

January 28, 2020

Paul Muszynski
Electric Conduit Construction
816 Hicks Drive
Elburn, IL 60119

RE: Thorium Monitoring 255-318 E. Grand Ave. (E. Grand Ave. & N. Columbus Dr.)
CDOT Permit #1195184

Dear Mr. Muszynski:

Stan A. Huber Consultants, Inc (SAHCI) was hired by your firm to provide radiation monitoring during the excavation and installation of a fiber optic conduit at 255-318 E. Grand Avenue in Chicago, Illinois. The monitoring was performed by Brian Schmidt, SAHCI Health Physics Technician on January 22 – January 27, 2020.

Instrumentation

Surface gamma scans were performed using a Ludlum Model 2221 Scaler / Ratemeter (serial no. 132844) with attached Ludlum Model 44-10 2"x2" NaI Detector (w/ 6" collimated lead shield). The instrument was last calibrated on August 6, 2019. The US Environmental Protection Agency (USEPA) action level of 7.1 picocuries per gram (pCi/g) total thorium for this instrument is 7,299 counts per minute (cpm).

The background count rate for this location was measured as 1,921 cpm (average).

Soil Gamma Scans

Gamma surface scans were performed using the Ludlum Model 2221 Scaler / Ratemeter described above. Survey data was collected by entering the excavation trench and recording the highest count rate for the floor and walls to a maximum excavation depth of 3 feet below ground surface. All excavated material was loaded directly into a truck for offsite disposal.

The maximum gamma count rate for each lift was recorded on the attached Radiation Survey Form. The count rates in the excavation ranged from 1,200 cpm to 5,800 cpm. No count rates were found at any time that exceeded the threshold limit of 7,299 cpm.

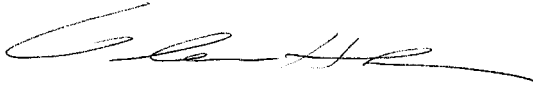
Additional Monitoring

Since no count rates were 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.

A handwritten signature in black ink, appearing to read "Glenn Huber", with a long horizontal flourish extending to the right.

Glenn Huber, CHP
President

Radiation Survey Form

Location/ Project ID: ECC - GRAND AVE & COLUMBUS DR - FIBER INSTALL - ROW RADIOLOGICAL SOIL SURVEY

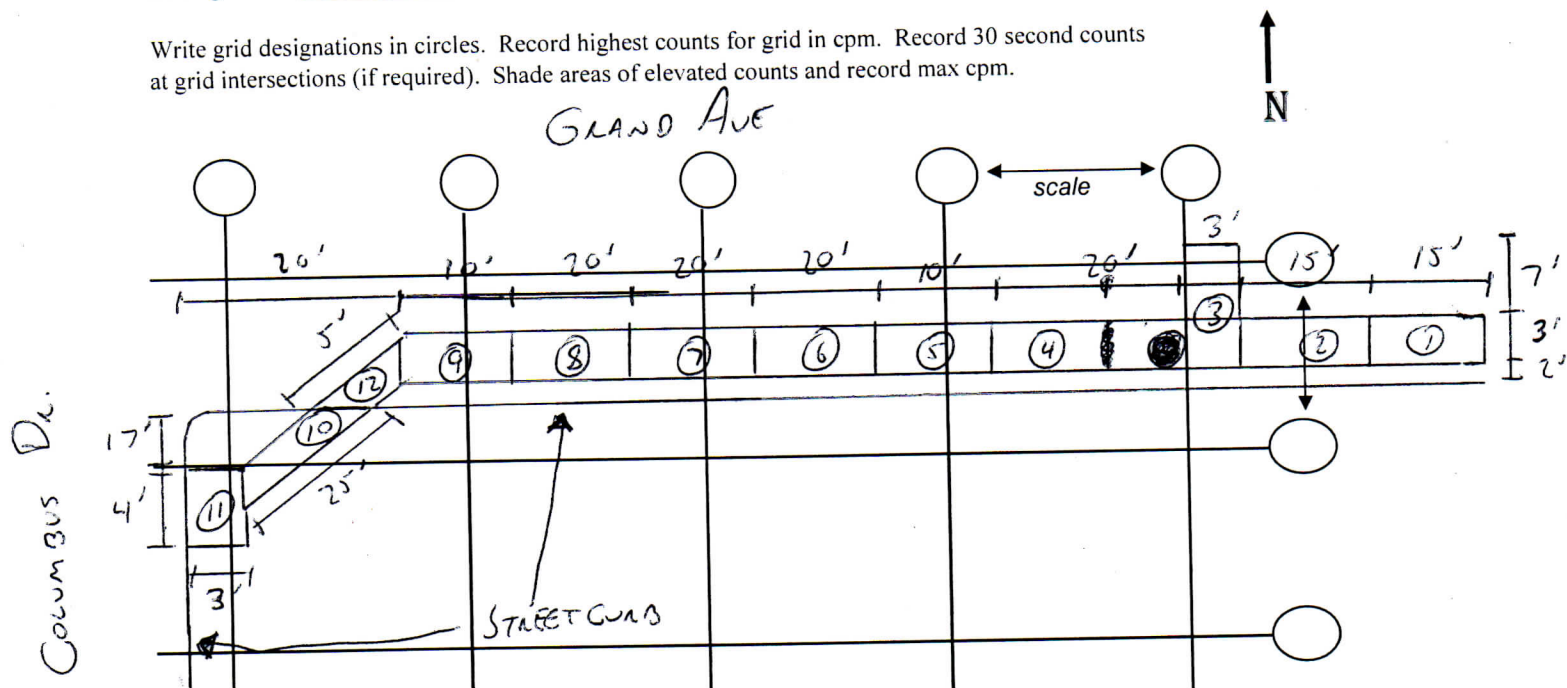
Date: 1/22-27/2020 Technician: BRIAN SCHMIDT

Inst Model: Ludlum - 2221 Serial No.: 132844

Probe Type: 1"x1" NaI / 2"x2" NaI Lift Elevation: 0-36"
Shielded / Not Shielded

Background 1921 cpm Action Level: 7299 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.



ID	DEPTH	CPM	ID	DEPTH	CPM	ID	DEPTH	CPM	ID	DEPTH	CPM
①	0-12"	1500	④	0-12"	1500	⑦	0-12"	2600	⑩	0-12"	1600
	12-30"	1900		12-30"	1600		12-30"	3300		12-30"	1800
	30-48"	2500		30-48"	3300		30-48"	4600		30-48"	2100
	36-54"	2600		36-54"	4600		36-54"	5500		36-54"	2700
②	0-12"	1300	⑤	0-12"	1500	⑧	0-12"	1800	⑪	0-12"	1300
	12-30"	2000		12-30"	1700		12-30"	3000		12-30"	1800
	30-48"	2800		30-48"	3500		30-48"	4100		30-48"	2300
	36-54"	2900		36-54"	4300		36-54"	5800		36-54"	3200
③	0-12"	1200	⑥	0-12"	2000	⑨	0-12"	1500	⑫	0-12"	1900
	12-30"	1400		12-30"	3200		12-30"	2800		12-30"	2400
	30-48"	2000		30-48"	4400		30-48"	2900		30-48"	2500
	36-54"	2500		36-54"	5000		36-54"	2900		36-54"	2800