Stan A. Huber Consultants, Inc.
Health Physics and Radiation Safety Services

200 North Cedar Road – New Lenox, Illinois 60451-1751 – (800) 383-0468 or (815) 485-6161 – FAX (815) 485-4433 – Email sahci@sahci.com – Home Page www.sahci.com

April 21, 2022

Angel Camacho
SET Environmental
450 Sumac Road
Wheeling, Illinois 60090

RE: Thorium Monitoring – 233 E. Chicago Riverwalk (Northman)
City of Chicago Dept. of Assets, Information, and Services (AIS)
CDOT Permit: N/A

Dear Mr. Camacho:

Stan A. Huber Consultants, Inc (SAHCI) was hired by your firm to provide radiation monitoring for landscaping and a paver patio installation at 233 E. Chicago Riverwalk (Northman Beer and Cider Garden). Monitoring was performed on April 14, 2022, by Brian Schmidt, SAHCI Health Physics Technician. All activities were conducted under the guidance of document *SET General Procedure for Thorium Monitoring.*

The surveys were performed a day prior to the planned work due to the excavations being less than 18 inches below ground surface.

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 both 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 6,383 counts per minute (cpm).

The average background count rate for this location was 1,929 cpm.

Soil Gamma Scans

Gamma surface scans were performed using the Ludlum Model 2221 Scaler / Ratemeter described above. Survey data was collected by scanning the surface of each planned excavation area and recording the highest count rate.

The maximum gamma count rate for each location was recorded on the attached Radiation Survey Form. The count rates ranged from 2,300 cpm to 3,300 cpm. No count rates were found at any time that exceeded the threshold limit of 6,383 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

sahci
Stan A. Huber Consultants, Inc.

Radiation Survey Form

Location/ Project ID: THE NORTHLAND - RIVERWALK

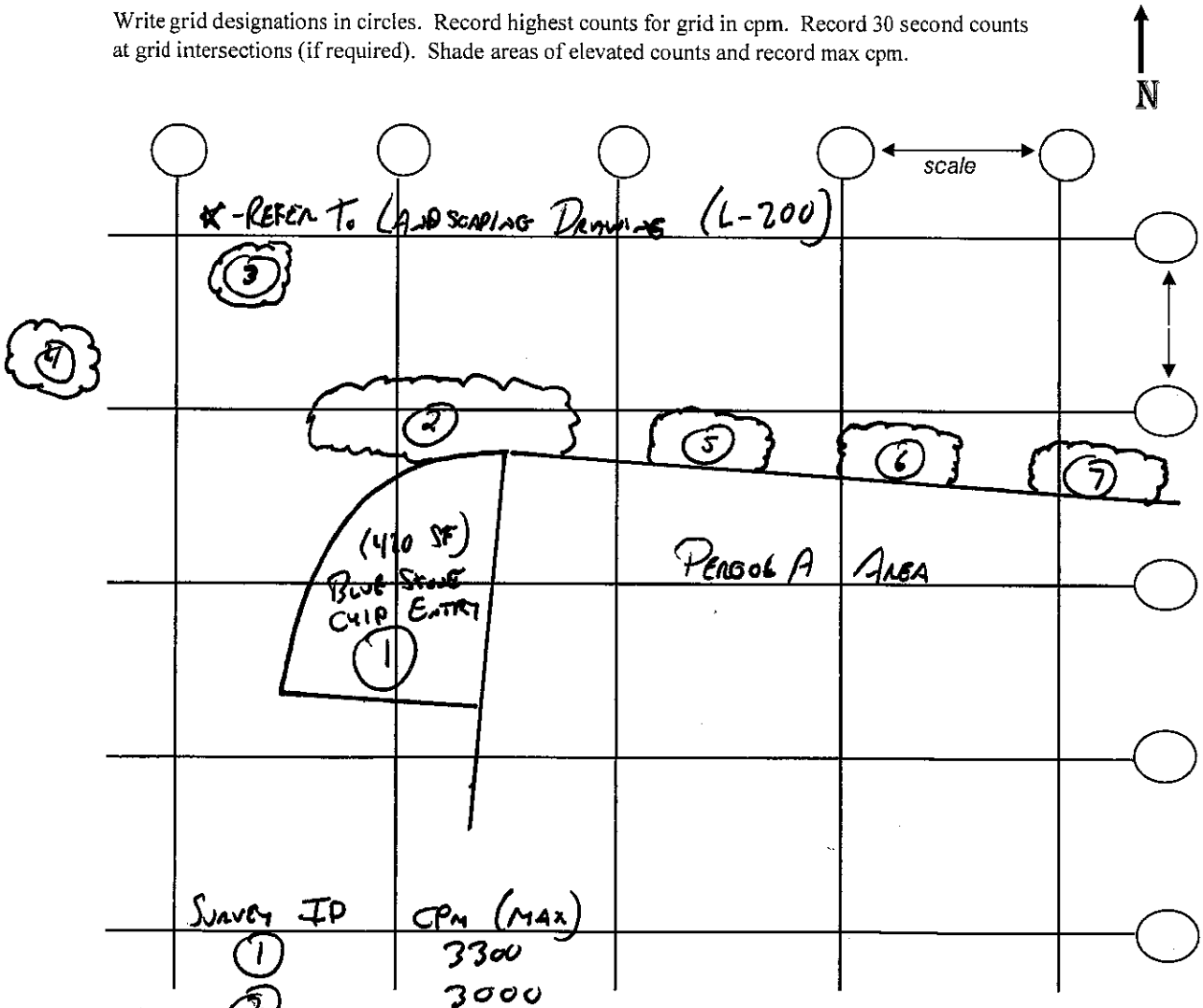
Date: 4/14/2022 **Technician:** BRIAN SCHMIDT

Inst Model: LUDLUM-2221 **Serial No. :** 126497

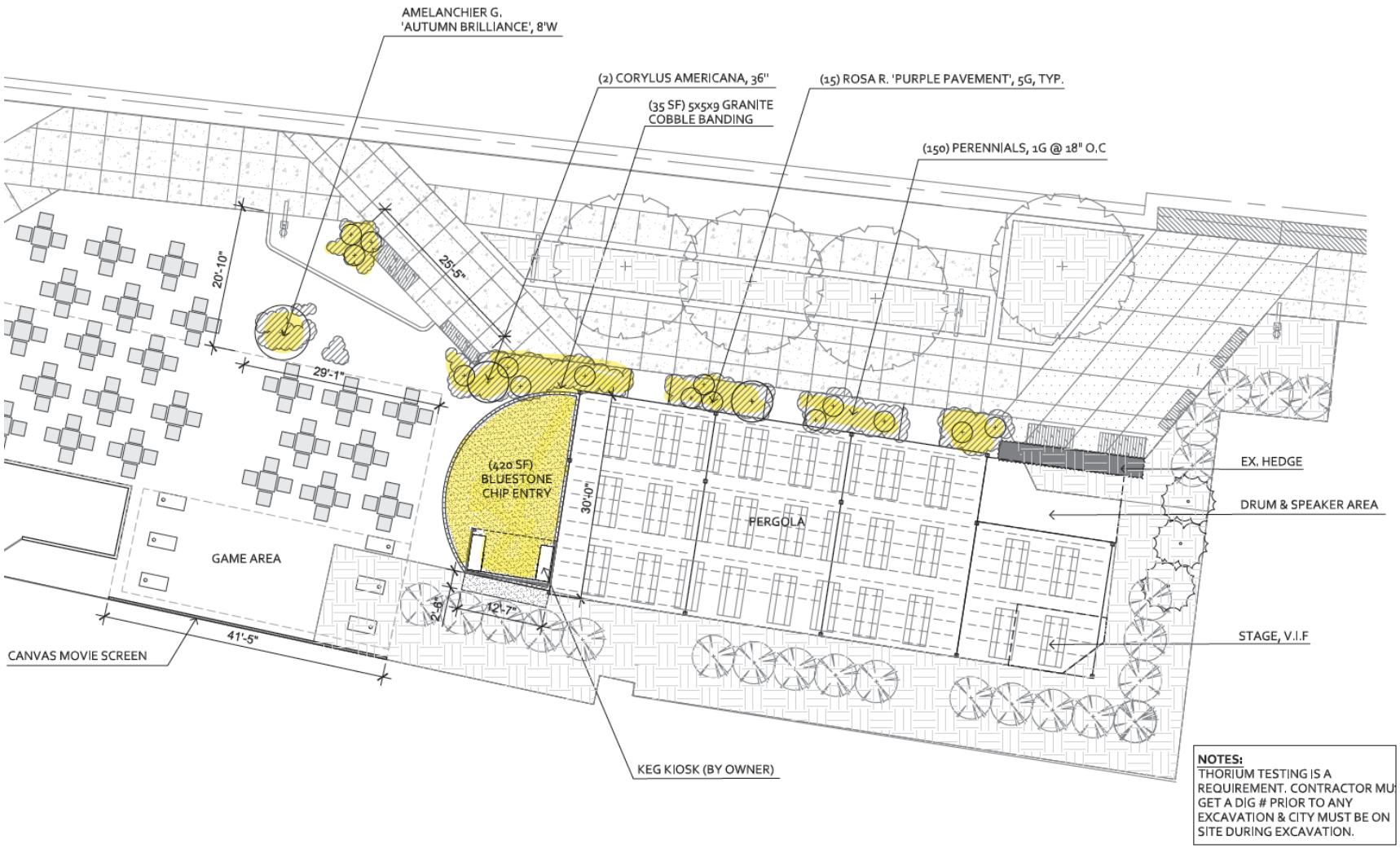
Probe Type: 1"x1" NaI / (2"x2" NaI) **Lift Elevation:** 0-18"
(Shielded) / Not Shielded

Background 1929 **cpm** **Action Level:** 6383 **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.



SURVEY ID	CPM (MAX)
1	3300
2	3000
3	2300
4	2700
5	3300
6	2700
7	2400



NOTES:
THORIUM TESTING IS A REQUIREMENT. CONTRACTOR MU GET A DIG # PRIOR TO ANY EXCAVATION & CITY MUST BE ON SITE DURING EXCAVATION.