



Integral Engineering, P.C.
1001 6th Avenue
11th Floor
New York, NY 10018

telephone: 212.962.4303
www.integral-corp.com

MEMORANDUM

To: Wendi Y. Zheng, New York State Department of Environmental Conservation
Renata Ockerby, New York State Department of Health
John P. Curran, Esq.

From: Sara Barbuto and Keith P. Brodock, P.E.

Date: August 10, 2021

Subject: Indoor Air Sampling Work Plan
Former Cleaner Sales and Equipment Corp. NYSDEC Site No. 224177

Project No.: E051

Integral Engineering, P.C. (Integral) presents this air sampling work plan to the New York State Department of Environmental Conservation (NYSDEC) and the New York State Department of Health (NYSDOH) on behalf of 135 Kent Avenue Management Corp. for 135 Kent Avenue (Former Cleaner Sales and Equipment Corp. Site; NYSDEC Site No. 224177). This work plan was prepared in response to the May 11, 2021, communication from NYSDEC (Attachment A) requiring indoor air sampling at the above-captioned Site during the 2021/2022 heating season. This work plan presents proposed air sampling methods and locations, updated maps of current tenant spaces, and a schedule for this work.

The property sale of 135 Kent Avenue closed August 2, 2021, and the new owner is reviewing this plan concurrently with the NYSDEC and NYSDOH reviews, so we do not intend to bind that future owner if it has reasonable comments on or changes to this work plan to make to NYSDEC and NYSDOH.

INDOOR AIR SAMPLING

The scope of work proposed for indoor air sampling during the 2021/2022 heating season follows the methods performed for the Site remedial investigation¹ and is designed to generate data to evaluate potential impacts to human health within the Site building. The results of the indoor air sampling will also be used to assist in evaluating onsite engineering controls. The following scope of work is proposed to characterize indoor air:

- Collect one indoor air sample from the Site cellar (8-hour duration)
- Collect nine indoor air samples from the first floor of the Site (8 hours)
- Collect two indoor air samples from the second floor hall of the Site (8 hours)
- Collect nine indoor air samples, one from each second-floor apartment (24-hour duration)
- Collect two outdoor (ambient) air samples (one for 8 hours and one for 24 hours)
- Analyze all indoor air and ambient air samples for TO-15 volatile organic compounds (VOCs).

The proposed indoor air locations for the first and second floors are shown on Figures 1 and 2, respectively. These figures present tenant occupancy information as observed during a June 24, 2021 Site visit.

Consistent with air sampling performed at the Site in April 2017 and March 2018, indoor air samples will be collected in the breathing zone (approximately 4 to 6 ft above the floor). One outdoor ambient air sample (per day) will also be collected along North 6th Street. Indoor and outdoor air samples will be collected in 6-L, batch-certified, clean SUMMA canisters. For each indoor and ambient air sample, the start time, end time, maximum and minimum temperature, and beginning and final ambient temperature will be recorded. Samples will be collected at flow rates no greater than 200 mL/min over a period of 8 hours in first-floor commercial spaces and over a period of 24 hours in second-floor residential spaces. Samples will be analyzed for VOCs via U.S. Environmental Protection Agency (EPA) Method TO-15 at a NYSDOH Environmental Laboratory Approval Program-certified analytical laboratory. The following five compounds will be analyzed by EPA Method TO-15 SIM to meet a laboratory reporting limit of 0.20 micrograms per cubic meter

¹ Integral. 2017. Remedial Investigation Work Plan, Former Cleaner Sales and Equipment Corp. Site 135 Kent Avenue. Submitted September 19, 2017.

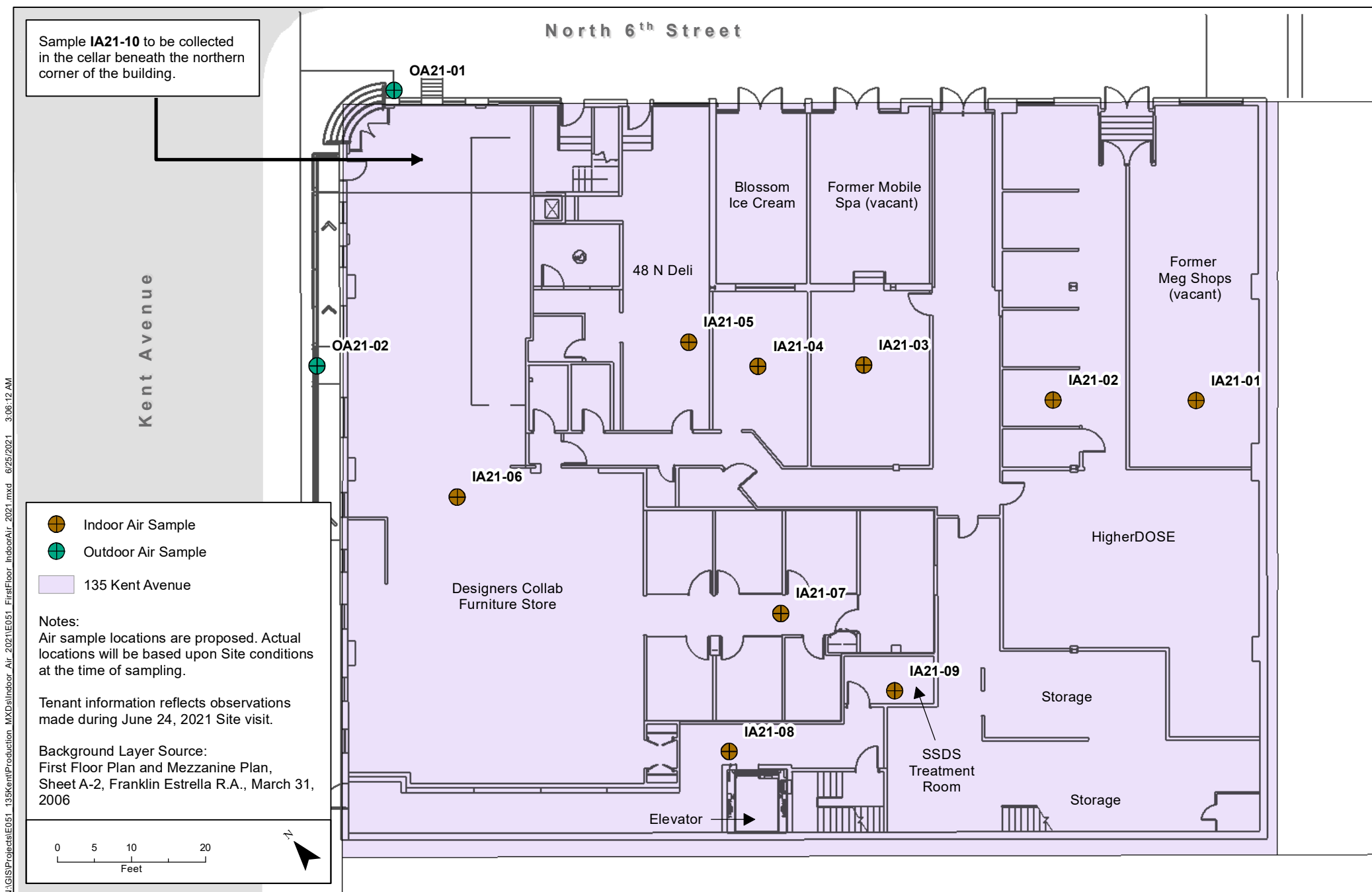
(mcg/m³) or less: trichloroethene, cis 1,2-dichloroethene, 1,1-dichloroethene, carbon tetrachloride, and vinyl chloride.

NYSDOH INDOOR AIR QUALITY QUESTIONNAIRE

The NYSDOH Indoor Air Quality Questionnaire and Building Inventory form (Attachment B) will be completed by during the indoor air sampling event. The building is one structure with commercial tenants on the first floor and residential tenants on the second floor. As such, product inventories will be completed for each sampled tenant space.

SCHEDULE

Per NYSDOH 2006 air sampling guidance, air sampling is to be performed during the heating season (typically considered to be November 15–March 31 in New York State). At a minimum of 30 days in advance of the 2021/2022 heating season, the party responsible for air sampling will provide NYSDEC with the schedule for tenant coordination, air sampling, and reporting.



N:\GIS\Projects\135KentProduction_MXD\Indoor_Air_2021\EA051_FirstFloor_IndoorAir_2021.mxd 6/25/2021 3:06:12 AM

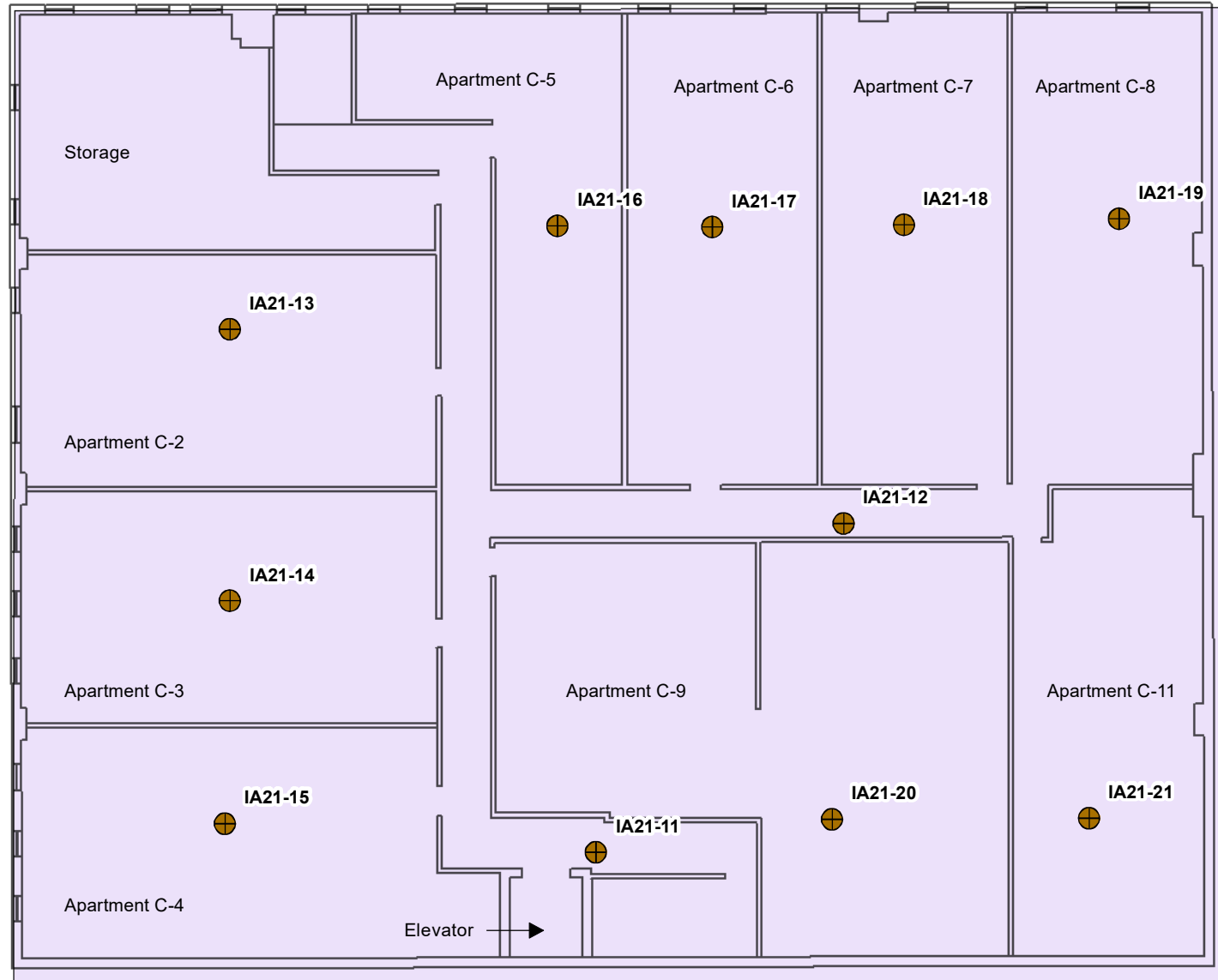


DRAFT

Figure 1.
Proposed First Floor Indoor and Outdoor Air Sample Locations
2021/2022 Air Sampling Event
135 Kent Avenue, Brooklyn, NY

North 6th Street

Kent Avenue

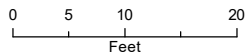


● Indoor Air Sample

Notes:
Air sample locations are proposed. Actual locations will be based upon Site conditions at the time of sampling.

Tenant information reflects observations made during June 24, 2021 Site visit.

Background Layer Source:
First Floor Plan and Mezzanine Plan,
Sheet A-2, Franklin Estrella R.A., March 31,
2006



N:\GIS\Projects\135Kent\Production_MXD\Indoor_Air_2021\IE051_2ndFloor_IndoorAir_2021.mxd 6/25/2021 8:09:57 AM



DRAFT

Figure 2.
Proposed Second Floor Indoor Air Sample Locations
2021/2022 Air Sampling Event
135 Kent Avenue, Brooklyn, NY

Attachment A

NYSDEC May 11, 2021
Correspondence

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Remediation, Region 2
47-40 21st Street, Long Island City, NY 11101
P: (718) 482-4995
www.dec.ny.gov

May 11, 2021

Jeff Cohen
135 Kent Avenue Management Corp.
167 Cowpens Drive
Orangeburg, NY 10962

**RE: Former Cleaners Sales & Equipment Corp
135 Kent Avenue, Brooklyn, Kings County
Brownfield Cleanup Program # C224177
Indoor Air Recommendations Follow Up**

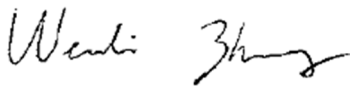
Dear Mr. Cohen:

The New York State Department of Environmental Conservation (the Department), in consultation with the New York State Department of Health (NYSDOH), has reviewed the Sub-Slab Depressurization System (SSDS) pressure monitoring data submitted with the 2021 Monthly Progress Report submittals. Several pressure readings have not met the minimal negative pressure requirements.

NYSDOH recommendations are consistent with the Indoor Air Recommendations Letter dated July 9, 2019 (attached). A third indoor air sampling event will be required during the upcoming 2021-2022 heating season. Please submit a draft workplan for this sampling to the NYSDEC and NYSDOH for our review and comments. The workplan should include a sampling plan, an updated map of the current tenant/commercial spaces and usages, and a proposed schedule for this work. Please submit a workplan within 30 days from the date of this letter.

Should you have any questions regarding this letter or any other aspect of the project, please contact me at (718) 482-7541 or wendi.zheng@dec.ny.gov. Site-related health questions can be directed to the NYSDOH Project Manager, Renata Ockerby, at (518) 402-7867.

Regards,



Wendi Zheng
Project Manager

cc: J. O'Connell – NYSDEC
S. McLaughlin, R. Ockerby – NYSDOH
S. Barbuto, K. Brodock – Integral Engineering, P.C.

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Remediation, Region 2
47-40 21st Street, Long Island City, NY 11101
P: (718) 482-4995
www.dec.ny.gov

July 9, 2019

Jeff Cohen
135 Kent Avenue Management Corp.
167 Cowpens Drive
Orangeburg, NY 10962

**RE: Former Cleaners Sales & Equipment Corp
135 Kent Avenue, Brooklyn, Kings County
Brownfield Cleanup Program # C224177
Indoor Air Recommendations**

Dear Mr. Cohen:

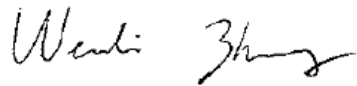
The New York State Department of Environmental Conservation (the Department), in consultation with the New York State Department of Health (NYSDOH), has reviewed the request to determine the efficacy of the Sub-Slab Depressurization System (SSDS) and removal of tenants' individual air filtration units. This request was made by Integral Engineering P.C. on behalf of 135 Kent Avenue Management Corp. (the Remedial Party) during a conference call with the Department and NYSDOH on June 10, 2019. The post-mitigation indoor air sample data collected in April 2017 and March 2018 was reviewed as part of this request.

NYSDOH recommends that individual air filtration units in the tenant spaces continue to be operated and maintained. A third indoor air sampling event will be required during the upcoming 2019-2020 heating season. NYSDOH may then make a determination based upon an evaluation of the data.

The third indoor air sampling event during the 2019-2020 heating season must be conducted at all previous sampling locations. For the upcoming sampling, the NYSDOH recommends that individual air filtration units be turned off a minimum of 30 days prior to sampling. The SSDS is to remain operating. All sampling must be conducted in accordance with the approved Operation, Maintenance & Monitoring Plan for Sub-Slab Depressurization System (OM&M Plan) dated October 2015.

Should you have any questions regarding this letter or any other aspect of the project, please contact me at (718) 482-7541 or wendi.zheng@dec.ny.gov. Site-related health questions can be directed to the NYSDOH Project Manager, Mrs. Renata Ockerby, at (518) 402-7860.

Regards,

A handwritten signature in black ink that reads "Wendi Zheng". The signature is written in a cursive, flowing style.

Wendi Zheng
Project Manager

cc: J. O'Connell, S. Martinkat – NYSDEC
J. Deming, R. Ockerby – NYSDOH
S. Barbuto, K. Brodock – Integral Engineering, P.C.

Attachment B

NYSDOH Indoor Air Quality Questionnaire

**NEW YORK STATE DEPARTMENT OF HEALTH
INDOOR AIR QUALITY QUESTIONNAIRE AND BUILDING INVENTORY
CENTER FOR ENVIRONMENTAL HEALTH**

This form must be completed for each residence involved in indoor air testing.

Preparer's Name _____ Date/Time Prepared _____

Preparer's Affiliation _____ Phone No. _____

Purpose of Investigation _____

1. OCCUPANT:

Interviewed: Y / N

Last Name: _____ First Name: _____

Address: _____

County: _____

Home Phone: _____ Office Phone: _____

Number of Occupants/persons at this location _____ Age of Occupants _____

2. OWNER OR LANDLORD: (Check if same as occupant ___)

Interviewed: Y / N

Last Name: _____ First Name: _____

Address: _____

County: _____

Home Phone: _____ Office Phone: _____

3. BUILDING CHARACTERISTICS

Type of Building: (Circle appropriate response)

- | | | |
|-------------|--------|----------------------|
| Residential | School | Commercial/Multi-use |
| Industrial | Church | Other: _____ |

If the property is residential, type? (Circle appropriate response)

- | | | |
|--------------|-----------------|-------------------|
| Ranch | 2-Family | 3-Family |
| Raised Ranch | Split Level | Colonial |
| Cape Cod | Contemporary | Mobile Home |
| Duplex | Apartment House | Townhouses/Condos |
| Modular | Log Home | Other: _____ |

If multiple units, how many? _____

If the property is commercial, type?

Business Type(s) _____

Does it include residences (i.e., multi-use)? Y / N If yes, how many? _____

Other characteristics:

Number of floors _____ Building age _____

Is the building insulated? Y / N How air tight? Tight / Average / Not Tight

4. AIRFLOW

Use air current tubes or tracer smoke to evaluate airflow patterns and qualitatively describe:

Airflow between floors

Airflow near source

Outdoor air infiltration

Infiltration into air ducts

5. BASEMENT AND CONSTRUCTION CHARACTERISTICS (Circle all that apply)

- a. Above grade construction: wood frame concrete stone brick
- b. Basement type: full crawlspace slab other _____
- c. Basement floor: concrete dirt stone other _____
- d. Basement floor: uncovered covered covered with _____
- e. Concrete floor: unsealed sealed sealed with _____
- f. Foundation walls: poured block stone other _____
- g. Foundation walls: unsealed sealed sealed with _____
- h. The basement is: wet damp dry moldy
- i. The basement is: finished unfinished partially finished
- j. Sump present? Y / N
- k. Water in sump? Y / N / not applicable

Basement/Lowest level depth below grade: _____(feet)

Identify potential soil vapor entry points and approximate size (e.g., cracks, utility ports, drains)

6. HEATING, VENTING and AIR CONDITIONING (Circle all that apply)

Type of heating system(s) used in this building: (circle all that apply – note primary)

- Hot air circulation
- Space Heaters
- Electric baseboard
- Heat pump
- Stream radiation
- Wood stove
- Hot water baseboard
- Radiant floor
- Outdoor wood boiler
- Other _____

The primary type of fuel used is:

- Natural Gas
- Electric
- Wood
- Fuel Oil
- Propane
- Coal
- Kerosene
- Solar

Domestic hot water tank fueled by: _____

Boiler/furnace located in: Basement Outdoors Main Floor Other _____

Air conditioning: Central Air Window units Open Windows None

Are there air distribution ducts present? Y / N

Describe the supply and cold air return ductwork, and its condition where visible, including whether there is a cold air return and the tightness of duct joints. Indicate the locations on the floor plan diagram.

7. OCCUPANCY

Is basement/lowest level occupied? Full-time Occasionally Seldom Almost Never

Level General Use of Each Floor (e.g., familyroom, bedroom, laundry, workshop, storage)

Basement	_____
1 st Floor	_____
2 nd Floor	_____
3 rd Floor	_____
4 th Floor	_____

8. FACTORS THAT MAY INFLUENCE INDOOR AIR QUALITY

- a. Is there an attached garage? Y / N
- b. Does the garage have a separate heating unit? Y / N / NA
- c. Are petroleum-powered machines or vehicles stored in the garage (e.g., lawnmower, atv, car) Y / N / NA
Please specify _____
- d. Has the building ever had a fire? Y / N When? _____
- e. Is a kerosene or unvented gas space heater present? Y / N Where? _____
- f. Is there a workshop or hobby/craft area? Y / N Where & Type? _____
- g. Is there smoking in the building? Y / N How frequently? _____
- h. Have cleaning products been used recently? Y / N When & Type? _____
- i. Have cosmetic products been used recently? Y / N When & Type? _____

- j. Has painting/staining been done in the last 6 months? Y / N Where & When? _____
- k. Is there new carpet, drapes or other textiles? Y / N Where & When? _____
- l. Have air fresheners been used recently? Y / N When & Type? _____
- m. Is there a kitchen exhaust fan? Y / N If yes, where vented? _____
- n. Is there a bathroom exhaust fan? Y / N If yes, where vented? _____
- o. Is there a clothes dryer? Y / N If yes, is it vented outside? Y / N
- p. Has there been a pesticide application? Y / N When & Type? _____

Are there odors in the building? Y / N
 If yes, please describe: _____

Do any of the building occupants use solvents at work? Y / N
 (e.g., chemical manufacturing or laboratory, auto mechanic or auto body shop, painting, fuel oil delivery, boiler mechanic, pesticide application, cosmetologist)

If yes, what types of solvents are used? _____

If yes, are their clothes washed at work? Y / N

Do any of the building occupants regularly use or work at a dry-cleaning service? (Circle appropriate response)

- Yes, use dry-cleaning regularly (weekly) No
- Yes, use dry-cleaning infrequently (monthly or less) Unknown
- Yes, work at a dry-cleaning service

Is there a radon mitigation system for the building/structure? Y / N Date of Installation: _____
Is the system active or passive? Active/Passive

9. WATER AND SEWAGE

Water Supply: Public Water Drilled Well Driven Well Dug Well Other: _____
Sewage Disposal: Public Sewer Septic Tank Leach Field Dry Well Other: _____

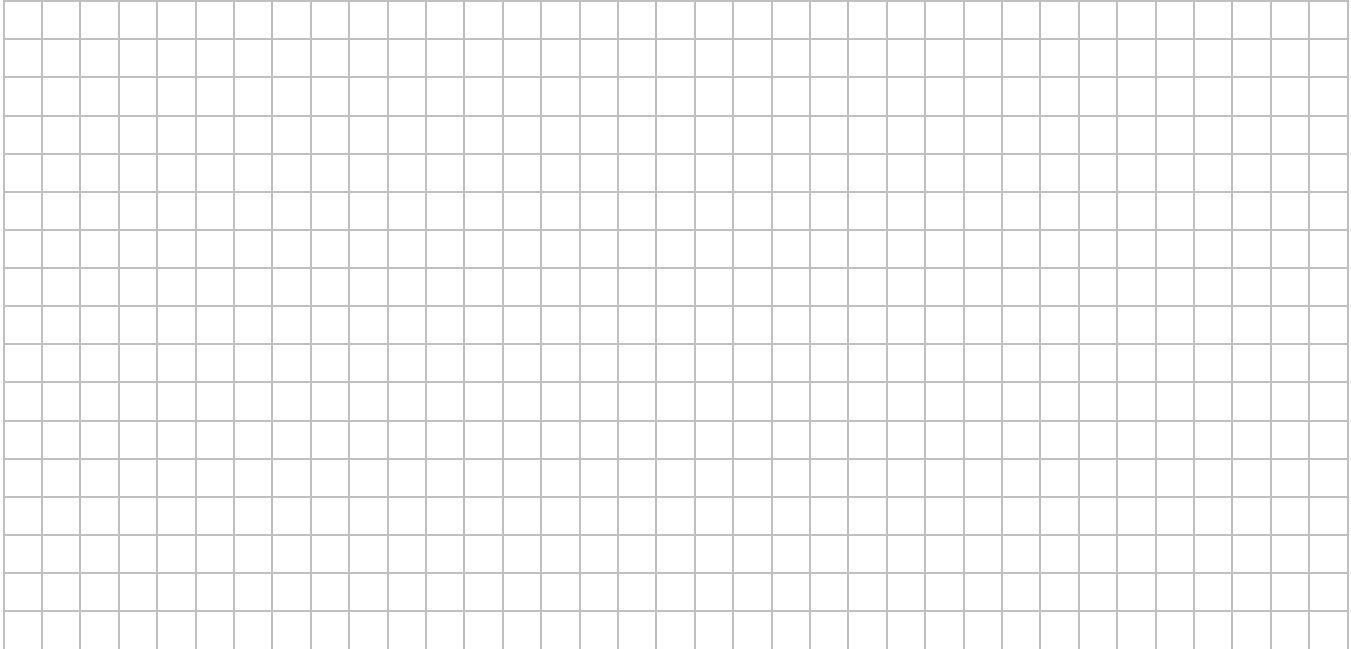
10. RELOCATION INFORMATION (for oil spill residential emergency)

- a. Provide reasons why relocation is recommended: _____
- b. Residents choose to: remain in home relocate to friends/family relocate to hotel/motel
- c. Responsibility for costs associated with reimbursement explained? Y / N
- d. Relocation package provided and explained to residents? Y / N

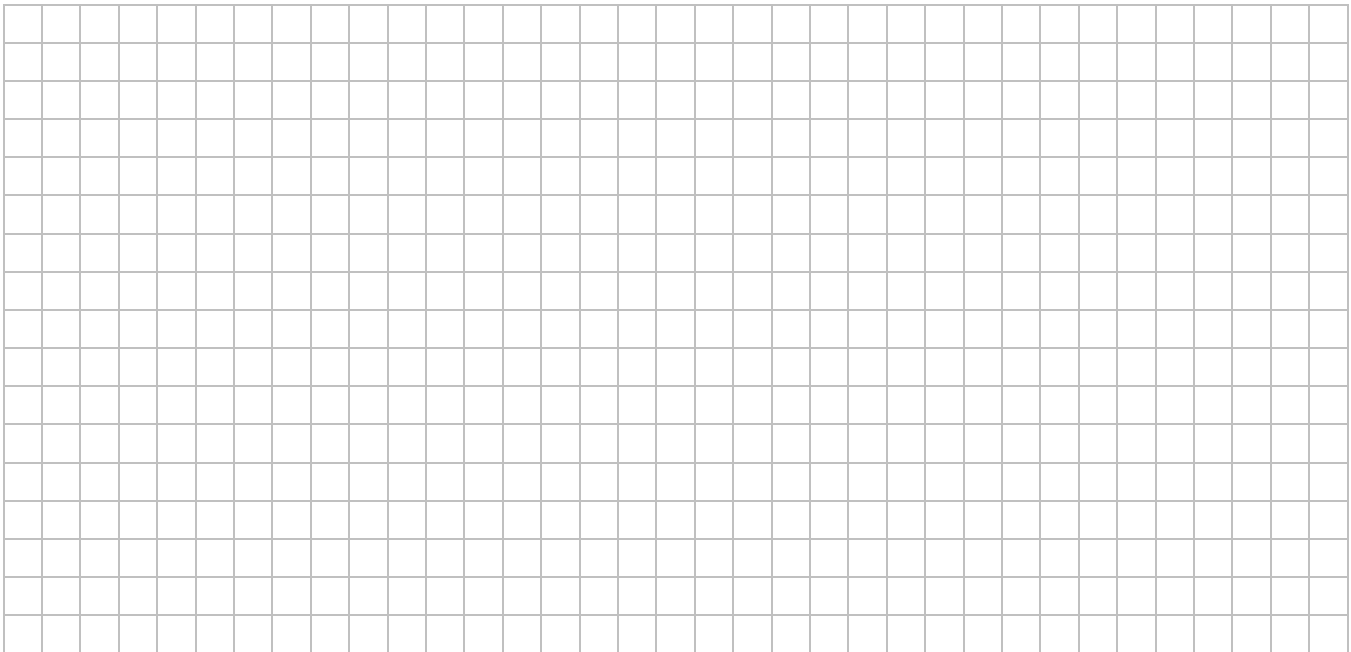
11. FLOOR PLANS

Draw a plan view sketch of the basement and first floor of the building. Indicate air sampling locations, possible indoor air pollution sources and PID meter readings. If the building does not have a basement, please note.

Basement:



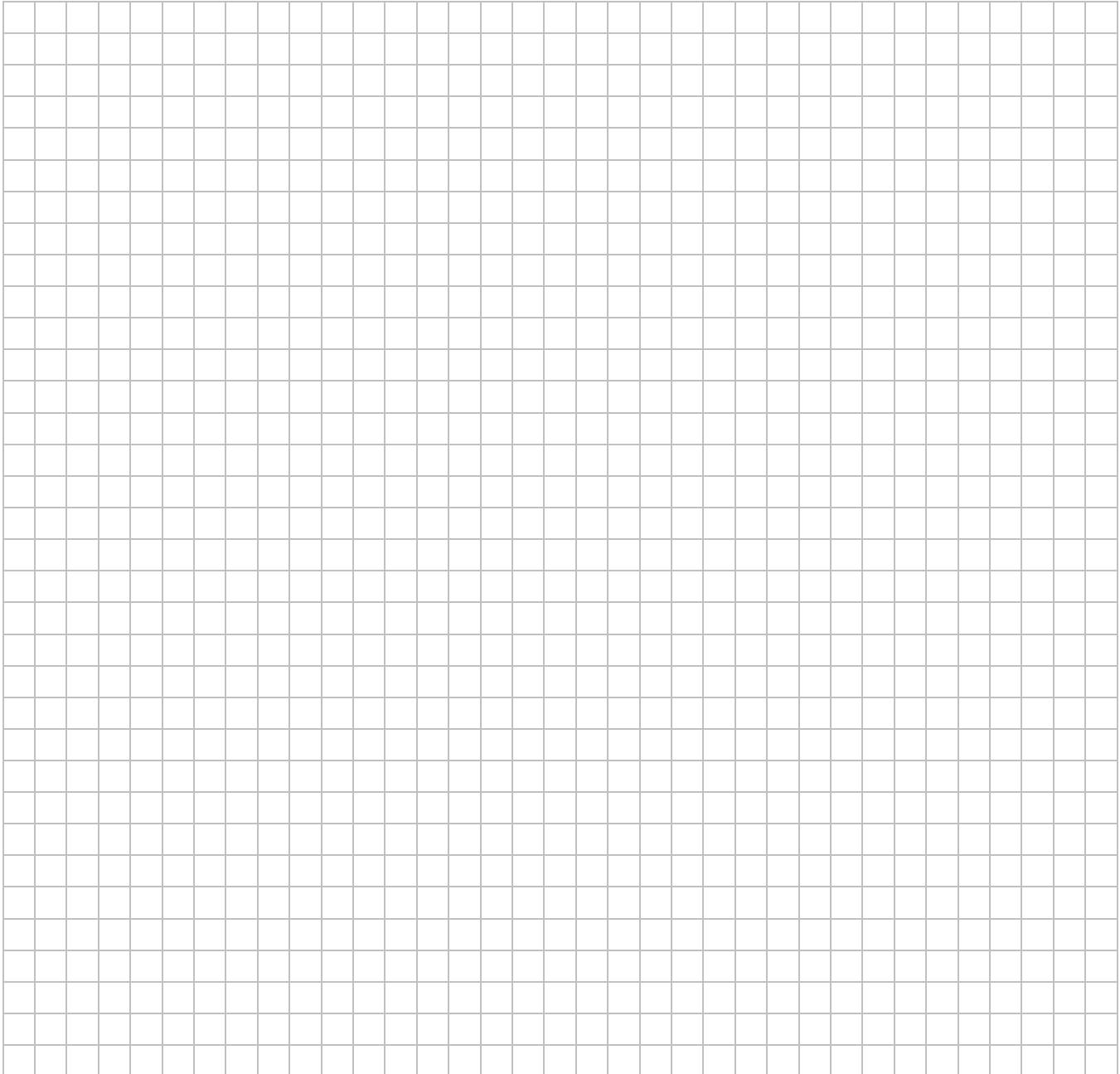
First Floor:



12. OUTDOOR PLOT

Draw a sketch of the area surrounding the building being sampled. If applicable, provide information on spill locations, potential air contamination sources (industries, gas stations, repair shops, landfills, etc.), outdoor air sampling location(s) and PID meter readings.

Also indicate compass direction, wind direction and speed during sampling, the locations of the well and septic system, if applicable, and a qualifying statement to help locate the site on a topographic map.



13. PRODUCT INVENTORY FORM

Make & Model of field instrument used: _____

List specific products found in the residence that have the potential to affect indoor air quality.

Location	Product Description	Size (units)	Condition *	Chemical Ingredients	Field Instrument Reading (units)	Photo ** <u>Y/N</u>

* Describe the condition of the product containers as **Unopened (UO)**, **Used (U)**, or **Deteriorated (D)**
 ** Photographs of the **front and back** of product containers can replace the handwritten list of chemical ingredients. However, the photographs must be of good quality and ingredient labels must be legible.