

November 6, 2025

705366

Jon Elliott
Abbey Construction Co.
1949 County Line Road
Aurora, IL 60502

RE: Thorium Monitoring 400 N. Michigan Ave.
CDOT Permit: 2172923

Dear Mr. Elliott:

Stan A. Huber Consultants, Inc (SAHCI) was hired by your firm to provide radiation monitoring during concrete removal and excavation at 400 N. Michigan Ave. in Chicago, Illinois. The monitoring was performed by Bethany Tennyson and Aaron Morris, SAHCI Health Physicists, on October 20 through October 22, 2025.

Instrumentation

Surface gamma scans were performed using Ludlum Model 2221 Scaler / Ratemeters (serial no. 126497 and 132844) with attached Ludlum Model 44-10 2"x2" NaI Detectors (w/ 6" collimated lead shields). The instruments were calibrated on May 6, 2025. The US Environmental Protection Agency (USEPA) action level of 7.1 picocuries per gram (pCi/g) total thorium for instrument 132844 is 7,141 counts per minute (cpm) and 6,246 cpm for instrument 126497.

The average background count rate for this location averaged 2,037 cpm.

Soil Gamma Scans

Gamma surface scans were performed using the Ludlum Model 2221 Scaler / Ratemeters described above. Survey data was collected by entering the three excavations and recording the highest count rate for the floor and walls to a maximum depth of 18 inches below ground surface. The area where the excavations took place had elevated count rates due to Naturally Occurring Radioactive Material (NORM) in the decorative stone walls of the building and the nearby steps. The on-contact gamma count rate on the side of the building was 12,000 cpm and the steps was 9,000 cpm. Due to the elevated background at the excavation locations, additional surveys were performed as buckets were removed and stockpiled away from the excavation.

The maximum gamma count rates for each 18-inch lift were recorded on the attached Radiation Survey Form. The count rates in the excavations ranged from 4,500 cpm to 6,700 cpm. However, the re-surveys of the excavated material away from the walls and

steps were only 2,500 cpm to 4,000 cpm. No count rates of the excavated material exceeded the threshold limits of 7,141 cpm and 6,246 cpm, respectively.

Additional Monitoring

Since no contamination was identified above the 7.1 pCi/gram threshold limit, no additional soil sampling, air monitoring, or personnel monitoring were performed.

I will be providing a copy of this report to both the City of Chicago Department of Public Health and US Environmental Protection Agency, as required.

Thank you for your assistance with this project. If you have any questions or need additional information, please call me at (815) 485-6161.

Sincerely,
Stan A. Huber Consultants, Inc.



Glenn Huber, CHP
President

Radiation Survey Form

Location/ Project ID: 400 N. Michigan Ave. Abbey Construction

Date: 10/20/25 - 10/22/25

Technician: Bethany Tennyson & Aaron Morris

Inst Model: Ludlum 2221

Serial No.: 126497 & 132844

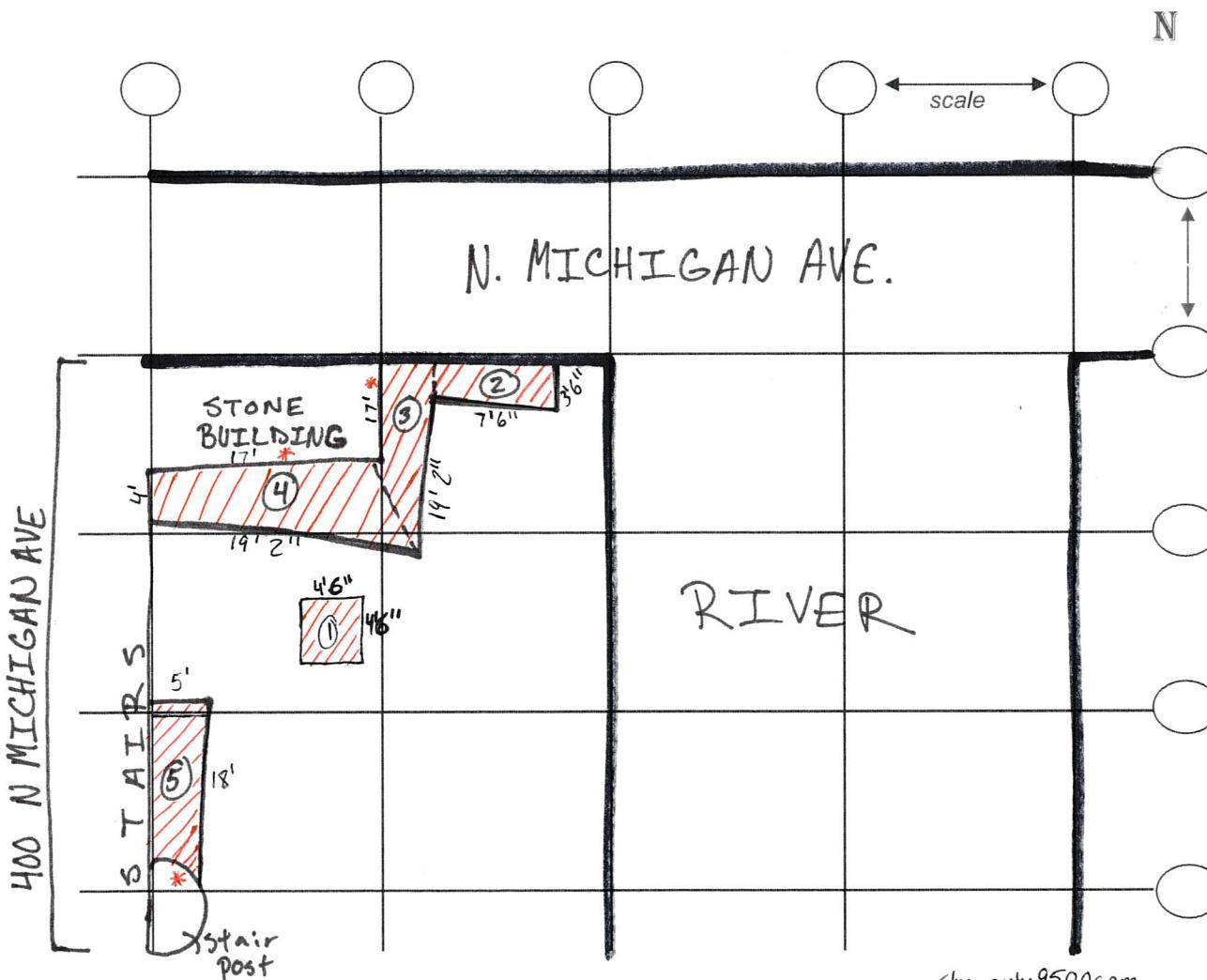
Probe Type: 1"x1" Nal / 2"x2" Nal
 Shielded / Not Shielded

Lift Elevation: Surface to -18"

Background 2037 cpm

6246 (SN: 126497)
 Action Level: .7141 (SN: 132844) cpm

Write grid designations in circles. Record highest counts for grid in cpm. Record 30 second counts at grid intersections (if required). Shade areas of elevated counts and record max cpm.



= EXCAVATED * = Readings were taken on the stone of these locations Stair post: 9500 cpm Stone building walls: 12000 cpm

SURFACE: (1) 5000 cpm
 (2) 6000 cpm
 (3) 6200 cpm
 (4) 6200 cpm
 (5) 5000 cpm

12": (1) 5000
 (5) **6700**

18": (2) 4500
 (3) 4700
 (4) 5000

<u>Buckets @ 18"</u>				<u>Buckets @ 12"</u>
(1) 1) 3500	(2) 1) 2900	(3) 1) 2700	(4) 1) 2900	(5) 1) 3700
2) 3000	2) 2800	2) 3200	2) 3000	2) 3400
3) 2500	3) 2900	3) 2900	3) 2900	3) 3100
4) 3000	4) 2800	4) 2800	4) 2800	4) 3600
				5) 3500
				6) 4000