



November 9, 2021

Nicole Espinoza
Electric Conduit Construction
3333 S. Iron St.
Chicago, IL 60608

RE: Thorium Monitoring – Concrete Sidewalk Removal 500-659 N. St. Clair St.
CDOT Permit: 1402241

Dear Ms. Espinoza:

Stan A. Huber Consultants, Inc (SAHCI) was hired by your firm to provide radiation monitoring during the removal for replacement of portions of existing sidewalks at 500-659 N. St. Clair St. in Chicago, Illinois. This sidewalk repair work is part of the RCN line installation that was completed in June 2021. The monitoring was performed by Brian Schmidt and Glenn Huber on November 2 through November 4, 2021.

Instrumentation

Surface gamma scans were performed using a Ludlum Model 2221 Scaler / Ratemeters (serial no. 126497 and 134542) with attached Ludlum Model 44-10 2"x2" NaI Detectors (w/ 6" collimated lead shields). The instruments were calibrated on May 5, 2021. The US Environmental Protection Agency (USEPA) action level of 7.1 picocuries per gram (pCi/g) total thorium instrument 126497 is 6,383 counts per minute (cpm) and 7,396 cpm for instrument 134542.

The average background count rate for this location ranged from 1,819 cpm to 1,830 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 both before and after the existing concrete sidewalk (maximum 6" depth) was removed and recording the highest count rate for each section. All concrete was loaded directly into a truck for disposal.

The maximum gamma count rates for the single lifts were recorded on the attached Radiation Survey Forms. The count rates ranged from 1,400 cpm to 5,100 cpm. No count rates were found at any time that exceeded the threshold action level of 6,383 cpm and 7,396 cpm, respectively.

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: SCS - ST. CLAIR ST. - SIDEWALK REPLACEMENT - ROW RADIOLOGICAL
Soil Survey

Date: 11/2-4/2021

Technician: BRITA SCHMIDT

Inst Model: LOWLUM-2221

Serial No.: 126497

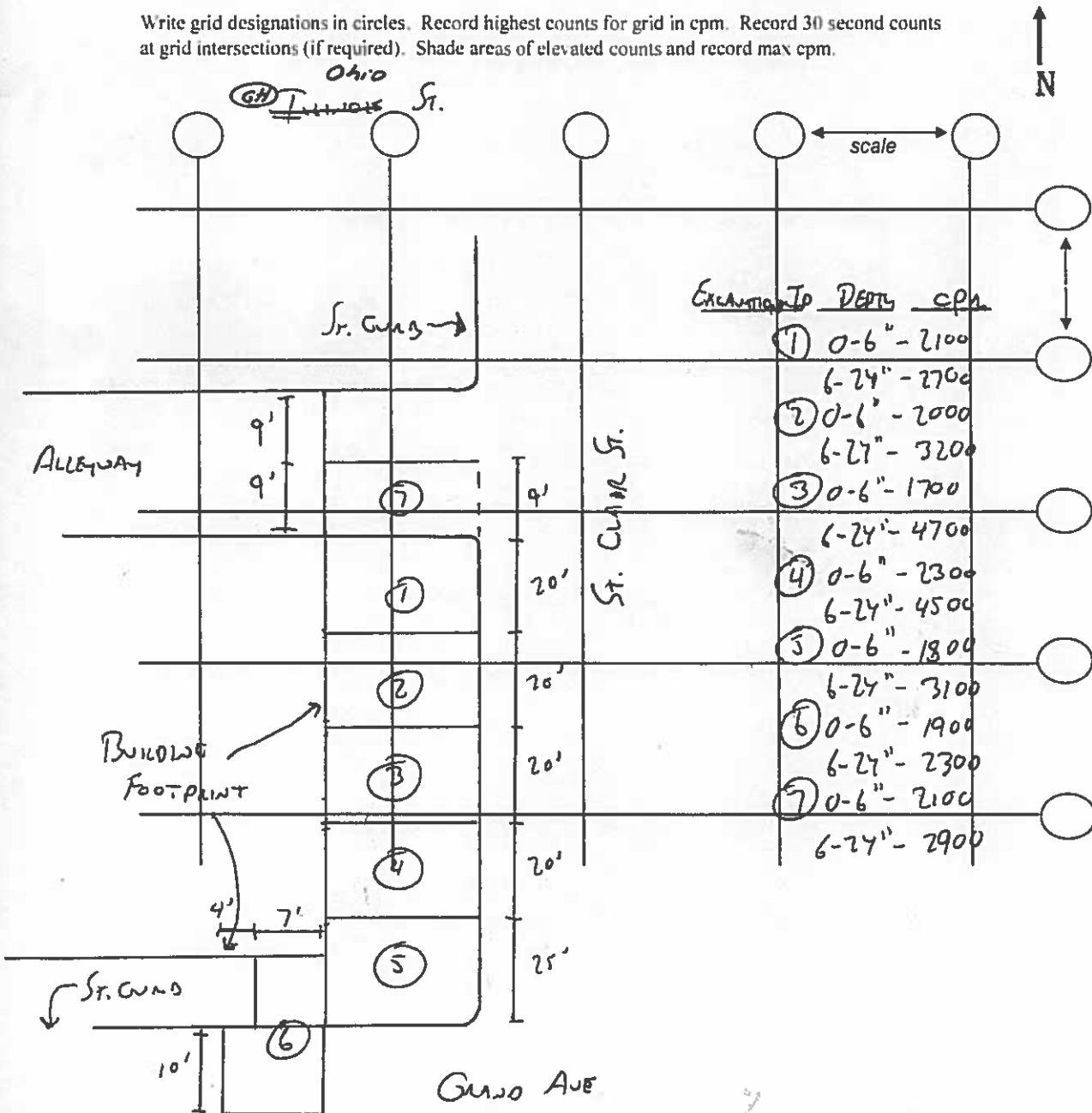
Probe Type: 1"x1" NaI / 2"x2" NaI
Shielded / Not Shielded

Lift Elevation: 0'6"

Background 1819 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.



Radiation Survey Form

Location/ Project ID: SGS - St. Clair St. - Sidewalk Replacement - ROW Radiological Soil Survey

Date: 11/2-4/2021

Technician: BRIAN SCHMIDT

Inst Model: LOWLUM-2221

Serial No.: 121497

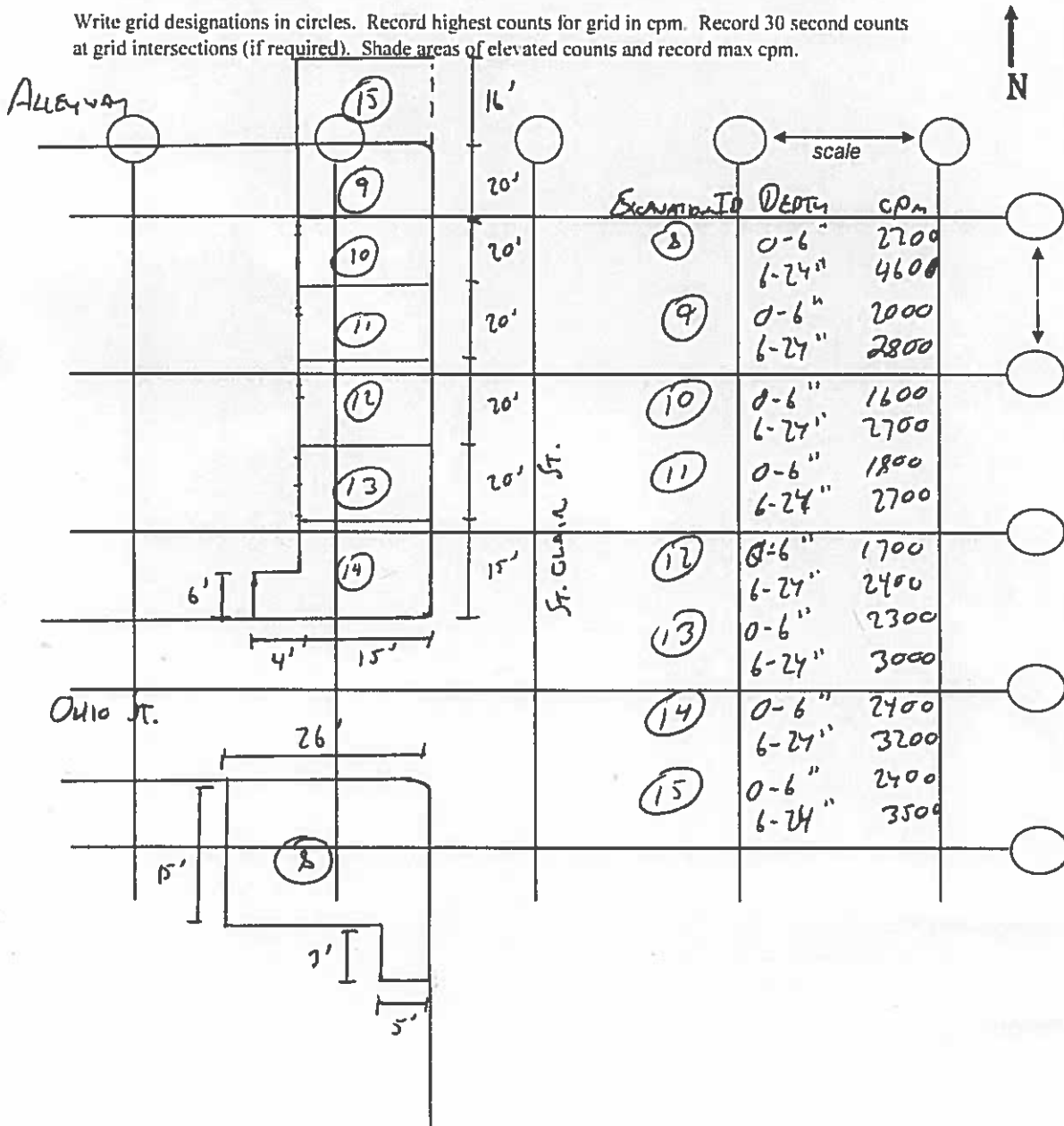
Probe Type: 1"x1" NaI / 2"x2" NaI
Shielded / Not Shielded

Lift Elevation: 0-6"

Background 1819 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.



Radiation Survey Form

Location/ Project ID: SGS - SIDEWALK REPLACEMENT - ST. CLAIR ST. - ROW RADIOLOGICAL SOIL SURVEY

Date: 11/2-4/2021

Technician: BRIAN SCHMIDT

Inst Model: LUOVUM-2221

Serial No.: 126497

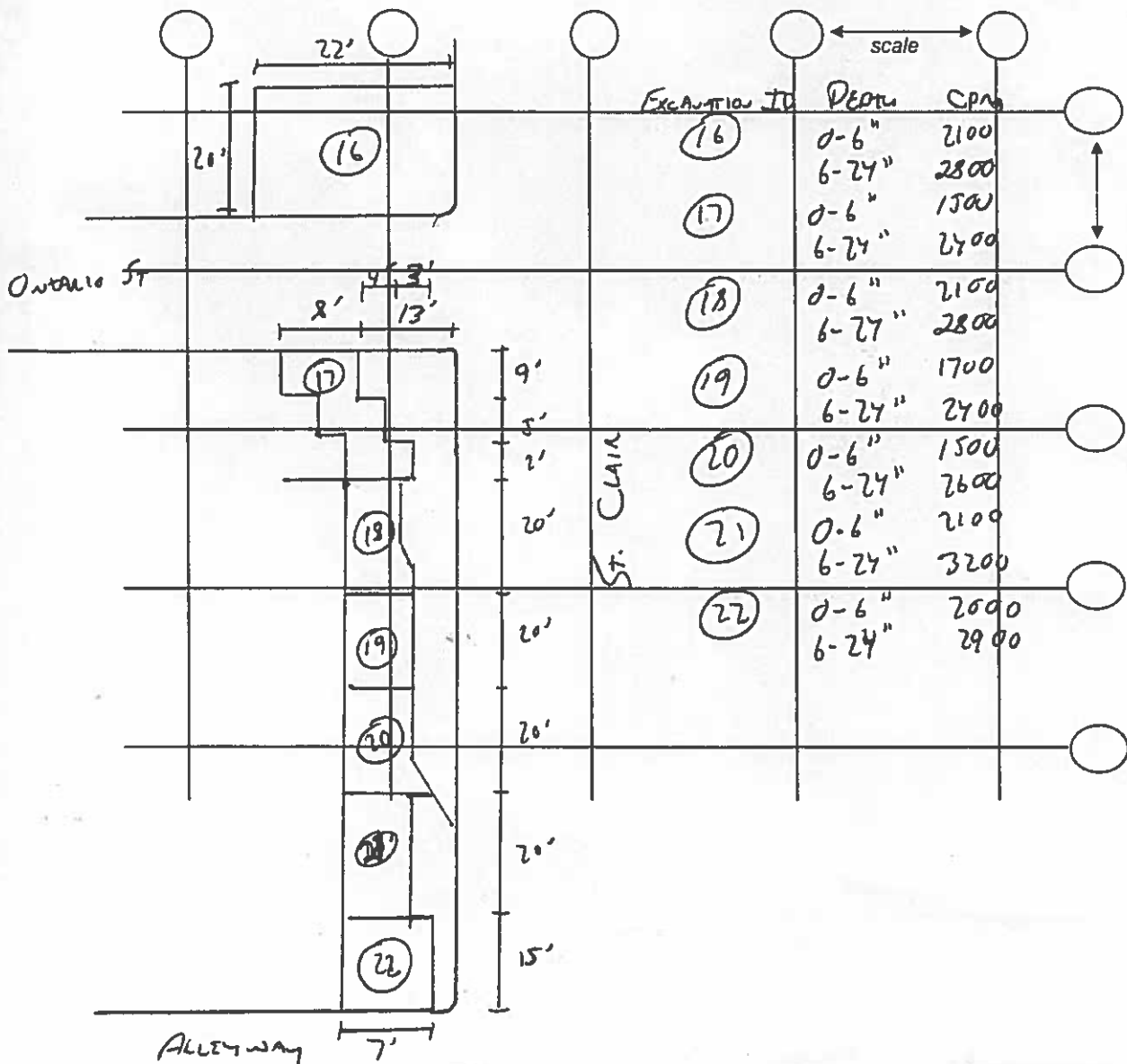
Probe Type: 1"x1" NaI / 2"x2" NaI
Shielded / Not Shielded

Lift Elevation: 0-6"

Background 1819 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.



Radiation Survey Form

Location/ Project ID: SCS - SIDEWALK REPLACEMENT - ST. CLAIR ST. - ROW RADIOLOGICAL SOIL SURVEY

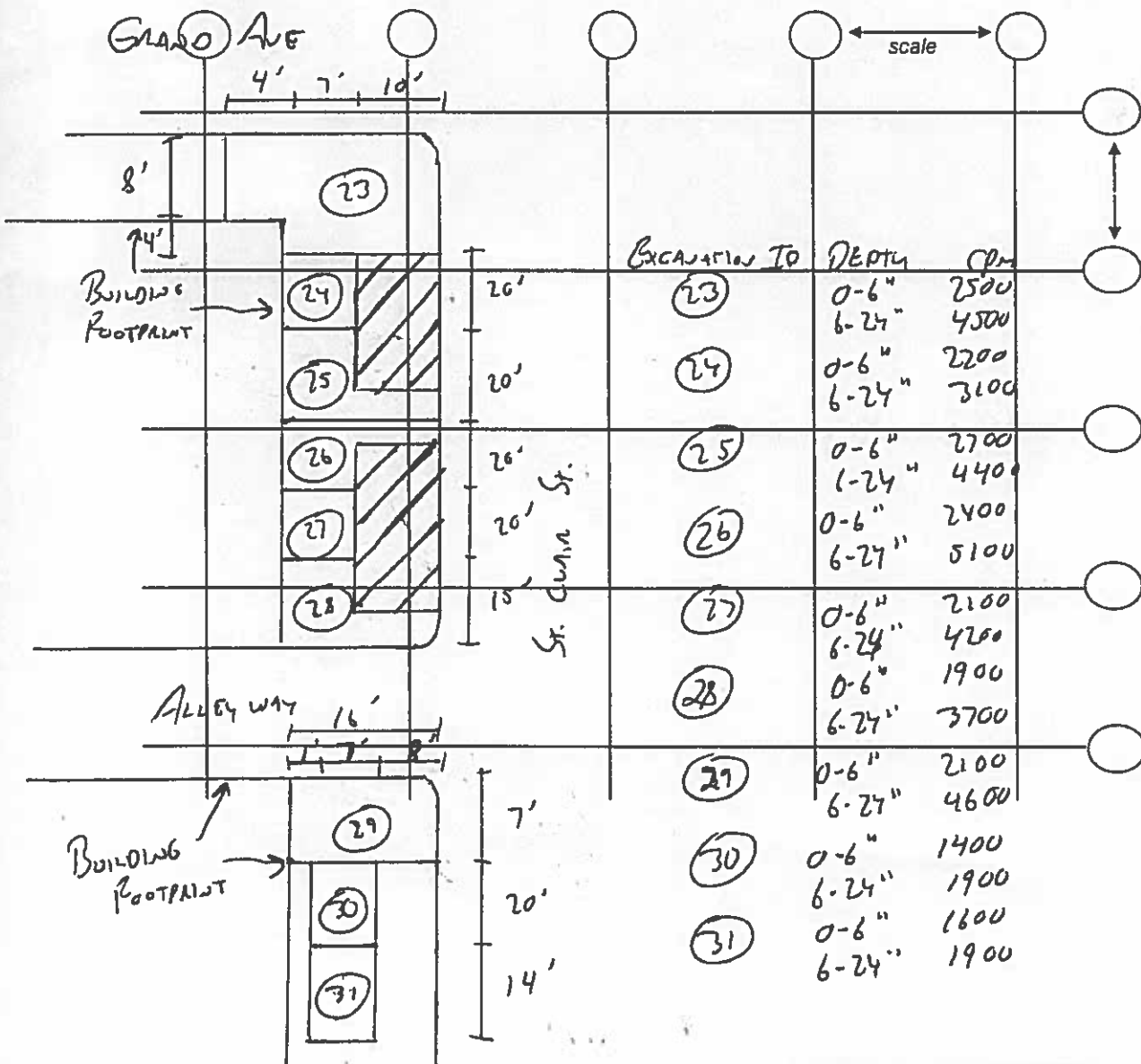
Date: 11/24/2021 Technician: BRIAN SCHMIDT

Inst Model: LOLUM-2221 Serial No.: 126497

Probe Type: 1"x1" NaI (2"x2" NaI) / Shielded / Not Shielded Lift Elevation: 0-6"

Background 1819 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.



Radiation Survey Form

Location/ Project ID: 500-659 N. St. Clair St. ECC CDOT#1402241

Date: 11/4/21

Technician: Glenn Huber

Inst Model: Ludlum 2221

Serial No.: 134542

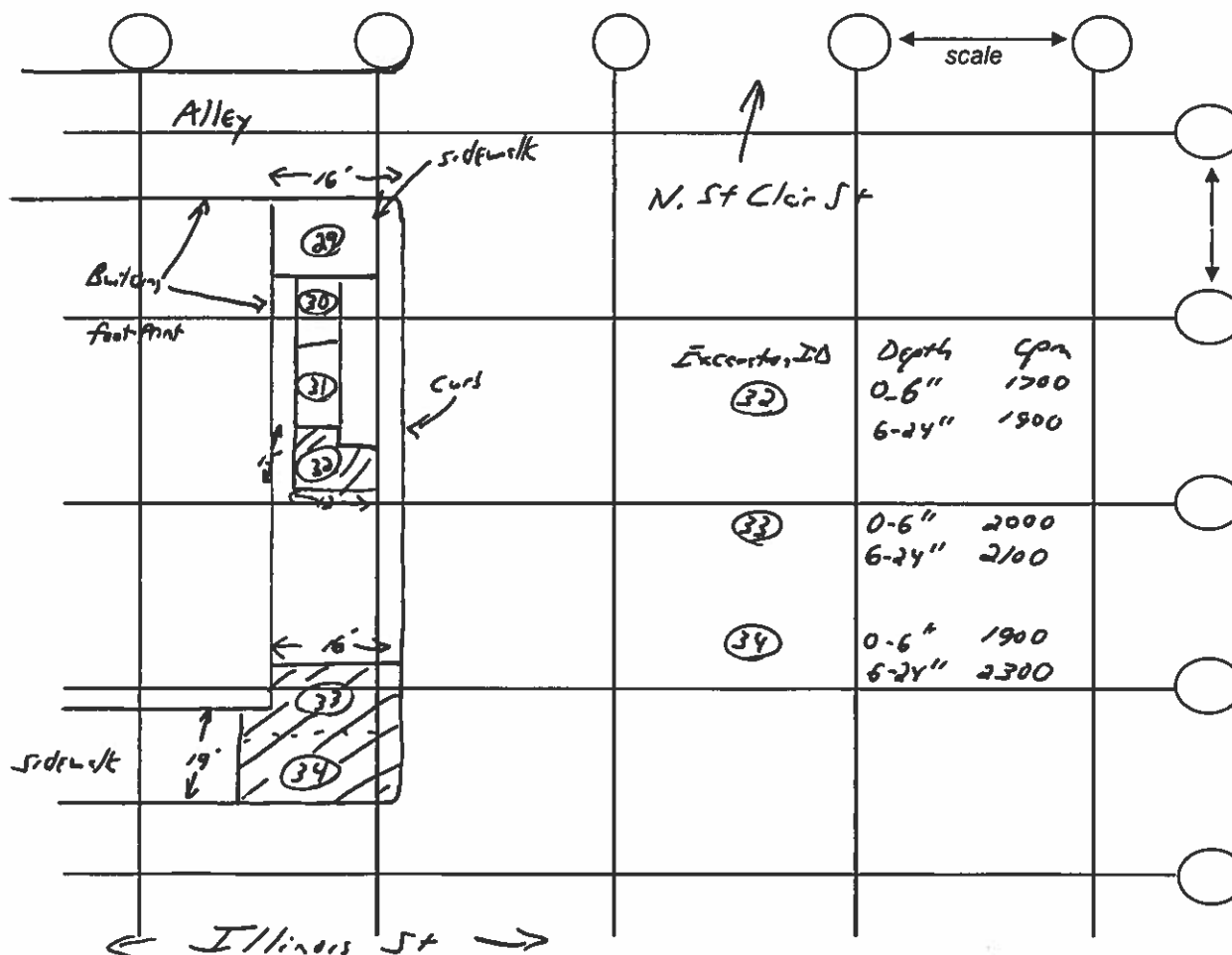
Probe Type: 1"x1" NaI / 2"x2" NaI
Shielded / Not Shielded

Lift Elevation: Surface to 6"

Background 1,830 cpm

Action Level: 7,396 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: 500-659 N. St. Clair St. ECC CDOT#1402241

Date: 11/4/21

Technician: Glenn Huber

Inst Model: Ludlum 2221

Serial No. : 134542

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

Lift Elevation: Surface to -6"

Background 1,830 cpm

Action Level: 7,396 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.

