



June 15, 2021

Angel Camacho
SET Environmental
450 Sumac Road
Wheeling, Illinois 60090

RE: Thorium Monitoring – 233 E. Riverwalk Electrical Service (E. Lower Wacker & N. Lower Stetson Ave)
City of Chicago Dept. of Assets, Information, and Services (AIS)
CDOT Permit: 1427678

Dear Mr. Camacho:

Stan A. Huber Consultants, Inc (SAHCI) was hired by your firm to provide radiation monitoring during the excavation for an electrical conduit installation to provide service to 233 E. Riverwalk. The monitoring was performed by Brian Schmidt, SAHCI Health Physics Technician, from May 26, 2021, through June 7, 2021. All activities were conducted under the guidance of document *SET General Procedure for Thorium Monitoring*.

Instrumentation

Surface gamma scans were performed using a Ludlum Model 2221 Scaler / Ratemeter (serial no. 126496) with attached Ludlum Model 44-10 2"x2" NaI Detector (w/ 6" collimated lead shield). The instrument was calibrated on April 21, 2021. The US Environmental Protection Agency (USEPA) action level of 7.1 picocuries per gram (pCi/g) total thorium for this instrument is 6,754 counts per minute (cpm).

The average background count rate for these locations was measured at 1,752 cpm.

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 and recording the highest count rate for the floor and walls to a maximum depth of 48 inches below ground surface. Excavated material was loaded into trucks for offsite disposal and was not stockpiled onsite.

The maximum gamma count rate for each lift was recorded on the attached Radiation Survey Form. The count rates in the excavation ranged from 1,400 cpm to 2,900 cpm. No count rates were found at any time that exceeded the threshold limit of 6,754 cpm.

Additional Monitoring

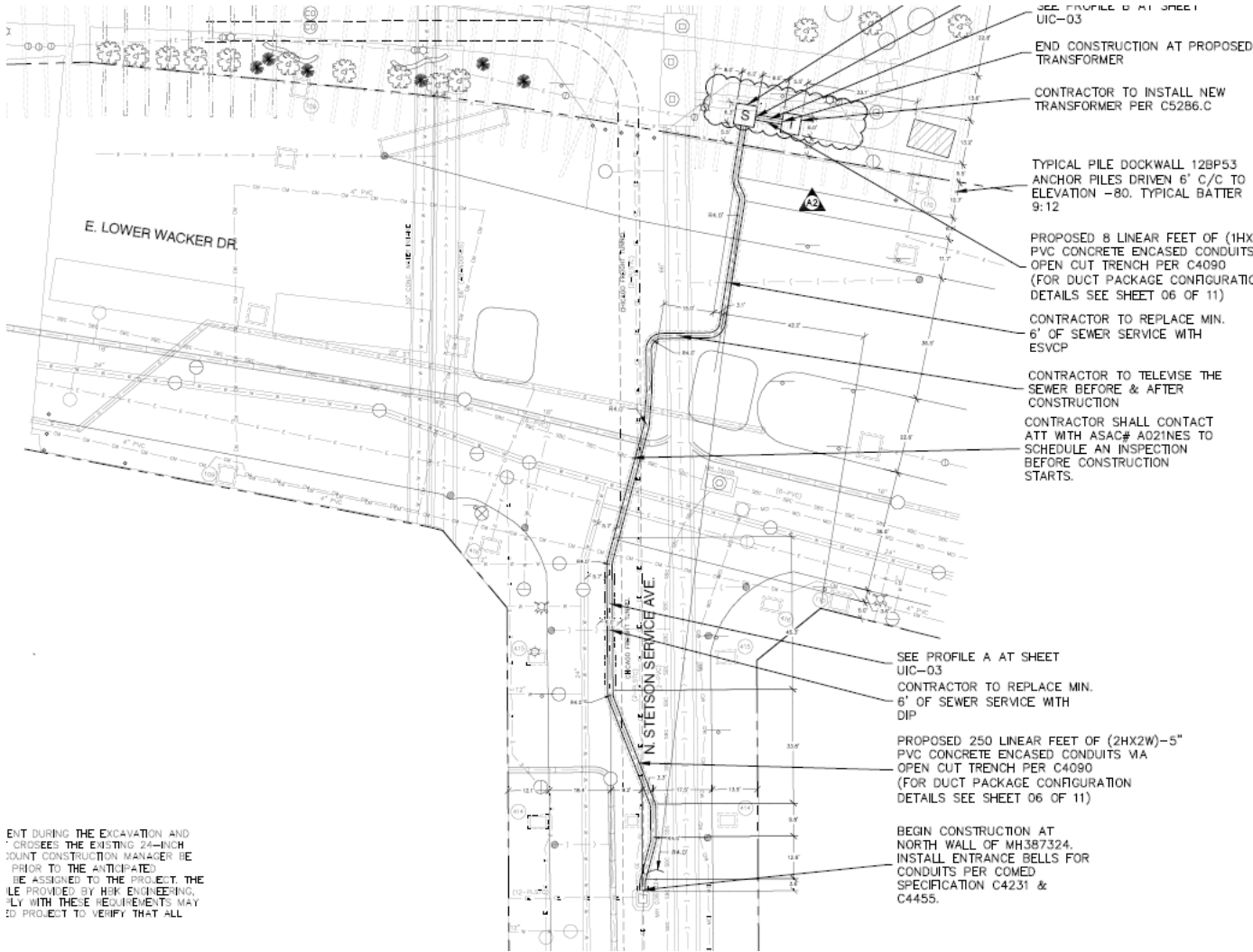
Since no count rates were identified above the 7.1 pCi/gram threshold limit, no additional soil sampling, air monitoring, or personnel monitoring were performed.

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.

Glenn Huber, CHP
President



SEE PROFILE B AT SHEET UIC-03

END CONSTRUCTION AT PROPOSED TRANSFORMER

CONTRACTOR TO INSTALL NEW TRANSFORMER PER C5286.C

TYPICAL PILE DOCKWALL 12BP53 ANCHOR PILES DRIVEN 6' C/C TO ELEVATION -80. TYPICAL BATTER 9:12

PROPOSED 8 LINEAR FEET OF (1HX2W)-5" PVC CONCRETE ENCASED CONDUITS VIA OPEN CUT TRENCH PER C4090 (FOR DUCT PACKAGE CONFIGURATION DETAILS SEE SHEET 06 OF 11)

CONTRACTOR TO REPLACE MIN. 6" OF SEWER SERVICE WITH ESVCP

CONTRACTOR TO TELEWISE THE SEWER BEFORE & AFTER CONSTRUCTION

CONTRACTOR SHALL CONTACT ATT WITH ASAC# A02INES TO SCHEDULE AN INSPECTION BEFORE CONSTRUCTION STARTS.

SEE PROFILE A AT SHEET UIC-03

CONTRACTOR TO REPLACE MIN. 6" OF SEWER SERVICE WITH DIP

PROPOSED 250 LINEAR FEET OF (2HX2W)-5" PVC CONCRETE ENCASED CONDUITS VIA OPEN CUT TRENCH PER C4090 (FOR DUCT PACKAGE CONFIGURATION DETAILS SEE SHEET 06 OF 11)

BEGIN CONSTRUCTION AT NORTH WALL OF MH387324. INSTALL ENTRANCE BELLS FOR CONDUITS PER COMED SPECIFICATION C4231 & C4455.

ENT DURING THE EXCAVATION AND PROCEEDS THE EXISTING 24-INCH JOINT CONSTRUCTION MANAGER (IE PRIOR TO THE ANTICIPATED BE ASSIGNED TO THE PROJECT. THE LE PROVIDED BY H&K ENGINEERING, LY WITH THESE REQUIREMENTS MAY ED PROJECT TO VERIFY THAT ALL

- 1. SUB
- 2. 394 REL EMB LOC OR LOC
- 3. ADJ UTIL CON UNC EMB
- 4. CON EMB
- 5. WOP POS I/E
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Radiation Survey Form

Location/ Project ID: INSTAEN - RIVERWALK ELECTRICAL SERVICE INSTALLATION - ROW RADIOLOGICAL SOIL SURVEY

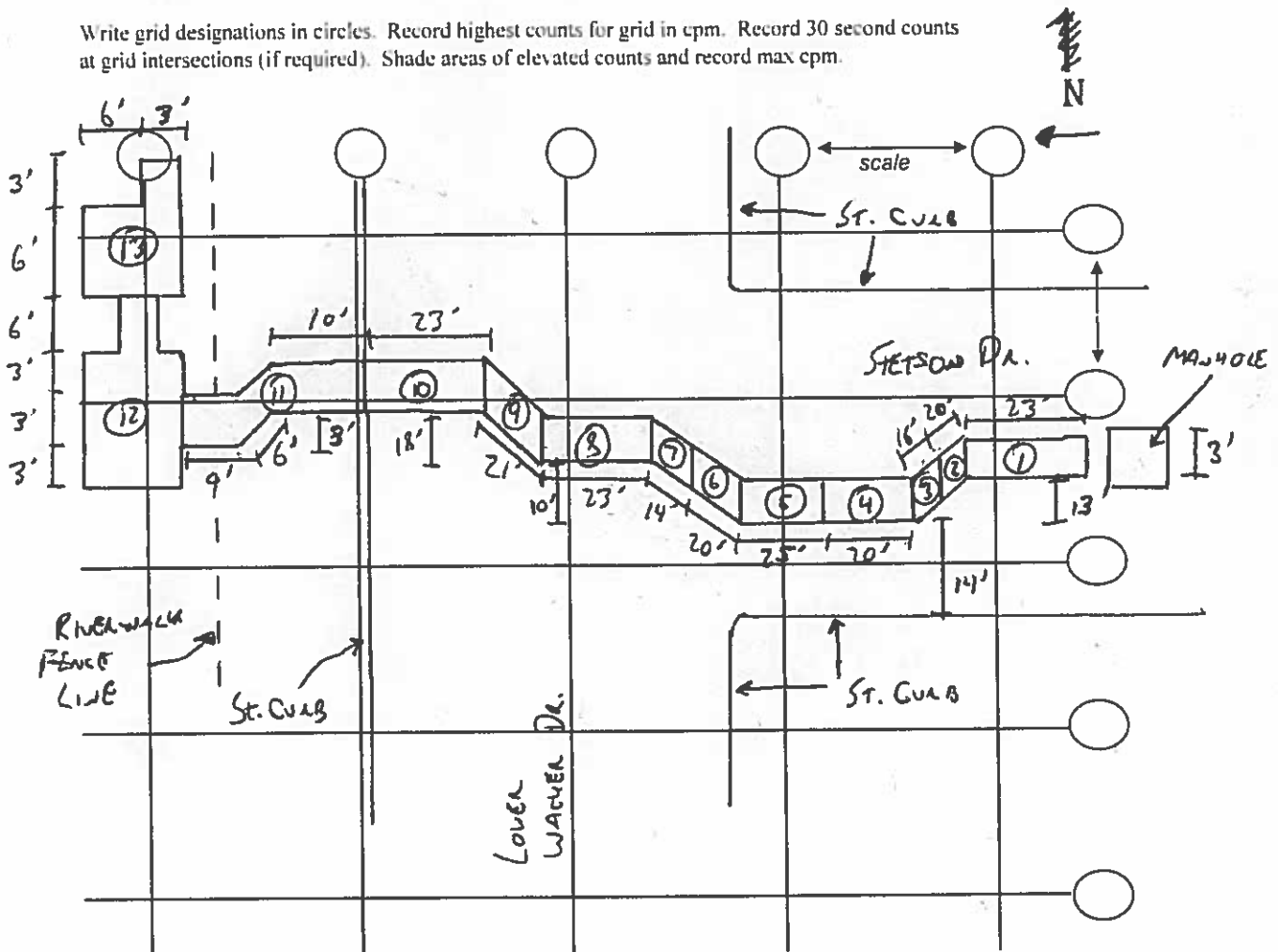
Date: 5/26 - 6/7/2021 Technician: BRIAN SCHMIDT

Inst Model: Lucum - 2221 Serial No.: 126496

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

Background 1752 cpm Action Level: 6754 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.



Radiation Survey Form

Location/ Project ID: INTREN - RIVERWALK ELECTRICAL SERVICE INSTALLATION - ROW RADIOLOGICAL SOIL SURVEY

Date: 5/26 - 6/7/2021 Technician: BRIAN SCHMIDT

Inst Model: Wojan-2221 Serial No.: 126496

Probe Type: 1"x1" NaI / 2"x2" NaI Lift Elevation: 0-48"
Shielded / Not Shielded

Background 1752 cpm Action Level: 6754 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.



Excavation ID	Depth	cpm	Excavation ID	Depth	cpm	Excavation ID	Depth	cpm
①	0-12"	1400	⑦	0-12"	1400	⑬	0-18"	2500
	12-30"	2100		12-30"	1800		18-36"	2700
	30-48"	2300		30-48"	2300		36-54"	2900
	48-66"	2700		48-66"	2300			
②	0-12"	1800	⑧	0-12"	2100			
	12-30"	2300		12-30"	2400			
	30-48"	2100		30-48"	2600			
	48-66"	1900		48-66"	2900			
③	0-12"	1600	⑨	0-12"	1600			
	12-30"	1600		12-30"	2000			
	30-48"	1700		30-48"	2300			
	48-66"	2000		48-66"	2400			
④	0-12"	1800	⑩	0-12"	1900			
	12-30"	2200		12-30"	2200			
	30-48"	2300		30-48"	2400			
	48-66"	2900		48-66"	2400			
⑤	0-12"	1700	⑪	0-12"	1900			
	12-30"	2100		12-30"	2200			
	30-48"	2500		30-48"	2400			
	48-66"	2400		48-66"	2600			
⑥	0-12"	1500	⑫	0-18"	2300			
	12-30"	2200		18-36"	2400			
	30-48"	2600		36-54"	2600			
	48-66"	2800						