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September 16, 2015

John Cloonan
Director of Public Works
230C Mountain Road
Suffield, CT 06078

Via email: *Cloonan@Suffieldct.gov*

RE: Suffield Town Hall Limited Indoor Quality Survey Report
TRC Project # 242843.0000

John,

TRC conducted an Indoor Air Quality (IAQ) Assessment at the above-referenced site. The purpose of the assessment is to determine if there was evidence of amplified airborne microbial spores within the affected spaces located in Tax Collector and Tax Assessor offices 1st floor of Town Hall located at 83 Mountain Road, Suffield, CT. TRC was requested back on September 11, 2015 to investigate offices on ground floor for Parks & Recreation area. The investigation included visual/olfactory observations, coupled with microbial sampling (total fungal spore count and identification), baseline IAQ parameter measurements of temperature (T), relative humidity (RH), carbon dioxide (CO_2), carbon monoxide (CO) and total dust. Martin Lewis, Certified Industrial Hygienist, performed the sampling and visual inspection on August 28, 2015 and September 11, 2015 during the normal day shift.

OBSERVATIONS

At the time of the assessment, TRC observed the following:

- Outside Town Hall the ambient air was hot, sunny, slight wind and no active lawn care in progress.
- Town Hall offices are equipped with below window air conditioners feed chilled water by central unit in ground floor mechanical room. Staff reported A/C units in wall we serviced 3 weeks ago with drip pans cleaned and RectorSeal Refresh™ tablets placed in pan to control odor and growth of slime. Some office windows are opened for fresh air.
- Office spaces and hallways have aged floor carpeting with some staining but no visible debris.
- Office ceilings have 2'x4' cellulose tiles (CT) with some water stains present in Tax Assessor and Tax Collector offices. These old CT stains were report by staff as water intrusion from 2 years ago from winter ice dams.
- All occupied offices on 1st floor have multiple live plants present that could add to the airborne microbial results.

- No active water intrusion was noted on 8/28/15 survey. Protimeter moisture readings on carpets and walls indicate normal moisture conditions are present.
- No visible mold or musty odors were noted on office building materials during survey. In Town Clerk area, staff use Yankee Sun & Sand scented candle for room deodorizer.
- Parks & Recreation copier room has ceiling panel removed with active water leak from copper tubing valve unit. Protimeter moisture reading on carpet indicate WME at 43.9%.

SAMPLING AND ANALYTICAL METHODS

Bioaerosol Monitoring

Sampling consisted of taking air samples with Air-O-Cell cassettes for total fungal spore counts (both viable and non-viable spores) and other airborne particulates. The spore trap samples were collected with an AP Buck air pump calibrated to 15 liters per minute and run for 5 minutes (75 liters of air). Airborne particulates are drawn through the cassette and directly impacted on an adhesive collection media. The cassettes are then sent to the laboratory for direct microscopic fungal examination. The Air-O-Cell™ cassette collects both viable and non-viable fungal spores and the laboratory can identify some of the collected spores down to the genus level.

Eight air samples were collected in affected office area, un-affected office areas and two outside ambient air samples.

The microbial samples were sent to EMLAB P&K Laboratories in Marlton, NJ for total mold/fungi analysis. The results of the microbiological sampling are summarized in Table 1. The Chain of Custody and Laboratory reports from EMLAB P&K are included as Attachment 1. The results are typical of summer type conditions with normal fungal species compared to ambient outdoor concentrations. This indicates the indoor environment is not impacted with microbial activity at this time.

EMLAB P&K Lab participates in a variety of different proficiency testing programs, including the Environmental Microbiology Proficiency Analytical Testing Program (EMPAT) sponsored by AIHA.

Note: No federal or state standards or guidelines exist for acceptable or hazardous levels of spore counts. As a result, relative level/type comparisons and professional judgments of concentrations compared to "typical" and ambient levels are utilized to supplement visual inspections in order to provide an assessment.

TABLE 1
SPORE TRAP AIR SAMPLING RESULTS
August 28, 2015

Sample #	Location	Count-Total Spores/m^3	Identification

Sample #	Location	Count-Total Spores/m^3	Identification
1	Ambient outside east wall	13	*Alternaria*
		1,100	*Ascospores*
		1,400	*Cladosporium*
		750	*Curvularia*
		40	*Epicoccum*
		53	*Ganoderma*
		53	*Nigrospora*
		490	*Pithomyces*
		2,600	*Smuts, Periconia, Myxomycetes*
		93	*Hyphal Fragments*
		390	Pollen
		6,500	**Total Fungi**
2	E. Pascale Desk 1st Floor	590	*Ascospores*
		3,100	*Basidiospores*
		1,400	*Cladosporium*
		27	*Curvularia*
		27	*Epicoccum*
		110	*Ganoderma*
		27	*Pithomyces*
		27	*Smuts, Periconia, Myxomycetes*
		80	Pollen
		5,300	**Total Fungi**
3	H. Totz Desk 1st Floor	1,700	*Ascospores*
		690	*Cladosporium*
		120	*Curvularia*
		40	*Epicoccum*
		480	*Ganoderma*
		13	*Nigrospora*
		53	*Pithomyces*
		13	*Rusts*
		200	*Smuts, Periconia, Myxomycetes*
		13	*Hyphal Fragments*
		3,300	**Total Fungi**
4	K. Dungi Desk 1st Floor	53	*Alternaria*
		690	*Ascospores*
		210	*Cladosporium*
		110	*Ganoderma*
		27	*Pithomyces*
		13	*Rusts*
		13	*Smuts, Periconia, Myxomycetes*
		1,100	**Total Fungi**

Sample #	Location	Count-Total Spores/m^3	Identification
5	2nd Floor Conference Room	53	*Ascospores*
		910	*Basidiospores*
		430	*Cladosporium*
		27	*Curvularia*
		160	*Ganoderma*
		13	*Rusts*
		53	*Smuts, Periconia, Myxomycetes*
		1,600	**Total Fungi**
6	J. Schectman Desk 1st Floor	53	*Ascospores*
		640	*Basidiospores*
		210	*Cladosporium*
		13	*Pithomyces*
		40	*Smuts, Periconia, Myxomycetes*
		960	**Total Fungi**
7	Meeting Room Ground Floor	110	*Ascospores*
		1,100	*Basidiospores*
		110	*Cladosporium*
		160	*Ganoderma*
		13	*Hyphal Fragments*
		1,500	**Total Fungi**
8	Ambient outside west wall	320	*Ascospores*
		2,800	*Basidiospores*
		1,500	*Cladosporium*
		270	*Ganoderma*
		13	*Nigrospora*
		13	*Rusts*
		27	*Smuts, Periconia, Myxomycetes*
		27	*Hyphal Fragments*
		27	Pollen
		4,900	**Total Fungi**
1	Ambient outside east wall	960	*Ascospores*
		7,000	*Basidiospores*
		1,900	*Cladosporium*
		250	*Curvularia*
		13	*Epicoccum*
		27	*Nigrospora*
		40	*Pithomyces*
		67	*Polythrincium*
		1,900	*Smuts, Periconia, Myxomycetes*
		240	Pollen
		12,000	**Total Fungi**

Sample #	Location	Count-Total Spores/m^3	Identification
2	Ground Floor Copier Room	160	*Ascospores*
		2,000	*Basidiospores*
		53	*Curvularia*
		790	*Smuts, Periconia, Myxomycetes*
		13	*Hyphal Fragments*
		3,000	**Total Fungi**
3	Parks& Rec Main Office	13	*Alternaria*
		210	*Ascospores*
		480	*Basidiospores*
		430	*Cladosporium*
		67	*Curvularia*
		13	*Pithomyces*
		330	*Smuts, Periconia, Myxomycetes*
		13	*Hyphal Fragments*
		1,500	**Total Fungi**
4	Parks & Rec Supervisor Rm	27	*Alternaria*
		53	*Ascospores*
		1,100	*Basidiospores*
		750	*Cladosporium*
		53	*Curvularia*
		13	*Epicoccum*
		67	*Pithomyces*
		120	*Smuts, Periconia, Myxomycetes*
		2,200	**Total Fungi**
5	Parks & Rec Storage Room	27	*Alternaria*
		53	*Ascospores*
		530	*Basidiospores*
		27	*Curvularia*
		13	*Pithomyces*
		440	*Smuts, Periconia, Myxomycetes*
		27	*Hyphal Fragments*
		1,100	**Total Fungi**

Count Total Spores /m^3 = Count of Total Spores per cubic meter of air.

Baseline Indoor Air Quality Parameter Monitoring

Monitoring of baseline IAQ Parameters was also conducted in the affected, unaffected and ambient areas. Real-time monitor readings for CO, CO_2, T, and RH and dust were collected using a TSI Q-Trak Plus™ IAQ Monitor Model 8554 and TSI DustTrak™ Model 8520 Aerosol Monitor.

Monitoring of particulate matter was conducted with the TSI, DustTrak™ Aerosol Monitor. The US Environmental Protection Agency (US EPA) has established National Ambient Air Quality Standards (NAAQS) for exposure to particulate matter. Particulate matter is airborne solids that can be irritating to the eyes, nose and throat. The NAAQS originally established exposure limits to

particulate matter with a diameter of 10 μm or less (PM_{10}). According to the NAAQS, PM_{10} levels should not exceed 150 micrograms per cubic meter ($\mu g/m^3$) in a 24-hour average (US EPA, 2006). These standards were adopted by both ASHRAE and BOCA. Since the issuance of the ASHRAE standard and BOCA Code, US EPA established a more protective standard for fine airborne particles. This more stringent $PM_{2.5}$ standard requires outdoor air particle levels be maintained below 35 $\mu g/m^3$ over a 24-hour average (US EPA, 2006). Although both the ASHRAE standard and BOCA Code adopted the PM_{10} standard for evaluating air quality, TRC recommends the more protective $PM_{2.5}$ standard for evaluating airborne particulate matter concentrations in the indoor environment. The OSHA PEL for respirable dust, also known as particulates not otherwise classified (PNOC), is 5 mg/m^3. BOCA recommends that Total Dust levels of less than 0.06 mg/m^3 and Leadership in Energy and Environmental Design (LEED) recommends levels of less than 0.05 mg/m^3.

CO_2 is a useful indicator of inadequate make-up (fresh) air and inadequate air supply per occupant. American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE) Standard 62-2001, *Ventilation for Acceptable Indoor Air Quality*, recommends a delta (difference between inside and outside concentrations) value of 700 parts per million (ppm) or less for CO_2. The delta value of 700 ppm equates to approximately 15 cubic feet per minute of supply air per occupant. Ambient concentrations of carbon dioxide generally range from 300 – 500 ppm. OSHA's PEL and the American Conference of Governmental Industrial Hygienists (ACGIH) TLV for CO_2 is 5000 ppm.

CO is a combustion product, often present in buildings with boilers, fuel-burning engines, parking garages, or busy side streets near the fresh air intakes. Carbon monoxide is a colorless, odorless gas that can cause fatigue or drowsiness, nausea, headache, and difficulty breathing when present at elevated levels. OSHA's PEL for CO is 50 ppm. ACGIH's TLV for CO is 25 ppm. The National Ambient Air Quality Standard (NAAQS) for CO is 9 ppm.

Occupants are generally tolerant of temperatures between 68° – 82° F. ASHRAE Standard 55-2004 *Thermal Environmental Conditions for Human Occupancy* recommends temperatures be maintained between 75° – 82° F during warmer summer operative conditions and 68° – 78° F in cooler winter operative conditions.

Relative humidity below 30% may cause specific physiological effects, which lead to discomfort and dissatisfaction with the indoor environment. Potential symptoms include dry and sore nose and throat, bleeding nose, sinus and tracheal irritation, dry scratchy eyes, inability to wear contact lenses, and dry flaking skin. The number of persons affected generally increases as the RH drops below 30%. Low RH may also contribute to an increase in respiratory illness, by weakening the defenses provided by the mucous membranes. At the other end of the spectrum, discomfort and dissatisfaction is common with RH readings above 60%. Carpets, curtains, furniture, etc., can absorb enough moisture at 60% RH to promote microbial growth. In addition, elevated RH can lead to condensation on materials with cooler surface temperatures and subsequently promote microbial growth. Several industry organizations recommend RH be maintained between 30% - 60%. ASHRAE Standard 55-2004 recommends RH be maintained below 65%. ACGIH recommends RH be maintained below 60% to prevent the amplification of microbial growth. Table 2 is a summation of the CO_2, CO, temperature, and relative humidity measurements.

The Building Officials and Code Administration (BOCA) use 0.060 mg/m^3 (60 ug/m^3) or less as an acceptable level for indoor total dust levels. As indicated in Table 2, the locations sampled

were within the BOCA recommended level of less than 0.060 mg/m^3. This indicates that the air handlers that service the facility have adequate air filtration.

The Q-Trak™ and DustTrak™ statistical summations are included as Attachment 2.

TABLE 2
CO_2, CO, TEMPERATURE, RELATIVE HUMIDITY, DUST MEASUREMENTS
August 28, 2015, September 11, 2015

Location Date	CO_2 AVE (ppm)	CO AVE (ppm)	T AVE (F)	RH AVE (%)	Dust mg/m^3
Ambient outside east wall	405	3	88.7	40.0	0.025
E. Pascale Desk 1st Floor	463	2	72.3	47.7	0.012
H. Totz Desk 1st Floor	529	1	74.3	51.3	0.015
K. Dungi Desk 1st Floor	730	1	74.0	45.4	0.013
2nd Floor Conference Room	825	1	74.2	48.8	0.011
J. Schectman Desk 1st Floor	600	1	74.1	47.3	0.012
Meeting Room Ground Floor	461	1	72.6	56.2	0.008
Ambient outside west wall	425	1	71.9	55.7	0.011
Ambient outside east wall	433	1	71.4	71.0	0.005
Ground Floor Copier Room	646	1	73.1	61.8	0.013
Parks& Rec Main Office	790	1	71.6	54.7	0.013
Parks & Rec Supervisor Rm	624	1	72.2	64.6	0.010
Parks & Rec Storage Room	568	1	72.4	60.4	0.007
Standards	**OSHA PEL and ACGIH TLV=5000; ASHRAE = <700 above ambient.**	**ACGIH TLV=25; OSHA PEL=50; NAAQS= <9 LEED=<9 or <2 above ambient.**	**ASHRAE Summer = 75-82 Fall & Winter = 68-78**	**ACGIH =<60; ASHRAE=30-65**	**BOCA<0.06 LEED<0.05 EPA $PM_{2.5}$ <0.035**

ppm = parts per million
AVE = Average reading

CONCLUSIONS

- The total indoor airborne spore count in both the affected and un-affected areas is similar in count and both are less than the ambient total spore count.
- TRC did not observe visible mold on any building surfaces on the day of sampling. No microbial odors were noted during survey however the Town Clerk office area has room deodorizer in use that may affect some occupants or visitors. Ceiling tiles have visible water stains from old water intrusion events.
- The relative humidity measurements within the sampled areas are within the ACGIH guidelines for minimizing the potential for biological growth (< 60 %).
- The baseline IAQ measurements taken in the selected areas of the facility indicate concentrations for CO, CO_2, Temperature and Dust to be in the acceptable ranges.

RECOMMENDATIONS

Based on this assessment, TRC makes the following recommendation.

- Maintain HVAC systems to provide conditioned air for cooling with properly cleaned coils and drip pans to control HVAC odors. Ensure drip pans drain properly to prevent water intrusion inside building.
- Monitor building occupant complaints and investigate source of complaint conditions. Investigate educating Town Hall employees about IAQ parameters and typical building conditions for age and condition of Town Hall building.
- Repair water leak in Parks and Recreation copier room to prevent possible microbial amplification.
- If water intrusions occur the affected areas should be cleaned and dried within 24 to 48 hours to prevent microbial growth.

If you have any questions, please call TRC at (860) 298-6309.

TRC Environmental Corporation

Martin J. Lewis, CIH, CSP, CPEA
Senior EHS Project Manager

Jennifer Peshka, CMC
Project Manager
Attachment:

REFERENCES

A. USEPA 402-K-01-001 *Mold Remediation in Schools and Commercial Buildings, 2001.*
B. OSHA SHIB 03-10-10 *A Brief Guide to Mold in the Workplace, 2003.*
C. ACGIH *Bioaerosols Assessment and Control, 1999.*
D. ASHRAE Standard 62 *Ventilation for Acceptable Indoor Air Quality.*
E. SMACNA *Indoor Air Quality Guidelines for Occupied Buildings Under Construction.*
F. IESO *Standards of Practice for the Assessment of Indoor Environmental Quality.*
G. EPA *Building Air Quality; A Guide for Building Owners and Facility Managers.*
H. LEED-NC *Green Building Rating System for New Construction & Major Renovations ver. 2.2, October 2005*
I. ACGIH *Threshold Limit Values for Chemical Substances and Physical Agents & Biological Exposure Indices*
J. ASHRAE Standard 55 – Thermal Environmental Conditions for Human Occupancy.

ATTACHMENT 1

CHAIN OF CUSTODY AND LABORATORY REPORTS FROM EMLAB P&K

CHAIN OF CUSTODY
www.EMLabPK.com

EMLab P&K
A TestAmerica Company

Cherry Hill, NJ: 1936 Olney Avenue, Cherry Hill, NJ 08003 * (856) 871-1984
Phoenix, AZ: 1501 West Knudsen drive, Phoenix, AZ 85027 * (800) 651-4802
San Bruno, CA: 1150 Bayhill Drive, #100, San Bruno, CA 94066 * (866) 888-6653

Weather	Fog	Rain	Snow	Wind	Clear
None	☒	☒	☒	☐	88F
Light	☐	☐	☐	☒	40%
Moderate	☐	☐	☐	☐	RH
Heavy	☐	☐	☐	☐	

001416834

CONTACT INFORMATION

Company:	TRC Environmental
Address:	21 Griffin Rd N, Windsor CT
Contact:	Martin Lewis
Phone:	860 298 6309
Special Instructions	

PROJECT INFORMATION

Project ID:	Suffield Town Hall
Project Description:	IAQ Survey
Project Zip Code:	06078
Sampling Date & Time:	8/28/15 11AM
PO Number:	242843
Sampled By:	Martin Lewis

Turnaround:
- (STD) Standard (DEFAULT) — circled
- ND – Next Business Day
- SD – Same Business Day Rush
- WH – Weekend / Holiday

Requested analyses (Non-Culturable: Spore Trap; Tape, Swab, Bulk — Culturable: BioCassette™, Water, Bulk, Dust):
Fungi – Spore Trap Analysis; Spore Trap Analysis – Other particles; Direct Microscopic Exam (Qualitative); Quantitative Spore Count Direct Exam; 1-Media Surface Fungi (Genus ID + Asp. spp.); 2-Media Surface Fungi (Genus ID + Asp. spp.); 3-Media Surface Fungi (Genus ID + Asp. spp.); Culturable Air Fungi (Genus ID + Asp. spp.); Gram Stain & Counts (Culturable Air & Surface Bacteria); Legionella culture; Total Coliform, E. coli (Presence/Absence); Membrane Filtration (specify organism); MPN Bacteria (specify organism); Quanti-Tray – Sewage Screen; Asbestos Analysis – PCM Airborne Fiber Count (NIOSH 7400); Asbestos Analysis – PLM (EPA method 600/R-93-116); PCR (specify test); Specify Service

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	Fungi – Spore Trap Analysis
01	Ambient East Wall	ST	STD	75 L	10:12 88F 40%	☒
02	E. Pascale Desk 1st Fl	↓	↓	↓	11:29	↓
03	H. Tatz Desk 1st Fl	↓	↓	↓	11:39	↓
04	K. Dunai Desk 1st Fl	↓	↓	↓	11:48	↓
05	2nd Floor Conf. Rm	↓	↓	↓	12:02	↓
06	J. Schechtman Desk 1st Fl	↓	↓	↓	12:11	↓
07	Meeting Rm - Ground Fl	↓	↓	↓	12:27	↓
08	Ambient West Wall	↓	↓	↓	12:40	☒

Sample types:

BC – BioCassette™	(ST) – Spore Trap: Zefon, Allergenco, Burkard ...	T – Tape	D – Dust
A1S – Andersen		SW – Swab	SO – Soil
SAS – Surface Air Sampler	P – Potable Water	B – Bulk	
CP – Contact Plate	NP – Non-Potable Water	O – Other	

Relinquished	Date & Time	Received	Date & Time
Martin Lewis (signature)	8/28/15 3:00PM	TGO	8/31/15
	FedEx		9:50

Doc #1112 Rev 27 Revised 4/13/2012 Page 1 of 1 .OA

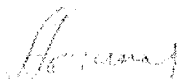
EMLab P&K
A TestAmerica Company

Report for:

Martin Lewis, CIH, CSP, CPEA
TRC Environmental Corporation - CT
21 Griffin Road North
Windsor, CT 06095

Regarding: Project: Suffield Town Hall; IAQ Survey
EML ID: 1416834

Approved by:



Technical Manager
Ariunaa Jalsrai

Dates of Analysis:
Spore trap analysis: 09-01-2015

Service SOPs: Spore trap analysis (EM-MY-S-1038)
AIHA-LAP, LLC accredited service, Lab ID #103005

EMLab P&K
3000 Lincoln Drive East, Suite A, Marlton, NJ 08053
(866) 871-1984 Fax (856) 489-4085 www.emlab.com

Client: TRC Environmental Corporation - CT
C/O: Martin Lewis, CIH, CSP, CPEA
Re: Suffield Town Hall; IAQ Survey

Date of Sampling: 08-28-2015
Date of Receipt: 08-31-2015
Date of Report: 09-01-2015

SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:	01: Ambient East Wall				02: E. Pascale Desk 1st Fl				03: H. Totz Desk 1st Fl				04: K. Dungi Desk 1st Fl			
Comments (see below)	None				None				None				None			
Lab ID-Version‡:	6525272-1				6525273-1				6525274-1				6525275-1			
Analysis Date:	09/01/2015				09/01/2015				09/01/2015				09/01/2015			
Sample volume (liters)	75				75				75				75			
Background debris (1-4+)††	< 1+				1+				1+				1+			
	Count	Count/m3	DL/m3*	%	Count	Count/m3	DL/m3*	%	Count	Count/m3	DL/m3*	%	Count	Count/m3	DL/m3*	%
Hyphal fragments	7	93	13	n/a					1	13	13	n/a				
Pollen	29	390	13	n/a	6	80	13	n/a								
§ TOTAL FUNGAL SPORES	198	6,500	n/a	100	105	5,300	n/a	100	87	3,300	n/a	100	24	1,100	n/a	100
Alternaria	1	13	13	< 1												
Ascospores	21	1,100	53	17	11	590	53	11					1	53	53	5
Basidiospores					58	3,100	53	59	32	1,700	53	51	13	690	53	62
Chaetomium																
Cladosporium	26	1,400	53	21	26	1,400	53	26	13	690	53	21	4	210	53	19
Curvularia	56	750	13	11	2	27	13	1	9	120	13	4				
Epicoccum	3	40	13	1	2	27	13	1	3	40	13	1				
Ganoderma	1	53	53	1	2	110	53	2	9	480	53	14	2	110	53	10
Nigrospora	4	53	13	1					1	13	13	< 1				
Penicillium/Aspergillus types																
Pithomyces	37	490	13	8	2	27	13	1	4	53	13	2	2	27	13	2
Rusts									1	13	13	< 1	1	13	13	1
Smuts, Periconia, Myxomycetes	49	2,600	53	40	2	27	13	1	15	200	13	6	1	13	13	1
Stachybotrys																

Comments:

Spore types listed without a count or data entry were not detected during the course of the analysis for the respective sample.

The analytical sensitivity is the spores/m3 divided by the raw count. The limit of detection is the analytical sensitivity multiplied by the sample volume divided by 1000.

*The DL/m3 has been rounded to a whole number.

††Background debris indicates the amount of non-biological particulate matter present on the trace (dust in the air) and the resulting visibility for the analyst. It is rated from 1+ (low) to 4+ (high). Counts from areas with 4+ background debris should be regarded as minimal counts and may be higher then reported. It is important to account for samples volumes when evaluating dust levels.

‡ A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".
§ Total Fungal Spores has been rounded to two significant figures to reflect analytical precision.

EMLab P&K
3000 Lincoln Drive East, Suite A, Marlton, NJ 08053
(866) 871-1984 Fax (856) 489-4085 www.emlab.com

Client: TRC Environmental Corporation - CT
C/O: Martin Lewis, CIH, CSP, CPEA
Re: Suffield Town Hall; IAQ Survey

Date of Sampling: 08-28-2015
Date of Receipt: 08-31-2015
Date of Report: 09-01-2015

SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:	05: 2nd Floor Conf. Rm				06: J. Schectman Desk 1st FL				07: Meeting Rm - Ground FL				08: Ambient West Wall			
Comments (see below)	None				None				None				None			
Lab ID-Version‡:	6525276-1				6525277-1				6525278-1				6525279-1			
Analysis Date:	09/01/2015				09/01/2015				09/01/2015				09/01/2015			
Sample volume (liters)	75				75				75				75			
Background debris (1-4+)††	1+				1+				< 1+				1+			
	Count	Count/m3	DL/m3*	%	Count	Count/m3	DL/m3*	%	Count	Count/m3	DL/m3*	%	Count	Count/m3	DL/m3*	%
Hyphal fragments									1	13	13	n/a	2	27	13	n/a
Pollen													2	27	13	n/a
§ TOTAL FUNGAL SPORES	36	1,600	n/a	100	21	960	n/a	100	28	1,500	n/a	100	95	4,900	n/a	100
Alternaria																
Ascospores	1	53	53	3	1	53	53	6	2	110	53	7	6	320	53	7
Basidiospores	17	910	53	55	12	640	53	67	21	1,100	53	75	52	2,800	53	57
Chaetomium																
Cladosporium	8	430	53	26	4	210	53	22	2	110	53	7	28	1,500	53	30
Curvularia	2	27	13	2												
Epicoccum																
Ganoderma	3	160	53	10					3	160	53	11	5	270	53	5
Penicillium/Aspergillus types																
Pithomyces					1	13	13	1					1	13	13	< 1
Rusts	1	13	13	1									1	13	13	< 1
Smuts, Periconia, Myxomycetes	4	53	13	3	3	40	13	4					2	27	13	1
Stachybotrys																

Comments:

Spore types listed without a count or data entry were not detected during the course of the analysis for the respective sample.

The analytical sensitivity is the spores/m3 divided by the raw count. The limit of detection is the analytical sensitivity multiplied by the sample volume divided by 1000.

*The DL/m3 has been rounded to a whole number.

††Background debris indicates the amount of non-biological particulate matter present on the trace (dust in the air) and the resulting visibility for the analyst. It is rated from 1+ (low) to 4+ (high). Counts from areas with 4+ background debris should be regarded as minimal counts and may be higher then reported. It is important to account for samples volumes when evaluating dust levels.

‡ A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".
§ Total Fungal Spores has been rounded to two significant figures to reflect analytical precision.

This cover letter and accompanying pages are an integral part of this report. All analyses are performed in our AIHA and EMLAP accredited laboratory. The data generated in this report are based on the samples and accompanying information provided and represent concentrations at a point in time under the conditions sampled. Results can vary with site conditions. EMLab P&K employees did not collect samples for this project, may provide only limited interpretation of this data as it relates to the overall investigation.

Quality Assurance

EMLab P&K is staffed with highly trained professionals, including PhD's, chemists, and registered microbiologists with over 40 years of experience. The reliability of test results depends on many factors such as the personnel performing the tests, environmental conditions, selection and validation of test methods, equipment functioning, measurement traceability, as well as the sampling, storage and handling of test items, all of which are a reflection of the laboratories overall quality system.

EMLab P&K has modeled its quality system after ISO 17025, General Requirements for the Competence of Testing and Calibration Laboratories, one of the most stringent sets of standards in the industry, to ensure that its customers receive the high standard of accuracy, reliability, and impartiality that they have come to expect from a leader in the environmental industry. EMLab P&K's adherence to the standards set forth in ISO 17025 has been validated and formally recognized through accreditations granted by an independent outside agency, American Industrial Hygiene Association (AIHA). As an additional measure to demonstrate its competency to perform the analyses it offers to its competency to perform the analyses it offers to its clients, EMLab P&K also participates in a variety of different proficiency testing programs, including the Environmental Microbiology Proficiency Analytical Testing Program (EMPAT) sponsored by the American Industrial Hygiene Association.

As part of its continuous commitment to excellence, EMLab P&K is also inspected, licensed and/or accredited by a number of governmental agencies and independent associations in addition to those already mentioned above. The scope document, accreditation certificates, and proficiency results can all be accessed at www.emlab.com. Below you will find additional information regarding the specific analyses requested for this project.

Comments
The comments identify issues or events that are relevant to your analytical results. A comment includes information about the validity, the source of the data whether calculated, entered or estimated, and the value of an observation. In each case the comments provide significant information vital to the interpretation of the laboratory data.

For additional information, or if you have any questions regarding this report, please do not hesitate to call.

Analytical References

Medically Important Fungi: A Guide to Identification, 3rd ed., ASM, 1995.
Standard Methods for the Examination of Water and Wastewater, 19th ed., APHA, 1995.
Sampling and Identifying Allergenic Pollens and Molds, Blewstone, 1990.
Identifying Filamentous Fungi: A Clinical Laboratory Handbook, Star, 1996.
Manual of Clinical Microbiology, 7th ed., ASM, 1999.
A Laboratory Guide to Common *Aspergillus* Species and their Teleomorphs, CSIRO, 1994.
Bioaerosols: Assessment and Control, ACGIH, 1999.

EMLab P&K
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Client: TRC Environmental Corporation - CT
C/O: Martin Lewis, CIH, CSP, CPEA
Re: Suffield Town Hall; IAQ Survey

Date of Sampling: 08-28-2015
Date of Receipt: 08-31-2015
Date of Report: 09-01-2015

MoldRANGE™, Local Climate; Extended Outdoor Comparison

Outdoor Location: 01, Ambient East Wall

Fungi Identified	Outdoor data	Typical Outdoor Data for: August in Northeast† EMLab Regional Climate code² A Annual Temp, B Elev., A Rain, A Temp. Range (n‡=244)						Typical Outdoor Data for: The entire year in Northeast† EMLab Regional Climate code² A Annual Temp, B Elev., A Rain, A Temp. Range (n‡=2332)					
Project zip code 06078	spores/m3	very low	low	med	high	very high	freq %	very low	low	med	high	very high	freq %
Generally able to grow indoors*													
Alternaria	13	13	13	29	80	130	76	7	13	27	67	110	41
Bipolaris/Drechslera group	-	5	7	12	40	66	11	5	7	13	20	27	7
Chaetomium	-	-	-	-	-	-	3	5	7	13	13	27	4
Cladosporium	1,400	210	340	880	2,500	4,000	97	53	100	400	1,500	2,900	83
Curvularia	750	7	11	20	44	100	35	5	7	13	27	53	15
Epicoccum	40	7	10	20	40	61	42	7	10	20	40	67	33
Ganoderma	53	34	53	140	260	410	25	27	53	110	210	320	9
Nigrospora	53	5	7	11	27	27	15	5	7	13	27	33	10
Penicillium/Aspergillus types	-	80	110	300	880	1,400	64	53	53	190	530	960	56
Pithomyces	490	7	13	27	72	270	70	7	11	22	53	120	27
Stachybotrys	-	-	-	-	-	-	< 1	7	7	13	48	53	1
Torula	-	5	7	13	53	93	9	5	7	13	33	53	6
Seldom found growing indoors**													
Ascospores	1,100	210	320	750	1,800	3,700	99	53	100	430	1,500	2,800	78
Basidiospores	-	1,300	1,800	4,900	14,000	23,000	> 99	67	180	1,500	6,400	12,000	95
Rusts	-	5	10	20	66	120	36	7	10	20	53	86	23
Smuts, Periconia, Myxomycetes	2,600	10	13	33	73	160	74	10	13	40	110	210	61
§ TOTAL SPORES/m3	6,500												

²EMLab Regional Climate codes are a climate classification scheme for regional geographic areas containing multiple states. The MoldRANGE™ Local Climate report uses the sampling location zip code to identify the EMLab Regional Climate code in that area. Using information available from the NOAA weather database, the EMLab Regional Climate code sharpens the precision of the MoldRANGE™reporting system, providing more reliable estimates of the range and average concentrations of the different airborne fungal spore types for each region. Additional information on the EMLab Regional Climate code system can be found on the last page of this report.

†The Typical Outdoor Data represents the typical outdoor spore levels across the region's group of states for the time period and EMLab Regional Climate code indicated. The last column represents the frequency of occurrence. The very low, low, med, high, and very high values represent the 10, 20, 50, 80, and 90 percentile values of the spore type when it is detected. For example, if the frequency of occurrence is 63% and the low value is 53, it would mean that the given spore type is detected 63% of the time and, when detected, 20% of the time it is present in levels above the detection limit and below 53 spores/m3. These values are updated periodically and if not enough data is available to make a statistically meaningful assessment, it is indicated with a dash.

‡ n is the sample size used to calculate the MoldRANGE™ Local Climate data summarized in the table.

* The spores in this category are generally capable of growing on wet building materials in addition to growing outdoors. Building related growth is dependent upon the fungal type, moisture level, type of material, and other factors. *Cladosporium* is one of the predominant spore types worldwide and is frequently present in high numbers. *Penicillium/Aspergillus* species colonize both outdoor and indoor wet surfaces rapidly and are very easily dispersed. Other genera are usually present in lesser numbers.

** These fungi are generally not found growing on wet building materials. For example, the rusts and smuts are obligate plant pathogens. However, in each group there are notable exceptions. For example, agents of wood decay are members of the basidiomycetes and high counts of a single morphological type of basidiospore on an inside sample should be considered significant.

§ Total Spores/m3 has been rounded to two significant figures to reflect analytical precision.

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Re: Suffield Town Hall; IAQ Survey

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Date of Receipt: 08-31-2015
Date of Report: 09-01-2015

MoldRANGE™, Local Climate; Extended Outdoor Comparison

Outdoor Location: 08, Ambient West Wall

Fungi Identified	Outdoor data	Typical Outdoor Data for: August in Northeast† EMLab Regional Climate code¹ A Annual Temp, B Elev., A Rain, A Temp. Range (n‡=244)						Typical Outdoor Data for: The entire year in Northeast† EMLab Regional Climate code¹ A Annual Temp, B Elev., A Rain, A Temp. Range (n‡=2332)					
Project zip code 06078	spores/m3	very low	low	med	high	very high	freq %	very low	low	med	high	very high	freq %
Generally able to grow indoors*													
Alternaria	-	13	13	29	80	130	76	7	13	27	67	110	41
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Ganoderma	270	34	53	140	260	410	25	27	53	110	210	320	9
Nigrospora	-	5	7	11	27	27	15	5	7	13	27	33	10
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Pithomyces	13	7	13	27	72	270	70	7	11	22	53	120	27
Stachybotrys	-	-	-	-	-	-	< 1	7	7	13	48	53	1
Torula	-	5	7	13	53	93	9	5	7	13	33	53	6
Seldom found growing indoors**													
Ascospores	320	210	320	750	1,800	3,700	99	53	100	430	1,500	2,800	78
Basidiospores	2,800	1,300	1,800	4,900	14,000	23,000	> 99	67	180	1,500	6,400	12,000	95
Rusts	13	5	10	20	66	120	36	7	10	20	53	86	23
Smuts, Periconia, Myxomycetes	27	10	13	33	73	160	74	10	13	40	110	210	61
§ TOTAL SPORES/m3	4,900												

¹EMLab Regional Climate codes are a climate classification scheme for regional geographic areas containing multiple states. The MoldRANGE™ Local Climate report uses the sampling location zip code to identify the EMLab Regional Climate code in that area. Using information available from the NOAA weather database, the EMLab Regional Climate code sharpens the precision of the MoldRANGE™reporting system, providing more reliable estimates of the range and average concentrations of the different airborne fungal spore types for each region. Additional information on the EMLab Regional Climate code system can be found on the last page of this report.

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‡ n is the sample size used to calculate the MoldRANGE™ Local Climate data summarized in the table.

* The spores in this category are generally capable of growing on wet building materials in addition to growing outdoors. Building related growth is dependent upon the fungal type, moisture level, type of material, and other factors. *Cladosporium* is one of the predominant spore types worldwide and is frequently present in high numbers. *Penicillium/Aspergillus* species colonize both outdoor and indoor wet surfaces rapidly and are very easily dispersed. Other genera are usually present in lesser numbers.

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Understanding EMLab Regional Climate Codes

Outdoor airborne spore concentrations are strongly influenced by climate and weather patterns, often resulting in pronounced seasonal and diurnal cycles (Burge 1995). The seasonal climatic changes directly affect the growth cycle of plants, thereby influencing fungal growth, spore maturation, and release cycles. By evaluating outdoor spore concentrations across similar climatic zones rather than for the state as a whole, it is possible to provide a more representative estimate of typical outdoor spore levels and frequency of occurrence for different airborne fungal spore types in a given area.

The EMLab Regional Climate code system is a novel and patent pending classification system that uses data from the NOAA - National Oceanic and Atmospheric Administration database to define unique climate zones. The following climate variables, for each regional zip code, are obtained from NOAA and assigned a letter code of A (above the regional average for that variable) or B (below the regional average for that variable):

1. Annual High Temperature
2. Elevation
3. Rainfall/Precipitation
4. Monthly Temperature Range

The result is a 4-character code assigned to each statewide zip code, referred to as the Regional Climate Code. Below are some examples of decoded Regional Climate Codes:

AAAA = Above avg. Annual High Temperature, Above avg. Elevation, Above avg. Rainfall/Precipitation, Above avg. Monthly Temperature Range
AABB = Above avg. Annual High Temperature, Above avg. Elevation, Below avg. Rainfall/Precipitation, Below avg. Monthly Temperature Range
BBAA = Below avg. Annual High Temperature, Below avg. Elevation, Above avg. Rainfall/Precipitation, Above avg. Monthly Temperature Range

The actual outdoor air sample data from matching regional climate codes in each group of states are then compiled in a manner relating typical spore concentrations and frequency of occurrence.

The data presented in this report is from the Northeast Region which includes the states of: CT, DE, MA, MD, ME, NH, NJ, NY, PA, RI, and VT

The NOAA regional climate variables were selected by mapping data points from a subset of approximately 145,000 weather and geographic database entries to over 80,000 outdoor spore trap samples with known zip codes and assessing them using orthogonal array experimental design techniques. The results were then compared to the typical ranges of spore types found when grouping zip codes using the Koppen-Geiger climatic classification system; a commonly used climatic system that provides an objective numerical definition in terms of climatic elements such as temperature, rainfall, and other seasonal characteristics . The EMLab Regional Climate codes showed improved granularity and refinement of the zip code groupings, implying a better representation of the expected range of spore types to be found within an individual zip code.

The values on this report were calculated by obtaining the four variables listed above from the over 585 million data points of weather and geographic information available in the NOAA database, and determining the frequencies and percentile values of spore types by utilizing over 180,000 EMLab P&K outdoor spore trap samples with known zip codes.

This report groups regional zip codes in relation to these EMLab Regional Climate codes and summarizes MoldRANGE™ data by month and year within each EMLab Regional Climate code.

References:
Burge, Harriet, A. Bioaerosols: Boca Raton: Lewis Publishers, pp. 163-171, 1995.

ATTACHMENT 2

Q-TRAK™ and DUSTTRAK™ STATISTICAL SUMMATIONS NOTES with SAMPLE LOCATIONS BUILDING PHOTOGRAPHS

TRC Environmental Corp - Martin Lewis, CIH, CSP, CPEA
Suffield Town Hall IAQ Survey

Instrument [S/N]	Test #	Date	Start Time	Duration dd:hh:mm:ss	Average	Units	Channel	Maximum	Minimum
Q-Trak with CO 50342	001	08/28/2015	11:17:53	0:00:05:22	405	ppm	CO2	416	395
					3	ppm	CO	3	2
					88.7	deg F	Temp	93.4	81.6
					40.0	%	rh	43.1	37.1
Q-Trak with CO 50342	002	08/28/2015	11:32:44	0:00:05:46	463	ppm	CO2	569	444
					2	ppm	CO	2	1
					72.3	deg F	Temp	76.3	70.8
					47.7	%	rh	52.7	42.7
Q-Trak with CO 50342	003	08/28/2015	11:42:09	0:00:06:20	529	ppm	CO2	593	510
					1	ppm	CO	1	1
					74.3	deg F	Temp	74.6	73.9
					51.9	%	rh	53.5	50.1
Q-Trak with CO 50342	004	08/28/2015	11:51:05	0:00:06:48	730	ppm	CO2	783	692
					1	ppm	CO	1	1
					74.0	deg F	Temp	74.2	74.0
					45.4	%	rh	46.3	45.1
Q-Trak with CO 50342	005	08/28/2015	12:01:13	0:00:09:26	825	ppm	CO2	929	727

TRC Environmental Corp - Martin Lewis, CIH, CSP, CPEA
Suffield Town Hall IAQ Survey

Instrument [S/N]	Test #	Date	Start Time	Duration dd:hh:mm:ss	Average	Units	Channel	Maximum	Minimum
Q-Trak with CO 50342	005	08/28/2015	12:01:13	0:00:09:26	1	ppm	CO	1	1
					74.8	deg F	Temp	75.1	74.4
					48.8	%	rh	50.0	47.5
Q-Trak with CO 50342	006	08/28/2015	12:15:00	0:00:06:37	600	ppm	CO2	641	552
					1	ppm	CO	1	0
					74.1	deg F	Temp	74.4	73.7
					47.3	%	rh	47.7	47.1
Q-Trak with CO 50342	007	08/28/2015	12:30:29	0:00:07:46	461	ppm	CO2	543	425
					1	ppm	CO	1	0
					72.6	deg F	Temp	73.2	72.4
					56.2	%	rh	56.8	55.6
Q-Trak with CO 50342	008	08/28/2015	12:42:51	0:00:08:13	425	ppm	CO2	443	406
					1	ppm	CO	1	0
					71.9	deg F	Temp	72.7	71.3
					55.7	%	rh	57.8	53.6

TRC Environmental Corp - Martin Lewis, CIH, CSP, CPEA
Suffield Town Hall IAQ Survey

Instrument [S/N]	Test #	Date	Start Time	Duration dd:hh:mm:ss	Average	Units	Channel	Maximum	Minimum
Dust Trak 85202542	001	08/28/2015	11:25:41	0:00:04:00	0.025	mg/m^3	Aerosol	0.053	0.015
Dust Trak 85202542	002	08/28/2015	11:39:28	0:00:05:48	0.012	mg/m^3	Aerosol	0.229	0.009
Dust Trak 85202542	003	08/28/2015	11:48:50	0:00:06:25	0.015	mg/m^3	Aerosol	0.503	0.008
Dust Trak 85202542	004	08/28/2015	11:57:46	0:00:06:52	0.013	mg/m^3	Aerosol	0.203	0.008
Dust Trak 85202542	005	08/28/2015	12:08:00	0:00:09:24	0.011	mg/m^3	Aerosol	0.102	0.007
Dust Trak 85202542	006	08/28/2015	12:21:41	0:00:06:39	0.012	mg/m^3	Aerosol	0.347	0.007
Dust Trak 85202542	007	08/28/2015	12:37:14	0:00:07:42	0.008	mg/m^3	Aerosol	0.028	0.007
Dust Trak 85202542	008	08/28/2015	12:49:31	0:00:08:28	0.011	mg/m^3	Aerosol	0.186	0.006

TRC Environmental Corporation - Martin Lewis, CIH, CSP, CPEA
Town Hall Parks & Rec Office IAQ Survey

Instrument [S/N]	Test #	Date	Start Time	Duration dd:hh:mm:ss	Average	Units	Channel	Maximum	Minimum
Q-Trak with CO 50342	001	09/11/2015	11:05:15	0:00:08:17	433	ppm	CO2	449	418
					1	ppm	CO	1	0
					71.4	deg F	Temp	72.9	69.9
					71.0	%	rh	72.9	68.4
Q-Trak with CO 50342	002	09/11/2015	11:19:00	0:00:08:19	646	ppm	CO2	695	603
					1	ppm	CO	1	0
					73.1	deg F	Temp	73.5	72.4
					61.8	%	rh	65.3	59.1
Q-Trak with CO 50342	003	09/11/2015	11:32:24	0:00:06:02	790	ppm	CO2	840	742
					1	ppm	CO	1	0
					71.6	deg F	Temp	72.9	70.8
					54.7	%	rh	56.3	53.3
Q-Trak with CO 50342	004	09/11/2015	11:42:20	0:00:09:23	624	ppm	CO2	664	593
					1	ppm	CO	1	0
					72.2	deg F	Temp	72.3	72.0
					64.6	%	rh	65.3	64.0
Q-Trak with CO 50342	005	09/11/2015	11:56:27	0:00:07:02	568	ppm	CO2	589	548

TRC Environmental Corporation - Martin Lewis, CIH, CSP, CPEA
Town Hall Parks & Rec Office IAQ Survey

Instrument [S/N]	Test #	Date	Start Time	Duration dd:hh:mm:ss	Average	Units	Channel	Maximum	Minimum
Q-Trak with CO 50342	005	09/11/2015	11:56:27	0:00:07:02	1	ppm	CO	1	0
					72.4	deg F	Temp	72.4	72.4
					60.4	%	rh	61.0	59.9

TRC Environmental Corporation - Martin Lewis, CIH, CSP, CPEA
Town Hall Parks & Rec Office IAQ Survey

Instrument [S/N]	Test #	Date	Start Time	Duration dd:hh:mm:ss	Average	Units	Channel	Maximum	Minimum
Dust Trak 23780	001	09/11/2015	11:04:00	0:00:09:23	0.005	mg/m^3	Aerosol	0.053	0.003
Dust Trak 23780	002	09/11/2015	11:17:46	0:00:08:29	0.013	mg/m^3	Aerosol	1.396	0.004
Dust Trak 23780	003	09/11/2015	11:30:48	0:00:00:34	0.013	mg/m^3	Aerosol	0.138	0.004
Dust Trak 23780	004	09/11/2015	11:41:16	0:00:14:07	0.010	mg/m^3	Aerosol	0.297	0.003
Dust Trak 23780	005	09/11/2015	11:55:40	0:00:06:46	0.007	mg/m^3	Aerosol	0.112	0.003

SHEET NO. 1 OF 1
PROJECT NO. 247843
DATE 8/20/15
BY Martin Lewis
CHK'D

SUBJECT Suffield Town Hall

11:12 Fog 1 21461925 15lpm@5min Ambient East wall
QTrak 8551-50342 Sunny Light wind
Dust Trak 8520-2542 from east 88.7°F
405 ppm CO_2 40.8%
3 ppm CO RH

11:29 Fog 2 21461773 Erin Pascale
- water intrusion 2 yrs ago from ice dams in winter - none now
Desk A/C turned on windows open, some stained CT on east wall, plants on cabinet

10:39 Fog 3 21461909 Tax Assessor Helen Toth office
windows closed stained CT on east wall

11:48 Fog 4 21461892 Kathy Dungi desk no stained CT
Yankee candle burning

12:02 Fog 5 21461924 2nd Fl Conf Rm no stained CT

12:11 Fog 6 21461922 Tax ~~Collector~~ Collector desk Gill Schechtman office
no stained CT

12:27 Fog 7 21461918 Meeting Room Ground floor
empty no stained CT

12:40 Fog 8 21461929 Ambient Outside East

All protimeter readings in green or < 10% W.M.E.
no active moisture intrusions observed

A

SHEET NO. 1 OF 1
PROJECT NO. 242843
DATE 9/11/15
BY Martin Lewis
CHK'D

SUBJECT Sanford

71.4F 71%RH.

01 11:03 log 1 Q-Trak 8551 80342 Dust Trak 8520 23780
21460379 5 min @ 1 Slpm Ambient East Wall

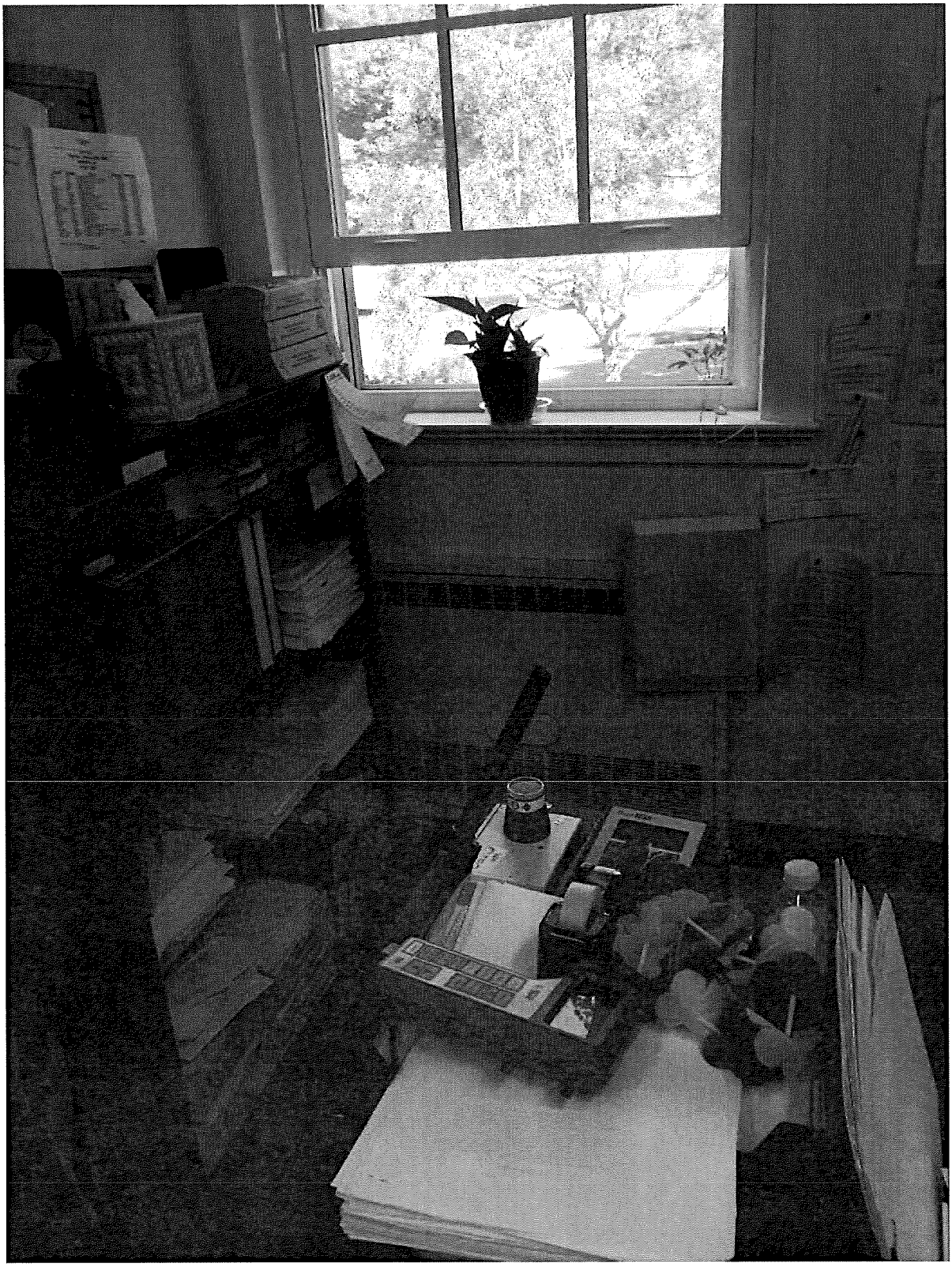
02 11:17 log 2
21460321 Ground Level Copier Room - Active leak at ceiling
A/C on
MME 43.9%

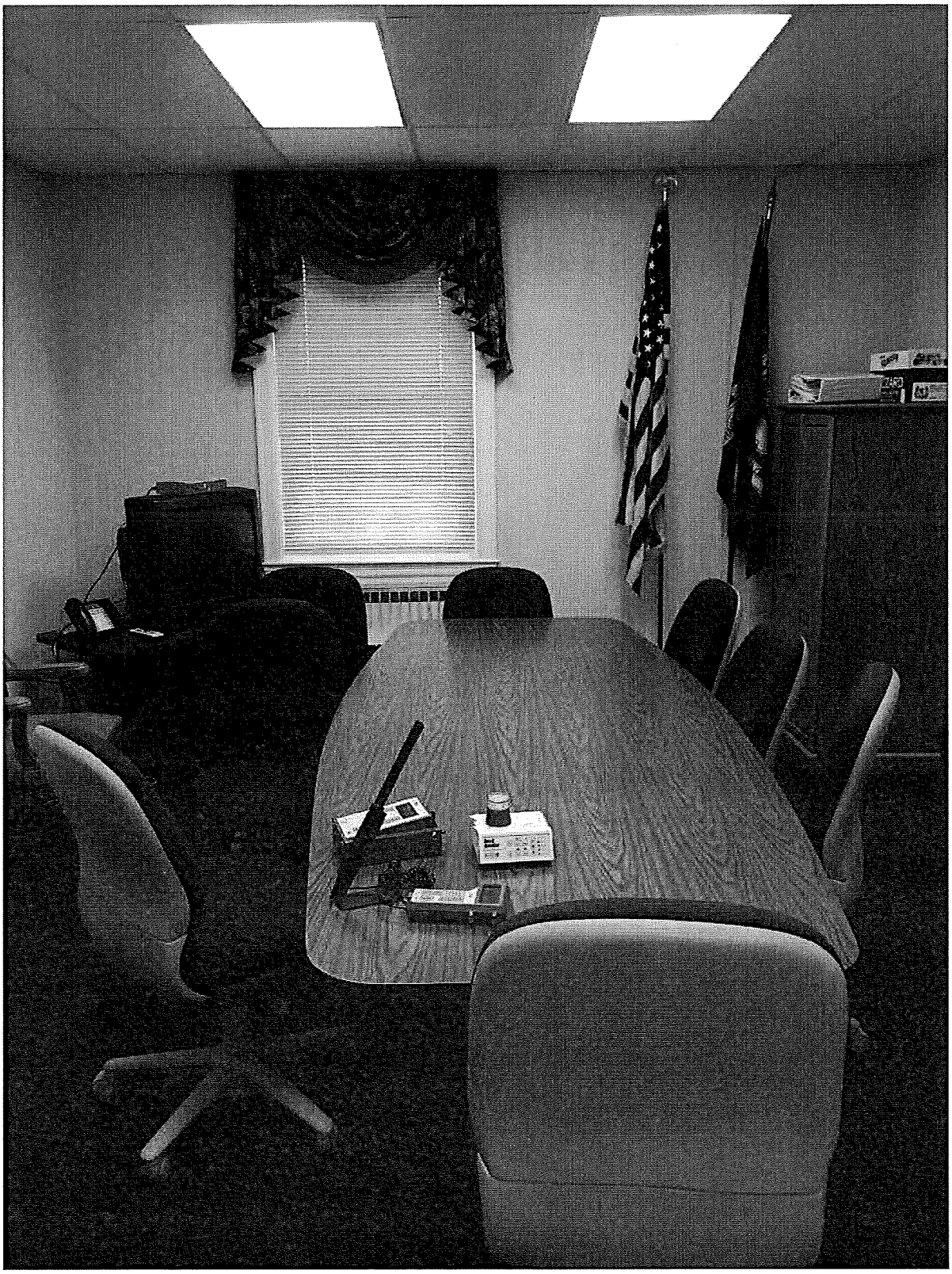
03 11:31 log 3
21460297 Parks & Rec Main Office Desk
A/C on

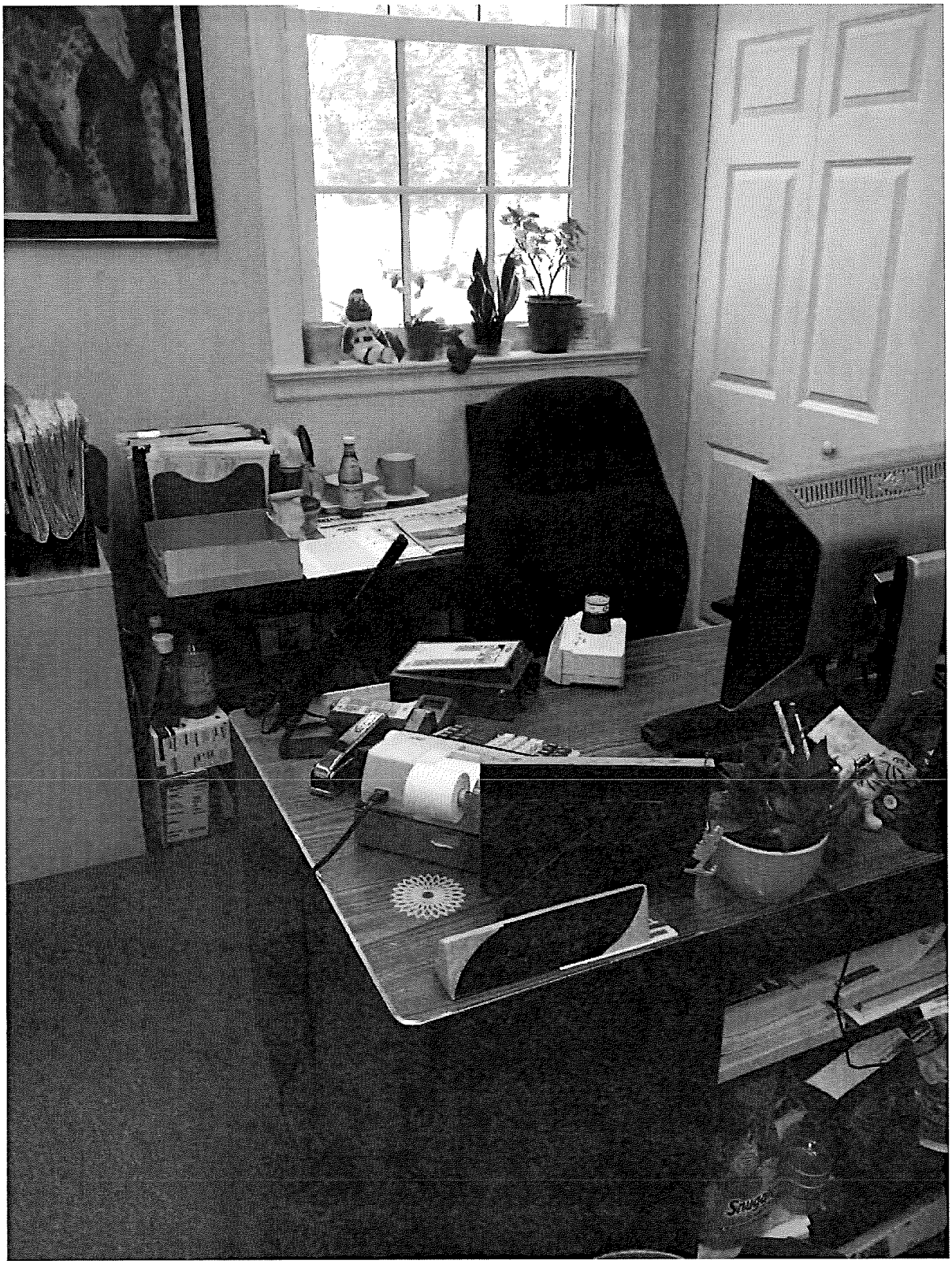
04 11:41 log 4
21460 Parks & Rec Supervisor Office Desk
A/C unit not functional-off

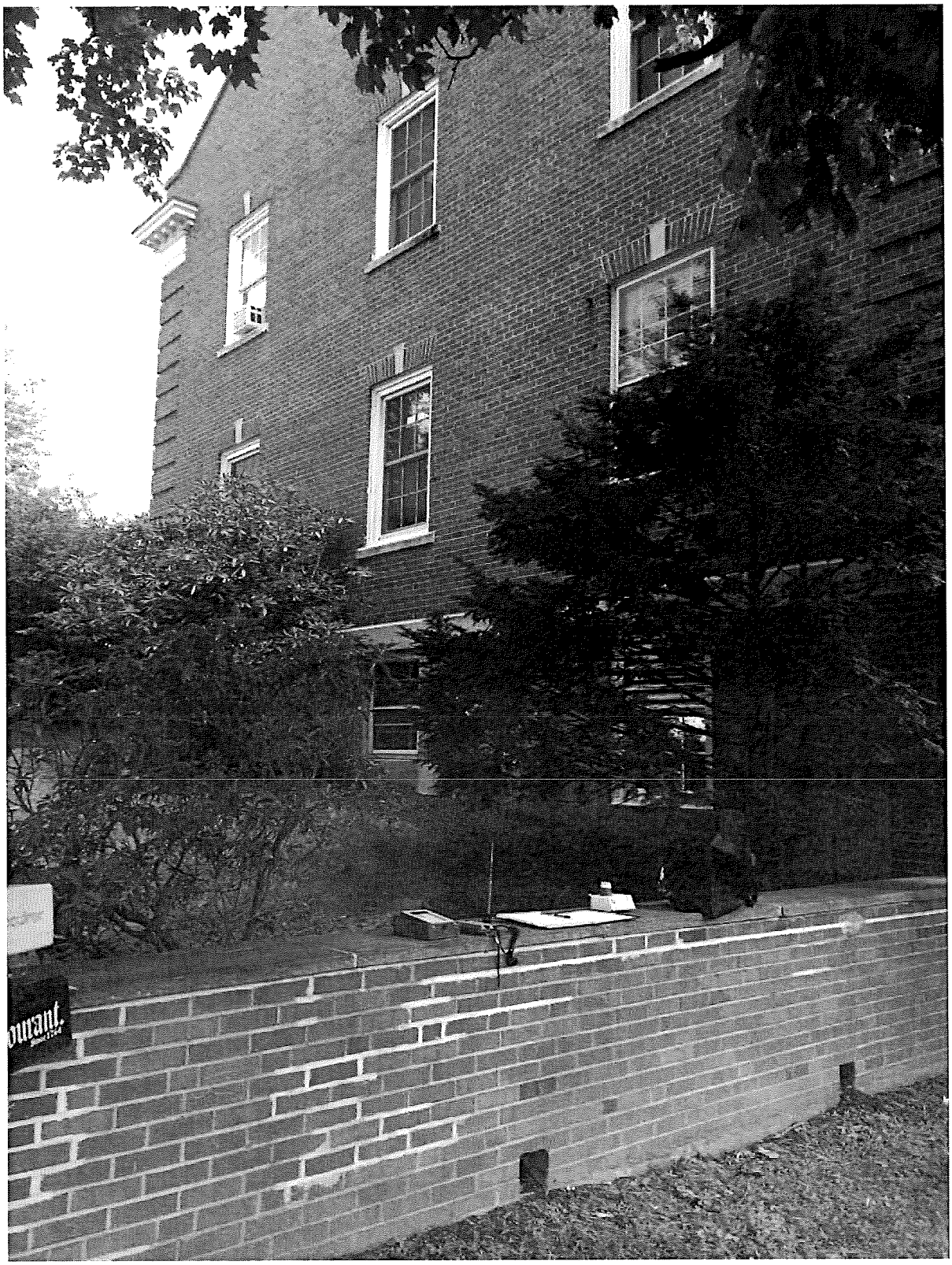
05 11:56 log 5
21460369 Storage locker area
opened for 4 hrs - but no ventilation system present. Exhaust duct has air flow - possible bathroom exhaust system

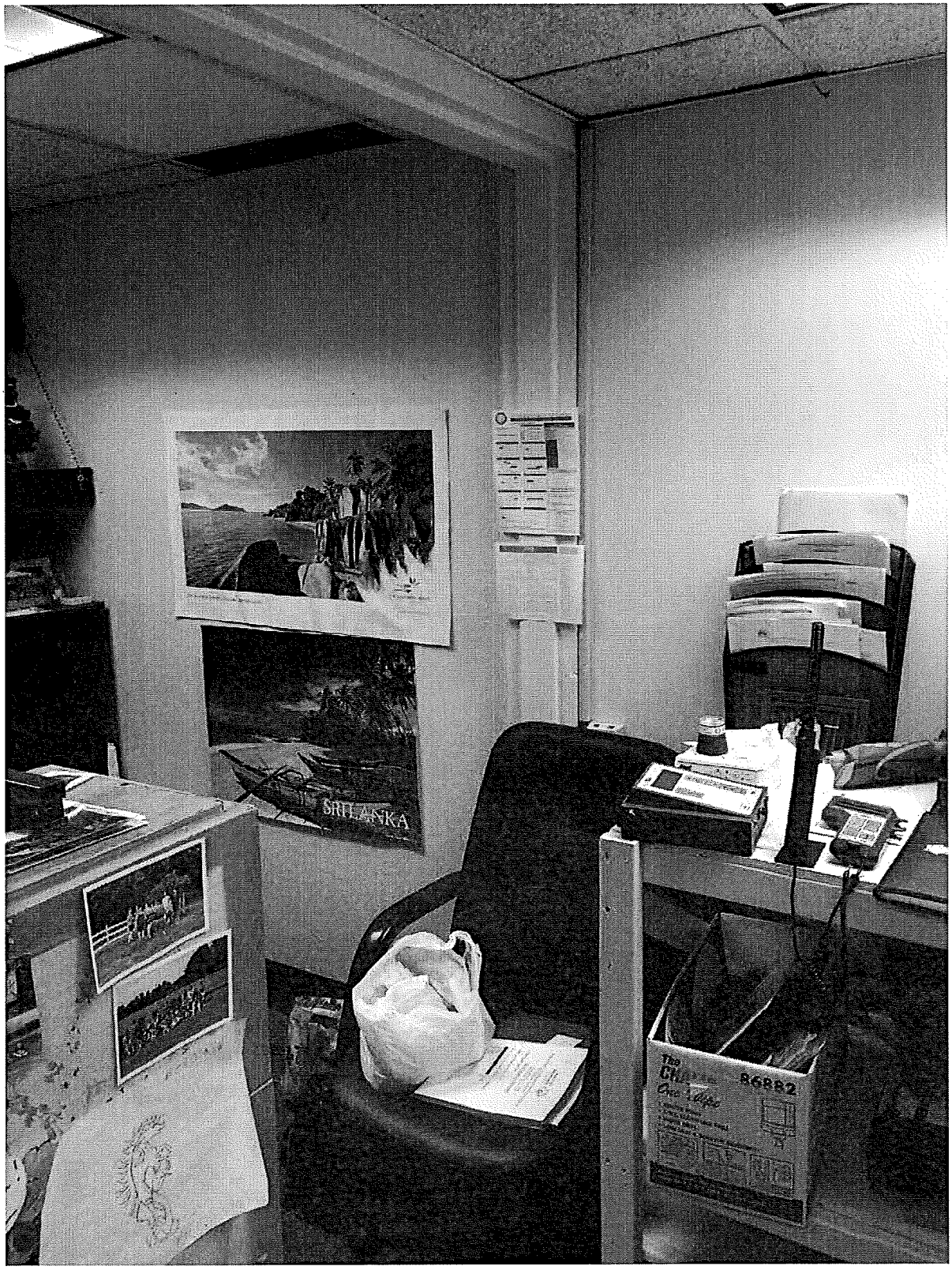
A

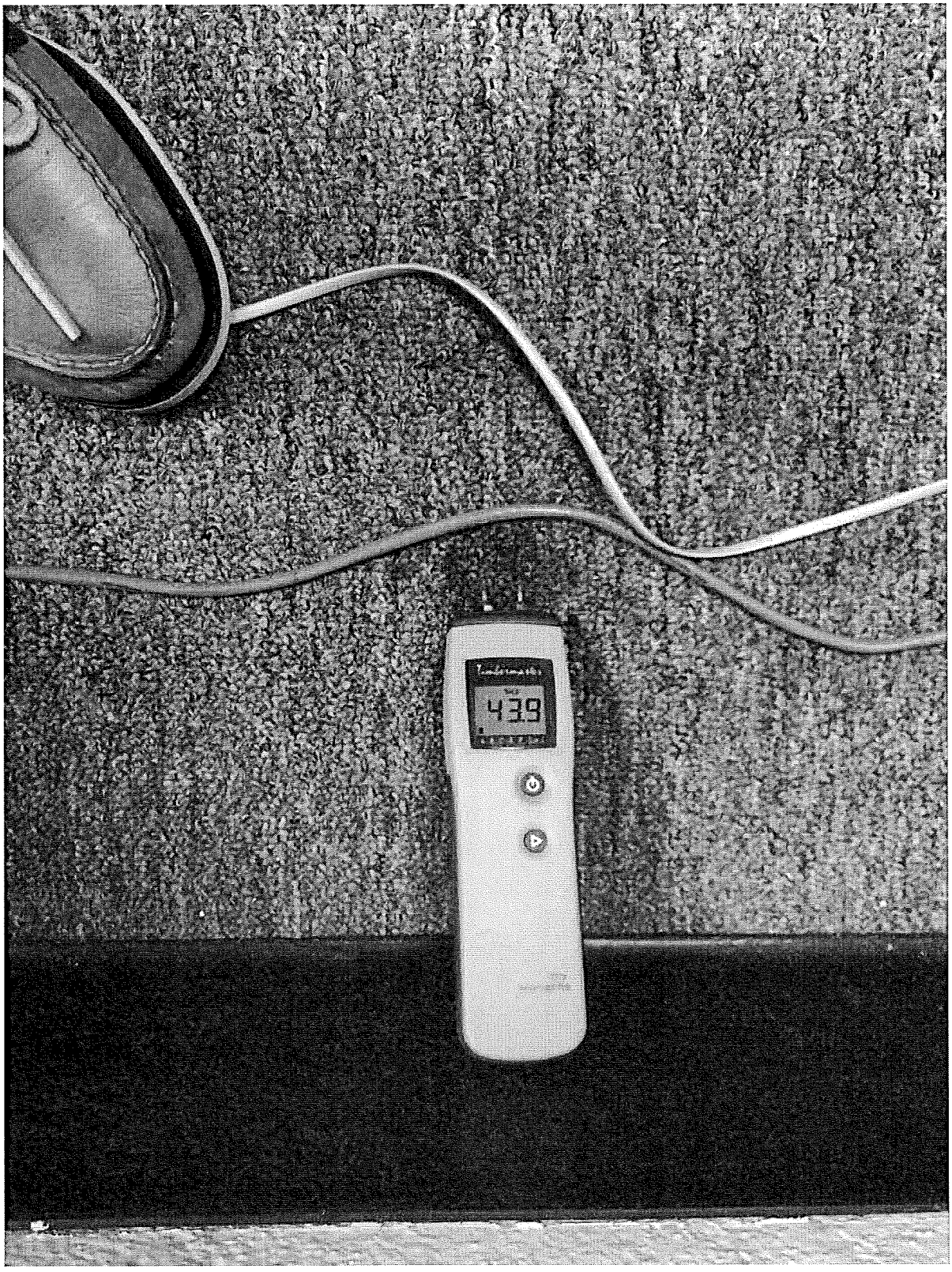









SRI LANKA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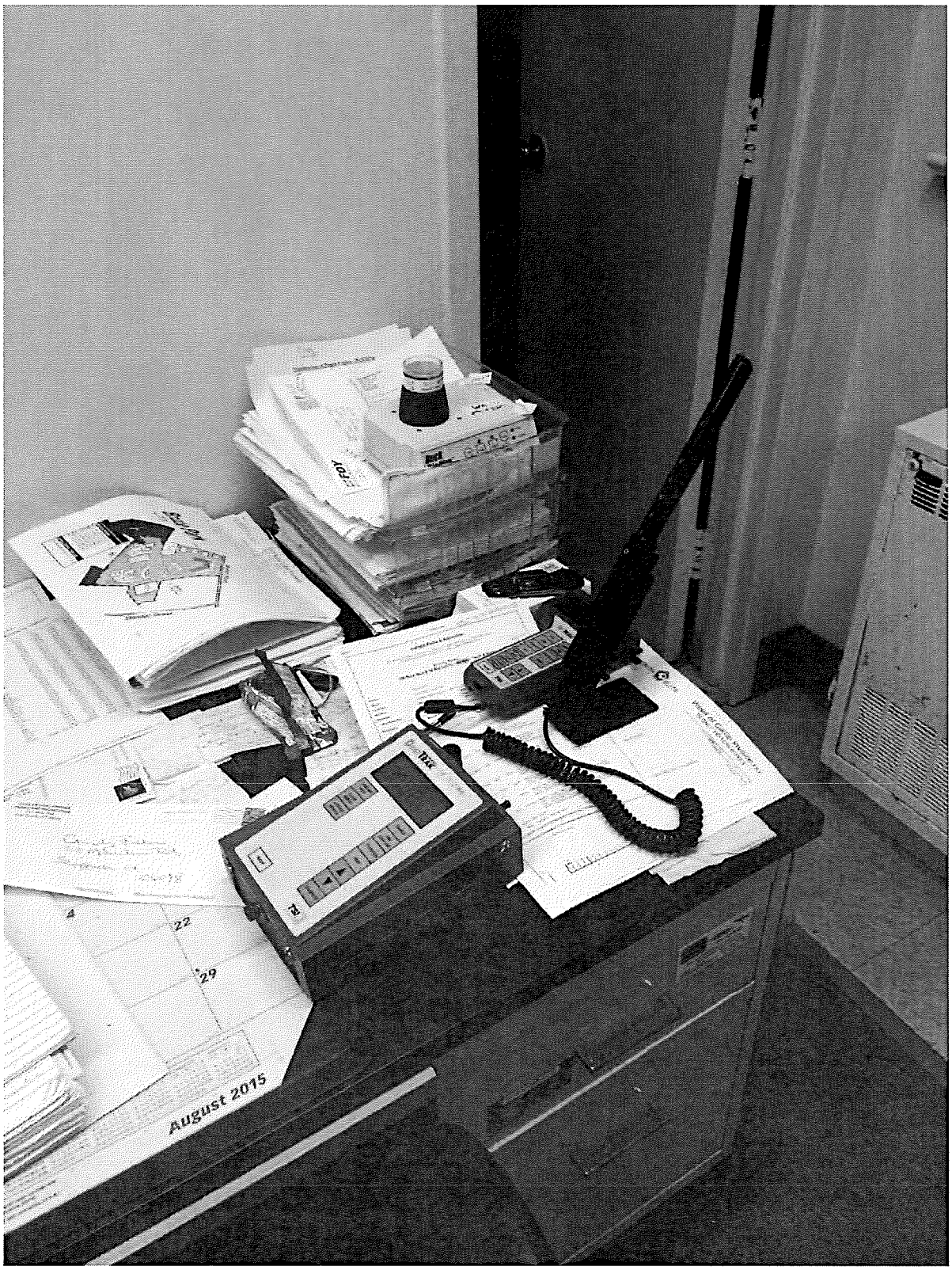
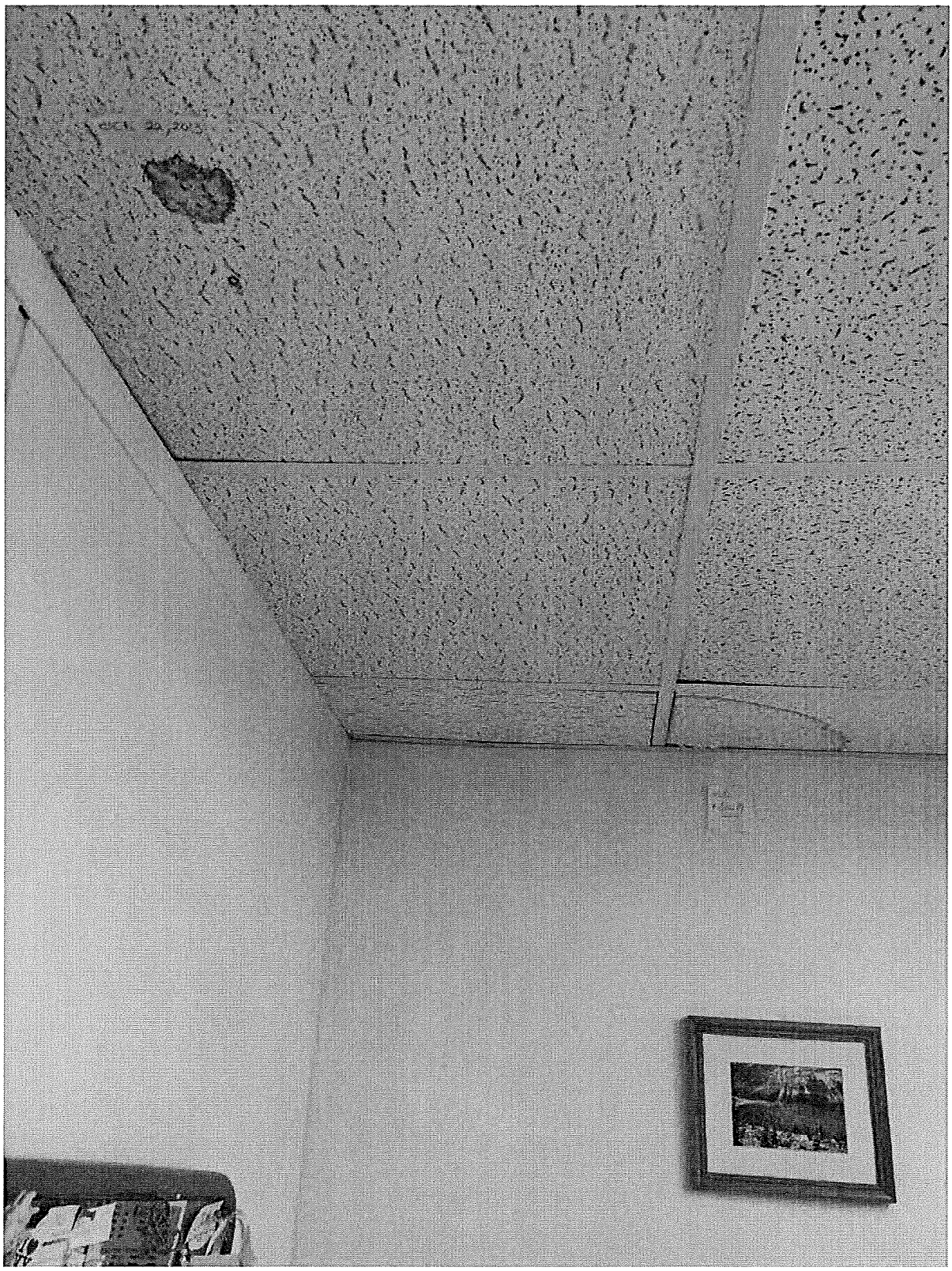
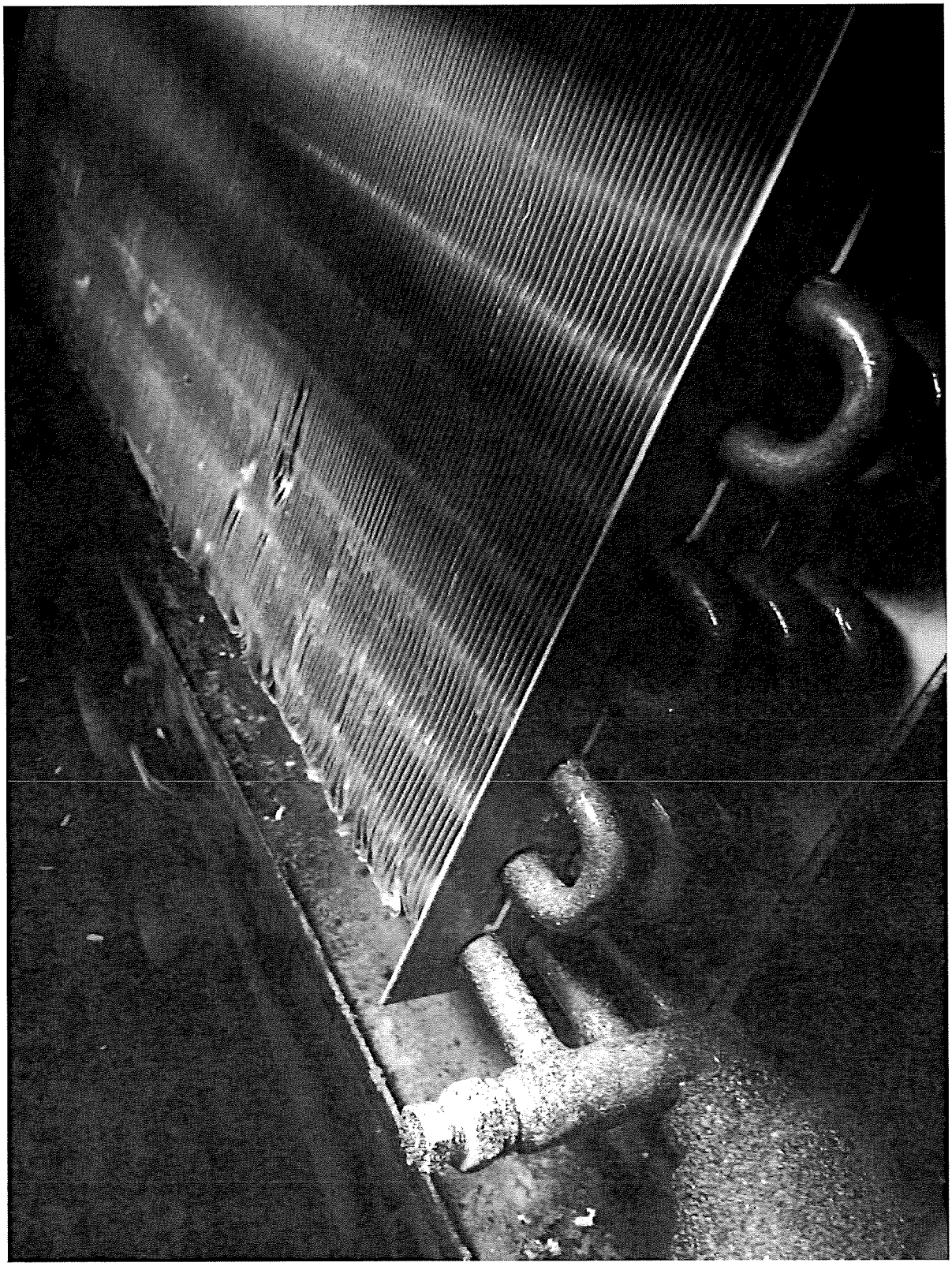
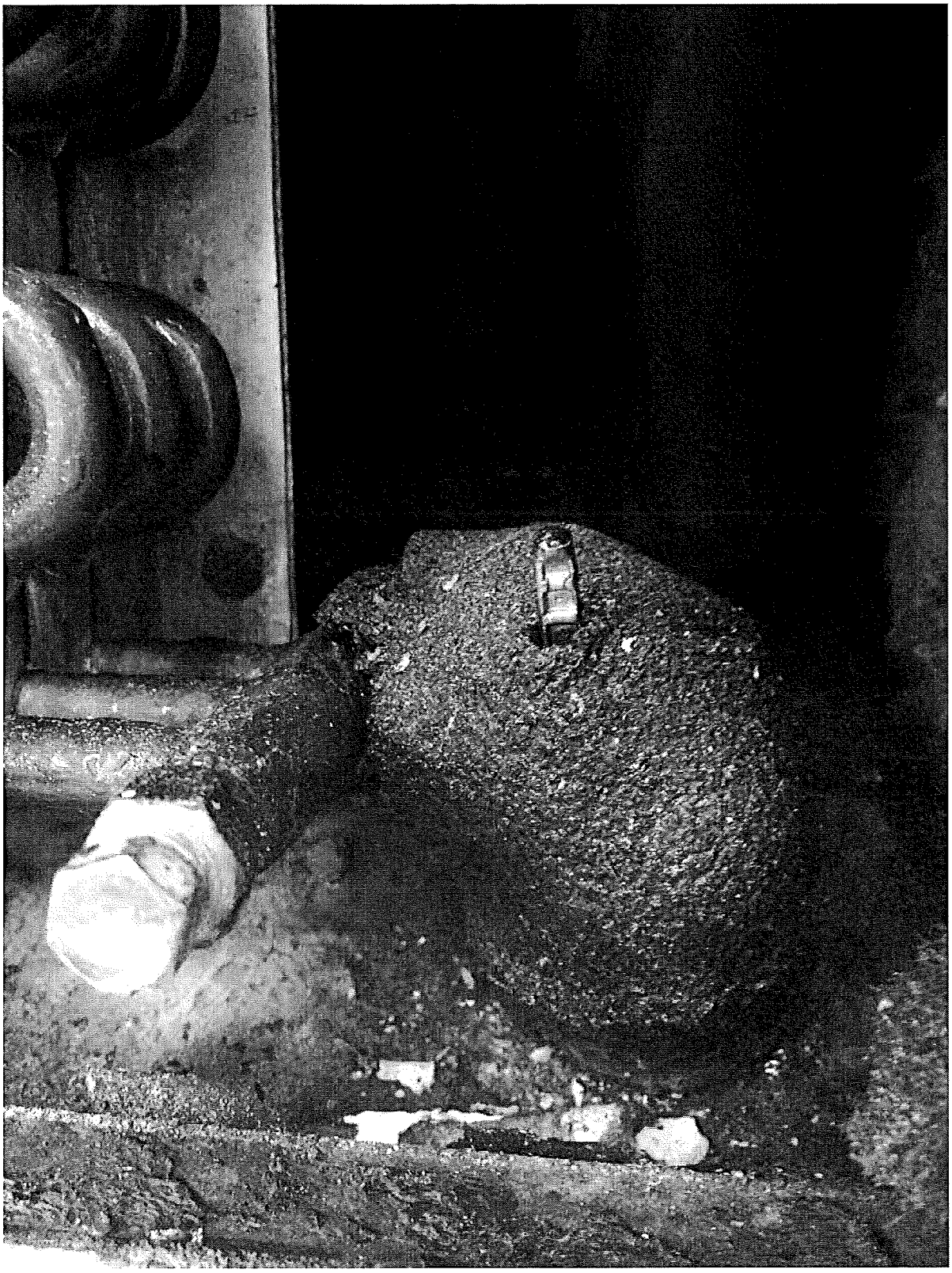
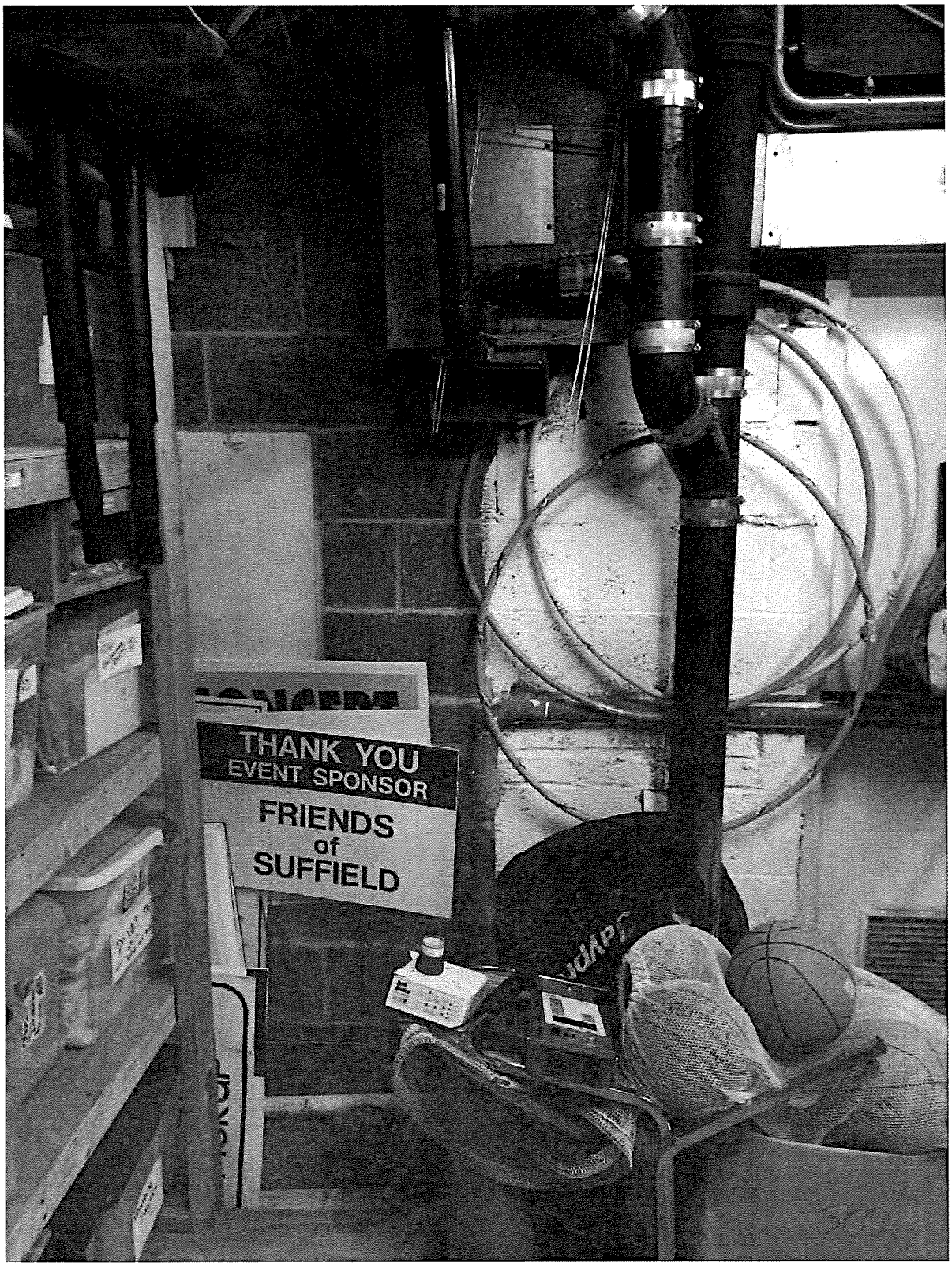

August 2015








THANK YOU
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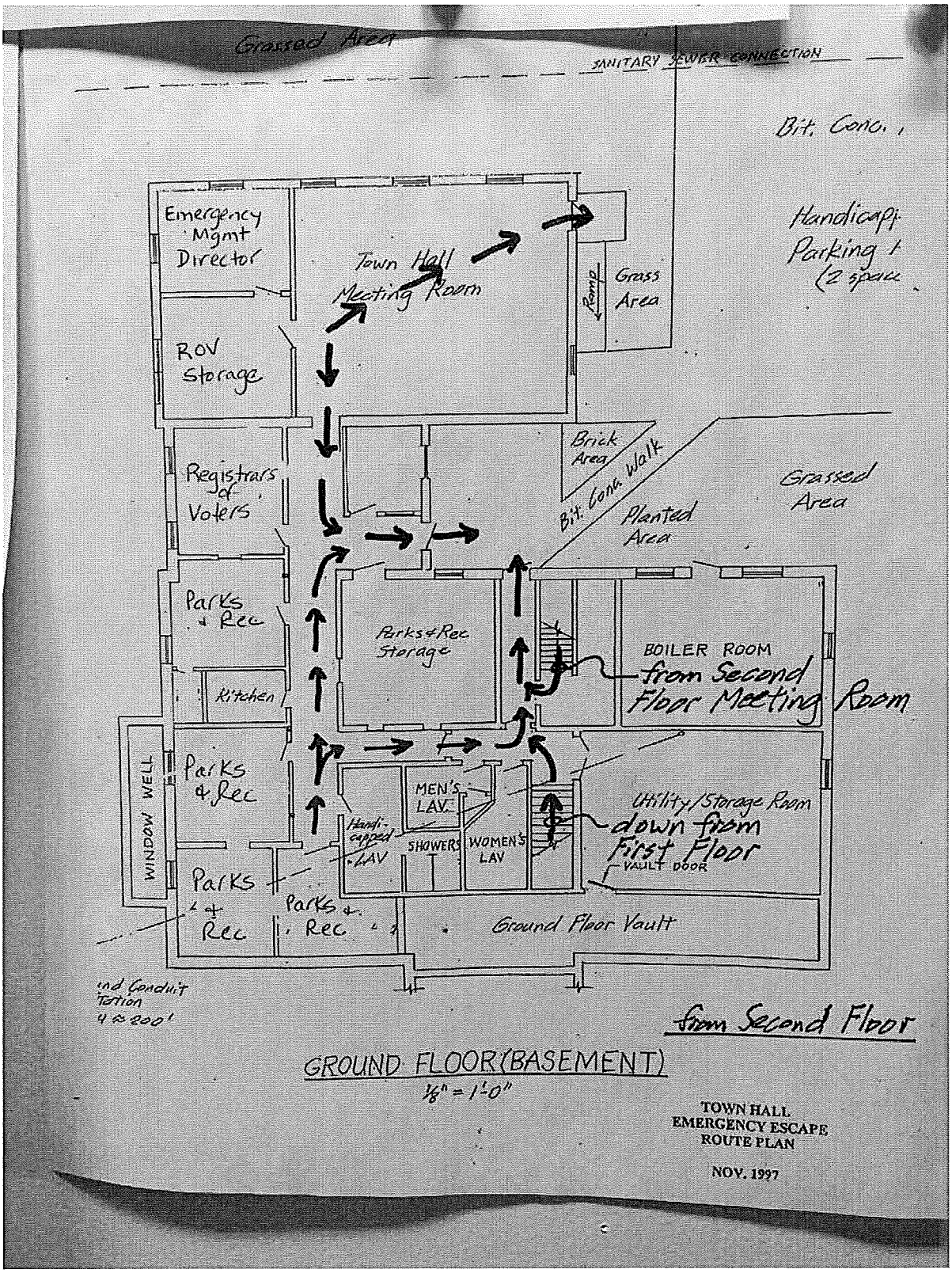
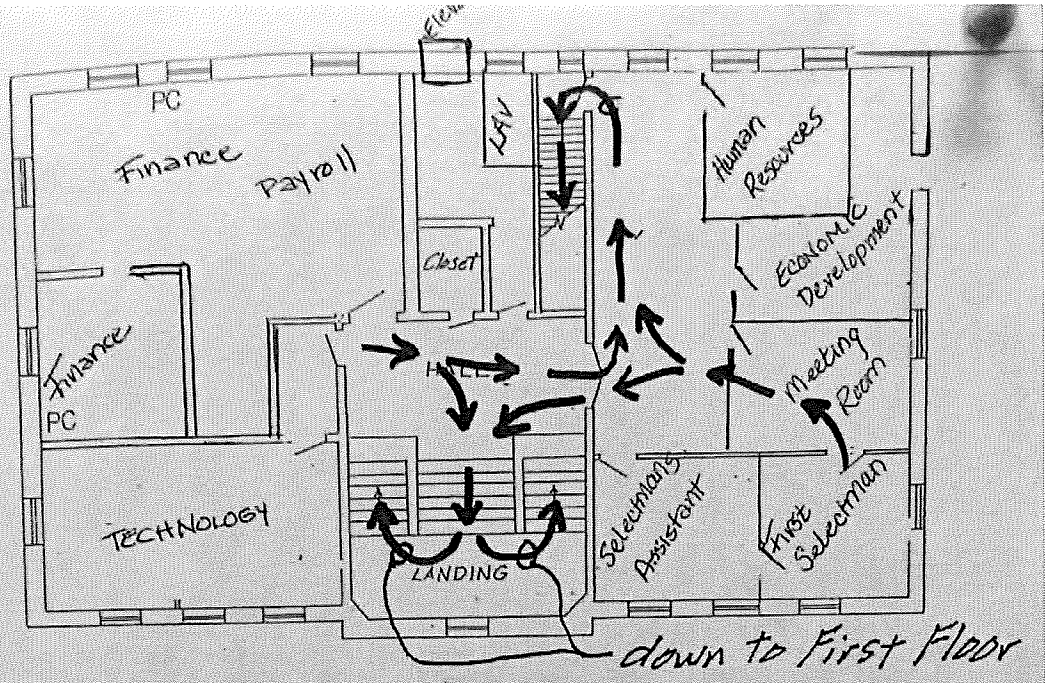


GROUND FLOOR (BASEMENT)

1/8" = 1'-0"

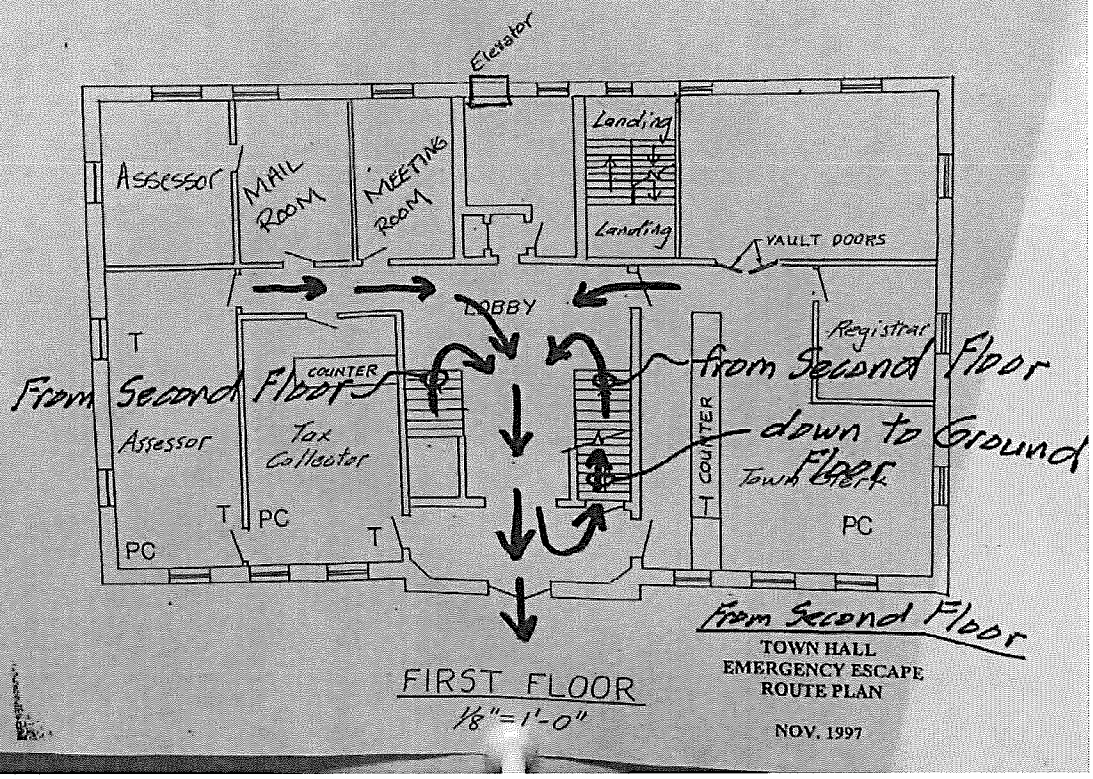
TOWN HALL
EMERGENCY ESCAPE
ROUTE PLAN

NOV. 1997



SECOND FLOOR

1/8" = 1'-0"



FIRST FLOOR

1/8" = 1'-0"

TOWN HALL
EMERGENCY ESCAPE
ROUTE PLAN

NOV. 1997