environmental consulting solutions 523 W. Sunnybrook Drive, Royal Oak, Michigan 48073

December 19, 2020

Mr. Kevin McCarthy Norstar Development USA, L.P. 733 Broadway Albany, New York 12207

#### Re: Radon Testing Platt East Ann Arbor, Michigan ECS Project N100-0010

Dear Mr. McCarthy,

Environmental Consulting Solutions, LLC (ECS) has completed the Radon Testing for the referenced property in Ann Arbor, Michigan.

ECS contracted Advanced Environmental Management Group (AEMG) to perform the testing. The Radon Testing was performed on September 9 through December 7, 2020 by an NRSB certified Radon Measurement Specialist in general accordance with MSHDA Guidelines.

The results of the Radon Testing indicated that radon levels were not detected at levels exceeding the U.S. EPA's recommended action level of 4.0 pCi/l in any of the samples.

Please refer to the attached AEMG report for testing details and analytical results.

Thank you for the opportunity to provide this service to you. If you have any questions, please contact us at 248-763-3639.

Sincerely, ENVIRONMENTAL CONSULTING SOLUTIONS, LLC

Andrew J. Foerg, CPG President

Enclosure



December 16, 2020

Environmental Consulting Solutions, LLC c/o Andrew Foerg 523 West Sunnybrook Royal Oak, Michigan 48073

Re: Radon Test Results, Platt East Development 3421 Platt Road Ann Arbor, MI

Dear Mr. Foerg:

This report documents the results of the radon gas assessment conducted by Advanced Environmental Management Group, LLC (AEM Group) over the period of September 09 through December 7, 2020 at the Platt East Development. The assessment was conducted in accordance with the Michigan State Housing Development Authority (MSHDA) Environmental Review Requirements and American Association of Radon Scientists and Technologists (AARST). This assessment was designed to determine if radon gas in the subsurface is migrating into residential units at concentrations exceeding action levels. The identified areas of concern were: 1) each individual unit/room that is in contact with the ground, and 2) 10 percent of the units above the ground floor (second floor). It is noted that Platt East Development is new construction and radon resistant measures were implemented during construction.

#### **Radon Sampling Results Summary**

A total of 26 units were tested. The units tested are as follows:

- Building A (3421 Platt Rd.) First Floor Units 1, 4, 6, 7, 9, and 12. Second floor Units 3 and 10.
- Building B (3423 Platt Rd.) Town House Units 1 through 6
- Building C ()3427 Platt Rd.) Town House Units 1 through 6
- Building E (3429 Platt Rd.) First floor Units 2, 4, 6, and 7. Second Floor Unit 4.
- Community Building (3425 Platt Rd.).

In addition, four duplicates and three blank radon samplers were deployed. One duplicate and blank were destroyed during shipping. The remaining duplicate and blanks are sufficient for QA/QC requirements The activated carbon samplers are short-term tests and were run for three days. The samplers were retrieved and shipped two day express to the selected laboratory, Air Chek, Inc., of Mills River, North Carolina. The Field Log, sample results, and site figure for the radon sampling are

presented in the table in Attachment I. The laboratory test reports for the radon samples are included in Attachment II.

As seen in the attachments, the radon levels ranged from <0.3 pCi/l (the laboratory detection level) to  $0.5 \pm 0.3$  pCi/l. All samples were below the U.S. EPA's recommended action level for radon of 4.0 pCi/l.

#### **Quality Assurance/Quality Control**

Four Duplicates and three Blank radon samplers were deployed as standard Quality Assurance/Quality Control. Statistical analysis of the QA/QC samples indicate the three Duplicates and two blanks were within AARST protocol control limits. See Attachment III

### **Conclusion**

Radon was not detected at levels above the U.S. EPA's recommended action level of 4.0 pCi/l for radon mitigation in the areas tested at the Platt East Development. Based on the results of the radon gas assessment, radon gas currently does not require mitigation at the subject property. It is recommended that retesting be conducted every two years and whenever significant changes to the building's structure or mechanical systems occur.

The sampling work was performed and/or overseen by a National Radon Safety Board (NRSB) certified Radon Measurement Specialist, Mark R. Peterson, Certification Number NRSB 13SS020. Certificates for the Radon Measurement Specialist and Air Chek, Inc. laboratory are included in Attachment IV.

Should you have any questions concerning this report or any other aspect of this project, please do not hesitate to contact me at (734) 354-9070.

Sincerely,

Mark Peterson

Mark Peterson CPG Senior Geologist AEM Group, LLC

NRSB Certification #13SS020 NRSB Certification #9G0008

Attachments

Attachment I	Radon Test Results and Site Figure
Attachment II	Laboratory Report
Attachment III	QA/QC Results
Attachment IV	Certifications

## Attachment I

Radon Test Results and Site Figure

#### **AEM Group Radon Sampling Results Table**

#### Project Name: Building Name:

Platt East A, B, C, D, and E Project Address: <u>3421 (A), 3423 (B), 3425 (C), 3427 (D), and 3429 (E) Platt Rd.</u> Ann Arbor, MI

<u> </u>							
Sample Serial Number	Room/Unit Number	Placement Location	Start Date	Start Time	End Date	End Time	Test Result
7308886	Bldg. 3423 Unit 1	Kitchen	9/11/2020	3:00:00 PM	9/14/2020	8:00:00 AM	<0.3 pCi/l
7308883	Bldg. 3423 Unit 1 Dup	Kitchen	9/11/2020	3:00:00 PM	9/14/2020	8:00:00 AM	<0.3 pCi/l
7308885	Bldg. 3423 Unit 1 Blank	Kitchen	9/11/2020	3:00:00 PM	9/14/2020	8:00:00 AM	<0.3 pCi/L
7308892	Bldg. 3423 Unit 2	Kitchen	9/11/2020	3:00:00 PM	9/14/2020	8:00:00 AM	<0.3 pCi/l
7308892	Bldg. 3423 Unit 3	Kitchen	9/11/2020	3:00:00 PM	9/14/2020	8:00:00 AM	<0.3 pCi/l
7308890	Bldg. 3423 Unit 4	Kitchen	9/11/2020	3:00:00 PM	9/14/2020	8:00:00 AM	<0.3 pCi/l
7308893	Bldg. 3423 Unit 5	Kitchen	9/11/2020	3:00:00 PM	9/14/2020	8:00:00 AM	0.5 ± 0.3 pCi/l
7308881	Bldg. 3423 Unit 6	Kitchen	9/11/2020	3:00:00 PM	9/14/2020	8:00:00 AM	<0.3 pCi/l
7308884	Bldg. 3625 (C) Community Center	Kitchen	9/11/2020	3:00:00 PM	9/14/2020	8:00:00 AM	<0.3 pCi/l
7308914	Bldg. 3421 Unit 3	Kitchen	10/9/2020	3:00:00 PM	10/12/2020	4:00:00 PM	0.5 ± 0.3 pCi/l
7308905	Bldg. 3421 Unit 10	Kitchen	10/9/2020	3:00:00 PM	10/12/2020	4:00:00 PM	<0.3 pCi/l
7308903	Bldg. 3421 Unit 10 Blank	Kitchen	10/9/2020	3:00:00 PM	10/12/2020	4:00:00 PM	<0.3 pCi/l
7308923	Bldg. 3427 Unit 1	Kitchen	10/23/2020	3:00:00 PM	10/26/2020	9:00:00 AM	<0.3 pCi/l
7308927	Bldg. 3427 Unit 1 Dup	Kitchen	10/23/2020	3:00:00 PM	10/26/2020	9:00:00 AM	<0.3 pCi/l
7308924	Bldg. 3427 Unit 2	Kitchen	10/23/2020	3:00:00 PM	10/26/2020	9:00:00 AM	<0.3 pCi/l
7308907	Bldg. 3427 Unit 3	Kitchen	10/23/2020	3:00:00 PM	10/26/2020	9:00:00 AM	<0.3 pCi/l
7308899	Bldg. 3427 Unit 4	Kitchen	10/23/2020	3:00:00 PM	10/26/2020	9:00:00 AM	<0.3 pCi/l
7308904	Bldg. 3427 Unit 5	Kitchen	10/23/2020	3:00:00 PM	10/26/2020	9:00:00 AM	<0.3 pCi/l
7308901	Bldg 3427 Unit 1 Blank	Kitchen	1/10/1900	3:00:00 AM	10/2762020	9:00:00 AM	*
7308926	Bldg. 3427 Unit 6	Kitchen	10/23/2020	3:00:00 PM	10/26/2020	9:00:00 AM	<0.3 pCi/l
9525117	Bldg. 3421 Unit 1	Kitchen	12/4/2020	3:00:00 PM	12/7/2020	8:00:00 AM	<0.3 pCi/l
9525113	Bldg. 3421 Unit 1 Dup	Kitchen	12/4/2020	3:00:00 PM	12/8/2020	8:00:00 AM	<0.3 pCi/l
9525114	Bldg. 3421 Unit 1 Blank	Kitchen	12/4/2020	3:00:00 PM	12/9/2020	8:00:00 AM	<0.3 pCi/l
9525120	Bldg. 3421 Unit 4	Kitchen	12/4/2020	3:00:00 PM	12/10/2020	8:00:00 AM	<0.3 pCi/l
9525110	Bldg. 3421 Unit 6	Kitchen	12/4/2020	3:00:00 PM	12/11/2020	8:00:00 AM	<0.3 pCi/l
9525116	Bldg. 3421 Unit 7	Kitchen	12/4/2020	3:00:00 PM	12/12/2020	8:00:00 AM	<0.3 pCi/l
9525111	Bldg. 3421 Unit 9	Kitchen	12/4/2020	3:00:00 PM	12/13/2020	8:00:00 AM	<0.3 pCi/l
9525115	Bldg. 3421 Unit 12	Kitchen	12/4/2020	3:00:00 PM	12/14/2020	8:00:00 AM	<0.3 pCi/l
9525119	Bldg. 3429 Unit 2	Kitchen	12/4/2020	3:00:00 PM	12/15/2020	8:00:00 AM	<0.3 pCi/l
9525102	Bldg. 3429 Unit 3	Kitchen	12/4/2020	3:00:00 PM	12/16/2020	8:00:00 AM	<0.3 pCi/l
9525101	Bldg. 3429 Unit 4	Kitchen	12/4/2020	3:00:00 PM	12/17/2020	8:00:00 AM	<0.3 pCi/l
9525118	Bldg. 3429 Unit 6	Kitchen	12/4/2020	3:00:00 PM	12/18/2020	8:00:00 AM	<0.3 pCi/l
9525103	Bldg. 3429 Unit 7	Kitchen	12/4/2020	3:00:00 PM	12/19/2020	8:00:00 AM	*
9525104	Bldg. 3429 Unit 7 Dup	Kitchen	12/4/2020	3:00:00 PM	12/20/2020	8:00:00 AM	<0.3 pCi/l

Samplers Name: Mark Peterson

Notes:

\* = Damaged During Shipping

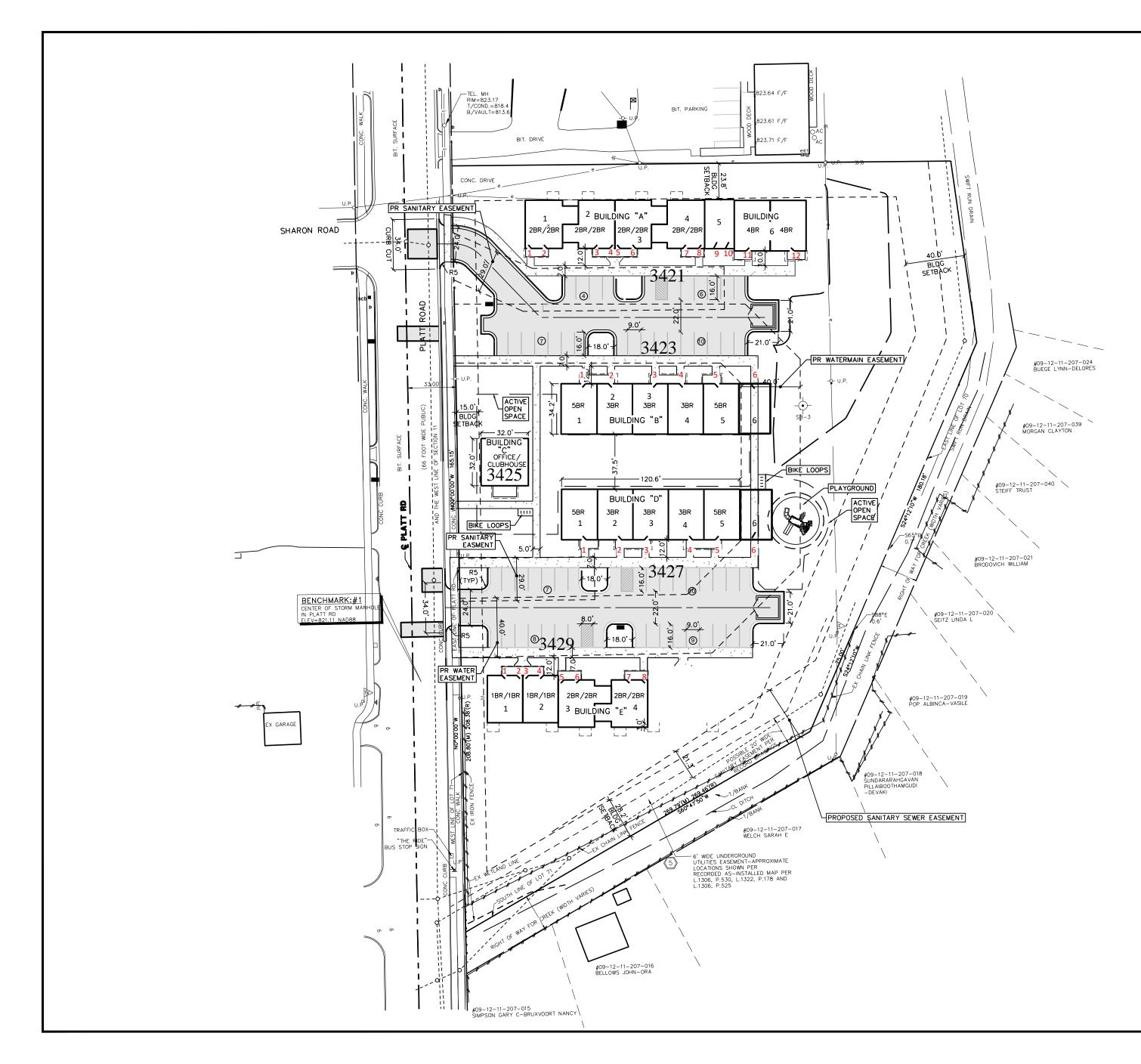
(A) = Buiding Name Exceeded EPA Action Level of 4.0 pCi/l

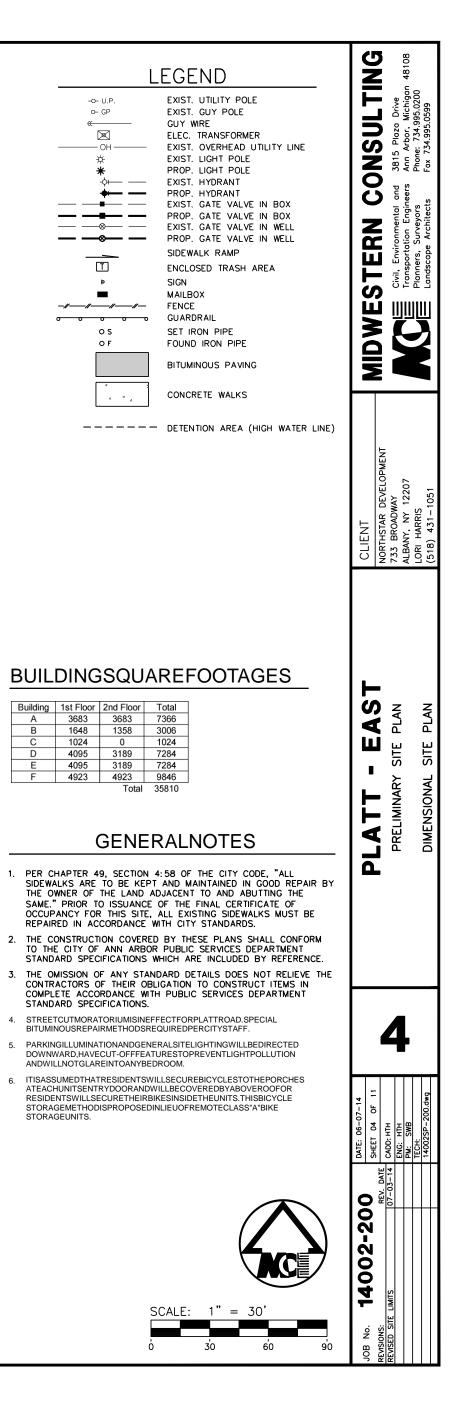
Exceeds EPA recommended Level 2.0 to 3.9

Building not occupied by residents at time of sampling

Closed house conditions not met prior to sampling (Front Door open by Tradesmen)

Closed house conditions met during sampling period





## Attachment II

Laboratory Results

### **\*\* LABORATORY ANALYSIS REPORT \*\***

Pg 1 of 1

#### P8117 / MARK PETERSON / ADVANCED ENVIRO MANAGEMENT GROUP

Kit #	pCi/L	Hours	Started	Ended	Analyzed	NOTES	MST%	°F
7308881	< 0.3	65	2020-09-11 @ 3:00 pm	2020-09-14 @ 8:00 am	2020-09-16		10.3%	65
7308883	< 0.3	65	2020-09-11 @ 3:00 pm	2020-09-14 @ 8:00 am	2020-09-16		10.5%	65
7308884	< 0.3	65	2020-09-11 @ 3:00 pm	2020-09-14 @ 8:00 am	2020-09-16		11.1%	65
7308885	< 0.3	65	2020-09-11 @ 3:00 pm	2020-09-14 @ 8:00 am	2020-09-16		5.3%	70
7308886	< 0.3	65	2020-09-11 @ 3:00 pm	2020-09-14 @ 8:00 am	2020-09-16		9.8%	65
7308890	< 0.3	65	2020-09-11 @ 3:00 pm	2020-09-14 @ 8:00 am	2020-09-16		10.3%	65
7308892	< 0.3	65	2020-09-11 @ 3:00 pm	2020-09-14 @ 8:00 am	2020-09-16		11.1%	65
7308893	$0.5 \pm 0.3$	65	2020-09-11 @ 3:00 pm	2020-09-14 @ 8:00 am	2020-09-16		11.3%	65
7308899	< 0.3	66	2020-10-23 @ 3:00 pm	2020-10-26 @ 9:00 am	2020-10-28		7.7%	70
7308903	< 0.3	73	2020-10-09 @ 3:00 pm	2020-10-12 @ 4:00 pm	2020-10-14		6.2%	70
7308904	< 0.3	66	2020-10-23 @ 3:00 pm	2020-10-26 @ 9:00 am	2020-10-28		6.9%	70
7308905	< 0.3	73	2020-10-09 @ 3:00 pm	2020-10-12 @ 4:00 pm	2020-10-14		9.8%	65
7308907	< 0.3	66	2020-10-23 @ 3:00 pm	2020-10-26 @ 9:00 am	2020-10-28		8.4%	70
7308914	$0.5 \pm 0.3$	73	2020-10-09 @ 3:00 pm	2020-10-12 @ 4:00 pm	2020-10-14		9.0%	65
7308923	< 0.3	66	2020-10-23 @ 3:00 pm	2020-10-26 @ 9:00 am	2020-10-28		9.1%	70
7308924	< 0.3	66	2020-10-23 @ 3:00 pm	2020-10-26 @ 9:00 am	2020-10-28		8.3%	70
7308926	< 0.3	66	2020-10-23 @ 3:00 pm	2020-10-26 @ 9:00 am	2020-10-28		7.6%	70
7308927	< 0.3	66	2020-10-23 @ 3:00 pm	2020-10-26 @ 9:00 am	2020-10-28		8.4%	70
9525101	< 0.3	65	2020-12-04 @ 3:00 pm	2020-12-07 @ 8:00 am	2020-12-09		5.1%	70
9525102	< 0.3	65	2020-12-04 @ 3:00 pm	2020-12-07 @ 8:00 am	2020-12-09		6.6%	70
9525103	????	65	2020-12-04 @ 3:00 pm	2020-12-07 @ 8:00 am	2020-12-09	UI	5.1%	70
9525104	< 0.3	65	2020-12-04 @ 3:00 pm	2020-12-07 @ 8:00 am	2020-12-09		5.9%	70
9525110	< 0.3	65	2020-12-04 @ 3:00 pm	2020-12-07 @ 8:00 am	2020-12-09		4.4%	70
9525111	< 0.3	65	2020-12-04 @ 3:00 pm	2020-12-07 @ 8:00 am	2020-12-09		4.3%	70
9525113	< 0.3	65	2020-12-04 @ 3:00 pm	2020-12-07 @ 8:00 am	2020-12-09		4.4%	70
9525114	< 0.3	65	2020-12-04 @ 3:00 pm	2020-12-07 @ 8:00 am	2020-12-09		4.4%	70
9525115	< 0.3	65	2020-12-04 @ 3:00 pm	2020-12-07 @ 8:00 am	2020-12-09		4.4%	70
9525116	< 0.3	65	2020-12-04 @ 3:00 pm	2020-12-07 @ 8:00 am	2020-12-09		5.1%	70
9525117	< 0.3	65	2020-12-04 @ 3:00 pm	2020-12-07 @ 8:00 am	2020-12-09		4.4%	70
9525118	< 0.3	65	2020-12-04 @ 3:00 pm	2020-12-07 @ 8:00 am	2020-12-09		4.4%	70
9525119	< 0.3	65	2020-12-04 @ 3:00 pm	2020-12-07 @ 8:00 am	2020-12-09		5.2%	70
9525120	< 0.3	65	2020-12-04 @ 3:00 pm	2020-12-07 @ 8:00 am	2020-12-09		4.5%	70

Air Chek 1936 Butler Bridge Rd, Mills River, NC 28759-3892 Phone: (828) 684-0893 Fax: (828) 684-8498

## Attachment III

QA/QC Results

## **AEM Group Blank Quality Control Data**

Project Name: <u>Platt East Development</u> Radon professional ID # : <u>Mark Peterson NRSB 13SS020</u> Data input date: 12/11/20

### Blank or Background Spreadsheet and Chart

Purpose: Determination of Air Chek Charcoal Blank or Background Enter data only in columns with GREEN headers

Date	<u>Device ID</u>	Blank #_	<u>Reported Value (pCi/L)</u>
9/14/2020	7308885	1	<0.3
10/26/2020	7308901	2	<0.3
12/9/2020	9525114	3	<0.3

Lower Limit of Detection (LLD) = 0.3 pCi/L 11.1 Bq/M3

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#### **AEM Group Duplicate Quality Control Data**

#### Project Name: <u>Platt East Developement</u>

Radon Professional ID # : <u>Mark Peterson NRSB 13SS020</u> Data input date: 12/07/20

#### **Duplicate Spreadsheet and Charts**

Purpose: Determination of precision for

AIR CHEK Charcoal

**Calculate Relative percent difference (RPD)** = [(Higher - Lower) / Average] x 100% Duplicates shall be performed at the rate of: 10% of the total number of tests or 50 per month, whichever is smaller

Note: Add table entries (do not skip a row) Enter data only in columns with GREEN headers

D	Duplicates Averaging 4.0 pCi/L or Greater						Duplicates Averaging 2.0 - 3.9 pCi/L					Duplicates Averaging < 2.0 pCi/L					<u>.0 pCi/L</u>	
Date	Dup #	A	B	Avg	<u>RPD (%)</u>	Date	Dup #	A	B	Avg	<u>RPD (%)</u>		Date	Dup #	A	<u>B</u>	Avg	<u>RPD (%)</u>
													9/14/2020	1	0.3	0.3	0.3	0.0
													10/26/2020	2	0.3	0.3	0.3	0.0
													12/8/2020	3	0.3	0.3	0.3	0.0
													12/20/2020	4	0.3	0.3	0.3	0.0

In-Control Level = 14% Warning Level = 28% Control Limit = 36% In-Control Level = 25% Warning Level = 50% Control Limit = 67% **No Control Limits** 

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## Attachment IV

Certifications

# THE NATIONAL RADON SAFETY BOARD

**Certified Radon Professionals** 

**Certifies** that

# Mark R. Peterson

Has Successfully Met The Established & Published Requirements for Certification by The National Radon Safety Board as a

# **Radon Measurement Specialist**

1388020

**Certification Number** 

3/30/2022

**Expiration** Date



Kehaulani Kekoa

**Certification Coordinator** 



This certificate is the property of The National Radon Safety Board

## ALE RADON.COM

## Laboratory Accreditations

- + NELAP Accredited
- + NRSB Certified Laboratory
- NRPP Certified Laboratory

NRPP Certified Lab # 101138 AL.

The NRPP Device codes for products we sell or support, (Device Code, Device Group, Device Type, Description)



8200, Group 22, AC, Air Chek Foil Bag Test Kit
8201, Group 22, AC, Pro Chek Foil Bag Test Kit
463, Group 3, CR, femto-Tech CRM-510M Blind Continuous
8207, Group 24, AT, RSSI AT-101 Alpha Track Detector

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