



AECOM
100 S. Wacker Drive, Suite 500
Chicago, Illinois 60606

312-939-1000 tel
312-939-4198 fax

November 28, 2016

Mr. Jim Steinike
Norman Mechanical Inc.
3850 Industrial Ave.
Rolling Meadows, IL 60008

RE: Radiological Survey of Right-of-Way Utility Excavation
Permit No.: DOT717843
Permit Address: 504-510 N. Peshtigo Ct.
AECOM Project No. 60442737

Dear Mr. Steinike:

Pursuant to conditions specified in a permit (attached) issued by the City of Chicago, radiation monitoring was required to be performed at the above referenced site. AECOM Technical Services, Inc. (AECOM) provided the required radiation monitoring between November 4 and 11, 2016 to install a new water service.

Surveying was conducted at the above referenced address (refer to sketch) during the trench excavation in the Right-of-Way (ROW). The excavation was composed of two parallel trenches spanning the width of N. Peshtigo Ct. into the construction site (510 N. Peshtigo Ct.) and an additional perpendicular trench along the eastern side of the N. Peshtigo Ct. The total length of these trench excavations was approximately 110-feet to a depth of 6.5 to 9.0-feet below ground surface (bgs). The U.S. Environmental Protection Agency (USEPA) removal action level for Chicago's Streeterville area is 7.1 picocuries per gram (pCi/g) total radium (Ra-226 + Ra-228). The monitoring revealed no indication of soil above the removal action level established by the USEPA for the Streeterville area of Chicago.

Gamma radiation count measurements for the project were made using a Ludlum Model 2221 survey meter (S/N: 362720) and a 2 x 2 inch sodium iodide (NaI) probe Model 44-10. For the instrument used, the gamma count indicative of the USEPA removal action level of 7.1 pCi/g was 17,193 counts per minute (cpm) unshielded and 7,097 cpm shielded. The field instrument gamma background for the area was measured at approximately 6,500 cpm unshielded. Field gamma measurements greater than twice the field background represent potential anomalous results that require more cautious and frequent field screening, but are not necessarily indications of the presence of thorium contaminated fill soil. Although none were observed for this project, gamma readings above 17,193 cpm would be considered a potential indication of the presence of radiologically contaminated fill soil.

The field gamma measurements within the excavation and of the spoil materials generated during the excavation process did not exceed the field instrument thresholds equivalent to the USEPA removal action level. The initial gamma readings collected after the removal of asphalt and a layer of granite pavers ranged from 4,700 and 14,300 cpm unshielded. Subsequent readings conducted with a shielded probe mainly ranged from a minimum of 2,000 cpm to a maximum of 4,000 cpm shielded. Several isolated readings were observed to be greater than twice the background readings within the excavation, up to 5,500 cpm shielded, but screening of the spoil derived from these areas were substantially lower and did not exceed USEPA removal action level. Thus, there was no indication of the presence of radiologically-contaminated fill soil and/or an exceedance of the USEPA removal action level of 7.1 pCi/g total radium.

As part of the permit conditions this letter has been forwarded to:

Chicago Department of Public Health
Attn: Ms. Rahmat Begum
333 South State Street, Rm. 200
Chicago, Illinois 60604

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Permit Address: 504-510 N. Peshtigo Ct.
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Please contact us with any questions you have regarding this letter or the reported results.

Regards,



Andrew Kozak
Geologist



Steven C. Kornder, Ph.D.
Senior Project Geoscientist

cc: Rahmat Begum, Chicago Department of Public Health
Verneta Simon, USEPA

Attachments: CDPH Permit
Sketch

PERMIT



DEPARTMENT OF PUBLIC HEALTH
CITY OF CHICAGO

(STREETERVILLE Right-of-Way)

Notice is hereby given that the site you have requested a permit for is recorded with the City of Chicago Department of Public Health (CDPH) as potentially having environmental contamination on the site and adjacent right-of-way. This environmental contamination could present a threat to human health and safety in connection with work performed at the site, or in the adjacent right-of-way, if proper safeguards are not employed.

A file containing detailed information regarding the aforementioned environmental contamination is available for review at CDPH at 333 S. State St., Room 200, Chicago, Illinois 60604 during normal business hours (8:30AM-4:30PM, Monday through Friday). Contact (312) 745-3152 for an appointment. This file must be reviewed and the remainder of this form completed before the permit can be issued if the ground is exposed or excavated. Please note that for some locations, additional health and safety procedures may be required by law.

Please complete the following:

I have reviewed and understand the documents, maintained by CDPH, regarding environmental contamination of the site and adjacent right-of-way. Further, I will ensure that all work at the subject site and adjacent right-of-way, and any monitoring required including but not limited to radiation monitoring, will be performed in a manner that is protective of human health and the environment and in compliance with all applicable local, state, and federal laws, rules, and regulations, especially those pertaining to worker safety and waste management. I will ensure that the results of any radiation monitoring and/or surveying conducted shall be provided to the CDPH and the United States Environmental Protection Agency within two (2) weeks of their completion. If any elevated levels of radioactive material are detected, I will immediately contact the United States Environmental Protection Agency at (800) 424-8802.

Applicant Name (print): Jim Steinike

Signature: *Jim Steinike*

Site Address and Work Location (Describe exact site location and attach map):

Site Address: 451 E Grand Ave., Chicago, IL

(2) openings at 504 - 510 N Peshtigo Ct. Both openings to be 39'x 5'x 5' deep

504 N Peshtigo = 46.6' N of NL of E Illinois St 510 N Peshtigo = 58.6' N of NL

Nature of Work: New water service installations

Norman Mechanical Inc. 647-253-2238

Company Name, Address, Phone No.: 3850 Industrial Ave., Rolling Meadows, IL, 60008

Lend Lease (US) Construction Inc. 312-245-1000

General / Prime Contractor Name, Address, Phone No.: One North Wacker Drive, Suite 850, Chicago, IL, 60606

Include subcontractor information if applicable)

Safety Officer / Phone No. Scott Mladic 312-515-6045

Radiation Contractor / Phone No. and email address (if applicable) ABCOM - Steve Konder 262-515-7700 Steve.konder@aecom.com

Check if City Department Work Department Name: _____

CDOT Permit No.: DOT717843

Today's Date: 10/10/16

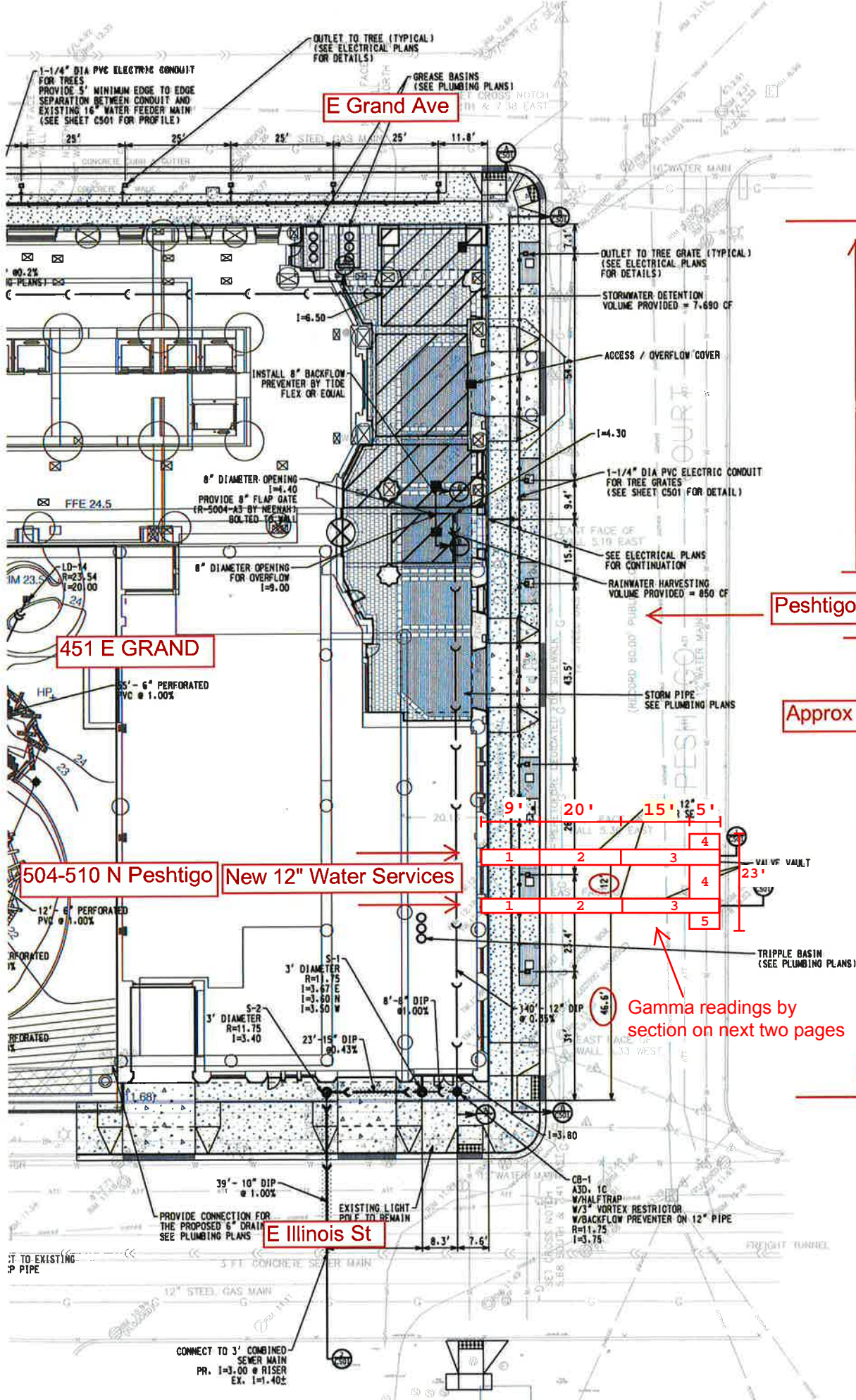
Expected Start Date: 10/19/16

CDPH Approval / Date: *J Sheahan* 10-11-16

Please return this completed form to the Chicago Department of Transportation, Division of Infrastructure Management, Public Way Permit Office, City Hall - Room 905, 121 N. LaSalle St., Chicago, Illinois 60602 during normal business hours (8:30 AM - 4:30 PM, Monday through Friday)

For CDPH Use Only

SKETCH



E Grand Ave

451 E GRAND

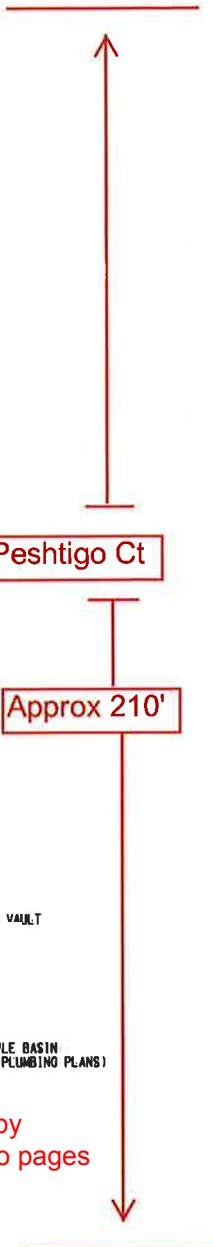
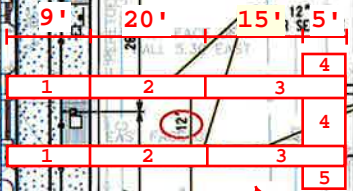
504-510 N Peshtigo New 12" Water Services

E Illinois St

Peshtigo Ct

Approx 210'

Gamma readings by section on next two pages



Survey Equipment

Ludlum 2221 S/N: 326720
Probe 2"x2" NaI S/N: PR360158
unshielded: 17,193 cpm
shielded: 7,097 cpm
background: 6500 cpm
Personnel: Steve Kornder, Kyle Korczak, Genevieve Nemeth

Readings

<u>North Trench</u>	CPM
Depth	
1) 0" (asphalt)	-
12"	5,600-7,100 (unshielded)
18"	2,500-3,600 (shielded)
36"	2,000-2,900 (shielded)
48"-78" (spoil)	1,900-3,300 (shielded)
2) 0" (asphalt)	-
12"	7,200-8,400 (unshielded)
18"	2,100-3,800 (shielded)
36"	2,900-5,500 (shielded)
48"-78" (spoil)	2,400-4,600 (shielded)
3) 0" (asphalt)	
12"	7,000-14,000 (unshielded)
36"	3,000-5,500 (shielded)
54" (spoil)	2,100-2,700 (shielded)
72" (spoil)	2,000-2,600 (shielded)
90" (spoil)	1,900-2,400 (shielded)
108" (spoil)	2,400-3,300 (shielded)
4) 0" (asphalt)	
12"	4,700-11,000 (unshielded)
36"	2,100-2,700 (shielded)
54" (spoil)	2,000-2,600 (shielded)
72" (spoil)	2,000-2,400 (shielded)
90" (spoil)	1,900-2,700 (shielded)

South Trench

Depth	CPM
1) 0"	-
12"-30"	5,600-7,300 (unshielded)
30"	2,100-3,300 (shielded)
36"	1,900-2,600 (shielded)
54" (spoil)	2,000-2,800 (shielded)
72" (spoil)	2,000-3,000 (shielded)
90" (spoil)	1,900-2,400 (shielded)
2) 0"	-
12"-30"	7,300-14,300 (unshielded)
30"	2,100-3,300 (shielded)
36"	2,000-2,600 (shielded)
54" (spoil)	1,900-3,100 (shielded)
72" (spoil)	3,000-4,900 (shielded)
90" (spoil)	1,900-2,500 (shielded)
3) 0"	-
12"	8,200-13,650 (unshielded)
18"	2,000-3,000 (Shielded)
36"	3,000-4,500 (Shielded)
54" (spoil)	2,100-2,700 (Shielded)
72" (spoil)	2,000-2,500 (Shielded)
90" (spoil)	2,100-2,600 (Shielded)
108" (spoil)	2,000-2,700 (Shielded)
4) 0" (asphalt)	-
12"	8,000-12,500 (unshielded)
30"	8,500-12,000 (unshielded)
36"	2,100-2,700 (shielded)
54" (spoil)	2,000-2,400 (shielded)
72" (spoil)	2,400-3,300 (shielded)
90" (spoil)	2,000-2,700 (shielded)
5) 0" (asphalt)	-
12"	2,000-4,700 (shielded)
18"	2,000-3,800 (shielded)
36"	1,900-2,600 (shielded)
54" (spoil)	2,000-2,500 (shielded)
72" (spoil)	2,000-3,100 (shielded)
90" (spoil)	2,100-2,700 (shielded)
108" (spoil)	2,100-2,800 (shielded)