Totals	0	0 #N/A - ~100				1,413,040	-	~100	

5253B N.W. 33rd Avenue

Fort Lauderdale, FL 33309 954-451-3748

www.aerobiology.net

Terracon Consultants, Inc. - Ft. Lauderdale

5371 NW 33rd Avenue, Suite 201 Fort Lauderdale, FL 33309

Atnn: Sergio Adasme

Project: 34217037/Ft. Lauderdale City Hall

Condition of Sample(s) Upon Receipt: Acceptable

Expertise Since 1997

Date Collected: 03/12/2021
Date Received: 03/15/2021

Date Analyzed: 03/15/2021 Date Reported: 03/16/2021

Project ID: 21009406

Page 8 of 8

Footnotes and Additional Report Information

Debris Rating Table

1	Minimal (<5%) particulate presence	Reported values are minimally affected by particulate load.
2	5% to 25% of the trace occluded with particulate	Negative bias is expected. The degree of bias increases directly with the percent of the trace that is occluded.
3	26% to 75% of the trace occluded with particulate	Negative bias is expected. The degree of bias increases directly with the percent of the trace that is occluded.
4	75% to 90% of the trace occluded with particulate	Negative bias is expected. The degree of bias increases directly with the percent of the trace that is occluded.
5	Greater than 90% of the trace occluded with particulate	Quantification not possible due to large negative bias. A new sample should be collected with measures taken to reduce particulate load.

- 1. Penicillium/Aspergillus group spores are characterized by their small size, round to ovoid shape, being unicellular, and usually colorless to lightly pigmented. There are numerous genera of fungi whose spore morphology is similar to that of the Penicillium/Aspergillus type. Two common examples would be Paecilomyces and Acremonium. Although the majority of spores placed in this group are Penicillium, Aspergillus, or a combination of both. Keep in mind that these are not the only two possibilities.
- 2. Ascospores are sexually produced fungal spores formed within an ascus. An ascus is a sac-like structure designed to discharge the ascospores into the environment, e.g. Ascobolus.
- 3. Basidiospores are typically blown indoors from outdoors and rarely have an indoor source. However, in certain situations a high basidiospore count indoors may be indicative of a wood decay problem or wet soil.
- 4. The Smut, Periconia, Myxomycete group is composed of three different groups whose spores have similar morphologies. Smuts are plant pathogens, Periconia is a relatively uncommon mold indoors, and Myxomycetes are not fungi but slime molds. Although these organisms do not typically proliferate indoors, their spores are potentially allergenic.
- 5. The colorless group contains colorless spores which were unidentifiable to a specific genus. Examples of this group include Acremonium, Aphanocladium, Beauveria, Chrysosporium, Engyodontium microconidia, yeast, some arthrospores, as well as many others.
- 6. Hyphae are the vegetative mode of fungi. Hyphal elements are fragments of individual Hyphae. They can break apart and become airborne much like spores and are potentially allergenic. A mass of hyphal elements is termed the mycelium. Hyphae in high concentration may be indicative of colonization.
- 7. Due to rounding totals may not equal 100%.
- 8. The analytical sensitivity is the smallest concentration of spores that can be reliably measured and is equal to (1 spore/# fields observed)(sample area/microscopic field area)(1/unit volume)(dilution factor)
- 9. A dash (-) indicates a result less than the analytical sensitivity.
- 10. The results in this report are related to this project and these samples only.

Suzanne S. Blevins, B.S., SM (ASCP)
Laboratory Director

Syru 5. Poling

APPENDIX B ASSESSMENT PHOTOGRAPHS



Photo 1: 8th floor conference room A/C supply.



Photo 3: View of stained carpet – 7th floor.



Photo 5: View of water stained ceiling tile -2^{nd} floor south cubicle area.



Photo 2: View of the A/C supply – Commissioners conference room.

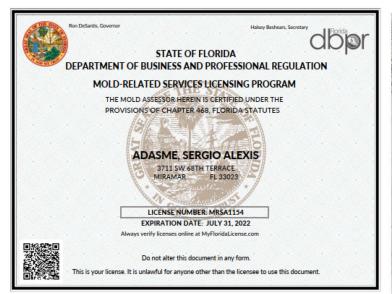


Photo 4: View of a representative supply air diffuser.



Photo 6: View of 1st floor - stain hard ceiling.

APPENDIX C LICENSES AND ACCREDITATIONS



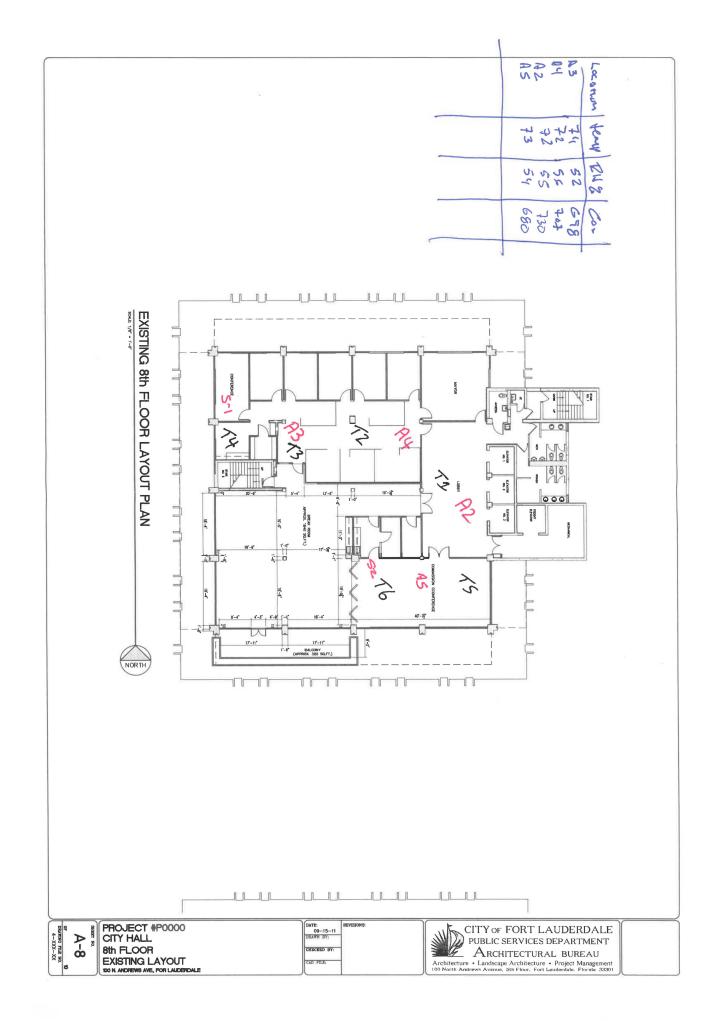


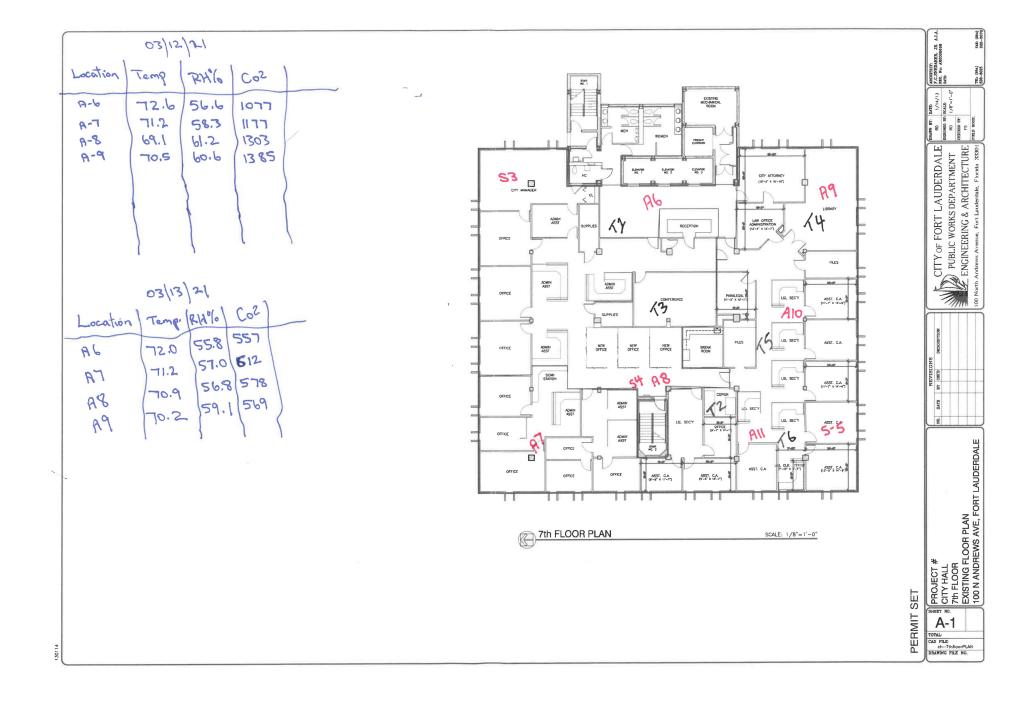


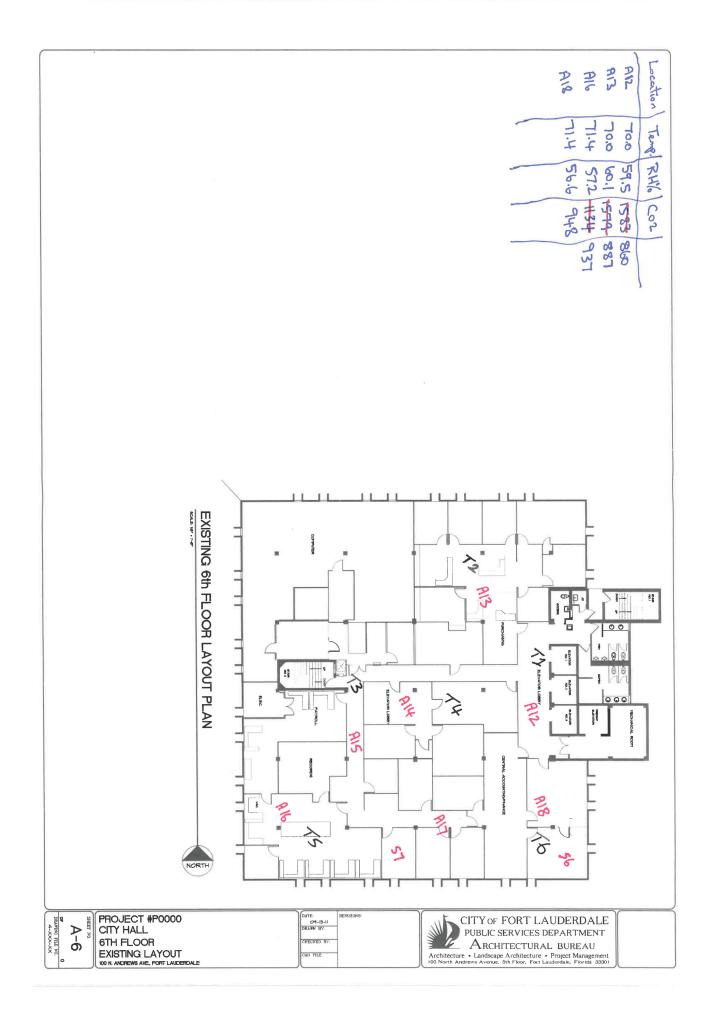
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APPENDIX D

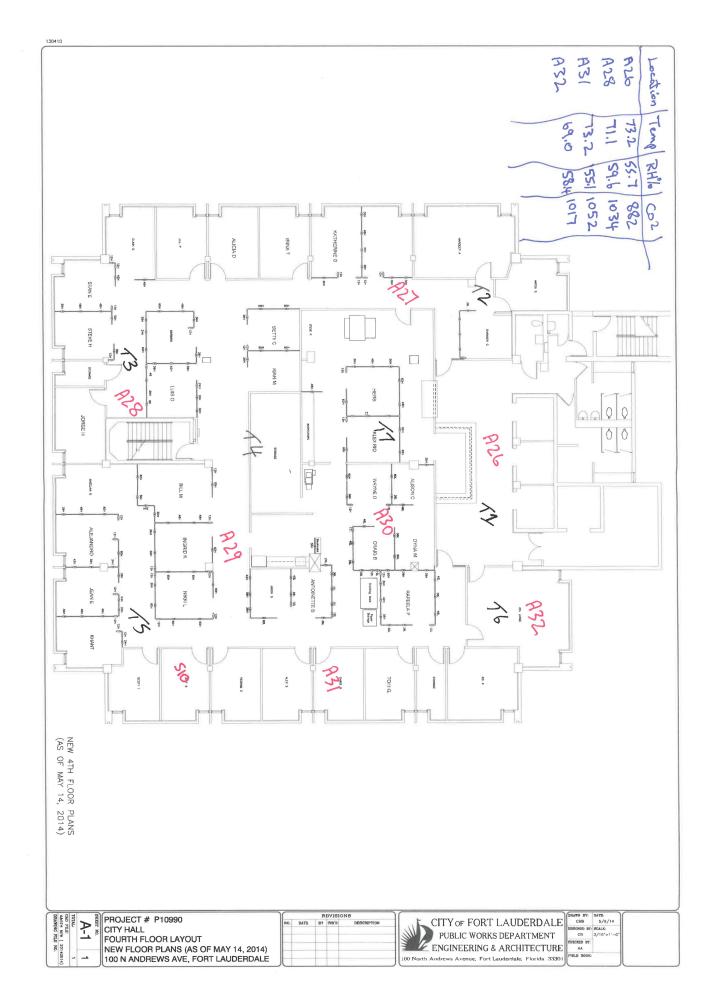
DRAWINGS

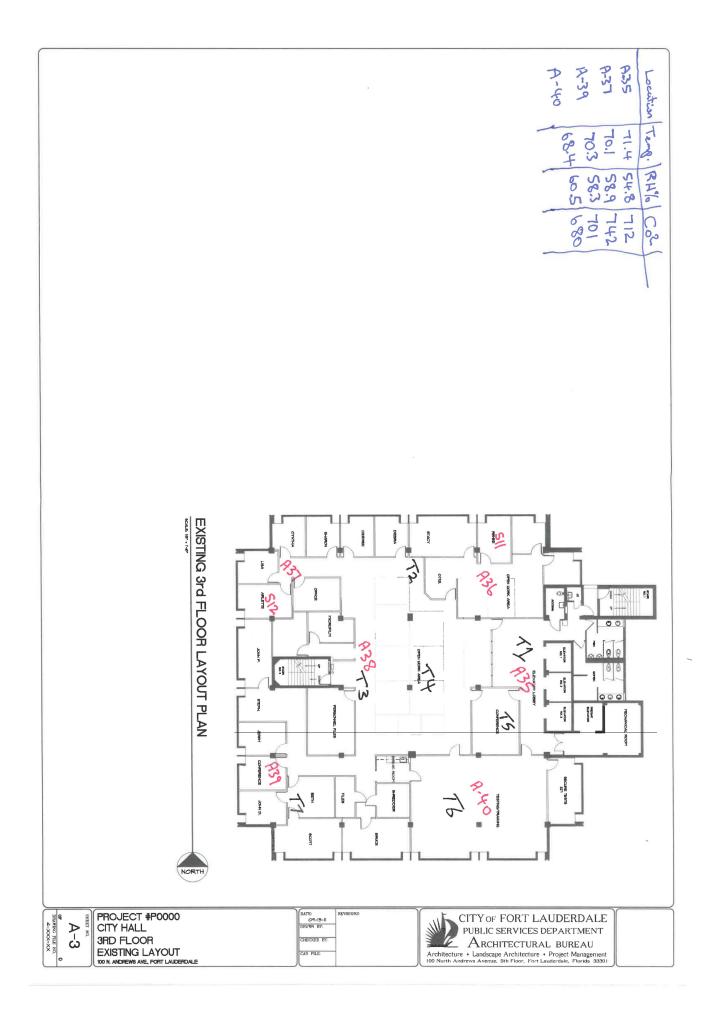


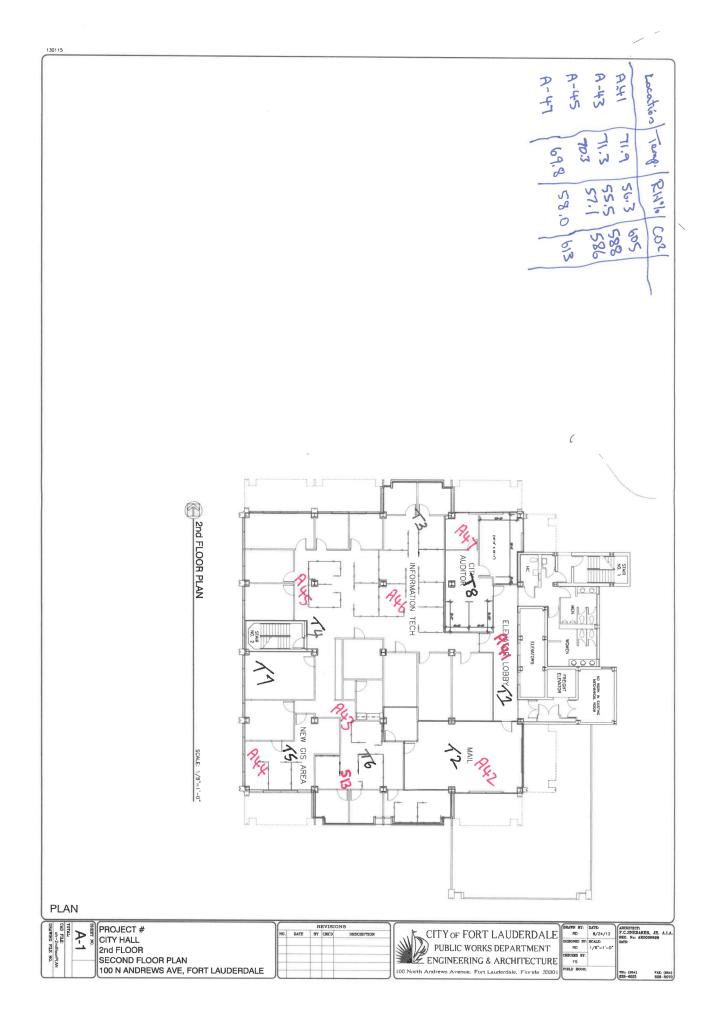


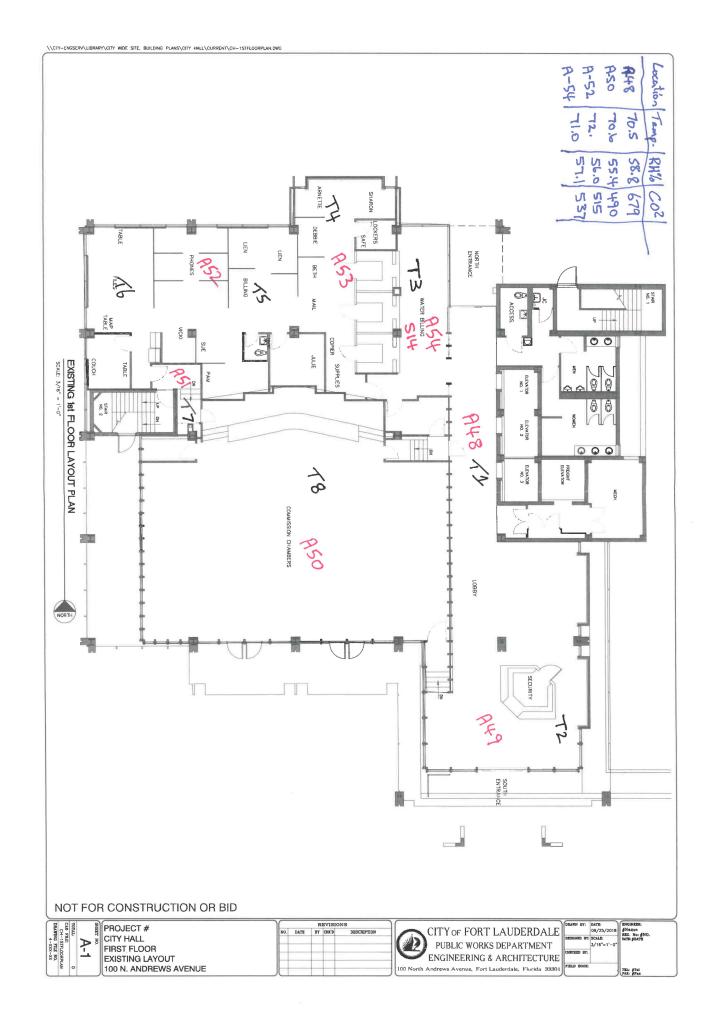












Asbestos Air Sampling Report

Fort Lauderdale City Hall – All Floors (1-8) 100 N. Andrews Avenue Fort Lauderdale, Florida 33301

> March 15, 2021 Terracon Project No. 34217039



Prepared for:

City of Fort Lauderdale Parks and Recreation Department Fort Lauderdale, Florida

Prepared by:

Terracon Consultants, Inc. Fort Lauderdale, Florida

Offices Nationwide Employee-Owned Established in 1965 terracon.com



Commission Memo 21-025 Attachment 2 Page 2 of 28

March 1, 2021

Terracon

City of Fort Lauderdale Parks and Recreation Department 220 SW 14th Avenue, Bldg. #3 Fort Lauderdale, Florida 33312

Attn: Mr. Corey Callier

O: 954.828.5873

E: ccallier@fortlauderdale.gov

Re: Asbestos Air Sampling Report

Fort Lauderdale City Hall – All Floors (1-8)

100 N. Andrews Avenue Fort Lauderdale, FL 33301 Terracon Proposal No: 34217039

Dear Mr. Callier:

Terracon Consultants, Inc. (Terracon) is pleased to submit the attached report to the City of Fort Lauderdale Parks and Recreation Department. The purpose of this report is to present the results of the Transmission Electron Microscopy (TEM) air sampling performed on March 8 - 10, 2021 in floors one through eight at the above-referenced building in Fort Lauderdale, Florida. We understand this air sampling was perform on all floors after a water intrusion episode cause by a water sprinkler malfunction. We understand that, based on information provided by you, our services are requested to provide asbestos air sampling within the property requested by building occupants.

Asbestos fibers were not identified in samples collected and analyzed for this project. Please refer to the attached report for details.

Terracon appreciates the opportunity to provide this service to the City of Fort Lauderdale Parks and Recreation Department. If you have any questions regarding this report, please contact Mr. Sergio A. Adasme 954.703.1865.

Sincerely,

Terracon Consultants, Inc.

Florida Asbestos Consultant Business No. ZA337

Sergio A. Adasme Environmental Services Senior Industrial Hygienist Tom Holley, CHMM, CIH, CSP, MRSA Licensed Asbestos Consultant AX-75 Authorized Project Reviewer

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APPENDIX A: ASBESTOS ANALYTICAL LABORATORY RESULTS

APPENDIX B: LICENSES AND CERTIFICATIONS

APPENDIX C: LOCATION DIAGRAM

ASBESTOS AIR SAMPLING REPORT REPORT Fort Lauderdale City Hall – All Floors – (1-8) 100 N. Andrews Avenue Fort Lauderdale, Florida

Project No. 34217039 Report Date: March 15, 2021

1.0 INTRODUCTION

Terracon performed TEM sampling on all floors (1-8) on March 8-10, 2021 at the Fort Lauderdale City Hall located in Fort Lauderdale, Florida. We understand that, based on information provided by you, our services are requested to provide asbestos air sampling within the property requested by building occupants.

The air sampling was conducted by Terracon's State of Florida approved asbestos building inspector Mr. Sergio A. Adasme and Mr. Ryan Nanan, Terracon's applicable licenses and certifications are presented in Appendix B.

Terracon's project monitors collected air samples in general accordance with NIOSH Method No. 7402 (TEM) to identify airborne fiber concentrations. Our observations and air sampling results will be presented in a written report at the end of the project. Sample locations were determined in the field based on visual observation.

1.1 Project Objective

Terracon understands that this air sampling was requested after a water intrusion episode cause by a water sprinkler malfunction. Samples were collected randomly on all floors (1-8)

1.2 Reliance

This report is for the exclusive use of the City of Fort Lauderdale Parks and Recreation Department, for the project being discussed. Reliance by any other party on this report is prohibited without written authorization of Terracon and the City of Fort Lauderdale Parks and Recreation Department. Reliance on this report by the City of Fort Lauderdale Parks and Recreation Department, and all authorized parties will be subject to the terms, conditions, and limitations stated in the proposal, this report and Terracon's Agreement for Services. The limitations of liability defined in Terracon's Agreement for Services is the aggregate limit of Terracon's liability to the City of Fort Lauderdale Parks and Recreation Department.

2.0 BUILDING DESCRIPTION

The structure is an eight-story building constructed in 1966, with concrete block structure with steel framing atop a slab-on-grade concrete floor. Interior finishes predominantly consisted of lay-in ceiling tiles, painted drywall systems, carpet and floor tile.

3.0 FIELD ACTIVITIES

A summary of activities is provided below.

3.1 Air Sampling

Terracon collected samples of air on 25 millimeter, mixed-cellulose ester filter membranes (0.45-micron pore size) contained in manufacturer pre-assembled, three-piece cassettes with electrically conductive extended cowls. Pump flow rates were determined (both at the start and at the end of the sampling period) using a rotameter. Fibers from ambient air were collected with the filter cassette open-faced and positioned between three to five feet above the floor. Pump rate was set at 10 liters per minute with the cassette cowl angled at 45 degrees.

Based on results of the visual observation, air samples were collected at random locations throughout the floors. Samples were placed in sealable containers and labeled with unique sample numbers using an indelible marker. Fifty-five (55) air samples were collected during our three-day site visit.

Air samples were submitted under chain of custody to EMSL, Florida for analysis by TEM per EPA 40 CFR part 763 Appendix A to Subpart E. EMSL is accredited under the National Voluntary Laboratory Accreditation Program (NVLAP Accreditation No. 200204-0). A copy of the analytical results is included in Appendix A. A sample location diagram is included in Appendix C.

4.0 FINDINGS

Terracon collected fifty-five air samples from the work area. Analytical results for all fifty-five samples indicated airborne asbestos fiber concentrations below the EPA Clearance Criteria of 70 structures per millimeter square (s/mm2). Detailed TEM air sampling results are presented in Appendix A.

5.0 LIMITATIONS/GENERAL COMMENTS

The asbestos assessment was conducted in a manner consistent with the level of care and skill ordinarily exercised by members of the profession currently practicing under similar conditions in the same locale. The results, findings, conclusions and recommendations expressed in this report are based on conditions observed during our survey of the structures. The information contained in this report is relevant to the dates on which this survey was performed and should not be relied upon to represent conditions at a later date.

This report has been prepared on behalf of and exclusively for use by the City of Fort Lauderdale Parks and Recreation Department, for specific application to their project as discussed. This report

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is not a bidding document. Contractors or consultants reviewing this report must draw their own conclusions regarding further investigation or remediation deemed necessary. Terracon does not warrant the work of regulatory agencies, laboratories or other third parties supplying information which may have been used in the preparation of this report. No warranty expressed or implied is made.

APPENDIX A

ASBESTOS ANALYTICAL LABORATORY RESULTS



19501 NE 10th Ave. Bay A N. Miami Beach, FL $\,$ 33179

Tel/Fax: (305) 650-0577 / (305) 650-0578 http://www.EMSL.com / miamilab@emsl.com EMSL Order: 172101401 Customer ID: TERC72 Customer PO: 34217039

Project ID:

Attention: Sergio Adasme

Terracon Consultants, Inc.

5371 NW 33rd Ave

Suite 201

Fort Lauderdale, FL 33309

Project: 34217039 - 1st Flr

Phone: (954) 234-4853

Fax: (954) 741-8240

Received Date: 03/11/2021 16:20 PM

Analysis Date: 03/12/2021

Collected Date:

Test Report: Asbestos Fiber Analysis by Transmission Electron Microscopy (TEM) Performed by EPA 40 CFR Part 763 Appendix A to Subpart E

		Volume	Area Analyzed	Non	Asbestos	#Structu	res	Analytical Sensitivity		estos ntration
Sample	Location	(Liters)	(mm²)	Asb	Type(s)	≥0.5µ < 5µ	≥5μ	(S/cc)	(S/mm²)	(S/cc)
T1	Elevator Lobby 1st Flr	1200.00	0.0700	0	None Detected	0	0	0.0046	<14.00	<0.0046
172101401-0001										
T2	Security 1st Flr	1200.00	0.0700	0	None Detected	0	0	0.0046	<14.00	<0.0046
172101401-0002										
T3	Waiting Room 1st Flr	1200.00	0.0700	0	None Detected	0	0	0.0046	<14.00	<0.0046
172101401-0003										
T4	North Offices/ Cubicles 1st Flr	1200.00	0.0700	0	None Detected	0	0	0.0046	<14.00	<0.0046
172101401-0004										
T5	Center Cubicles 1st Flr	1200.00	0.0700	0	None Detected	0	0	0.0046	<14.00	<0.0046
172101401-0005										
T6	Northwest Cubicles 1st Flr	1200.00	0.0700	0	None Detected	0	0	0.0046	<14.00	<0.0046
172101401-0006										
T7	West Hallway 1st Flr	1200.00	0.0700	0	None Detected	0	0	0.0046	<14.00	<0.0046
172101401-0007										
T8	Commission Chambers 1st	1200.00	0.0700	0	None Detected	0	0	0.0046	<14.00	<0.0046
172101401-0008										

Analyst(s)	
ne McOscar (8)	

Kimberly Wallace, Laboratory Manager or other approved signatory

Jerly a. Wallace

EMSL maintains liability limited to cost of analysis. Interpretation and use of test results are the responsibility of the client. This report relates only to the samples reported above, and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. The report reflects the samples as received. Results are generated from the field sampling volumes and areas, locations, etc.) provided by the client on the Chain of Custody. Samples are within quality control criteria and met method specifications unless otherwise noted. This report must not be used to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government. Measurement of uncertainty available upon request.

Samples analyzed by EMSL Analytical, Inc. N. Miami Beach, FL NVLAP Lab Code 200204-0



Tel/Fax: (305) 650-0577 / (305) 650-0578 http://www.EMSL.com / miamilab@emsl.com

EMSL Order: 172101402 Customer ID: TERC72 Customer PO: 34217039

Project ID:

Attention: Sergio Adasme **Phone:** (954) 234-4853 Terracon Consultants, Inc. Fax: (954) 741-8240

5371 NW 33rd Ave Received Date: 03/11/2021 16:20 PM

Suite 201 **Analysis Date:** 03/12/2021 Fort Lauderdale, FL 33309 **Collected Date:**

Project: 34217039 - 2nd Flr

Test Report: Asbestos Fiber Analysis by Transmission Electron Microscopy (TEM) Performed by EPA 40 CFR Part 763 Appendix A to Subpart E

		Volume	Area Analyzed	Non	Asbestos	#Structu	res	Analytical Sensitivity		estos ntration
Sample	Location	(Liters)	(mm²)	Asb	Type(s)	≥0.5µ < 5µ	≥5µ	(S/cc)	(S/mm²)	(S/cc)
T1	Elevator Lobby 2nd Flr	1200.00	0.0700	0	None Detected	0	0	0.0046	<14.00	<0.0046
172101402-0001										
T2	Mail Room 2nd Flr	1200.00	0.0700	0	None Detected	0	0	0.0046	<14.00	<0.0046
172101402-0002										
Т3	North Cubicles/ Offices 2nd Flr	1200.00	0.0700	0	None Detected	0	0	0.0046	<14.00	<0.0046
172101402-0003										
T4	West Hallway / Cubicles 2nd Flr	1200.00	0.0700	0	None Detected	0	0	0.0046	<14.00	<0.0046
172101402-0004										
T5	Southwest Cubicles / Offices 2nd Flr	1200.00	0.0700	0	None Detected	0	0	0.0046	<14.00	<0.0046
172101402-0005										
T6	South Cubicles / Offices 2nd Flr	1200.00	0.0700	0	None Detected	0	0	0.0046	<14.00	<0.0046
172101402-0006										
T7	Conference Room 2nd Flr	1200.00	0.0700	0	None Detected	0	0	0.0046	<14.00	<0.0046
172101402-0007										
T8	Application Services 2nd Flr	1200.00	0.0700	0	None Detected	0	0	0.0046	<14.00	<0.0046
172101402-0008										

Analyst(s)	
oe McOscar (8)	

Kimberly Wallace, Laboratory Manager or other approved signatory

Lerly a Wallace

EMSL maintains liability limited to cost of analysis. Interpretation and use of test results are the responsibility of the client. This report relates only to the samples reported above, and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. The report reflects the samples as received. Results are generated from the field sampling data (sampling volumes and areas, locations, etc.) provided by the client on the Chain of Custody. Samples are within quality control criteria and met method specifications unless otherwise noted. This report must not be used to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government. Measurement of uncertainty available upon request.

Commission Memo 21-025 Attachment 2 PagEMSL Analytical, Inc. 19501 NE 10th Ave. Bay A N. Miami Beach, FL 33179

Tel/Fax: (305) 650-0577 / (305) 650-0578

http://www.EMSL.com / miamilab@emsl.com

EMSL Order: 172101400 Customer ID: TERC72 Customer PO: 34217039

Project ID:

Attention: Sergio Adasme **Phone:** (954) 234-4853 Terracon Consultants, Inc. Fax: (954) 741-8240

5371 NW 33rd Ave Received Date: 03/11/2021 16:20 PM

Suite 201 **Analysis Date:** 03/12/2021 Fort Lauderdale, FL 33309 Collected Date: 03/11/2021

Project: 34217039 - 3rd Flr

Test Report: Asbestos Fiber Analysis by Transmission Electron Microscopy (TEM) Performed by EPA 40 CFR Part 763 Appendix A to Subpart E

		Volume	Area Analyzed	Non	Asbestos	#Structu	res	Analytical Sensitivity		estos ntration
Sample	Location	(Liters)	(mm²)	Asb	Type(s)	≥0.5µ < 5µ		(S/cc)	(S/mm²)	(S/cc)
T1	Elevator Lobby 3rd Flr	1200.00	0.0700	0	None Detected	0	0	0.0046	<14.00	<0.0046
172101400-0001										
T2	North Offices / Hallway 3rd Flr	1200.00	0.0700	0	None Detected	0	0	0.0046	<14.00	<0.0046
172101400-0002										
Т3	West Hallway / Cubicles 3rd Flr	1200.00	0.0700	0	None Detected	0	0	0.0046	<14.00	<0.0046
172101400-0003										
T4	Center Cubicles 3rd Flr	1200.00	0.0700	0	None Detected	0	0	0.0046	<14.00	<0.0046
172101400-0004										
T5	Conference Room 3rd Flr	1200.00	0.0700	0	None Detected	0	0	0.0046	<14.00	<0.0046
172101400-0005										
T6	Training Room 3rd Flr	1200.00	0.0700	0	None Detected	0	0	0.0046	<14.00	<0.0046
172101400-0006										
T7	Southwest Offices 3rd Flr	1200.00	0.0700	0	None Detected	0	0	0.0046	<14.00	<0.0046
172101400-0007										

Analyst(s)	
ne McOscar (7)	

Kimberly Wallace, Laboratory Manager or other approved signatory

berly a. Wallace

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Tel/Fax: (305) 650-0577 / (305) 650-0578 http://www.EMSL.com / miamilab@emsl.com EMSL Order: 172101366 Customer ID: TERC72 Customer PO: 34217039

Project ID:

Attention: Sergio Adasme Phone: (954) 234-4853
Terracon Consultants, Inc. Fax: (954) 741-8240

5371 NW 33rd Ave Received Date: 03/10/2021 16:13 PM

Suite 201 Analysis Date: 03/11/2021 Fort Lauderdale, FL 33309 Collected Date: 03/10/2021

Project: 34217039

Test Report: Asbestos Fiber Analysis by Transmission Electron Microscopy (TEM) Performed by EPA 40 CFR Part 763 Appendix A to Subpart E

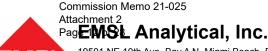
		Volume	Area Analyzed	Non	Asbestos	#Structu	res	Analytical Sensitivity		estos ntration
Sample	Location	(Liters)	(mm²)	Asb	Type(s)	≥0.5µ < 5µ	≥5μ	(S/cc)	(S/mm²)	(S/cc)
T1	Elevator Lobby 4th Flr	1200.00	0.0700	0	None Detected	0	0	0.0046	<14.00	<0.0046
172101366-0001										
T2	Northeast Offices / Cubicles 4th Flr	1200.00	0.0700	0	None Detected	0	0	0.0046	<14.00	<0.0046
172101366-0002										
T3	West Offices / Cubicles 4th Flr	1200.00	0.0700	0	None Detected	0	0	0.0046	<14.00	<0.0046
172101366-0003										
T4	Center Cubicles 4th Flr	1200.00	0.0700	0	None Detected	0	0	0.0046	<14.00	<0.0046
172101366-0004										
T5	Southwest Hallway 4th Flr	1200.00	0.0700	0	None Detected	0	0	0.0046	<14.00	<0.0046
172101366-0005										
T6	Conference Room 4th Flr	1200.00	0.0700	0	None Detected	0	0	0.0046	<14.00	<0.0046
172101366-0006										
T7	East Cubicles 4th Flr	1200.00	0.0700	0	None Detected	0	0	0.0046	<14.00	<0.0046
172101366-0007										

Analyst(s)	
Joe McOscar (7)	

Kimberly Wallace, Laboratory Manager or other approved signatory

berly a. Wallace

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Project ID:

Attention: Sergio Adasme Phone: (954) 234-4853
Terracon Consultants, Inc. Fax: (954) 741-8240

5371 NW 33rd Ave Received Date: 03/10/2021 16:10 PM

Suite 201 Analysis Date: 03/11/2021 Fort Lauderdale, FL 33309 Collected Date: 03/10/2021

Project: 34217039

Test Report: Asbestos Fiber Analysis by Transmission Electron Microscopy (TEM) Performed by EPA 40 CFR Part 763 Appendix A to Subpart E

		Volume	Area Analyzed	Non	Asbestos	#Structu	res	Analytical Sensitivity		estos ntration
Sample	Location	(Liters)	(mm²)	Asb	Type(s)	≥0.5µ < 5µ	≥5µ	(S/cc)	(S/mm²)	(S/cc)
T1 172101368-0001	Elevator Lobby 5th Flr	1200.00	0.0700	0	None Detected	0	0	0.0046	<14.00	<0.0046
T2 172101368-0002	Conference Room 5th Flr	1200.00	0.0700	0	None Detected	0	0	0.0046	<14.00	<0.0046
T3 172101368-0003	North Cubicles 5th Flr	1200.00	0.0700	0	None Detected	0	0	0.0046	<14.00	<0.0046
T4 172101368-0004	West Cubicles / Hallway 5th Flr	1200.00	0.0700	0	None Detected	0	0	0.0046	<14.00	<0.0046
T5 172101368-0005	Southwest Hallway 5th Flr	1200.00	0.0700	0	None Detected	0	0	0.0046	<14.00	<0.0046
T6 172101368-0006	Southeast Cubicles 5th Flr	1200.00	0.0700	0	None Detected	0	0	0.0046	<14.00	<0.0046
T7 172101368-0007	Kitchen 5th Flr	1200.00	0.0700	0	None Detected	0	0	0.0046	<14.00	<0.0046

Analyst(s)			
Analyst(s)			

Kimberly Wallace, Laboratory Manager or other approved signatory

Jerly a Wallace

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Tel/Fax: (305) 650-0577 / (305) 650-0578 http://www.EMSL.com / miamilab@emsl.com EMSL Order: 172101365 Customer ID: TERC72 Customer PO: 34217039

Project ID:

or other approved signatory

Attention: Sergio Adasme Phone: (954) 234-4853
Terracon Consultants, Inc. Fax: (954) 741-8240

5371 NW 33rd Ave Received Date: 03/10/2021 16:13 PM

Suite 201 Analysis Date: 03/11/2021 Fort Lauderdale, FL 33309 Collected Date: 03/10/2021

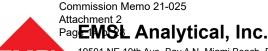
Project: 34217039

Test Report: Asbestos Fiber Analysis by Transmission Electron Microscopy (TEM) Performed by EPA 40 CFR Part 763 Appendix A to Subpart E

		Volume	Area Analyzed	Non	Asbestos	#Structu	ıres	Analytical Sensitivity		estos ntration
Sample	Location	(Liters)	(mm²)	Asb	Type(s)	≥0.5µ < 5µ	≥0.5µ < 5µ ≥5µ	(S/cc)	(S/mm²)	(S/cc)
T1	Elevator Lobby 6th Flr	1200.00	0.0700	0	None Detected	0	0	0.0046	<14.00	<0.0046
172101365-0001										
T2	Procurement Specialist 6th Flr	1200.00	0.0700	0	None Detected	0	0	0.0046	<14.00	<0.0046
172101365-0002										
T3	Center Hallway 6th Flr	1200.00	0.0700	0	None Detected	0	0	0.0046	<14.00	<0.0046
172101365-0003										
T4	Treasury 6th Flr	1200.00	0.0700	0	None Detected	0	0	0.0046	<14.00	<0.0046
172101365-0004										
T5	Account Payable 6th Flr	1200.00	0.0700	0	None Detected	0	0	0.0046	<14.00	<0.0046
172101365-0005										
T6	Deputy Director of Finance 6th Flr	1200.00	0.0700	0	None Detected	0	0	0.0046	<14.00	<0.0046
172101365-0006										

	Fim berly 4' W
Analyst(s)	wii wo org
Joe McOscar (6)	Kimberly Wallace, Laboratory M

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Tel/Fax: (305) 650-0577 / (305) 650-0578 http://www.EMSL.com / miamilab@emsl.com EMSL Order: 172101323 Customer ID: TERC72 Customer PO: 34217039

Project ID:

Attention: Sergio Adasme Phone: (954) 234-4853
Terracon Consultants, Inc. Fax: (954) 741-8240

5371 NW 33rd Ave Received Date: 03/09/2021 15:10 PM

 Suite 201
 Analysis Date:
 03/10/2021

 Fort Lauderdale, FL 33309
 Collected Date:
 03/09/2021

Project: 34217039

Test Report: Asbestos Fiber Analysis by Transmission Electron Microscopy (TEM) Performed by EPA 40 CFR Part 763 Appendix A to Subpart E

		Volume	Area Analyzed	Non	Asbestos	#Structu	ıres	Analytical Sensitivity		estos ntration
Sample	Location	(Liters)	(mm²)	Asb	Type(s)	≥0.5µ < 5µ	≥5µ	(S/cc)	(S/mm²)	(S/cc)
T1	Elevator Lobby 7th Flr	1200.00	0.0700	0	None Detected	0	0	0.0046	<14.00	<0.0046
172101323-0001										
T2	Comissioner District 3 7th Flr	1200.00	0.0700	0	None Detected	0	0	0.0046	<14.00	<0.0046
172101323-0002										
T3	Conference Room 7th Flr	1200.00	0.0700	0	None Detected	0	0	0.0046	<14.00	<0.0046
172101323-0003										
T4	Legal Conference Room 7th Flr	1200.00	0.0700	0	None Detected	0	0	0.0046	<14.00	<0.0046
172101323-0004										
T5	Center Hallway 7th Flr	1200.00	0.0700	0	None Detected	0	0	0.0046	<14.00	<0.0046
172101323-0005										
T6	Southwest Cubicles 7th Flr	1200.00	0.0700	0	None Detected	0	0	0.0046	<14.00	<0.0046
172101323-0006										

Analyst(s)	
ne McOscar (6)	

Kimberly Wallace, Laboratory Manager or other approved signatory

berly a. Wallace

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Project ID:

Attention: Sergio Adasme Phone: (954) 234-4853
Terracon Consultants, Inc. Fax: (954) 741-8240

5371 NW 33rd Ave Received Date: 03/09/2021 15:10 PM

Suite 201 Analysis Date: 03/10/2021 Fort Lauderdale, FL 33309 Collected Date: 03/09/2021

Project: 34217039

Test Report: Asbestos Fiber Analysis by Transmission Electron Microscopy (TEM) Performed by EPA 40 CFR Part 763 Appendix A to Subpart E

		Volume	Area Analyzed	Non	Asbestos	#Structu		Analytical Sensitivity		estos ntration
Sample	Location	(Liters)	(mm²)	Asb	Type(s)	≥0.5µ < 5µ	≥5µ	(S/cc)	(S/mm²)	(S/cc)
T1	Elevator Lobby 8th Flr	1200.00	0.0700	0	None Detected	0	0	0.0046	<14.00	<0.0046
172101324-0001										
T2	Hallway 8th Flr	1200.00	0.0700	0	None Detected	0	0	0.0046	<14.00	<0.0046
172101324-0002										
T3	West Cubicle 8th Flr	1200.00	0.0700	0	None Detected	0	0	0.0046	<14.00	<0.0046
172101324-0003										
T4	Kitchen 8th Flr	1200.00	0.0700	0	None Detected	0	0	0.0046	<14.00	<0.0046
172101324-0004										
T5	Conference Room East 8th Flr	1200.00	0.0700	0	None Detected	0	0	0.0046	<14.00	<0.0046
172101324-0005										
T6	Conference Room West 8th Flr	1200.00	0.0700	0	None Detected	0	0	0.0046	<14.00	<0.0046
172101324-0006										

Analyst(s)	
ne McOscar (6)	

Kimberly Wallace, Laboratory Manager or other approved signatory

Lerly a Wallace

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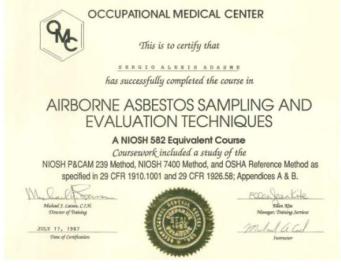
APPENDIX B

LICENSES AND CERTIFICATIONS









United States Department of Commerce National Institute of Standards and Technology



Certificate of Accreditation to ISO/IEC 17025:2017

NVLAP LAB CODE: 200204-0

EMSL Analytical, Inc.

N. Miami Beach, FL

is accredited by the National Voluntary Laboratory Accreditation Program for specific services, listed on the Scope of Accreditation, for:

Asbestos Fiber Analysis

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017.

This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communique dated January 2009).

2020-04-01 through 2021-03-31

Effective Dates



For the National Voluntary Laboratory Accreditation Program

National Voluntary Laboratory Accreditation Program



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

EMSL Analytical, Inc.

Skylake Executive Industrial Park 19501 N.E. 10th Ave., Bay A N. Miami Beach, FL 33179 Ms. Kimberly A. Wallace

Phone: 305-650-0577 Fax: 305-650-0578 Email: kwallace@emsl.com

http://www.emsl.com

ASBESTOS FIBER ANALYSIS

NVLAP LAB CODE 200204-0

Bulk Asbestos Analysis

<u>Code</u> <u>Description</u>

18/A01 EPA -- 40 CFR Appendix E to Subpart E of Part 763, Interim Method of the Determination of

Asbestos in Bulk Insulation Samples

18/A03 EPA 600/R-93/116: Method for the Determination of Asbestos in Bulk Building Materials

Airborne Asbestos Analysis

<u>Code</u> <u>Description</u>

18/A02 U.S. EPA's "Interim Transmission Electron Microscopy Analytical Methods-Mandatory and

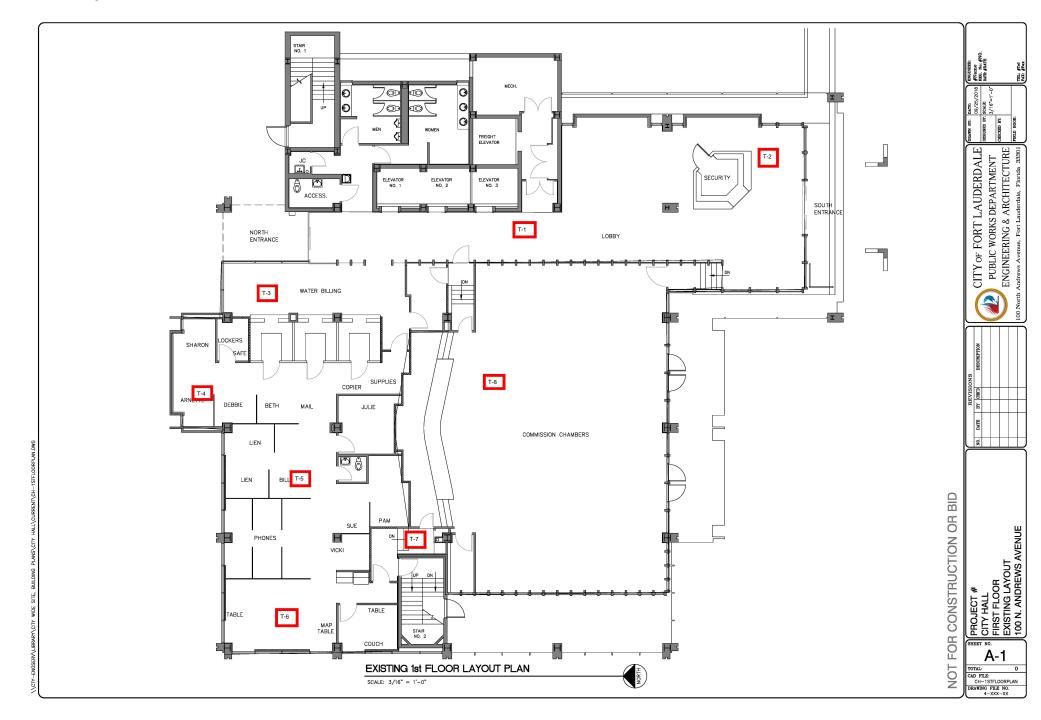
Nonmandatory-and Mandatory Section to Determine Completion of Response Actions" as found in

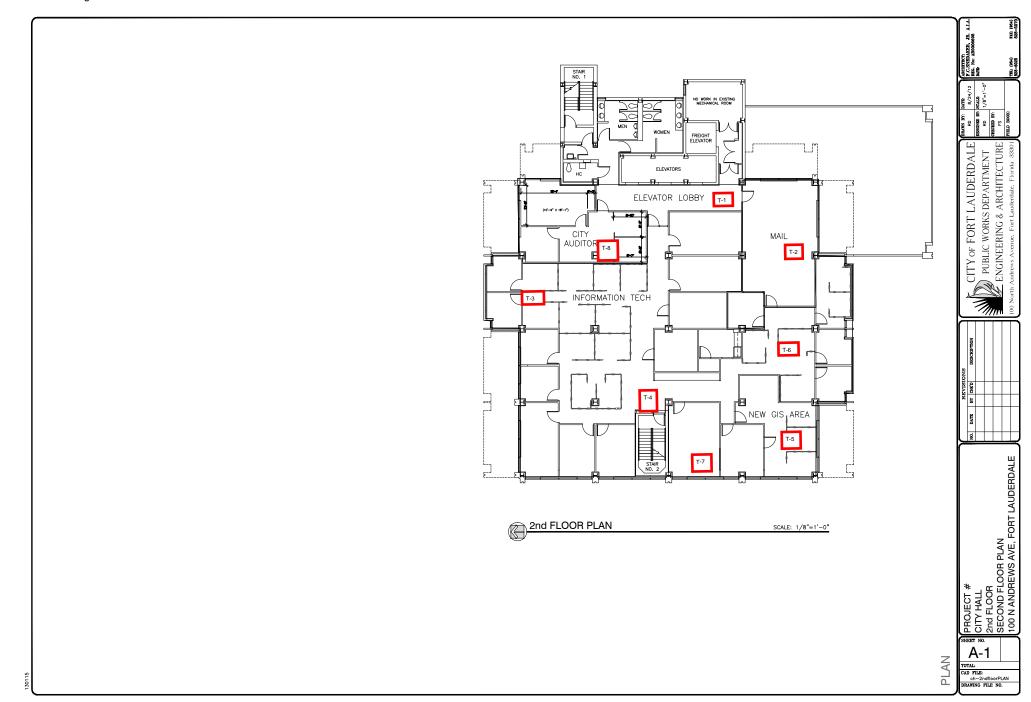
40 CFR, Part 763, Subpart E, Appendix A.

For the National Voluntary Laboratory Accreditation Program

Commission Memo 21-025 Attachment 2 Page 20 of 28

APPENDIX C LOCATION DIAGRAM





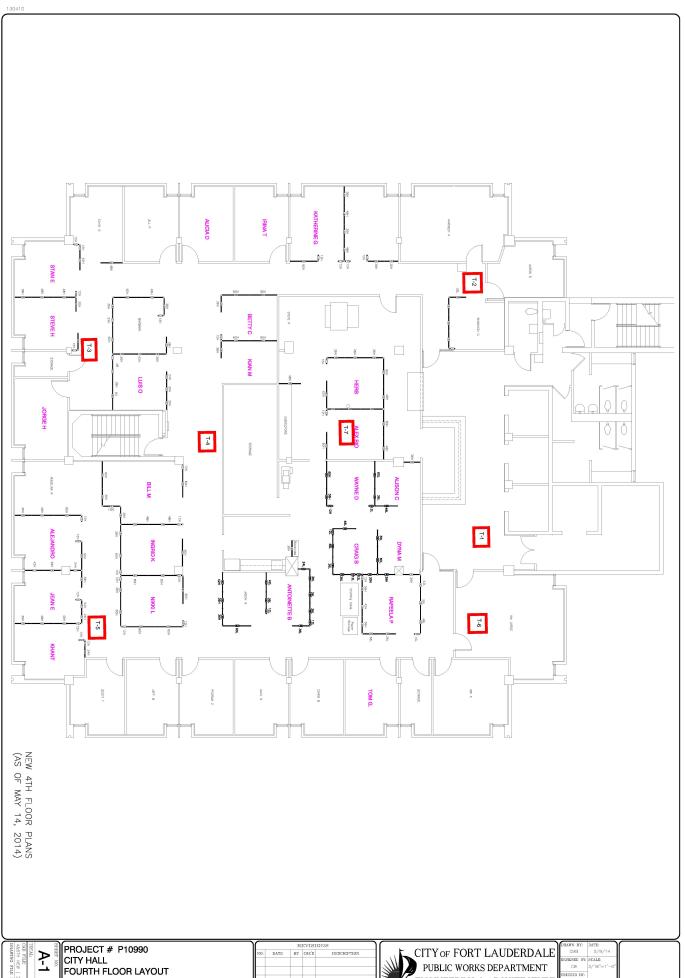


A-3

PROJECT #P0000 CITY HALL 3RD FLOOR EXISTING LAYOUT

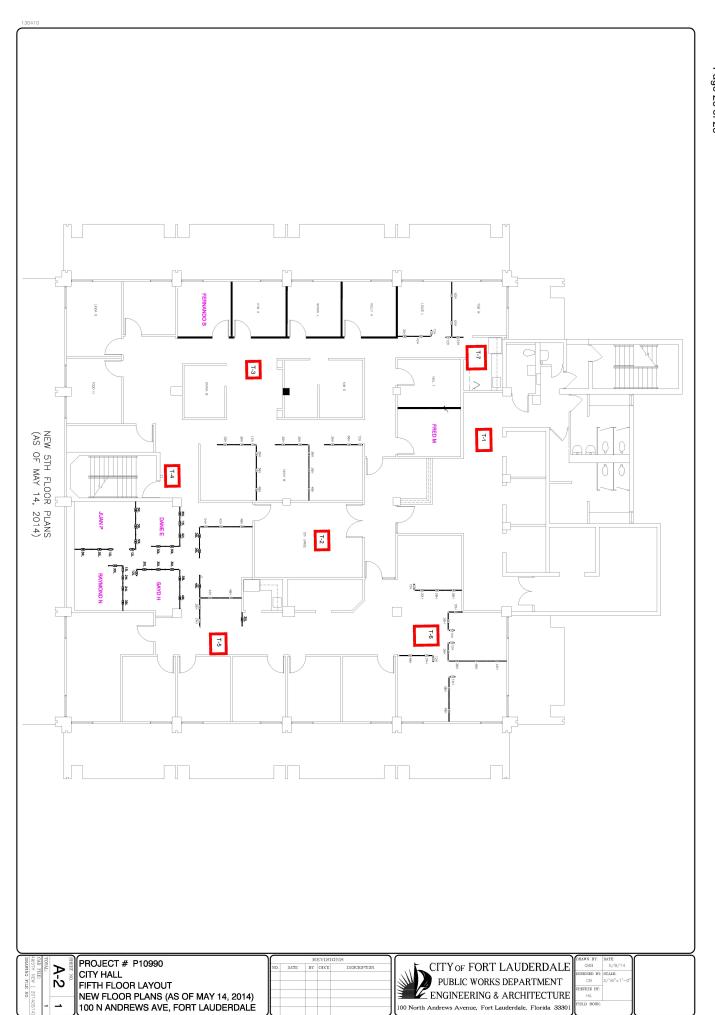
1	DATE:	REVISIONS:
	09-15-11	
	DRAWN HY:	
	CHECKED BY:	
	CAD FILE:	
J	l l	

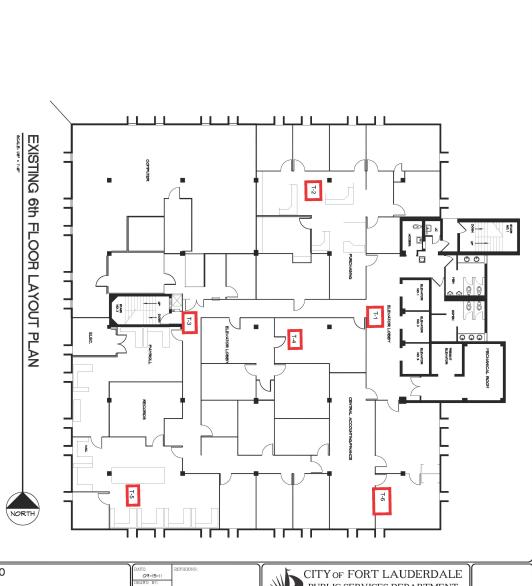
CITY OF FORT LAUDERDALE
PUBLIC SERVICES DEPARTMENT
ARCHITECTURAL BUREAU
Architecture • Landscape Architecture • Project Management
100 North Andrews Avenue, 5th Floor, Fort Lauderdale, Florida 33301



FOURTH FLOOR LAYOUT NEW FLOOR PLANS (AS OF MAY 14, 2014) 100 N ANDREWS AVE, FORT LAUDERDALE

PUBLIC WORKS DEPARTMENT ENGINEERING & ARCHITECTURE 100 North Andrews Avenue, Fort Lauderdale, Florida 3330



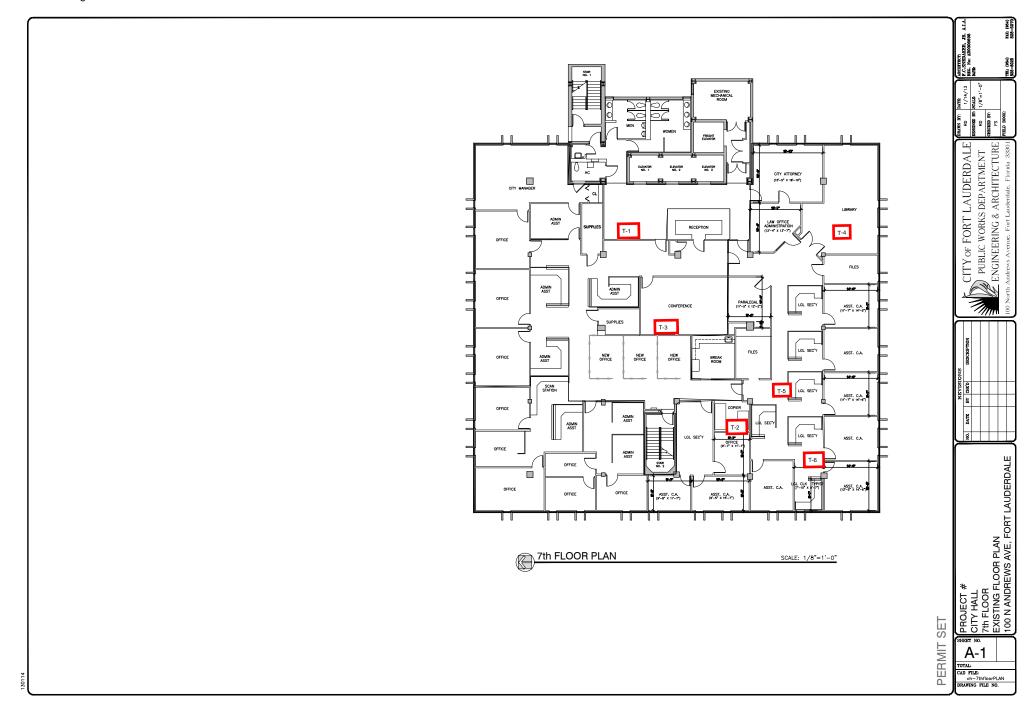


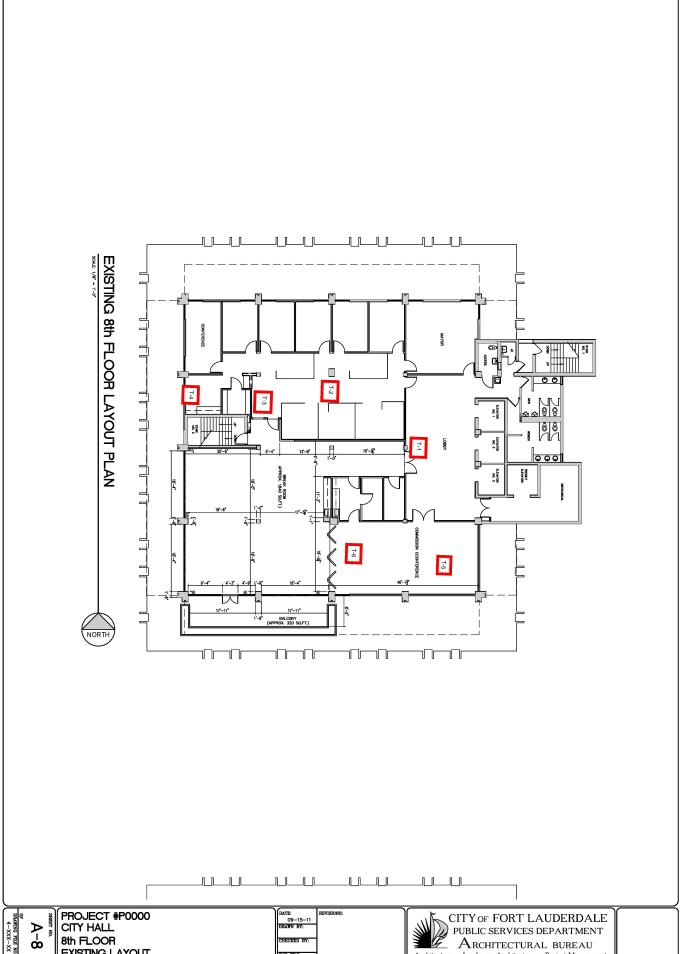
A-6

PROJECT #P0000 CITY HALL 6TH FLOOR EXISTING LAYOUT 100 N. ANDREWS AVE, FORT LAUDERDALE

DATE:
OF-15-11
DRAWN BY:
CHECKED BY:
CAD FILE:

CITY OF FORT LAUDERDALE
PUBLIC SERVICES DEPARTMENT
ARCHITECTURAL BUREAU
Architecture • Landscape Architecture • Project Management
100 North Andrews Avenue, 5th Floor, Fort Lauderdale, Florida 33301





EXISTING LAYOUT



Architecture • Landscape Architecture • Project Management 100 North Andrews Avenue, 5th Floor, Fort Lauderdale, Florida 33301