



Ms. Tosha Ingram
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Subject:
Banking Center Closure
Blaine Site
277 G Street, Blaine, Washington 98230
Mail Code: WA4-105

ENVIRONMENT

Dear Ms. Ingram:

Date:
May 18, 2011

ARCADIS U.S., Inc. (ARCADIS) was retained by Cushman & Wakefield, Inc. (C&W) to conduct an investigation of the banking center located at 277 G Street, Blaine, Washington, in response to a Banking Center Closure. The building is owned by Bank of America and operates as a retail banking center.

Contact:
Mark Williams

Phone:
925.953.3395

C&W requested that ARCADIS perform the investigation because Bank of America associates working at the branch reported smelling burning or smoke odors in the branch on May 11, 2011. The building was subsequently evacuated and North Whatcom Fire and Rescue (NWFR) responded.

Email:
Mark.williams@
arcadis-us.com

Our ref:
HT119603.0000

Background information regarding ARCADIS' investigation, observations, conclusions and recommendations is provided below. ARCADIS' services are subject to the Terms and Conditions of our contract with Bank of America dated December 18, 2008 and to the Limitations and Service Constraints in Attachment A.

BUILDING INFORMATION

The site is a one-story banking center with an unused drive-up teller, located at the southwest corner of G Street and 3rd Street in Blaine, Washington. The building totals 5,174 square feet and was constructed in 1982. The building is entirely occupied by Bank of America and is managed by Cushman and Wakefield. The site building is a slab-on-grade structure with wood frame construction, wood siding, and glass windows and doors. Roofing is a mix of composite shingles and a rubber roof membrane. Interior walls consist of gypsum board with joint compound, finished with paint. Ceilings are comprised primarily of 2' x 4' suspended acoustic ceiling panels. The flooring is a mix of vinyl floor tile with mastic, ceramic tile with associated grout and adhesive, and carpeting overlaying the concrete floor. A total of seven associates work in the branch.

Imagine the result

ARCADIS' INVESTIGATION

Ethan Hennessey performed the investigation of the site on May 12, 2011. The area of concern encompasses the entire branch. Additional information on ARCADIS' Scope of Work and our observations are provided below:

Visual Assessment: A visual inspection of the area of concern was performed. This includes but is not limited to inspection for the presence or absence of visible water damage, suspect mold growth and/or evidence of pest infestation. The results of the visual assessment are summarized below and photographs of select key observations are included in Attachment B.

Field Testing: Field testing was performed for common indoor air quality indicators, including comfort parameters (temperature, relative humidity and carbon dioxide), carbon monoxide and airborne particulates. A summary of these test results, testing locations, and comparisons to published guidance values is presented in Table 1. A sketch of the general sampling locations is presented in Attachment C.

Relative Air Pressure Evaluation – Relative air pressure (air movement) was evaluated using qualitative testing such as visible tracer smoke generated by ventilation smoke tubes.

HVAC Inspection: A visual inspection of the HVAC (heating, ventilating and air-conditioning) units that service the area of concern was conducted. A summary of the observations made during the HVAC inspection are presented in Table 2.

SUMMARY OF KEY FINDINGS

A summary of ARCADIS' key findings is provided below:

1. The affected area was reported to encompass the lobby and teller line area, but the smoke or burning odor was reportedly most noticeable in the vicinity of the drive-up teller station.
2. There was no evidence of pest infestation observed in the building. Approximately a dozen dead flies were observed within the fluorescent light fixture above the drive-up teller station.
3. Minor stains were observed on approximately 4 to 5 ceiling tiles in the vicinity of the janitor's closet and back hallway. The staining totaled less than 3 square feet in area. The tiles were dry at the time of the site inspection, and no indications of roof leaks were observed above the tiles.

4. The janitor's closet was generally clean and orderly. A dedicated exhaust fan servicing the janitor's closet and restrooms was operating effectively.
5. The ceiling plenums throughout the branch appeared to be clean and orderly, with no significant buildup of dust or debris. Minor dust accumulation was observed on the ceiling in the vicinity of the diffusers servicing the teller line. Mechanical equipment observed above the suspended ceiling appeared to be clean and in good operating condition throughout the branch.
6. The field testing parameters within the area of concern were found to be within the published guidance values (refer to Table 1).
7. The rooftop air handling unit (AHU) was generally in good condition. (Refer to Table 2). The pleated filters had been replaced on April 26, 2011. The cooling coil and condensate pan were clean and dry. White encapsulant was observed throughout the interior of the unit. The encapsulant was related to the February 2011 remediation of deteriorated insulation within the unit. ARCADIS was not able to access the unit's electric heating coil.
8. The building appeared to be under a slight negative pressure with respect to the outdoors at the time of the site inspection. However, the AHU servicing the building was not in operation at the time of the relative air pressure evaluation. The AHU operates only when heating or cooling is necessary and is controlled remotely. The winter heating range for the unit is reportedly 70 to 74 degrees Fahrenheit (°F). The thermostat was already set at the unit's highest set-point (74°F); therefore, it was not possible to actuate the unit. It is possible that building pressure is slightly positive with respect to outdoors when the unit is in operation.
9. The restrooms and janitor's closet appeared to be under a slight negative pressure with respect to surrounding areas, which is favorable.
10. The branch manager reported that the smoke odor was initially observed at approximately 10:30 AM on May 11, 2011 after adjusting the thermostat to its highest setting. The building was evacuated and NWFR responded. The branch manager reported that NWFR noted an odor similar to smoke or burning, but was unable to determine a source. NWFR cleared the building for re-entry approximately 40 minutes later. The heat has subsequently been turned up several times with no noticeable odor.
11. The building engineer inspected the site on May 11, and was also unable to determine a source of the odor.

RECOMMENDATIONS

Based on the summary of key findings outlined above, ARCADIS was not able to identify a root cause for the odor. It is possible that the odor was the result of accumulated dust or encapsulant overspray burning off of the electric heating coil within the air handling unit, but this was not verified. Another possible source of this type of odor is a failed or failing fluorescent light ballast.

CLOSING

Please do not hesitate to contact us if you have any questions or require additional information.

Sincerely,

ARCADIS U.S., Inc.



Ethan Hennessey
Scientist 2



Mark Williams
Senior Project Manager

Tables:

Table 1 IAQ Measurements

Table 2 HVAC Unit Observations

Attachments:

- A Limitations and Service Constraints
- B Photographs
- C Site Sketch with General Sampling Locations

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Tables

Table 1 – Indoor Air Quality Measurements

Measurements – May 12, 2011						
Sample Location	Time	Temperature ¹ (°F)	Relative Humidity ¹ (%)	Carbon Monoxide ¹ (ppm)	Carbon Dioxide ¹ (ppm)	Airborne Particulate ² (mg/m ³)
Exterior	13:30	62	36	4	450	0.001
Lobby – East	13:35	71	47	2	806	0.001
Lobby – West	13:37	71	40	2	772	0.002
Manager's office	13:39	71	40	2	798	0.002
Teller line	13:41	72	39	2	785	0.002
Drive-up station	13:44	71	37	2	754	0.004
Break room	13:45	71	40	2	706	0.008
Janitor's closet	13:47	70	42	2	640	0.002
Men's restroom	13:48	70	41	2	879	0.003
Exterior south	13:55	62	30	2	416	0.007
Guidance Value(s)		Winter: 68–75°F ³ Summer: 73-80°F ³	30 – 60% ³	< 9 ^{3&4}	< 700 above outdoor level of 416 to 450 (<1,116 to 1,150) ^{3&4}	0.050 ^{3&5}

Notes:

1. Monitoring Instrument: TSI Q-Trak - Calibration due 9/2011
2. Monitoring Instrument: Thermo Personal Data-Ram (pDR-1000) - Calibration due 6/2011. Measurements are assumed to be respirable particulate (particles ≤10µm in diameter)
3. Guidance values from the American Industrial Hygiene Association (AIHA) Indoor Air Quality Investigator's Guide dated 2006
4. Guidance values from the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE)
5. California EPA 24-hour average ambient level for PM10 (particles of ≤10µm in diameter, or respirable particulate)

Abbreviations:

ppm = parts per million
 mg/m³ = milligrams per cubic meter of air
 °F = degrees Fahrenheit
 % = percent
 < = less than

Table 2 – HVAC Unit Observations

HVAC Unit AHU-1 , Service Zone Entire Building

Fan Housing Insulation Photo # 3				Condensate Drip Pan			Cooling Coils		Filters Photo # 3		Supply/Return Ducts/Diffusers/ Grills
Intact?	Clean ?	Wet / Dry	Visible Mold?	Standing Water Present?	Sludge / Biomatter Present? ¹	Easily Accessible for Cleaning?	Dust / Debris Present?	Visible Mold?	Seated Properly? ²	Dust Loading?	Clean?
Partially removed, 02/11.	Yes	Dry	No	No	No	Yes	No	No	Yes	No	Yes

Notes:

1. Biomatter: Biological material indicative of visible mold and/or bacterial growth.
2. Seated Properly: Are the filters seated in their frame such that airflow bypass is prevented, thereby assuring proper filtration of recirculated air?

Attachment A

Limitations and Service
Constraints

Limitations and Service Constraints

The opinions, conclusions and recommendations presented in this report are limited to the information obtained during the performance of the specific scope of service identified in the report. To the extent that ARCADIS relied upon any information prepared by other parties not under direct contract to ARCADIS, no representation as to the accuracy or completeness of such information is made. This report is an instrument of professional service and the services described in the report were performed in accordance with generally accepted standards and level of skill and care ordinarily exercised by members of the profession working under similar conditions including comparable budgetary and schedule constraints. No warranty, guarantee or certification express or implied, is intended or given with respect to ARCADIS' services, opinions, conclusions or recommendations. This statement is in lieu of any other statement either expressed or implied.

ARCADIS' observations, the results of testing and ARCADIS' opinions, conclusions and recommendations apply solely to conditions existing at the specific times when and specific locations where ARCADIS' investigative work was performed. Observation and testing activities such as those conducted by ARCADIS are inherently limited and do not represent a conclusive or complete characterization. Conditions in other parts of the project site, building or area may vary from conditions at the specific locations where observations were made and where testing was performed by ARCADIS. Additionally, other building material hazards which were not identified by ARCADIS, such as asbestos, lead-based paint and unidentified microbial impacts, may also be present in the indoor air, un-accessed areas and in walls, ceilings, cavities and floors. Therefore, the extent of ARCADIS' opinions, conclusions and recommendations are limited and 100% confidence in these opinions, conclusions and recommendations cannot reasonably be achieved. Nothing contained in this report shall relieve any other party of its responsibility to abide by contract documents and applicable laws, codes, regulations, or standards nor shall it be considered medical advice or consultation.

This report may document whether work conducted by ARCADIS, under contract to ARCADIS or under ARCADIS' observation was done so in accordance with applicable regulatory standards. In the absence of standards such as is often the case for microbial assessment and abatement, this report may not be construed as providing clearance, approval, or authorization for use or re-occupancy of a given structure. Actual site conditions and quantities should be field verified and unless expressly stated, this report may not be used as a bid specification. Although an attempt may have been made to locate microbial growth (mold) and indoor air quality issues, in many cases only further investigation or full demolition procedures will reveal sources or impacted materials. In addition, the passage of time including the nominal passage of time may result in a change in the characteristics at the project site.

This report is expressly for the sole and exclusive use of the party for whom this report was originally prepared and for the particular purpose outlined in the report. Only the party for whom this report was originally prepared and/or other specifically named parties have the right to make use of and rely upon this report. Reuse of this report or any portion thereof for other than its intended purpose, or if modified, or if used by third parties, shall be at the user's sole risk.

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Attachment B

Photographs



Photograph #1

Description of Photograph:
Bank of America-- front of the building



Photograph #2

Description of Photograph:
Rooftop air-handling unit (AHU).



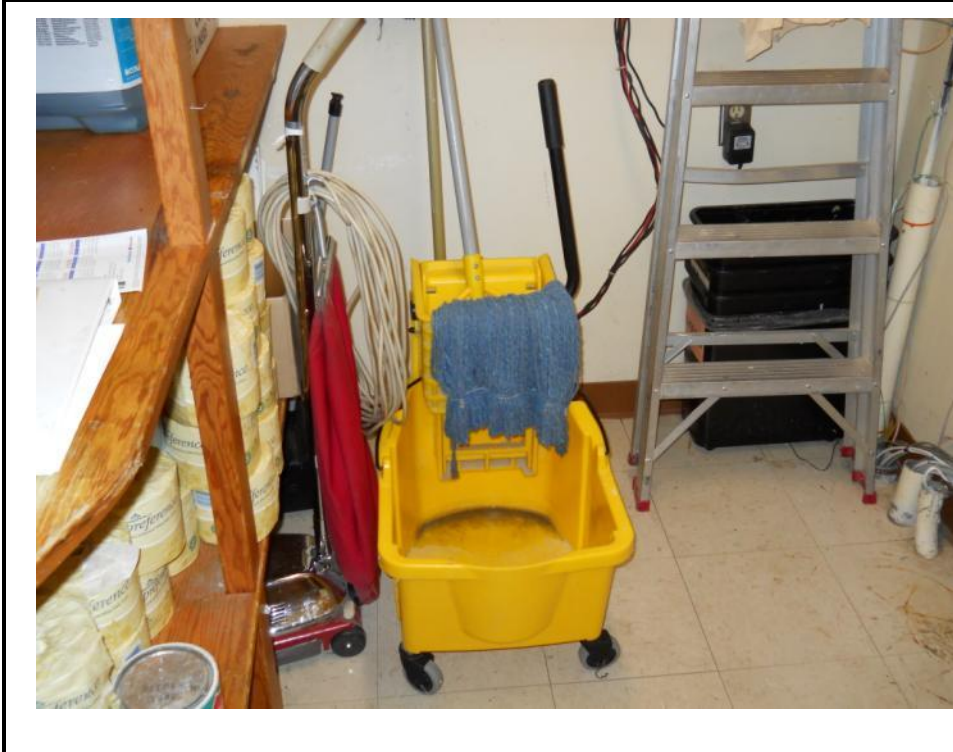
Photograph #3

Description of Photograph:
Interior of AHU. Note encapsulant overspray.



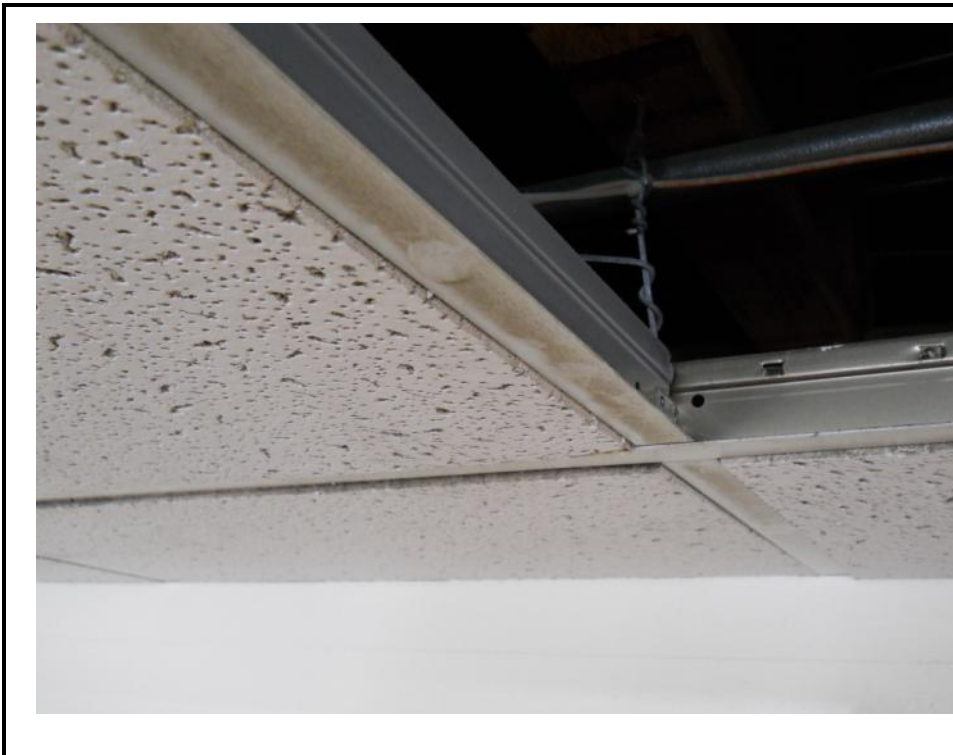
Photograph #4

Description of Photograph:
Ceiling plenum.



Photograph #5

Description of Photograph:
Janitor's closet.



Photograph #6

Description of Photograph:
Dust on suspended ceiling grid
above teller area.

Photograph #7

Description of Photograph:
Dead insects in light fixture above
unused drive-up teller area.



Photograph #8

Description of Photograph:
Exhaust duct in men's restroom.



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Attachment C

Site Sketch with General
Sampling Locations



SUBJECT: Blaine B.C.
JOB NO: _____

BY: EH DATE: _____
CHKD: _____ DATE: _____

PAGE _____
SHEET 1

