

# **RADON INVESTIGATION REPORT**

**CENTRAL BOULEVARD  
ELEMENTARY SCHOOL  
60 CENTRAL BOULEVARD  
BETHPAGE, NEW YORK 11714**

**PREPARED FOR:  
BETHPAGE UNION FREE SCHOOL DISTRICT  
10 CHERRY AVENUE  
BETHPAGE, NEW YORK 11714**

**JCB PROJECT #: 22-54420  
MAY 2022**

**J.C. BRODERICK & ASSOCIATES, INC.  
Environmental Consulting & Testing**

**1775 Expressway Drive North  
Hauppauge, New York 11788  
631-584-5492 Fax: 631-584-3395**



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### **Section No. 1.0: Introduction**

J.C. Broderick and Associates (JCB) was retained by the Bethpage Union Free School District (Bethpage) to perform an indoor air survey for radon gas as a result of identifying radium in the local groundwater by the Bethpage Water District and by JCB during the annual groundwater investigation at the Bethpage High School and Central Boulevard Elementary School.

### **Section No. 2.0: Site Description and Location**

The Subject Site is located at 60 Central Boulevard, Bethpage, New York 11714, at the western terminus of Central Boulevard. According to the United States Geological Survey (USGS) *Amityville, New York, 2016 7.5 Minute Series Topographical Map*, the Subject Site is situated at an approximate elevation of 98 feet (ft.) above mean sea level. Groundwater is estimated at approximately 40 feet below surface grade (bsg). The location of the Subject Site is shown on the Site Location Map, Appendix-A Figure-1.

### **Section No. 3.0: Previous Radon Screening Sampling and Analysis**

The detection of Radium 226 and 228 during annual testing of the groundwater at Bethpage High School prompted the sampling and analysis of the groundwater for Radium at the Central Boulevard Elementary School. In August 2017, JCB installed three (3) groundwater monitoring wells at the Central Boulevard Elementary School campus. During this investigation Radium was detected in the groundwater, as a result the building was tested for Radon. The laboratory analysis results from the Radon screening revealed concentrations of Radon exceeding 4.0 pCi/L; however, only in not frequently occupied rooms and spaces.

As a result of these findings in August 2017 an isolation barrier was installed over the sand floor of the crawl spaces throughout the school building. After the installation of the isolation barrier, JCB performed follow-up testing at the same sampling locations. The laboratory analysis results from the Radon in Air samples submitted indicated radon levels below 4.0 pCi/L at all sampling locations tested.

JCB continued to perform annual basement/crawlspace radon in air sampling and testing. In April 2021 the testing indicated radon levels ranging in concentration from 4.2 pCi/L to 6.2 pCi/L in seven (7) of the basement storage spaces and crawlspaces tested. As a result of the concentrations detected and per USEPA guidance a follow-up short-term test was performed in August 2021. The additional testing indicated radon levels ranging in concentration from 4.1 pCi/L to 5.0 pCi/L in two (2) of the crawlspaces tested.

The American Association of Radon Scientists and Technologists (AARST) Consortium on National Radon Standards *Protocol for Conducting Measurements of Radon and Radon Decay Products in Schools and Large Buildings, 2014* guidance document recommends that a long-term radon in air test be performed after a short-term test and a follow-up short-term test indicates radon concentrations equal to or greater than 4.0 pCi/L. A long-term test is considered over 90-days with preferred durations of a full year or significant occupancy (school year). JCB coordinated with the school district to conduct the sampling during the 2021-2022 school year. The results of the long-term test were reported in JCB's *Long-Term Radon Investigation Report* dated September 2022 (JCB Project #: 21-49986). The long-term testing confirmed the previous short-term testing with Radon concentrations slightly over 4.0 pCi/L. It should be noted that these spaces are not frequently occupied spaces as defined by the EPA and cannot be occupiable with little or no modification.

#### **Section No. 4.0: Radon Sampling and Analysis**

The United States Environmental Protection Agency (EPA) *Radon Measurement in Schools Revised Edition* (EPA 402-R-92-014) dated July 1993 guidance document recommends that a Radon assessment should be performed under closed conditions during the heating season. JCB coordinated with the school district to conduct the sampling during the spring recess.

On April 10, 2023, JCB set up short-term Radon in Air test kits in seven (7) basement storage rooms and spaces and seven (7) crawlspaces within the basement of the elementary school building that were in contact with the ground. JCB also sampled eight (8) selected first floor spaces consistent with previous annual sampling events. The sampling devices were collected on April 13, 2023, after at least three days of exposure. In accordance with the EPA guidance document, in addition to the test kits, a total of two (3) duplicate (dup) samples and one (1) field blank samples were collected.

The following table summarizes the Radon samples submitted for laboratory analysis:

<b>Table No. 1: Summary of Radon Samples Submitted for Laboratory Analysis</b>					
<b>Sample Device Number</b>	<b>Location</b>	<b>Sample Start Date</b>	<b>Sample End Date</b>	<b>Description of Sample</b>	<b>Analysis Method</b>
524399	Crawlspace – 0002	4/10/23	4/13/23	Crawlspace	Radon in Air
521399	Crawlspace – 0002A	4/10/23	4/13/23	Crawlspace	Radon in Air
521078	Crawlspace – 0002B	4/10/23	4/13/23	Crawlspace	Radon in Air
524408	Basement Storage Rm – 0003	4/10/23	4/13/23	Basement Storage Room	Radon in Air
521236	Basement Storage Rm - 0004	4/10/23	4/13/23	Basement Storage Room	Radon in Air
521378	Basement Storage Rm - 0005	4/10/23	4/13/23	Basement Storage Room	Radon in Air
524612	Basement Storage Rm - 0005	4/10/23	4/13/23	Basement Storage Room – Dup	Radon in Air
521175	Basement Storage Rm - 0006	4/10/23	4/13/23	Basement Storage Room	Radon in Air
524464	Basement Storage Rm - 0007	4/10/23	4/13/23	Basement Storage Room	Radon in Air
521555	Crawlspace – 0008	4/10/23	4/13/23	Crawlspace	Radon in Air
521397	Crawlspace – 0009	4/10/23	4/13/23	Crawlspace	Radon in Air
524427	Crawlspace – 0010	4/10/23	4/13/23	Crawlspace	Radon in Air
524417	Crawlspace – 0010	4/10/23	4/13/23	Crawlspace – Dup	Radon in Air
524440	Crawlspace – 0010A	4/10/23	4/13/23	Crawlspace	Radon in Air
524471	Basement Hallway – 0011	4/10/23	4/13/23	Basement Hallway	Radon in Air
521386	Basement Hallway – 0011A	4/10/23	4/13/23	Basement Hallway	Radon in Air
524458	Lounge Rm – 1000	4/10/23	4/13/23	Lounge Rm	Radon in Air
524384	First Floor Rm 109 – 1002	4/10/23	4/13/23	First Floor Rm 109	Radon in Air
521362	First Floor Rm 117 – 1006	4/10/23	4/13/23	First Floor Rm 117	Radon in Air
524624	First Floor Rm 117 – 1006	4/10/23	4/13/23	First Floor Rm 117 – Dup	Radon in Air
524370	First Floor Rm 119 – 1011	4/10/23	4/13/23	First Floor Rm 119	Radon in Air
524503	First Floor Hallway – 1015	4/10/23	4/13/23	First Floor Hallway	Radon in Air
524349	First Floor Hallway – 1018	4/10/23	4/13/23	First Floor Hallway	Radon in Air
524545	First Floor Hallway – 1029	4/10/23	4/13/23	First Floor Hallway	Radon in Air
521072	First Floor Hallway – 1046	4/10/23	4/13/23	First Floor Hallway	Radon in Air

Table No. 1: Summary of Radon Samples Submitted for Laboratory Analysis					
Sample Device Number	Location	Sample Start Date	Sample End Date	Description of Sample	Analysis Method
524311	First Floor Hallway – 1046	4/10/23	4/13/23	First Floor Hallway – Blank	Radon in Air
<b>Notes:</b> Rm = Room Dup = Duplicate Sample Blank = Field Blank					

#### **Section No. 4.1: Radon Laboratory Analytical Summary**

The short-term Radon in Air sampling was performed utilizing laboratory supplied test kits, assigned individual identification numbers and were secured. Chain of Custody documents were prepared, and the samples were then delivered to an independent New York State Department of Health (NYSDOH) Environmental Laboratory Approval Program (ELAP) certified laboratory for analysis of Radon in Air.

EMSL Analytical Inc. (EMSL) of Cinnaminson, New Jersey provided laboratory analytical services. Copies of EMSL’s NYSDOH certifications are available upon request.

The laboratory analytical results for the Radon in Air samples were reviewed and compared to the United States Environmental Protection Agency (EPA) recommended action level of 4.0 pCi/L as reported in *Radon Measurement in Schools Revised Edition* (EPA 402-R-92-014), dated July 1993.

The following table summarizes the Radon Analytical Results:

Table No. 2: Summary of Radon Samples Analysis Results – 04-13-23		
Sample Device Number	Location	Radon Activity pCi/L
524399	Crawlspace – 0002	4.0
521399	Crawlspace – 0002A	4.6
521078	Crawlspace – 0002B	5.5
524408	Basement Storage Rm – 0003	4.9
521236	Basement Storage Rm – 0004	4.8
521378	Basement Storage Rm – 0005	1.8
524612	Basement Storage Rm – 0005 – Dup	1.8
521175	Basement Storage Rm – 0006	2.2
524464	Basement Storage Rm – 0007	1.8
521555	Crawlspace – 0008	3.8
521397	Crawlspace – 0009	4.0
524427	Crawlspace – 0010	4.7
524417	Crawlspace – 0010 – Dup	4.2
524440	Crawlspace – 0010A	4.4
524471	Basement Hallway – 0011	3.9
521386	Basement Hallway – 0011A	3.1

Table No. 2: Summary of Radon Samples Analysis Results – 04-13-23		
Sample Device Number	Location	Radon Activity pCi/L
524458	Lounge Room – 1000	0.1
524384	First Floor Rm 109 – 1002	0.1
521362	First Floor Rm 117 – 1006	0.4
524624	First Floor Rm 117 – 1006 – Dup	-0.1
524370	First Floor Rm 119 – 1011	0.2
524503	First Floor Hallway – 1015	0.2
524349	First Floor Hallway – 1018	-0.1
524545	First Floor Hallway – 1029	0.1
521072	First Floor Hallway – 1046	0.2
524311	First Floor Hallway – 1046 – Blank	-0.1

The laboratory analysis results from the Radon in Air samples submitted did reveal detectable concentrations of Radon exceeding the guidance value established by the EPA in eight (8) of the 14 basement/crawlspace locations tested. It should be noted these spaces are not frequently occupied spaces as defined in the EPA referenced document. None of the first-floor spaces tested revealed detectable concentrations of Radon over 0.4 pCi/L.

#### **Section No. 5.0: Quality Assurance and Quality Control (QA/QC) Procedures**

To ensure that measurement results are reliable, JCB performed unexposed control detectors (blanks) side-by-side with the sampling device at each sampling location.

The field sampling team-maintained Radon sampling chain of custody records used to track samples from sampling point to analysis which summarized the following:

- Sample identification;
- Test Kit ID number;
- Device ID number;
- Sampling beginning date and time;
- Sampling ending date and time;
- Temperature, °F;
- Humidity, %;

#### **Section No. 6.0: Conclusions and Recommendations**


The laboratory analysis results from the Radon in Air samples submitted did reveal detectable concentrations of Radon exceeding the guidance value established by the EPA in eight (8) of the 14 basement/crawlspace locations tested. It should be noted these spaces are not frequently occupied spaces as defined in the EPA referenced document. None of the first-floor spaces tested revealed detectable concentrations of Radon over 0.4 pCi/L.

The EPA recommends that “If the testing indicates radon concentrations equal to or greater than 4 pCi/L in any office area, classroom, exercise facility, meeting room, dining area or other common area, reduce the radon to below 4 pCi/L.” Although the detectable concentrations of Radon exceeding the guidance

value were identified in not frequently occupied spaces, it was recommended that a mitigation strategy be developed. Additional design testing was performed, and a subsurface depressurization system (SSDS) designed to effectively mitigate any soil vapors including Radon from beneath the plastic barrier. The mitigation system is expected to be installed during the summer of 2023.

Due to the historic detection of Radium 226 and 228 in the local groundwater and Radon in the crawlspaces, JCB recommends that continued monitoring for Radon in Air within the school building be performed to confirm the effectiveness of the installed isolation barrier and future SSD system.

Sincerely,  
**J.C. Broderick & Associates, Inc.**



Jeffrey V. Nannini  
Environmental Scientist



Steven Muller, P.G.  
Project Manager

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# **Appendix A**

## **Figures**





J.C. BRODERICK

& Associates

Environmental Consulting and  
Testing

1775 Express Drive North  
Hauppauge, NY 11788

Phone: (631).584.5492

Fax: (631).584.3395

Notes:

Central Boulevard  
Elementary School  
60 Central Boulevard  
Bethpage, NY 11714

Drawing Title

Figure No. 1

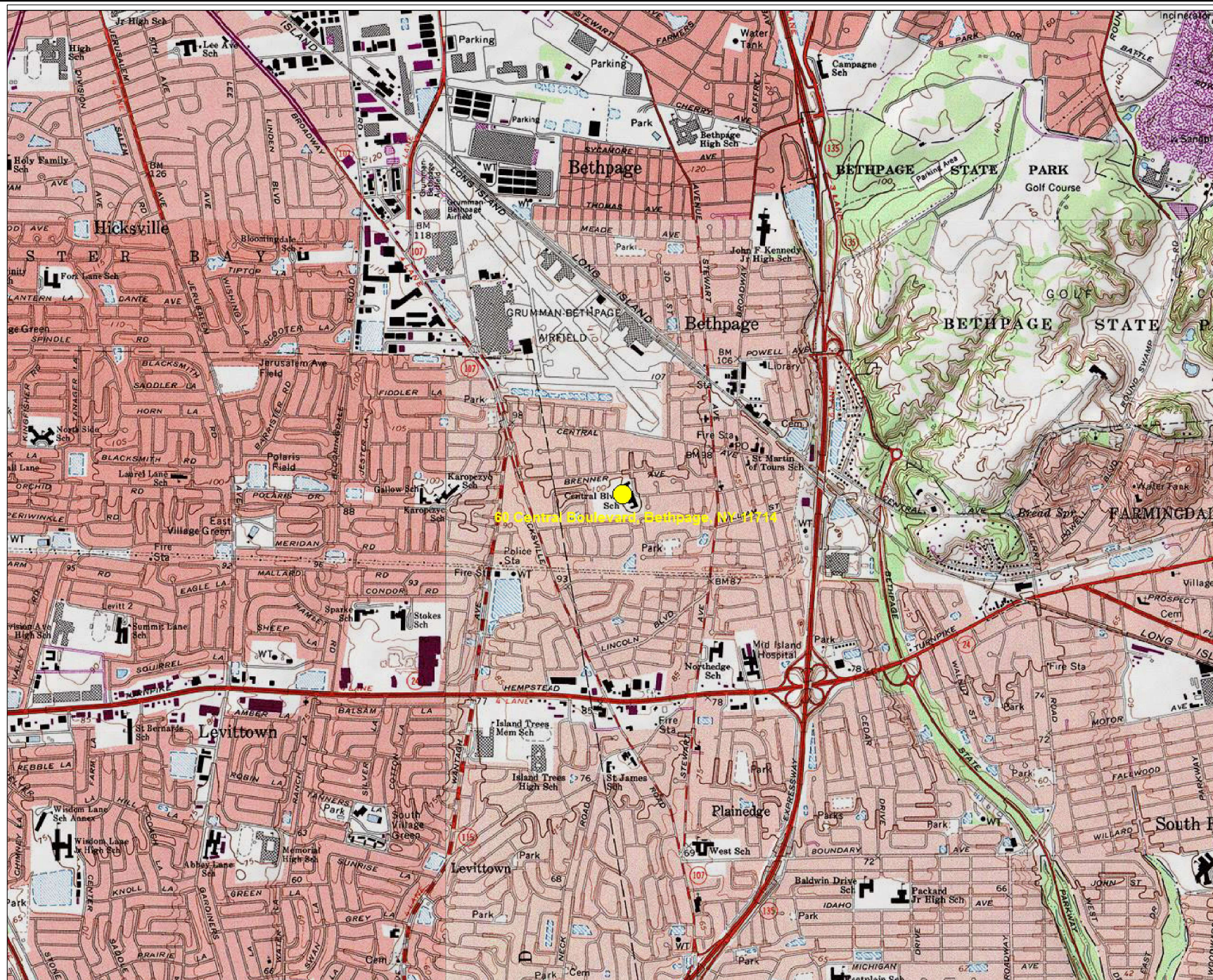
Site Location Map

Scale As Noted Project No. 23-54420 Date 04-13-23

Drawn By J.V.N. Checked By S.W.M. Page No. 1 of 3

Drawing No.

1



JCB LEGEND  
● SUBJECT SITE

0 1000 FEET 0 500 1000 METERS  
Map created with TOPO!® ©2002 National Geographic (www.nationalgeographic.com/topo)





**J.C. BRODERICK**

**& Associates**

Environmental Consulting and  
Testing

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**Notes:**

Central Boulevard  
Elementary School  
60 Central Boulevard  
Bethpage, NY 11714

**Drawing Title**

Figure No. 2

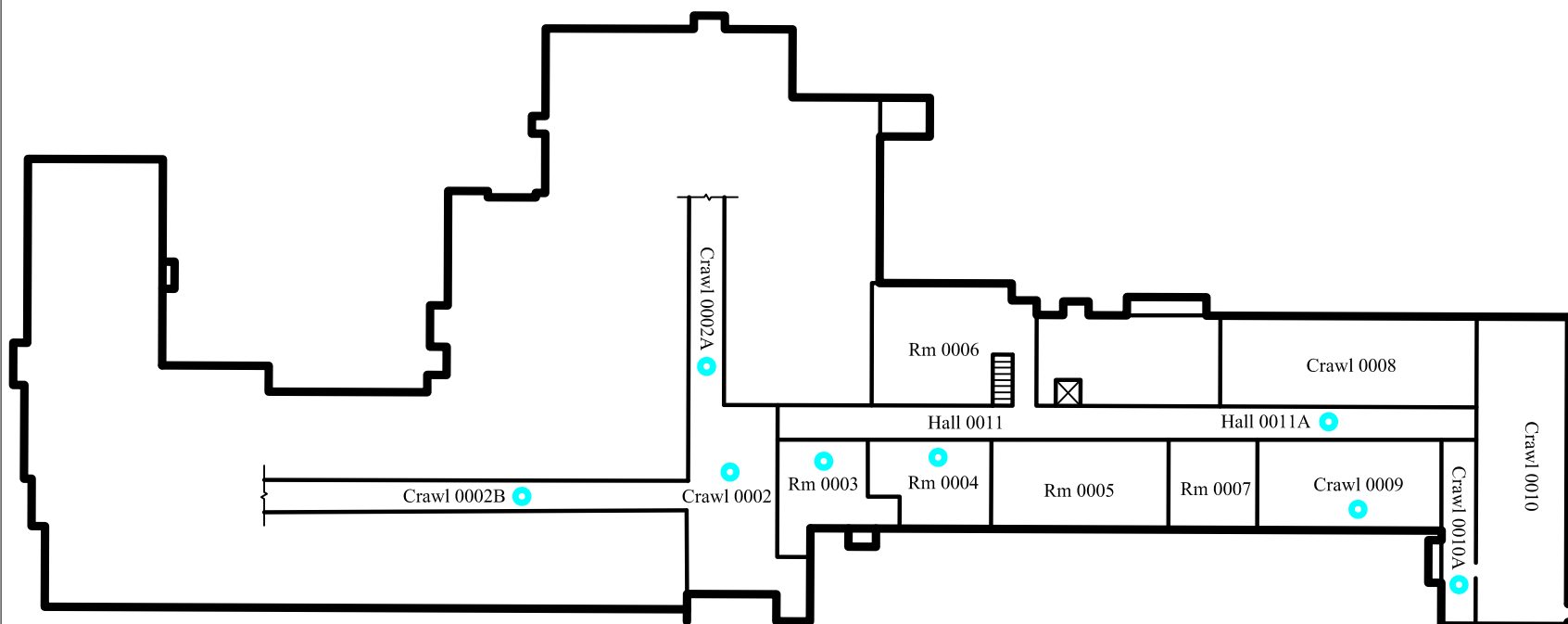
Crawlspace  
and  
Basement  
Sampling  
Locations

<b>Scale</b>	<b>Project No.</b>	<b>Date</b>
N.T.S.	23-54420	04-13-23

<b>Drawn By</b>	<b>Checked By</b>	<b>Page No.</b>
J.V.N.	S.W.M.	2 of 3

**Drawing No.**

2



<b>JCB LEGEND</b>
● APRIL 13, 2023 SAMPLE LOCATION



J.C. BRODERICK

& Associates

Environmental Consulting and  
Testing

1775 Express Drive North  
Hauppauge, NY 11788

Phone: (631).584.5492

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Notes:

Central Boulevard  
Elementary School  
60 Central Boulevard  
Bethpage, NY 11714

Drawing Title

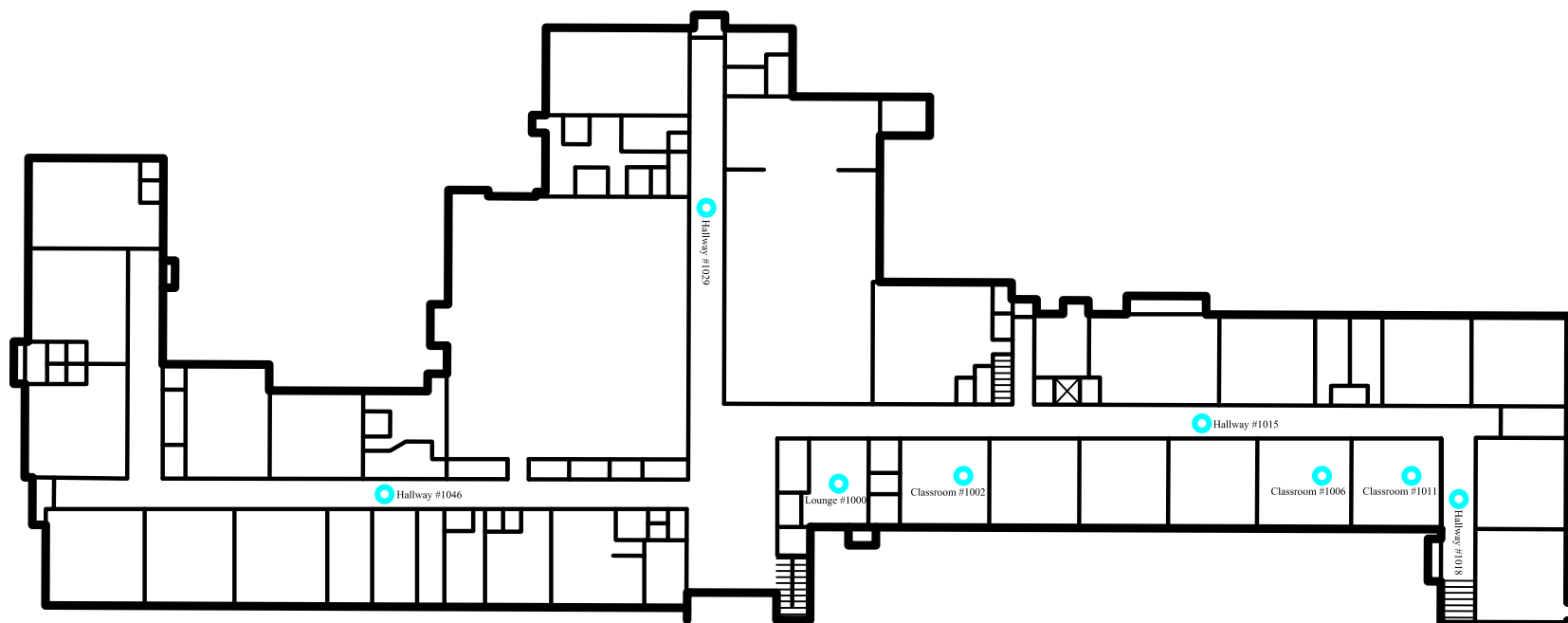
Figure No. 3  
  
First Floor  
Sampling Locations

Scale	Project No.	Date
As Noted	23-54420	04-13-23

Drawn By	Checked By	Page No.
J.V.N.	S.W.M.	3 of 3

Drawing No.

3



PROJECT



NORTH

JCB LEGEND

● APRIL 13, 2023 SAMPLING LOCATION

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# **Appendix B**

## **Field Photograph Logs**

## **Radon Sampling Crawlspace**



## **Field Photograph Log**

### **Radon Investigation Report**

**Central Boulevard Elementary School  
60 Central Boulevard  
Bethpage, New York 11714**

**Photo No. 01**

**JCB#: 23-54420**

**Radon Sampling  
Basement Storage Room**



**Field Photograph Log**

**Radon Investigation Report**

**Central Boulevard Elementary School  
60 Central Boulevard  
Bethpage, New York 11714**

**Photo No. 02**

**JCB#: 23-54420**



## **Radon Sampling Classroom**



## **Field Photograph Log**

**Radon Investigation Report**

**Central Boulevard Elementary School  
60 Central Boulevard  
Bethpage, New York 11714**

**Photo No. 03**

**JCB#: 23-54420**

## **Radon Sampling Hallway**



## **Field Photograph Log**

### **Radon Investigation Report**

**Central Boulevard Elementary School  
60 Central Boulevard  
Bethpage, New York 11714**

**Photo No. 04**

**JCB#: 23-54420**



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# **Appendix C**

## **Laboratory Analysis Reports**

**EMSL Analytical, Inc.**

200 Route 130 North, Cinnaminson, NJ 08077

Phone/Fax: (800) 220-3675 / (856) 786-0327

<http://www.EMSL.com>[cinnaminsonradonlab@emsl.com](mailto:cinnaminsonradonlab@emsl.com)

EMSL Order: 382302253

CustomerID: JCBR50

CustomerPO: 23-54420

ProjectID:

Attn: **Steven Muller**  
**J.C. Broderick & Associates**  
**1775 Expressway Drive North, Suite 1**  
**Hauppauge, NY 11788**

Phone: (631) 584-5492  
Fax:  
Received: 4/17/2023 11:25 AM  
Analysis Date: 4/18/2023  
Collected: 4/10/2023

Project: **Central Blvd. ES/ 23-54420**

Test **Central Blvd. ES / 23-54420**  
Site: **60 Central Boulevard**  
**Bethpage, NY 11714**

**Test Report: Radon in Air Test Results**

Liquid Scintillation ID	Location	Radon Activity (pCi/L)	Start	Stop	Temperature F	Humidity %	Sample Type
524399 382302253-0001	Room # 0002 - Pipe	4	4/10/2023 9:47:00 AM	4/13/2023 12:58:00 PM	79	61	Customer
<b>Sample Notes:</b>							
521399 382302253-0002	Room # 0002 A - Pipe	4.6	4/10/2023 9:48:00 AM	4/13/2023 12:59:00 PM	78	61	Customer
<b>Sample Notes:</b>							
521078 382302253-0003	Room # 0002 B - Pipe	5.4	4/10/2023 9:49:00 AM	4/13/2023 1:00:00 PM	76	70	Customer
<b>Sample Notes:</b>							
524408 382302253-0004	Room # 0003 - Pipe	4.9	4/10/2023 9:50:00 AM	4/13/2023 1:02:00 PM	75	64	Customer
<b>Sample Notes:</b>							
521236 382302253-0005	Room # 0004 - Cart	4.8	4/10/2023 9:51:00 AM	4/13/2023 1:03:00 PM	75	61	Customer
<b>Sample Notes:</b>							
521378 382302253-0006	Room # 0005 - Box	1.8	4/10/2023 9:52:00 AM	4/13/2023 1:04:00 PM	75	48	Customer
<b>Sample Notes:</b>							
524612 382302253-0007	Room # 0005 - Box	1.8	4/10/2023 9:52:00 AM	4/13/2023 1:04:00 PM	75	48	Duplicate
<b>Sample Notes:</b> Duplicate's Customer Sample:382302253-0006					<b>Duplicate RPD = 0.0%</b>		
524475 382302253-0008	Room # 0006 - Cart	2.2	4/10/2023 9:55:00 AM	4/13/2023 1:05:00 PM	76	36	Customer
<b>Sample Notes:</b>							
524464 382302253-0009	Room # 0007 - Cart	1.8	4/10/2023 9:57:00 AM	4/13/2023 1:06:00 PM	76	40	Customer
<b>Sample Notes:</b>							
521555 382302253-0010	Room # 0008 - Pipe	3.8	4/10/2023 9:58:00 AM	4/13/2023 1:06:00 PM	74	35	Customer
<b>Sample Notes:</b>							

Please visit [www.radontestinglab.com](http://www.radontestinglab.com)

**EMSL Analytical, Inc.**

200 Route 130 North, Cinnaminson, NJ 08077

Phone/Fax: (800) 220-3675 / (856) 786-0327

<http://www.EMSL.com>[cinnaminsonradonlab@emsl.com](mailto:cinnaminsonradonlab@emsl.com)

EMSL Order: 382302253

CustomerID: JCBR50

CustomerPO: 23-54420

ProjectID:

**Test Report: Radon in Air Test Results**

Liquid Scintillation ID	Location	Radon Activity (pCi/L)	Start	Stop	Temperature F	Humidity %	Sample Type
521397 382302253-0011	Room # 0009 - Pipe	4	4/10/2023 9:59:00 AM	4/13/2023 1:07:00 PM	73	41	Customer
<b>Sample Notes:</b>							
524427 382302253-0012	Room # 0010 - Pipe	4.7	4/10/2023 10:00:00 AM	4/13/2023 1:08:00 PM	71	40	Customer
<b>Sample Notes:</b>							
524417 382302253-0013	Room # 0010 - Pipe	4.2	4/10/2023 10:00:00 AM	4/13/2023 1:08:00 PM	73	40	Duplicate
<b>Sample Notes:</b> Duplicate's Customer Sample:382302253-0012					<b>Duplicate RPD = 11.2%</b>		
524440 382302253-0014	Room # 0010 A - Pipe	4.4	4/10/2023 10:01:00 AM	4/13/2023 1:08:00 PM	76	40	Customer
<b>Sample Notes:</b>							
524471 382302253-0015	Room # 0011 - Desk	3.9	4/10/2023 10:03:00 AM	4/13/2023 1:23:00 PM	76	53	Customer
<b>Sample Notes:</b>							
521386 382302253-0016	Room # 0011 A - Cart	3.1	4/10/2023 10:04:00 AM	4/13/2023 1:22:00 PM	77	39	Customer
<b>Sample Notes:</b>							
524458 382302253-0017	Room # 1000 - Table	0.1	4/10/2023 10:09:00 AM	4/13/2023 1:11:00 PM	77	35	Customer
<b>Sample Notes:</b>							
524384 382302253-0018	Room # 1002 - Desk	0.1	4/10/2023 10:17:00 AM	4/13/2023 1:15:00 PM	77	35	Customer
<b>Sample Notes:</b>							
524362 382302253-0019	Room # 1006 - Desk	0.4	4/10/2023 10:15:00 AM	4/13/2023 1:16:00 PM	77	35	Customer
<b>Sample Notes:</b>							
524624 382302253-0020	Room # 1006 - Desk	-0.1	4/10/2023 10:15:00 AM	4/13/2023 1:16:00 PM	77	35	Duplicate
<b>Sample Notes:</b> Duplicate's Customer Sample:382302253-0019 Duplicate RPD >67%					<b>Duplicate RPD = 200.0%</b>		
524370 382302253-0021	Room # 1011 - Desk	0.2	4/10/2023 10:13:00 AM	4/13/2023 1:16:00 PM	77	36	Customer
<b>Sample Notes:</b>							
524503 382302253-0022	Room # 1015 - Fountain	0.2	4/10/2023 10:12:00 AM	4/13/2023 1:17:00 PM	77	35	Customer
<b>Sample Notes:</b>							
524349 382302253-0023	Room # 1018 - Desk	-0.1	4/10/2023 10:12:00 AM	4/13/2023 1:18:00 PM	76	36	Customer
<b>Sample Notes:</b>							

Please visit [www.radontestinglab.com](http://www.radontestinglab.com)

**EMSL Analytical, Inc.**

200 Route 130 North, Cinnaminson, NJ 08077

Phone/Fax: (800) 220-3675 / (856) 786-0327

<http://www.EMSL.com>[cinnaminsonradonlab@emsl.com](mailto:cinnaminsonradonlab@emsl.com)

EMSL Order: 382302253

CustomerID: JCBR50

CustomerPO: 23-54420

ProjectID:

**Test Report: Radon in Air Test Results**

Liquid Scintillation ID	Location	Radon Activity (pCi/L)	Start	Stop	Temperature F	Humidity %	Sample Type
524545 382302253-0024	Room # 1029 - Fountain	0.1	4/10/2023 10:19:00 AM	4/13/2023 1:20:00 PM	75	35	Customer
<b>Sample Notes:</b>							
521072 382302253-0025	Room # 1046 - Desk	0.2	4/10/2023 10:20:00 AM	4/13/2023 1:12:00 PM	75	35	Customer
<b>Sample Notes:</b>							
524311 382302253-0026	Room # 1046 - Desk	-0.1	4/10/2023 10:20:00 AM	4/13/2023 1:12:00 PM	75	35	Blank
<b>Sample Notes:</b>							

**Report Notes**

The United States Environmental Protection Agency (EPA) has established a radon action level of 4.0pCi/L. EPA recommends mitigation of a structure if the confirmed radon level is equal to or greater than 4.0pCi/L.

The radon tests were performed using liquid scintillation radon detectors and counted on a liquid scintillation counter following EPA Method # 402-R-92-004 testing protocol for Radon in Air testing. EPA recommends retesting every two years.

Please contact EMSL Analytical, Inc. or your State Health Department for further information.

All procedures used for generating this report are in complete accordance with the current EPA protocols for the analysis of Radon in Air.

Analyst(s)

Jeanel Zoll (26)

Dominic Gehret, Radiochemistry Laboratory Manager, 10872

In no event shall EMSL be liable for indirect, special, consequential, or incidental damages, including, but not limited to, damages for loss of profit or goodwill regardless of the negligence (either sole or concurrent) of EMSL and whether EMSL has been informed of the possibility of such damages, arising out of or in connection with EMSL's services thereunder or the delivery, use, reliance upon or interpretation of test results by client or any third party. We accept no legal responsibility for the purposes for which the client uses the test results. In no event shall EMSL be liable to a client or any third party, whether based upon theories of tort, contract or any other legal or equitable theory, in excess of the amount paid to EMSL by client thereunder. The test results meets all NELAC requirements unless otherwise specified.

Samples analyzed by EMSL Analytical, Inc. Cinnaminson, NJ FL RB2034/R2687,IL RNL2008202,IN RTL00935,IA RNLAB10005,KS KS-LB-0005/KS-MS-0482,ME SPC202,MN RL-0005,NE 474/RMB-1083,NJ 03036/MEB92525/MES13910,NY 10872,OH RL39,OK D9952,PA 2573/3393/68-00367,RI RMB-108/RI00179,WV RL000220,NRSB-ARL6006,NRPP

Initial report from 04/19/2023 13:40:39





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EMSL ANALYTICAL, INC.  
200 ROUTE 130 NORTH  
CINNAMINSON, NJ 08077  
PHONE: 800-220-3675  
www.emsl.com

## Company Information:

EMSL

Acct #: 508R 50

Company Name: JCBroderick &amp; Associates, Inc.

Contact: Steven Muller

Address: 1775 Expressway Drive North

City: Haverhill

State: NY Zip: 01788

Phone: 631-584-5492 Fax: 631-584-5492

Email: SMuller@JCBroderick.com

Technician Certification #:

Tech Name: Steven Muller

Tech Signature:

## Project/Site Information:

\*Required

Project Name: CENTRAL BLDG. ES

Project # / PO: 23-54420

\*Address: 60 Central Boulevard

\*City: Belthaus \*State: NY \*Zip: 11714

\*Building type? ☐ Residential ☐ Non-Residential☒ School ☐ Other: \_\_\_\_\_\*Building foundation type? ☒ Basement ☒ Crawlspace☐ Slab on Grade ☐ Other: \_\_\_\_\_

Special Notes / Instructions:

26 samples

## \*Turnaround Time (TAT) Options

☐ 1 Day☐ 2 Day☐ 3 Day☒ 4 Day

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(S) Sample (B) Blank (D) Duplicate	Device Number	Location	Room #	Exposure Period Beginning Date		Exposure Period Ending Date		Temp. °F	Humidity, %
				Date	Time	Date	Time		
(S) Sample	524399	PIPE	0002	4/10/23	9:47	4/13/23	1258	78.9	61.0
S	521399	PIPE	0002A	4/10/23	9:48	4/13/23	1259	78.6	60.9
S	521078	PIPE	0002B	4/10/23	9:49	4/13/23	1300	75.9	70.3
S	524408	PIPE	0003	4/10/23	9:50	4/13/23	1302	75.0	69.2
S	521236	CART	0004	4/10/23	9:51	4/13/23	1303	74.6	61.3
S	521378	Box	0005	4/10/23	9:52	4/13/23	1304	75.0	48.3
D	524612								
S	524475	CART	0006	4/10/23	9:55	4/13/23	1305	76.1	35.8

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Date:

Time:

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Date:

Time:

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EMSL ANALYTICAL, INC.  
 200 ROUTE 130 NORTH  
 CINNAMINSON, NJ 08077  
 PHONE: 800-220-3675  
 www.emsl.com

(S) Sample (B) Blank (D) Duplicate	Device Number	Location	Room #	Exposure Period Beginning Date		Exposure Period Ending Date		Temp, °F	Humidity, %
				Date	Time	Date	Time		
S	524464	CASE	0007	4/10/23	9:57	4/13/23	1306	76.1	34.8
S	521555	PIPE	0008	4/10/23	9:58	4/13/23	1306	73.9	34.6
S	521397	PIPE	0009	4/10/23	9:59	4/13/23	1307	73.4	40.6
S	524427	PIPE	0010	4/10/23	10:00	4/13/23	1308	70.8	40.4
B/D	524417								
S	524440	PIPE	0010A	4/10/23	10:01	4/13/23	1308	72.6	34.6
S	524471	DESK	0011	4/10/23	10:03	4/13/23	1323	76.1	52.8
S	521386	CASE	0011A	4/10/23	10:04	4/13/23	1322	76.4	38.8
S	524458	TABLE	1000	4/10/23	10:09	4/13/23	1311	77.0	34.9
S	524384	DESK	1002	4/10/23	10:17	4/13/23	1315	76.8	34.8
S	524362	DESK	1006	4/10/23	10:15	4/13/23	1316	77.3	34.9
D	524624								
S	524370	DESK	1011	4/10/23	10:13	4/13/23	1316	76.8	35.8
S	524583	FOUNTAIN	1015	4/10/23	10:12	4/13/23	1317	76.8	34.8
S	524349	DESK	1018	4/10/23	10:12	4/13/23	1318	75.7	35.8
S	524545	FOUNTAIN	1029	4/10/23	10:19	4/13/23	1320	75.3	34.8
S	521072	DESK	1046	4/10/23	10:20	4/13/23	1312	75.3	34.9
B	524311								

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Date: 4/10/23

Time: 1420

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Time:

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