

April 1, 2022

Mr. Bryan Brown
Fridley Public Schools
6000 West Moore Lake Drive
Fridley, MN 55432



**RE: Fridley Community Center & Fridley Middle School
Short-Term Radon Testing Results
IEA Project #202111221**

Dear Mr. Brown:

IEA placed 202 Air Chek Pro Chek short-term radon test kits in the following two (2) district buildings for the purpose of evaluating radon levels:

- Fridley Community Center – 57 samples
- Fridley Middle School – 145 samples

The radon samples were placed and retrieved by the following Minnesota Department of Health (MDH) licensed Radon Measurement Professionals:

Measurement Professional	License Number	Signature
Nate Wiklund	RMEA-00439	
Amanda Edberg	RMEA-00041	
Robert Watson	RMEA-00385	

Conditions of air intakes were good and the ventilation system was operating in good condition at the time of placement and retrieval.

INTRODUCTION

Radon is a colorless, odorless, tasteless, radioactive gas that occurs naturally in soil, rocks, and underground water supplies and in the ambient air. According to the U.S. Environmental Protection Agency (EPA) and other scientific organizations, naturally occurring radon gas has been associated with an increased risk of developing lung cancer. The chances of developing lung cancer from radon exposure are dependent on several factors, including individual susceptibility and, perhaps more importantly, the dose and duration of exposure. Radon testing in schools is highly recommended by the Minnesota Department of Health (MDH) and EPA.

INSTITUTE FOR ENVIRONMENTAL ASSESSMENT, INC.
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BROOKLYN PARK
9201 West Broadway, #600
Brooklyn Park, MN 55445
763-315-7900 / FAX 763-315-7920
800-233-9513

MANKATO
610 North Riverfront Drive
Mankato, MN 56001
507-345-8818 / FAX 507-345-5301
800-233-9513

ROCHESTER
210 Woodlake Drive SE
Rochester, MN 55904
507-281-6664 / FAX 507-281-6695
800-233-9513

BRAINERD
601 NW 5th Street, Ste. #4
Brainerd, MN 56401
218-454-0703 / FAX 218-454-0703
800-233-9513

MARSHALL
1420 East College Drive
Marshall, MN 56258
507-476-3599 / FAX 507-537-6985
800-233-9513

VIRGINIA
5525 Emerald Avenue
Mountain Iron, MN 55768
218-410-9521
800-233-9513

IEA placed 202 Air Chek Pro Chek short-term radon test kits in frequently occupied areas in the two district buildings for the purpose of sampling for radon in accordance with the MDH's *Guidance for Radon Testing in Minnesota Schools* (2021) and ANSI/AARST 'Protocol for Conducting Measurements of Radon and Radon Decay Products in Schools and Large Buildings' (ANSI/AARST MALB 2014 with 1/21 revisions).

A total of 202 radon test kits were placed from February 28, 2022, to March 3, 2022, for a total short-term sampling period of three (3) days. Two (2) test kits were found to be damaged at the time of pick-up. The radon test kits were analyzed by AirChek, Inc., MDH license #RL-00003, located at 1936 Butler Bridge Road, Mills River, NC 28759. The sampling and analysis methodologies are provided in Appendix A.

IEA followed ANSI/AARST MALB 2014 with 1/21 revisions for quality assurance measurements by including duplicate kits, control kits (blanks), and spiked kits.

Client communications and commitments were delivered to the client on the following dates:

- October 22, 2021, for Client Advisories and Authorizations
- February 28, 2022, for Facilitating Staff Commitments
- February 28, 2022, for Occupant notices

EVALUATION CRITERIA

The MDH and the EPA have established a recommended action level in intended to be occupied areas of 4.0 picocuries per liter (pCi/L) for an annual average. Testing was conducted during school days when the building is significantly occupied. The HVAC system was set as it normally is during school days. Testing was conducted during the heating season when the average outdoor temperature is less than 65°F, as recommended by the MDH, when the ventilation system was operating normally, and windows and doors were closed. Consequently, sampling under these "closed" conditions is when the radon risk is most likely to occur.

MDH recommends follow-up testing for sampling results that are above the action level. Please refer to the following table for MDH guidelines:

RESULTS (pCi/L)	RECOMMENDED ACTION
LESS THAN 4	Re-test after changes to foundation or HVAC and every 5 years
GREATER THAN 4	Conduct CRM short-term testing during winter months
LESS THAN 4 (<u>DURING OCCUPANCY</u>) AFTER CRM TESTING	Repeat CRM testing if not conducted during winter or if conducted during abnormal ventilation. Otherwise consider re-testing after changes to foundation or HVAC and every 5 years
GREATER THAN 4 (<u>DURING OCCUPANCY</u>) AFTER CRM TESTING	Reduce radon in rooms to less than 4 through radon mitigation. Conduct CRM testing to verify radon reduction.

CRM: Continuous Radon Monitor

RESULTS & DISCUSSION

The laboratory reports, which include maps of each building with sampling locations marked, are provided in Appendix B. Following are summary results for each building.

Fridley Community Center

6085 Seventh Street NE
Fridley MN 55432

A total of 57 test kits were placed at Fridley Community Center. The results indicated that radon levels were below the action level of 4 pCi/L. See Table 1 for a summary of the results:

TABLE 1: Fridley Community Center RANGE OF RESULTS				
	0.0 – 1.9 pCi/L	2.0 – 2.9 pCi/L	3.0 – 3.9 pCi/L	≥ 4 pCi/L
Number of Tests	57	0	0	0
All below action level				

pCi/L: picocuries per liter

Fridley Middle School

6100 West Moore Lake Drive
Fridley MN 55432

A total of 145 test kits were placed at Fridley Middle School. Two (2) test kits, one each in rooms 140 (a duplicate) and 166B, were found to be damaged when the test kits were collected. One (1) test kit, for Room 160F, was deemed not able to be tested by the lab. The number of damaged test kits did not exceed allowance in the ANSI/AARST MALB 2014 with 1/21 revisions standard. The results for the remaining 142 test kits indicated that radon levels were below the action level of 4 pCi/L. See Table 2 for a summary of the results:

TABLE 2: Fridley Middle School RANGE OF RESULTS				
	0.0 – 1.9 pCi/L	2.0 – 2.9 pCi/L	3.0 – 3.9 pCi/L	≥ 4 pCi/L
Number of Tests	142	0	0	0
All below action level				

pCi/L: picocuries per liter

CONCLUSIONS & RECOMMENDATIONS

The radon levels in the sampled locations were below the EPA action level of 4 pCi/L.

The EPA has established recommended guidelines for permissible radon concentrations in schools. The following are general recommendations for frequently occupied areas of schools:

- The building should be retested at least every 5 years and in conjunction with any sale of the building.
- Rooms that were not tested because they were not occupied, should be tested if they become occupied in the future.

In addition, retesting should be conducted when any of the following circumstances occur:

- A new addition is constructed, or a significant renovation occurs
- A ground contact area not previously tested is occupied
- Heating or cooling systems are significantly altered, resulting in changes to air pressures or distribution
- Ventilation is significantly altered by extensive weatherization, changes to mechanical systems, or comparable procedures

- Significant openings to soil occur due to:
 - Ground water or slab surface water control systems (e.g., sumps, perimeter drain tile, shower/tub retrofits, etc.)
 - Natural settlement causing major cracks to develop
 - Earthquakes, construction blasting, or formation of sink holes nearby
 - A mitigation system is altered, modified or repaired
- Rooms should be retested during the winter heating season (i.e., under “closed” conditions) which is typically “worst case” conditions.

Per Minnesota Statutes, section 123B.571, school districts are required to report radon test results at a school board meeting and report results to the MDH. IEA is able to assist with presenting results to the school board, and the MDH reporting. The MDH ‘School Radon Testing Form’ is located in Appendix E.

For more information regarding radon, see the EPA’s A Citizen’s Guide to Radon at <http://www.epa.gov/radon>. MDH can be contacted at health.indoorair@state.mn.us or 651-201-4601.

GENERAL COMMENTS

The analysis and opinions expressed in this report are based upon data obtained from radon sampling in the district and are representative of the locations and time period sampled. This report does not reflect variations in conditions that may occur across the site, property, or facility. Actual conditions may vary and may not become evident without further assessment.

The report is prepared for the exclusive use of our client for specific application to the project discussed and has been prepared in accordance with generally accepted environmental, health and safety practices. Other than as provided in the preceding sentence and in our Proposal #10036 dated October 22, 2021, regarding radon sampling services at the district locations, including the General Conditions attached thereto, no warranties are extended or made.

IEA appreciates the opportunity to submit this analysis to the district. Should you require additional radon testing or have any questions regarding radon or any other environmental, health, or safety-related concerns, please do not hesitate to contact our office.

Sincerely,

IEA, Inc.



Amanda Edberg, ASP
Sr Account Manager

AE/wb 040122

Enc.

Appendix A

Methodology and Quality Control Measurements

Sampling Methodology

IEA placed Air Chek, Inc. Pro Chek activated charcoal radon test kits designed specifically for the detection of gamma emissions caused by the decay of Radon-222 and its daughter products. The kit is made of a padded envelope which contains activated charcoal. The kit is placed during normal occupancy HVAC operations and sealed with vinyl tape after 72 to 96 hours of indoor exposure. Individual kits are uniquely identified with a number and corresponding bar code.

Upon receipt at the analytical laboratory, the kits are logged in using the unique numbers assigned to each kit. The kits are placed on a gamma detector to count the gamma emissions from the decay of radon adsorbed by the charcoal. A calibration factor determined in part by the exposure time and decay time is used to calculate the radon concentration. A correction factor is also applied for weight gain from any moisture absorbed by the charcoal during the sampling period.

Any unusual conditions are noted on the processing form and shown on the exposure report.

MDH and ANSI/AARST MALB 2014 Quality Control Measurements

IEA followed ANSI/AARST MALB 2014 with 1/21 revisions and MDH recommendations for quality assurance measurements to ensure the accuracy of test results. Quality assurance measurements include side-by-side test kits (duplicates) and unexposed control test kits (blanks).

Duplicates are pairs of test kits placed 4-8 inches apart for the same test period. Duplicates are stored, placed, retrieved, and shipped to the laboratory for analysis in the same manner as the other test kits so that the laboratory cannot distinguish them. Since duplicates are placed side-by-side, the measured values for radon should be the same. The average of all duplicates' relative percent difference (RPD) should not exceed 25%. If they do, an investigation to identify the cause may be warranted and could include repeating the measurements. Duplicate averages are listed in Table 1.

Table 1: Duplicate Device Measurements and Averages				
Location		Test 1 (pCi/L)	Test 2 (pCi/L)	Average (pCi/L)
Building	Room/Area			
Fridley Community Center	110	1.0	1.1	1.1
Fridley Community Center	114	< 0.3	< 0.3	< 0.3
Fridley Community Center	121	< 0.3	< 0.3	< 0.3
Fridley Community Center	129	1.1	< 0.3	0.7
Fridley Community Center	Main 5	< 0.3	0.7	0.5
Fridley Middle School	100	< 0.3	< 0.3	< 0.3
Fridley Middle School	106	0.7	0.8	0.8
Fridley Middle School	107	< 0.3	< 0.3	< 0.3
Fridley Middle School	116	0.6	0.7	0.7
Fridley Middle School	126	1.1	0.8	1.0
Fridley Middle School	152	< 0.3	0.6	0.4
Fridley Middle School	160	1.1	1.2	1.2
Fridley Middle School	162	1.0	0.7	0.9
Fridley Middle School	178	< 0.3	0.8	0.5
Fridley Middle School	185	< 0.3	< 0.3	< 0.3
Fridley Middle School	188	0.6	0.8	0.7
Fridley Middle School	192	1.0	0.8	0.9
Fridley Middle School	194	0.6	1.0	0.8
Fridley Middle School	200	< 0.3	0.7	0.5

Blanks can be used to determine whether the manufacturing, shipping, storage, or processing of the detector has "contaminated" your measurements. Blanks are opened and immediately re-sealed to keep room air from infiltrating the test kit. Blanks are labeled and shipped in the same manner as the exposed test kits so that the laboratory cannot distinguish them. Since blanks are not exposed to radon, their measurement value should be below the lower limit of detection. Field blanks, Office blanks, and Lab-Transit Blanks are listed in Table 2.

Table 2: Blanks				
Date	Device ID	Type of Blank	Description	Radon Concentration
3/7/2022	11129189	Field	FStorage Room A	< 0.3
3/8/2022	11129190	Field	FStorage Room B	< 0.3
3/8/2022	11129192	Field	FStorage Room C	< 0.3
3/7/2022	11129191	Field	FStorage Room D	< 0.3
3/7/2022	11129197	Field	FStorage Room E	< 0.3
3/8/2022	11129198	Field	FStorage Room F	< 0.3
1/18/2022	11019439	Office	Office 1	0.8
1/18/2022	11019433	Office	Office 2	< 0.3
1/18/2022	11019441	Office	Office 3	< 0.3
1/21/2022	11094804	Lab-Transit	LTBP-4	< 0.3
1/21/2022	11094805	Lab-Transit	LTBP-5	< 0.3
1/21/2022	11094806	Lab-Transit	LTBP-6	< 0.3

Spikes are test kits that have been exposed in a chamber to a known concentration of radon. Using spiked measurements can help evaluate the accuracy of a laboratory analysis and/or how accurately test kits supplied by a laboratory measure radon. Spiked test kits are labeled and shipped in the same manner as the exposed test kits so that the laboratory cannot distinguish them. Spiked results completed for our laboratory are included in the following pages. Spiked test kits are listed in Table 3.

Table 3: Spiked Detectors			
Date	Device ID	Measured Value (pCi/L)	Reference Value (pCi/L)
11/11/2021	11019101	30.4	36.0
11/11/2021	11019102	32.6	36.0
11/11/2021	11019103	32.8	36.0
11/11/2021	11019104	31.2	36.0
11/11/2021	11019105	32.0	36.0
11/11/2021	11019106	31.2	36.0
12/28/2021	11021538	27.1	32.3
12/28/2021	11021537	28.9	32.3
12/28/2021	11021509	28.8	32.3
12/28/2021	11021514	27.1	32.3
12/28/2021	11021516	25.1	32.3
12/28/2021	11021520	28.1	32.3
1/27/2022	11019414	27.1	30.3
1/27/2022	11019415	28.2	30.3
1/27/2022	11019416	28.6	30.3
1/27/2022	11019417	27.1	30.3
1/27/2022	11019418	26.9	30.3
1/27/2022	11019419	29.0	30.3

Appendix B

Laboratory Reports and Maps

Radon test result report for:**FRIDLEY PUBLIC SCHOOLS****FRIDLEY COMMUNITY CENTER**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11130131	103	2022-02-28 @ 9:00 am	2022-03-03 @ 10:00 am	0.6 ± 0.3	2022-03-07
11130147	105	2022-02-28 @ 10:00 am	2022-03-03 @ 10:00 am	0.7 ± 0.3	2022-03-07
11130142	106	2022-02-28 @ 10:00 am	2022-03-03 @ 10:00 am	0.7 ± 0.4	2022-03-08
11130149	107	2022-02-28 @ 10:00 am	2022-03-03 @ 10:00 am	0.8 ± 0.3	2022-03-08
11130143	108	2022-02-28 @ 10:00 am	2022-03-03 @ 10:00 am	< 0.3	2022-03-07
11130139	109	2022-02-28 @ 10:00 am	2022-03-03 @ 10:00 am	0.7 ± 0.3	2022-03-07
11130145	111	2022-02-28 @ 10:00 am	2022-03-03 @ 10:00 am	< 0.3	2022-03-07
11130141	112	2022-02-28 @ 10:00 am	2022-03-03 @ 10:00 am	< 0.3	2022-03-08
11130133	116	2022-02-28 @ 10:00 am	2022-03-03 @ 10:00 am	0.7 ± 0.3	2022-03-07
11130138	122	2022-02-28 @ 9:00 am	2022-03-03 @ 10:00 am	< 0.3	2022-03-08
11130101	123	2022-02-28 @ 9:00 am	2022-03-03 @ 9:00 am	0.7 ± 0.3	2022-03-07
11130105	124	2022-02-28 @ 9:00 am	2022-03-03 @ 9:00 am	< 0.3	2022-03-08
11130104	125	2022-02-28 @ 9:00 am	2022-03-03 @ 9:00 am	0.7 ± 0.3	2022-03-08
11130102	126A	2022-02-28 @ 9:00 am	2022-03-03 @ 9:00 am	1.2 ± 0.4	2022-03-08
11130110	126B	2022-02-28 @ 9:00 am	2022-03-03 @ 9:00 am	1.0 ± 0.4	2022-03-08
11130106	127	2022-02-28 @ 9:00 am	2022-03-03 @ 10:00 am	0.7 ± 0.3	2022-03-08
11130111	128	2022-02-28 @ 9:00 am	2022-03-03 @ 10:00 am	0.9 ± 0.4	2022-03-08
11130114	130	2022-02-28 @ 9:00 am	2022-03-03 @ 10:00 am	0.8 ± 0.3	2022-03-08
11130109	131	2022-02-28 @ 9:00 am	2022-03-03 @ 10:00 am	< 0.3	2022-03-08
11130107	132	2022-02-28 @ 9:00 am	2022-03-03 @ 10:00 am	< 0.3	2022-03-07
11130117	134	2022-02-28 @ 9:00 am	2022-03-03 @ 10:00 am	0.8 ± 0.3	2022-03-07
11130119	135	2022-02-28 @ 9:00 am	2022-03-03 @ 10:00 am	0.8 ± 0.3	2022-03-07
11130118	136	2022-02-28 @ 9:00 am	2022-03-03 @ 10:00 am	0.8 ± 0.3	2022-03-07
11130103	CUSTODIAL OFFICE	2022-02-28 @ 9:00 am	2022-03-03 @ 9:00 am	0.6 ± 0.3	2022-03-07
11130144	D110 - 1	2022-02-28 @ 10:00 am	2022-03-03 @ 10:00 am	1.0 ± 0.4	2022-03-08
11130146	D110 - 2	2022-02-28 @ 10:00 am	2022-03-03 @ 10:00 am	1.1 ± 0.3	2022-03-07
11130140	D114 - 1	2022-02-28 @ 10:00 am	2022-03-03 @ 10:00 am	< 0.3	2022-03-07
11130134	D114 - 2	2022-02-28 @ 10:00 am	2022-03-03 @ 10:00 am	< 0.3	2022-03-08
11130136	D121 - 1	2022-02-28 @ 9:00 am	2022-03-03 @ 10:00 am	< 0.3	2022-03-07
11130137	D121 - 2	2022-02-28 @ 9:00 am	2022-03-03 @ 10:00 am	< 0.3	2022-03-07
11130112	D129 - 1	2022-02-28 @ 9:00 am	2022-03-03 @ 10:00 am	1.1 ± 0.4	2022-03-08
11130113	D129 - 2	2022-02-28 @ 9:00 am	2022-03-03 @ 10:00 am	< 0.3	2022-03-08
11130148	DANCE ROOM	2022-02-28 @ 10:00 am	2022-03-03 @ 10:00 am	1.2 ± 0.3	2022-03-07
11130116	DMAIN 5 - 1	2022-02-28 @ 9:00 am	2022-03-03 @ 10:00 am	< 0.3	2022-03-08
11130122	DMAIN 5 - 2	2022-02-28 @ 9:00 am	2022-03-03 @ 10:00 am	0.7 ± 0.3	2022-03-07
11130132	DOOR 10 RECEPTION	2022-02-28 @ 9:00 am	2022-03-03 @ 10:00 am	0.6 ± 0.3	2022-03-07
11129189	FSTORAGE ROOM A	2022-02-28 @ 1:00 pm	2022-03-03 @ 12:00 pm	< 0.3	2022-03-07

March 8, 2022

**** LABORATORY ANALYSIS REPORT ****

Radon test result report for:

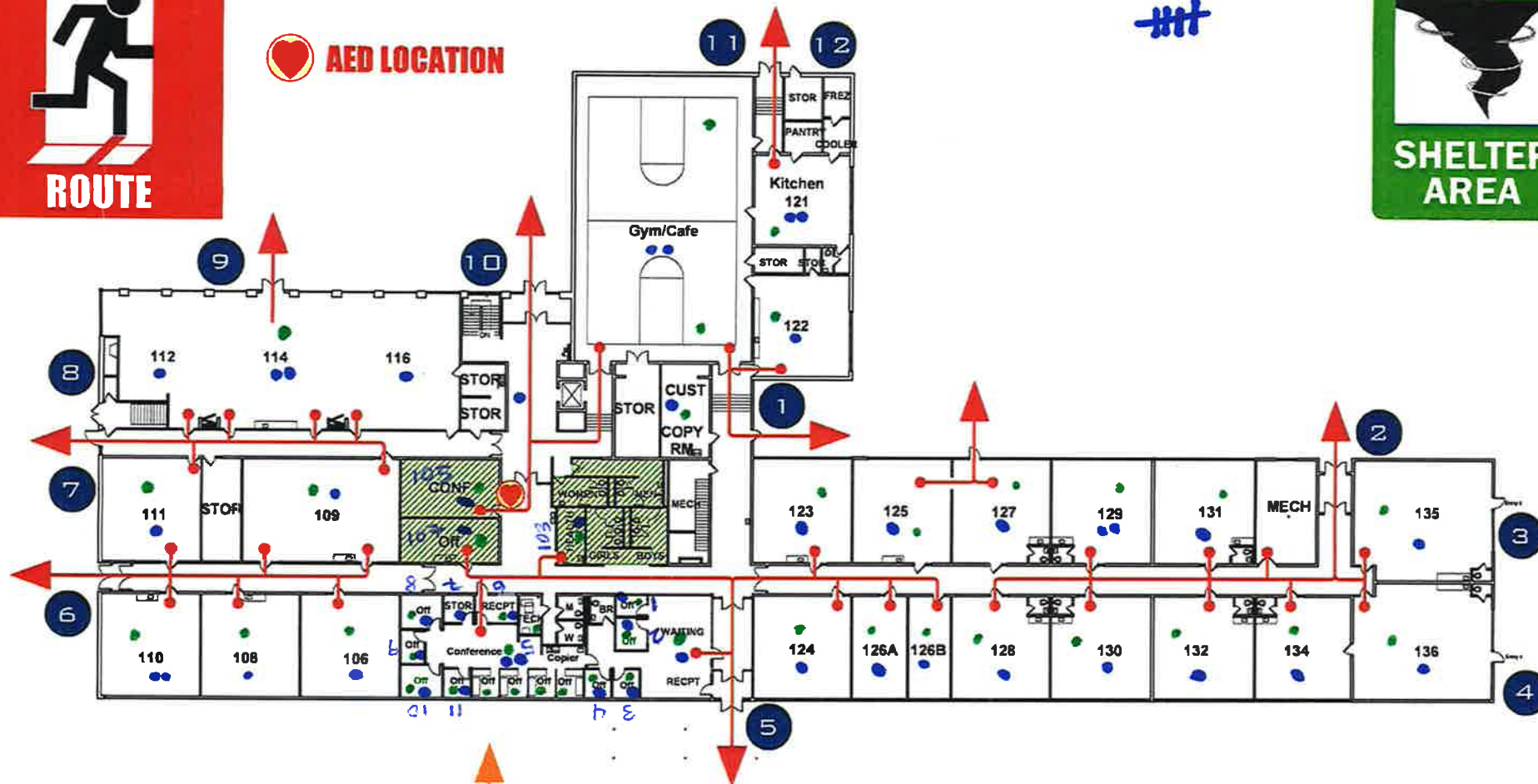
FRIDLEY PUBLIC SCHOOLS

FRIDLEY COMMUNITY CENTER

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11129190	FSTORAGE ROOM B	2022-02-28 @ 1:00 pm	2022-03-03 @ 12:00 pm	< 0.3	2022-03-08
11129192	FSTORAGE ROOM C	2022-02-28 @ 1:00 pm	2022-03-03 @ 12:00 pm	< 0.3	2022-03-08
11129191	FSTORAGE ROOM D	2022-02-28 @ 1:00 pm	2022-03-03 @ 12:00 pm	< 0.3	2022-03-07
11129197	FSTORAGE ROOM E	2022-02-28 @ 1:00 pm	2022-03-03 @ 12:00 pm	< 0.3	2022-03-07
11129198	FSTORAGE ROOM F	2022-02-28 @ 1:00 pm	2022-03-03 @ 12:00 pm	< 0.3	2022-03-08
11130130	GYM N	2022-02-28 @ 9:00 am	2022-03-03 @ 10:00 am	< 0.3	2022-03-07
11130135	GYM S	2022-02-28 @ 9:00 am	2022-03-03 @ 10:00 am	0.9 ± 0.4	2022-03-08
11130120	MAIN	2022-02-28 @ 9:00 am	2022-03-03 @ 10:00 am	0.9 ± 0.4	2022-03-08
11130108	MAIN 1	2022-02-28 @ 9:00 am	2022-03-03 @ 10:00 am	< 0.3	2022-03-07
11130124	MAIN 10	2022-02-28 @ 9:00 am	2022-03-03 @ 10:00 am	< 0.3	2022-03-07
11130123	MAIN 11	2022-02-28 @ 9:00 am	2022-03-03 @ 10:00 am	0.6 ± 0.3	2022-03-08
11130115	MAIN 2	2022-02-28 @ 9:00 am	2022-03-03 @ 10:00 am	< 0.3	2022-03-08
11130121	MAIN 3	2022-02-28 @ 9:00 am	2022-03-03 @ 10:00 am	< 0.3	2022-03-08
11130127	MAIN 4	2022-02-28 @ 9:00 am	2022-03-03 @ 10:00 am	0.7 ± 0.3	2022-03-07
11130128	MAIN 6	2022-02-28 @ 9:00 am	2022-03-03 @ 10:00 am	< 0.3	2022-03-07
11130129	MAIN 7	2022-02-28 @ 9:00 am	2022-03-03 @ 10:00 am	< 0.3	2022-03-07
11130125	MAIN 8	2022-02-28 @ 9:00 am	2022-03-03 @ 10:00 am	1.1 ± 0.4	2022-03-07
11130126	MAIN 9	2022-02-28 @ 9:00 am	2022-03-03 @ 10:00 am	0.8 ± 0.3	2022-03-07
11130150	REC CENTER	2022-02-28 @ 10:00 am	2022-03-03 @ 10:00 am	1.4 ± 0.3	2022-03-07
11130151	TECH OFFICE	2022-02-28 @ 10:00 am	2022-03-03 @ 10:00 am	1.8 ± 0.4	2022-03-07



Radon Detectors (46) *###*



PLEASE NOTE!

THIS MAP INDICATES PRIMARY EXIT ROUTES ONLY. BE AWARE THAT YOUR EXIT ROUTE MAY BE BLOCKED IN THE EVENT OF A FIRE OR OTHER EMERGENCY. STUDY THIS MAP CAREFULLY AND HAVE A BACK UP PLAN READY.

LOWER LEVEL



INSTITUTE FOR
ENVIRONMENTAL ASSESSMENT

9201 West Broadway Brooklyn Park, MN 55445
Tel: 763.315.7900 Toll Free: 800.233.9513
Fax: 763.315.7920 www.ieainstitute.com

COMMUNITY EDUCATION CENTER

MAIN LEVEL FLOOR PLAN

Fridley ISD #14
SEPT 2016



Radon test result report for:**FRIDLEY PUBLIC SCHOOLS
FRIDLEY MIDDLE SCHOOL**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11129101	100	2022-02-28 @ 11:00 am	2022-03-03 @ 1:00 pm	1.1 ± 0.4	2022-03-08
11129107	100A	2022-02-28 @ 11:00 am	2022-03-03 @ 1:00 pm	0.9 ± 0.3	2022-03-08
11129102	100B	2022-02-28 @ 11:00 am	2022-03-03 @ 1:00 pm	0.9 ± 0.3	2022-03-08
11129108	100D	2022-02-28 @ 12:00 pm	2022-03-03 @ 1:00 pm	0.7 ± 0.3	2022-03-08
11129104	101	2022-02-28 @ 12:00 pm	2022-03-03 @ 1:00 pm	0.9 ± 0.3	2022-03-08
11129110	101A	2022-02-28 @ 12:00 pm	2022-03-03 @ 1:00 pm	0.6 ± 0.4	2022-03-08
11129111	101B	2022-02-28 @ 12:00 pm	2022-03-03 @ 1:00 pm	0.6 ± 0.3	2022-03-08
11129115	103	2022-02-28 @ 12:00 pm	2022-03-03 @ 1:00 pm	0.7 ± 0.3	2022-03-08
11129112	104B	2022-02-28 @ 12:00 pm	2022-03-03 @ 1:00 pm	0.7 ± 0.3	2022-03-07
11129116	105	2022-02-28 @ 12:00 pm	2022-03-03 @ 1:00 pm	0.6 ± 0.3	2022-03-08
11129119	106	2022-02-28 @ 12:00 pm	2022-03-03 @ 1:00 pm	< 0.3	2022-03-08
11129114	106A	2022-02-28 @ 12:00 pm	2022-03-03 @ 1:00 pm	< 0.3	2022-03-08
11129123	112	2022-02-28 @ 12:00 pm	2022-03-03 @ 1:00 pm	< 0.3	2022-03-08
11129124	114	2022-02-28 @ 12:00 pm	2022-03-03 @ 1:00 pm	< 0.3	2022-03-08
11129126	115	2022-02-28 @ 12:00 pm	2022-03-03 @ 1:00 pm	0.8 ± 0.3	2022-03-08
11129122	117	2022-02-28 @ 12:00 pm	2022-03-03 @ 1:00 pm	0.7 ± 0.3	2022-03-07
11129131	118	2022-02-28 @ 12:00 pm	2022-03-03 @ 1:00 pm	0.5 ± 0.3	2022-03-08
11129132	120	2022-02-28 @ 12:00 pm	2022-03-03 @ 1:00 pm	0.7 ± 0.3	2022-03-08
11129130	121	2022-02-28 @ 12:00 pm	2022-03-03 @ 2:00 pm	0.6 ± 0.3	2022-03-07
11129133	122	2022-02-28 @ 12:00 pm	2022-03-03 @ 2:00 pm	0.9 ± 0.3	2022-03-08
11129134	123	2022-02-28 @ 12:00 pm	2022-03-03 @ 2:00 pm	1.0 ± 0.3	2022-03-07
11129129	124	2022-02-28 @ 12:00 pm	2022-03-03 @ 2:00 pm	1.2 ± 0.4	2022-03-08
11129135	125	2022-02-28 @ 12:00 pm	2022-03-03 @ 2:00 pm	0.9 ± 0.3	2022-03-07
11129140	125A	2022-02-28 @ 12:00 pm	2022-03-03 @ 2:00 pm	0.9 ± 0.3	2022-03-07
11129139	127	2022-02-28 @ 12:00 pm	2022-03-03 @ 2:00 pm	1.2 ± 0.4	2022-03-08
11129138	128	2022-02-28 @ 12:00 pm	2022-03-03 @ 2:00 pm	0.8 ± 0.3	2022-03-08
11129143	129	2022-02-28 @ 12:00 pm	2022-03-03 @ 2:00 pm	1.0 ± 0.4	2022-03-08
11129141	130	2022-02-28 @ 12:00 pm	2022-03-03 @ 2:00 pm	0.8 ± 0.3	2022-03-07
11129142	130A	2022-02-28 @ 12:00 pm	2022-03-03 @ 2:00 pm	0.8 ± 0.3	2022-03-07
11129144	132	2022-02-28 @ 12:00 pm	2022-03-03 @ 2:00 pm	1.1 ± 0.3	2022-03-07
11129146	133/139	2022-02-28 @ 12:00 pm	2022-03-03 @ 2:00 pm	1.4 ± 0.3	2022-03-07
11129145	134	2022-02-28 @ 12:00 pm	2022-03-03 @ 2:00 pm	1.6 ± 0.3	2022-03-07
11129148	136	2022-02-28 @ 12:00 pm	2022-03-03 @ 2:00 pm	1.5 ± 0.4	2022-03-07
11129149	138	2022-02-28 @ 12:00 pm	2022-03-03 @ 2:00 pm	0.9 ± 0.4	2022-03-08
11129153	141	2022-02-28 @ 12:00 pm	2022-03-03 @ 2:00 pm	1.2 ± 0.4	2022-03-08
11129152	142	2022-02-28 @ 12:00 pm	2022-03-03 @ 2:00 pm	1.1 ± 0.3	2022-03-08
11129158	144	2022-02-28 @ 12:00 pm	2022-03-03 @ 2:00 pm	1.0 ± 0.3	2022-03-07

Radon test result report for:**FRIDLEY PUBLIC SCHOOLS
FRIDLEY MIDDLE SCHOOL**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11129154	146	2022-02-28 @ 12:00 pm	2022-03-03 @ 2:00 pm	0.6 ± 0.3	2022-03-07
11129155	147	2022-02-28 @ 12:00 pm	2022-03-03 @ 2:00 pm	< 0.3	2022-03-07
11129159	148A	2022-02-28 @ 12:00 pm	2022-03-03 @ 2:00 pm	1.0 ± 0.3	2022-03-07
11129160	148A	2022-02-28 @ 12:00 pm	2022-03-03 @ 2:00 pm	0.8 ± 0.3	2022-03-07
11129156	149	2022-02-28 @ 12:00 pm	2022-03-03 @ 2:00 pm	0.9 ± 0.3	2022-03-07
11129157	150	2022-02-28 @ 12:00 pm	2022-03-03 @ 2:00 pm	0.7 ± 0.3	2022-03-07
11129163	151	2022-02-28 @ 12:00 pm	2022-03-03 @ 2:00 pm	0.8 ± 0.3	2022-03-08
11129164	154	2022-02-28 @ 12:00 pm	2022-03-03 @ 2:00 pm	0.7 ± 0.3	2022-03-07
11129165	154A	2022-02-28 @ 12:00 pm	2022-03-03 @ 2:00 pm	0.8 ± 0.3	2022-03-08
11129166	156	2022-02-28 @ 12:00 pm	2022-03-03 @ 2:00 pm	< 0.3	2022-03-07
11130184	158	2022-02-28 @ 11:00 am	2022-03-03 @ 1:00 pm	1.1 ± 0.3	2022-03-07
11130177	160A	2022-02-28 @ 11:00 am	2022-03-03 @ 1:00 pm	1.0 ± 0.4	2022-03-08
11129106	160A E	2022-02-28 @ 12:00 pm	2022-03-03 @ 1:00 pm	< 0.3	2022-03-07
11129105	160A N	2022-02-28 @ 12:00 pm	2022-03-03 @ 1:00 pm	< 0.3	2022-03-07
11129117	160A S	2022-02-28 @ 12:00 pm	2022-03-03 @ 1:00 pm	< 0.3	2022-03-08
11130183	160C	2022-02-28 @ 11:00 am	2022-03-03 @ 1:00 pm	1.1 ± 0.4	2022-03-08
11130179	160D	2022-02-28 @ 11:00 am	2022-03-03 @ 1:00 pm	1.1 ± 0.3	2022-03-08
11130178	160F	2022-02-28 @ 11:00 am	2022-03-03 @ 1:00 pm	???? IF1	2022-03-07
11130187	161	2022-02-28 @ 11:00 am	2022-03-03 @ 1:00 pm	0.9 ± 0.3	2022-03-08
11130188	163	2022-02-28 @ 11:00 am	2022-03-03 @ 12:00 pm	0.7 ± 0.3	2022-03-07
11130185	164	2022-02-28 @ 11:00 am	2022-03-03 @ 1:00 pm	< 0.3	2022-03-08
11130186	164A	2022-02-28 @ 11:00 am	2022-03-03 @ 1:00 pm	0.7 ± 0.3	2022-03-08
11130193	165	2022-02-28 @ 11:00 am	2022-03-03 @ 12:00 pm	0.7 ± 0.4	2022-03-08
11130200	165A	2022-02-28 @ 11:00 am	2022-03-03 @ 1:00 pm	< 0.3	2022-03-08
11130191	166	2022-02-28 @ 11:00 am	2022-03-03 @ 1:00 pm	0.7 ± 0.3	2022-03-08
11130199	167	2022-02-28 @ 11:00 am	2022-03-03 @ 1:00 pm	0.8 ± 0.3	2022-03-07
11130195	169	2022-02-28 @ 11:00 am	2022-03-03 @ 1:00 pm	1.0 ± 0.4	2022-03-07
11130189	170	2022-02-28 @ 11:00 am	2022-03-03 @ 1:00 pm	0.9 ± 0.3	2022-03-07
11130194	170A	2022-02-28 @ 11:00 am	2022-03-03 @ 1:00 pm	1.0 ± 0.4	2022-03-08
11130190	171	2022-02-28 @ 11:00 am	2022-03-03 @ 1:00 pm	< 0.3	2022-03-08
11130197	172	2022-02-28 @ 11:00 am	2022-03-03 @ 12:00 pm	0.7 ± 0.4	2022-03-08
11130196	172A	2022-02-28 @ 11:00 am	2022-03-03 @ 12:00 pm	1.1 ± 0.3	2022-03-08
11130206	173	2022-02-28 @ 10:00 am	2022-03-03 @ 12:00 pm	0.8 ± 0.3	2022-03-07
11130210	173A	2022-02-28 @ 10:00 am	2022-03-03 @ 12:00 pm	0.9 ± 0.3	2022-03-07
11130213	173B	2022-02-28 @ 10:00 am	2022-03-03 @ 12:00 pm	1.1 ± 0.4	2022-03-08
11130211	173C	2022-02-28 @ 10:00 am	2022-03-03 @ 12:00 pm	< 0.3	2022-03-07
11130209	173D	2022-02-28 @ 10:00 am	2022-03-03 @ 12:00 pm	0.7 ± 0.3	2022-03-07

Radon test result report for:**FRIDLEY PUBLIC SCHOOLS
FRIDLEY MIDDLE SCHOOL**

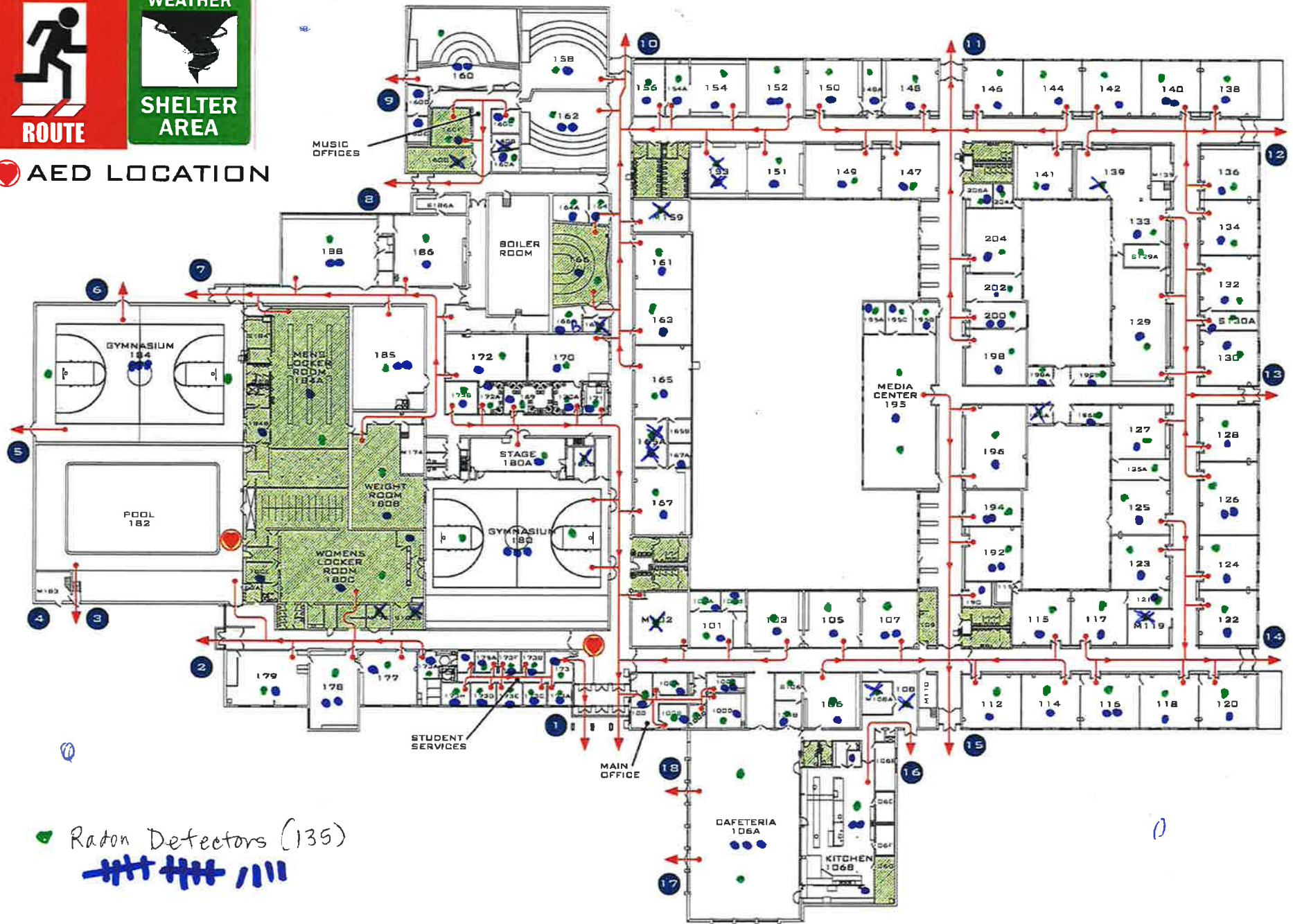
Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11130212	173E	2022-02-28 @ 11:00 am	2022-03-03 @ 12:00 pm	1.0 ± 0.3	2022-03-08
11130156	173F	2022-02-28 @ 11:00 am	2022-03-03 @ 12:00 pm	< 0.3	2022-03-07
11130152	173G	2022-02-28 @ 11:00 am	2022-03-03 @ 12:00 pm	0.9 ± 0.4	2022-03-08
11130153	173H	2022-02-28 @ 11:00 am	2022-03-03 @ 12:00 pm	0.8 ± 0.3	2022-03-07
11130154	175	2022-02-28 @ 11:00 am	2022-03-03 @ 12:00 pm	0.7 ± 0.3	2022-03-07
11130155	175A	2022-02-28 @ 11:00 am	2022-03-03 @ 12:00 pm	0.6 ± 0.3	2022-03-07
11130161	177	2022-02-28 @ 11:00 am	2022-03-03 @ 12:00 pm	0.8 ± 0.3	2022-03-07
11130158	179	2022-02-28 @ 11:00 am	2022-03-03 @ 12:00 pm	0.5 ± 0.3	2022-03-07
11130202	180 E	2022-02-28 @ 10:00 am	2022-03-03 @ 12:00 pm	0.9 ± 0.3	2022-03-08
11130208	180 N	2022-02-28 @ 10:00 am	2022-03-03 @ 12:00 pm	0.9 ± 0.3	2022-03-08
11130204	180 S	2022-02-28 @ 10:00 am	2022-03-03 @ 12:00 pm	1.4 ± 0.4	2022-03-08
11130205	180A	2022-02-28 @ 10:00 am	2022-03-03 @ 12:00 pm	0.7 ± 0.3	2022-03-07
11130198	180B	2022-02-28 @ 11:00 am	2022-03-03 @ 12:00 pm	< 0.3	2022-03-08
11130159	180C	2022-02-28 @ 11:00 am	2022-03-03 @ 12:00 pm	0.9 ± 0.3	2022-03-08
11130163	180D	2022-02-28 @ 11:00 am	2022-03-03 @ 12:00 pm	1.1 ± 0.4	2022-03-07
11130160	180E	2022-02-28 @ 11:00 am	2022-03-03 @ 12:00 pm	0.7 ± 0.4	2022-03-08
11130166	184 E	2022-02-28 @ 11:00 am	2022-03-03 @ 12:00 pm	< 0.3	2022-03-08
11130170	184 MIDDLE	2022-02-28 @ 11:00 am	2022-03-03 @ 12:00 pm	0.6 ± 0.3	2022-03-08
11130171	184 W	2022-02-28 @ 11:00 am	2022-03-03 @ 12:00 pm	< 0.3	2022-03-08
11130164	184A	2022-02-28 @ 11:00 am	2022-03-03 @ 12:00 pm	0.8 ± 0.3	2022-03-07
11130165	184B	2022-02-28 @ 11:00 am	2022-03-03 @ 12:00 pm	1.4 ± 0.4	2022-03-08
11130174	186	2022-02-28 @ 11:00 am	2022-03-03 @ 12:00 pm	1.1 ± 0.4	2022-03-08
11129186	190	2022-02-28 @ 1:00 pm	2022-03-03 @ 2:00 pm	< 0.3	2022-03-07
11129178	195	2022-02-28 @ 12:00 pm	2022-03-03 @ 2:00 pm	0.7 ± 0.3	2022-03-08
11129175	195B	2022-02-28 @ 12:00 pm	2022-03-03 @ 2:00 pm	0.8 ± 0.3	2022-03-07
11129183	195C	2022-02-28 @ 12:00 pm	2022-03-03 @ 2:00 pm	< 0.3	2022-03-07
11129179	196	2022-02-28 @ 12:00 pm	2022-03-03 @ 2:00 pm	< 0.3	2022-03-07
11129177	196B	2022-02-28 @ 12:00 pm	2022-03-03 @ 2:00 pm	1.2 ± 0.4	2022-03-07
11129176	198	2022-02-28 @ 12:00 pm	2022-03-03 @ 2:00 pm	0.6 ± 0.3	2022-03-07
11129171	198A	2022-02-28 @ 12:00 pm	2022-03-03 @ 2:00 pm	0.7 ± 0.3	2022-03-08
11129172	198B	2022-02-28 @ 12:00 pm	2022-03-03 @ 2:00 pm	0.8 ± 0.3	2022-03-08
11129170	202	2022-02-28 @ 12:00 pm	2022-03-03 @ 2:00 pm	< 0.3	2022-03-07
11129168	204	2022-02-28 @ 12:00 pm	2022-03-03 @ 2:00 pm	0.8 ± 0.4	2022-03-08
11129169	204A	2022-02-28 @ 12:00 pm	2022-03-03 @ 2:00 pm	0.9 ± 0.3	2022-03-07
11129109	D100E - 1	2022-02-28 @ 12:00 pm	2022-03-03 @ 1:00 pm	< 0.3	2022-03-08
11129103	D100E - 2	2022-02-28 @ 12:00 pm	2022-03-03 @ 1:00 pm	< 0.3	2022-03-08
11129118	D106B - 1	2022-02-28 @ 12:00 pm	2022-03-03 @ 1:00 pm	0.7 ± 0.3	2022-03-08

Radon test result report for:**FRIDLEY PUBLIC SCHOOLS
FRIDLEY MIDDLE SCHOOL**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11129113	D106B - 2	2022-02-28 @ 12:00 pm	2022-03-03 @ 1:00 pm	0.8 ± 0.3	2022-03-07
11129121	D107 - 1	2022-02-28 @ 12:00 pm	2022-03-03 @ 1:00 pm	< 0.3	2022-03-08
11129125	D107 - 2	2022-02-28 @ 12:00 pm	2022-03-03 @ 1:00 pm	< 0.3	2022-03-07
11129127	D116 - 1	2022-02-28 @ 12:00 pm	2022-03-03 @ 1:00 pm	0.6 ± 0.3	2022-03-08
11129128	D116 - 2	2022-02-28 @ 12:00 pm	2022-03-03 @ 1:00 pm	0.7 ± 0.3	2022-03-07
11129136	D126 - 1	2022-02-28 @ 12:00 pm	2022-03-03 @ 2:00 pm	1.1 ± 0.3	2022-03-07
11129137	D126 - 2	2022-02-28 @ 12:00 pm	2022-03-03 @ 2:00 pm	0.8 ± 0.3	2022-03-07
11129150	D140 - 1	2022-02-28 @ 12:00 pm	2022-03-03 @ 2:00 pm	1.4 ± 0.4	2022-03-08
11129161	D152 - 1	2022-02-28 @ 12:00 pm	2022-03-03 @ 2:00 pm	< 0.3	2022-03-07
11129162	D152 - 2	2022-02-28 @ 12:00 pm	2022-03-03 @ 2:00 pm	0.6 ± 0.3	2022-03-07
11130175	D160 - 1	2022-02-28 @ 11:00 am	2022-03-03 @ 1:00 pm	1.1 ± 0.4	2022-03-08
11130176	D160 - 2	2022-02-28 @ 11:00 am	2022-03-03 @ 1:00 pm	1.2 ± 0.3	2022-03-08
11130181	D162 - 1	2022-02-28 @ 11:00 am	2022-03-03 @ 1:00 pm	1.0 ± 0.4	2022-03-08
11130182	D162 - 2	2022-02-28 @ 11:00 am	2022-03-03 @ 1:00 pm	0.7 ± 0.3	2022-03-08
11130157	D178 - 1	2022-02-28 @ 11:00 am	2022-03-03 @ 12:00 pm	< 0.3	2022-03-07
11130169	D178 - 2	2022-02-28 @ 11:00 am	2022-03-03 @ 12:00 pm	0.8 ± 0.3	2022-03-07
11130172	D185 - 1	2022-02-28 @ 11:00 am	2022-03-03 @ 12:00 pm	< 0.3	2022-03-07
11130173	D185 - 2	2022-02-28 @ 11:00 am	2022-03-03 @ 12:00 pm	< 0.3	2022-03-08
11130167	D188 - 1	2022-02-28 @ 11:00 am	2022-03-03 @ 12:00 pm	0.6 ± 0.3	2022-03-08
11130168	D188 - 2	2022-02-28 @ 11:00 am	2022-03-03 @ 12:00 pm	0.8 ± 0.3	2022-03-08
11129184	D192 - 1	2022-02-28 @ 1:00 pm	2022-03-03 @ 2:00 pm	1.0 ± 0.4	2022-03-08
11129185	D192 - 2	2022-02-28 @ 1:00 pm	2022-03-03 @ 2:00 pm	0.8 ± 0.3	2022-03-07
11129180	D194 - 1	2022-02-28 @ 1:00 pm	2022-03-03 @ 2:00 pm	0.6 ± 0.3	2022-03-07
11129181	D194 - 2	2022-02-28 @ 1:00 pm	2022-03-03 @ 2:00 pm	1.0 ± 0.3	2022-03-07
11129173	D200 - 1	2022-02-28 @ 12:00 pm	2022-03-03 @ 2:00 pm	< 0.3	2022-03-07
11129174	D200 - 2	2022-02-28 @ 12:00 pm	2022-03-03 @ 2:00 pm	0.7 ± 0.3	2022-03-07
11129120	DISHROOM	2022-02-28 @ 12:00 pm	2022-03-03 @ 1:00 pm	0.7 ± 0.3	2022-03-08
11129147	S129A	2022-02-28 @ 12:00 pm	2022-03-03 @ 2:00 pm	1.5 ± 0.3	2022-03-07
11130180	S160E	2022-02-28 @ 11:00 am	2022-03-03 @ 1:00 pm	1.0 ± 0.3	2022-03-07
11130203	S172B	2022-02-28 @ 10:00 am	2022-03-03 @ 11:00 am	0.9 ± 0.3	2022-03-07
11129182	S195A	2022-02-28 @ 12:00 pm	2022-03-03 @ 2:00 pm	0.8 ± 0.3	2022-03-07
11129167	S206A	2022-02-28 @ 12:00 pm	2022-03-03 @ 2:00 pm	1.1 ± 0.3	2022-03-07



 AED LOCATION



Radon Detectors (135)




INSTITUTE FOR
ENVIRONMENTAL ASSESSMENT

9201 West Broadway Brooklyn Park, MN 55445
 Tel: 763.315.7900 Toll Free: 800.293.9513
 Fax: 763.315.7522

FRIDLEY MIDDLE SCHOOL

FIRST LEVEL FLOOR PLAN | AUGUST 2018



Appendix C

Signed Non-Interference Agreements

NOTICE OF INSPECTION FOR ALL FACILITATING STAFF

A radon test is scheduled for:

Building: Fridley Community Center

Test Start Date: 02-28-2022

Test End Date: 03-03-2022

Please help to maintain the required test conditions throughout the building

1. All windows and exterior doors must be kept closed (aside from momentary entry or exit) for 12 hours before and during the test.
2. Heating and cooling systems must be set to normal occupied operating temperatures.
3. Test devices are not to be disturbed.

Further guidance on required building conditions are located on the next page.

Test devices are not dangerous in anyway. The type of devices used for this testing will include:

Short-term test kits. It is important that these devices are fully open and not covered. They will be analyzed by a laboratory.

Continuous radon monitors. These are electronic devices that record hourly radon readings.

Long-term test kits. It is important that these devices are not covered. They will be analyzed by a laboratory.

Declaration of Observed Compliance

Failure to reasonably maintain test conditions can lead to unnecessary expense, disruptions and unreliable data.

Disturbing test devices can also cause unreliable or invalid test results.

- Please report in a timely manner if required test conditions are not maintained.
- Please sign and return this form once the test is complete.

To the best of my knowledge, the required conditions were maintained during the test.

Yes

Name:

Rodney Petron

Signature:



Licensed Measurement Professional:

Nate Wiklund RMEA-00439

More Detailed Guidance for Staff

Required Closed-Building Conditions	
Windows	Keep Closed, Seal broken windows closed
External doors (except for normal entry or exit)	Keep Closed
Heating & Cooling Systems	Set to normal operating conditions
Bathroom fans	Operate normally
Fireplaces (including gas)	Do not operate
Auxiliary or temporary systems that bring air into the building	Do not operate (unless an integral part of HVAC or supplies make-up air for combustion appliances)
Exhaust systems (ex. from shops, laundries, kitchens)	Avoid excessive operation
Interior doors, Stairwells, Fire Doors	Operate Normally
Garage doors	Operate normally
Ceiling Fans, Portable Fans	Do not blow directly on the test device
Window AC Units	Operate in recirculation mode only
Window Fans	Do not operate. Seal shut or remove.
Humidifiers, Dehumidifiers, Portable Air Cleaners	Operate Normally
Central Vacuum Cleaner Systems	Operate Normally
Passive crawl space vents	Operate normally
Crawlspace exhaust systems for humidity control	Operate normally
Passive Vents for Combustion Make-Up Air	Leave Open
Combustion Appliance Vents	Operate Normally
Passive Solar Systems	Operate Normally
Attic Vent Fans	Operate Normally
Evaporative Cooling Systems	Do not operate
Required for Test Locations Within a Room	
Place detectors within the general breathing zone Locate detectors no less than:	3 feet from exterior doors, windows or other openings to the outdoors
	20 inches above the floor
	4 inches from other test devices and objects
	1 foot below the ceiling
Place detectors where they are not easily disturbed:	Select a place in an occupied area where the detectors are unlikely to be moved
Place detectors where they are not influenced by other factors:	Do not place devices in closets, crawlspaces, cupboards, sumps or nooks within building foundations
	Do not place devices in area with high air movement (ex. mechanical areas, furnace closets)
	Do not place devices in areas of high humidity (ex. kitchens, bathrooms, laundry rooms)
	Do not place devices near drafts from HVAC systems or fans
	Do not place test devices near heat sources (ex. appliances, radiators, fireplaces, direct sunlight)
	Do not place detectors on devices that produce radiation (ex. natural stone counters, pool tables, rock collections)

NOTICE OF INSPECTION FOR ALL FACILITATING STAFF

A radon test is scheduled for:

Building: Fridley Middle School

Test Start Date: 02-28-2022

Test End Date: 03-03-2022

Please help to maintain the required test conditions throughout the building

1. All windows and exterior doors must be kept closed (aside from momentary entry or exit) for 12 hours before and during the test.
2. Heating and cooling systems must be set to normal occupied operating temperatures.
3. Test devices are not to be disturbed.

Further guidance on required building conditions are located on the next page.

Test devices are not dangerous in anyway. The type of devices used for this testing will include:

Short-term test kits. It is important that these devices are fully open and not covered. They will be analyzed by a laboratory.

Continuous radon monitors. These are electronic devices that record hourly radon readings.

Long-term test kits. It is important that these devices are not covered. They will be analyzed by a laboratory.

Declaration of Observed Compliance

Failure to reasonably maintain test conditions can lead to unnecessary expense, disruptions and unreliable data.

Disturbing test devices can also cause unreliable or invalid test results.

- Please report in a timely manner if required test conditions are not maintained.
- Please sign and return this form once the test is complete.

To the best of my knowledge, the required conditions were maintained during the test.

Yes

Name:

Dave Gillan

Signature:



Licensed Measurement Professional:

Nate Wiklund RMEA-00439

More Detailed Guidance for Staff

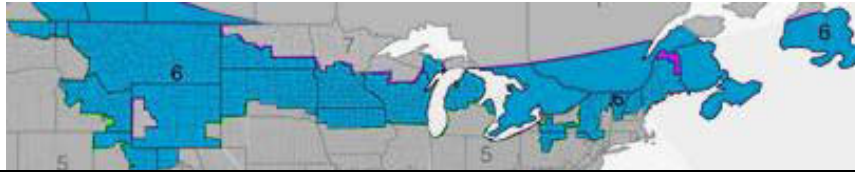
Required Closed-Building Conditions	
Windows	Keep Closed, Seal broken windows closed
External doors (except for normal entry or exit)	Keep Closed
Heating & Cooling Systems	Set to normal operating conditions
Bathroom fans	Operate normally
Fireplaces (including gas)	Do not operate
Auxiliary or temporary systems that bring air into the building	Do not operate (unless an integral part of HVAC or supplies make-up air for combustion appliances)
Exhaust systems (ex. from shops, laundries, kitchens)	Avoid excessive operation
Interior doors, Stairwells, Fire Doors	Operate Normally
Garage doors	Operate normally
Ceiling Fans, Portable Fans	Do not blow directly on the test device
Window AC Units	Operate in recirculation mode only
Window Fans	Do not operate. Seal shut or remove.
Humidifiers, Dehumidifiers, Portable Air Cleaners	Operate Normally
Central Vacuum Cleaner Systems	Operate Normally
Passive crawl space vents	Operate normally
Crawlspace exhaust systems for humidity control	Operate normally
Passive Vents for Combustion Make-Up Air	Leave Open
Combustion Appliance Vents	Operate Normally
Passive Solar Systems	Operate Normally
Attic Vent Fans	Operate Normally
Evaporative Cooling Systems	Do not operate
Required for Test Locations Within a Room	
Place detectors within the general breathing zone Locate detectors no less than:	3 feet from exterior doors, windows or other openings to the outdoors
	20 inches above the floor
	4 inches from other test devices and objects
	1 foot below the ceiling
Place detectors where they are not easily disturbed:	Select a place in an occupied area where the detectors are unlikely to be moved
Place detectors where they are not influenced by other factors:	Do not place devices in closets, crawlspaces, cupboards, sumps or nooks within building foundations
	Do not place devices in area with high air movement (ex. mechanical areas, furnace closets)
	Do not place devices in areas of high humidity (ex. kitchens, bathrooms, laundry rooms)
	Do not place devices near drafts from HVAC systems or fans
	Do not place test devices near heat sources (ex. appliances, radiators, fireplaces, direct sunlight)
	Do not place detectors on devices that produce radiation (ex. natural stone counters, pool tables, rock collections)

Appendix D

Average Building Operating Conditions Comparison

Southern MN

Climate Zone 6 (includes Southern MN)



		Averages			During the Test
		24 Hour	Daytime	Daytime 9-Month	Prevailing During the Test
Operating Condition	Outdoor Temperature	45 °F	50 °F	N/A	33 °F
	Heating Conditions	75%	66%	88%	70 °F
	Cooling Conditions	-	16%	11%	N/A
	Mixed Conditions	25%	16%	-	N/A
Normal Operating Condition		<ul style="list-style-type: none"> Heating conditions No variance in outdoor air ventilation 			<ul style="list-style-type: none"> Heating conditions No variance in outdoor air ventilation
Condition less likely to inhibit characterization of a radon hazard		<ul style="list-style-type: none"> Heating and air distribution systems active 			<ul style="list-style-type: none"> Heating and air distribution systems active

Appendix E

MDH Reporting Form

School Radon Testing Reporting Form

According to Minnesota Statute 123B.571 subd. 3, a school district that has tested its school buildings for the presence of radon shall report the results of its tests to the Department of Health. Please use this form to submit information about the most recent round or cycle of testing conducted for each building.

Instructions

1. Complete one form for each building tested. In this case, a building is defined as an occupied facility with a unique address. This includes administrative buildings.
2. Include this form, raw data (e.g. laboratory report) and a building map.
3. Submit this form when all work is completed for a round of testing. This includes reporting to the school board, and follow-up testing and post-mitigation testing, if applicable.
4. Email information to health.indoorair@state.mn.us.

Contact Information

Name:	
Mailing Address:	
Phone:	Email:

Initial Radon Testing Information

School Building Name:	
School District & District Number:	
Building Address:	
Test Kit Manufacturer:	Device Name:
Date of Kit Retrieval (DD/MM/YY):	Length of Test (days):
How many rooms were tested?	
Does the test period include weekends? ☐ Yes ☐ No	
Does the test period include school breaks or holidays? ☐ Yes ☐ No	

SCHOOL RADON TESTING REPORTING FORM

Were all frequently-occupied ground contact rooms tested? ¹ ☐ Yes ☐ No If no, did you attempt to test all frequently occupied ground contact rooms, meaning test kits were placed in all these rooms? ☐ Yes ☐ No
How many rooms had results ≥ 4 pCi/L?:
Were the results reported at a school board meeting? ☐ Yes ☐ No

Follow-up Testing, Mitigation, & Post-Mitigation Testing

If one or more rooms tested ≥ 4 pCi/L, please answer the questions below:

How many rooms had follow-up testing?:		
Number of rooms with follow-up results	≥ 4 pCi/L:	< 4 pCi/L:
Of the rooms that had test results ≥ 4 pCi/L, how many rooms were:		
mitigated by HVAC balancing or operational changes? :		
mitigated by installation of active soil depressurization?:		
addressed through other corrective measures? ² :		
What was the cost of the installation and/or HVAC service work, to mitigate radon? \$		
What is the known or anticipated annual operating cost of mitigation (estimate)? \$		
After radon mitigation, how many rooms were retested?:		
Post mitigation results (# of rooms)	≥ 4 pCi/L:	< 4 pCi/L:

¹ This includes classrooms, offices, break rooms, laboratories, cafeterias, libraries, auditoriums, gymnasiums, etc. It includes rooms on grade and rooms above unoccupied spaces that are in contact with the ground, such as rooms above storage rooms, crawl spaces, tunnels, and boiler rooms. If only a sample or portion of rooms were tested, then respond with 'no'.

² 'Other corrective measures' could include moving staff out of a room and making a room unoccupied or trying to seal radon entry points.