



September 21, 2021

Jonathan Elliott
Abbey Paving
1949 County Line Road
Aurora, IL 60502

RE: Thorium Monitoring – Abbey Paving 424-448 E. Grand Ave.
CDOT Permit: 1584138

Dear Mr. Elliott:

Stan A. Huber Consultants, Inc (SAHCI) was hired by your firm to provide radiation monitoring during the removal for replacement of existing sidewalks at 424-448 E. Grand Avenue in Chicago, Illinois. The monitoring was performed by Mark Dewald, SAHCI Health Physics Technician, on September 13, 2021.

Instrumentation

Surface gamma scans were performed using a Ludlum Model 2221 Scaler / Ratemeter (serial no. 127242) with attached Ludlum Model 44-10 2"x2" NaI Detector (w/ 6" collimated lead shield). The instrument was calibrated on May 5, 2021. The US Environmental Protection Agency (USEPA) action level of 7.1 picocuries per gram (pCi/g) total thorium for this instrument is 6,995 counts per minute (cpm).

The average background count rate for this location was measured at 2,082 cpm.

Soil Gamma Scans

Gamma surface scans were performed using the Ludlum Model 2221 Scaler / Ratemeter detailed above. Survey data was collected by surveying the ground surface after the existing concrete sidewalk (maximum 12" depth) was removed and recording the highest count rate for each section (20-foot maximum length x 9-foot maximum width). All concrete was loaded directly into a truck for disposal.

The maximum gamma count rate for the single lift was recorded on the attached Radiation Survey Form. The count rates after removal of the sidewalk ranged from 1,600 cpm to 2,400 cpm. No count rates were found at any time that exceeded the threshold action level of 6,995 cpm.

Additional Monitoring

Since no count rates were identified above the 7.1 pCi/g 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: 424-448 E. Grand Ave. - Abbey Paving

Date: 9/13/21

Technician: Mark Dewald

Inst Model: Ludlum 2221

Serial No. : 127242

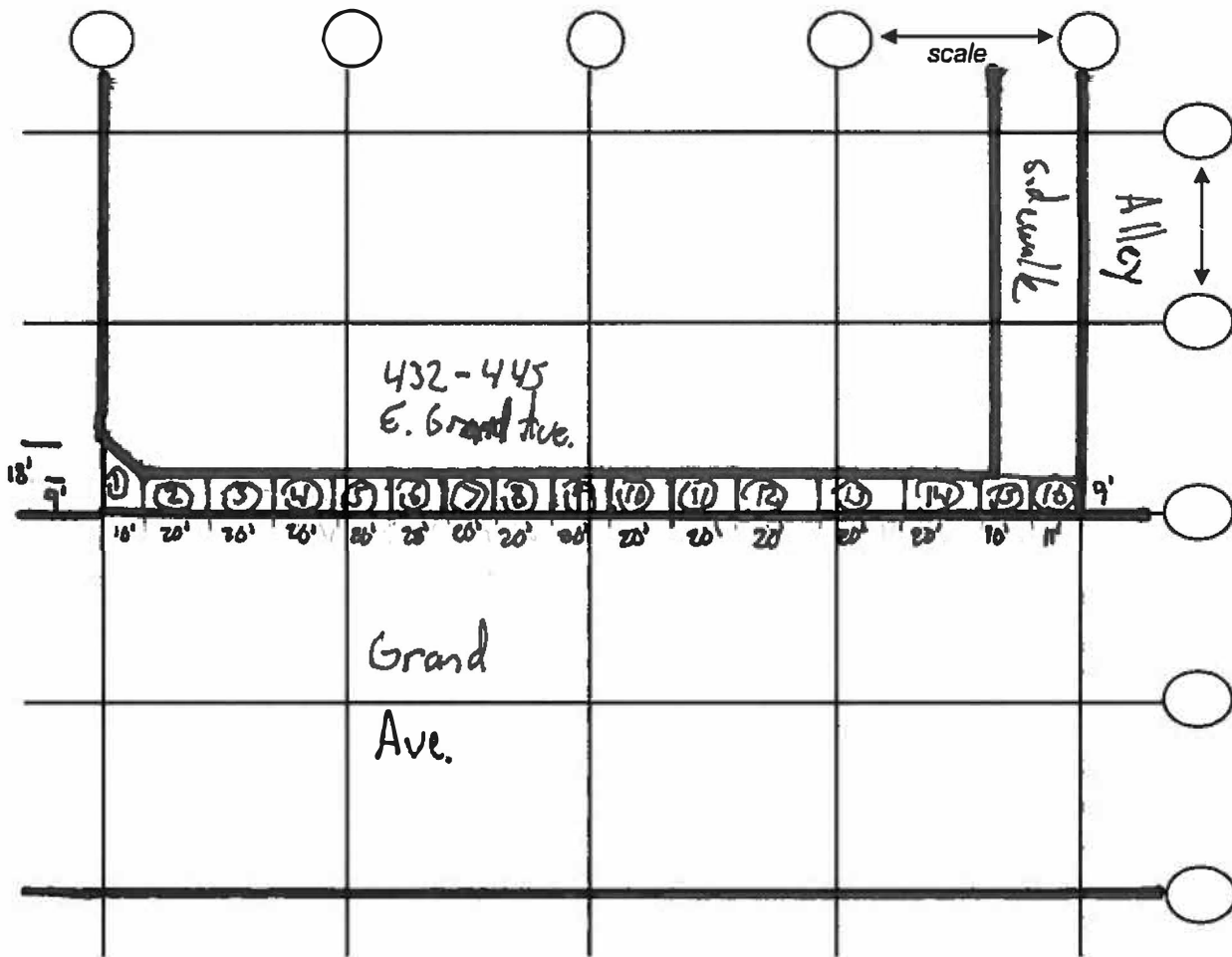
Probe Type: 1"x1" NaI 2"x2" NaI
Shielded / Not Shielded

Lift Elevation: Surface to -12" BGS

Background 2,082 cpm

Action Level: 6,995 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.



	Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	Area 7	Area 8
0-12"	1700	1600	2000	1800	1700	1800	2000	1700
	Area 9	Area 10	Area 11	Area 12	Area 13	Area 14	Area 15	Area 16
0-12"	1600	2400	2500	2100	2200	1700	1700	1900