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July 7, 2014

Mr. Dan Martinez  
Project Manager, Lakefront Trail Improvement  
F.H. Paschen  
5515 N. East River Road  
Chicago, IL 60656

RE: Bi-weekly Letter Report Update #5  
Lakefront Trail Improvement, Chicago, IL  
AECOM Project No. 60318016

Dear Mr. Martinez:

Pursuant to conditions specified in permits issued by the City of Chicago, radiation monitoring was required to be performed for the above referenced project. AECOM Technical Services, Inc. (AECOM) provided the required radiation surveillance. The last update was issued on June 17, 2014 and summarized the surveying of excavation work performed between June 2 and 14, 2014. This update letter provides a summary of the radiological surveying performed between June 16 and July 3, 2014.

Gamma radiation count measurements were made using Ludlum Model 2221 survey meter and an unshielded 2 x 2 inch NaI probe (Model 44-10). The U. S. Environmental Protection Agency (USEPA) cleanup value for Chicago's Streeterville area is 7.1 picocuries per gram (pCi/g) total radium (Ra-226 + Ra-228). The field instrument (Serial #172039) gamma count equivalent to 7.1 pCi/g was 19,598 counts per minute (cpm) unshielded. Monitoring between June 2 and 14, 2014 revealed no gamma readings indicative of contaminated fill soil above the clean-up value established by the USEPA for the Streeterville area of Chicago.

#### **Pier 5**

On June 16, 2014 addition excavation of Pier 5 located south of E. Illinois Street was performed to slope the edges of the excavation. For the instrument used, the gamma count threshold indicative of the 7.1 pCi/g cleanup value is 19,958 (cpm) unshielded. The field gamma background for the area is approximately 4,766 cpm unshielded. The field gamma measurements within the excavation and the spoil materials generated during the excavation process did not exceed the instrument threshold previously stated. A maximum reading of 10,000 cpm unshielded was recorded during the excavation. Thus, there was no indication of the presence of radiologically-contaminated material and/or an exceedance of the USEPA cleanup value of 7.1 pCi/g total radium.

#### **Pier 7**

On June 16 and 30, 2014 addition excavation of Pier 7 located south of E. Illinois Street was performed. For the instrument used, the gamma count threshold indicative of the 7.1 pCi/g cleanup value is 19,958 (cpm) unshielded. The field gamma background for the area is approximately 4,766 cpm unshielded. The field gamma measurements within the excavation and the spoil materials generated during the excavation process did not exceed the instrument threshold previously stated. A maximum reading of 9,500 cpm unshielded was recorded during the excavation. Thus, there was no indication of the presence of radiologically-contaminated material and/or an exceedance of the USEPA cleanup value of 7.1 pCi/g total radium.

## **C Wall Footing Pad**

On June 17, 24 and 30, 2014 excavation was continued along the C Wall located south of the overhead ramp from Lake Shore Drive to Illinois Street. For the instrument configuration used, the gamma count equivalent to the 7.1 pCi/g cleanup value is 19,958 (cpm) unshielded. The field gamma background count for the area is approximately 4,766 cpm unshielded. The field gamma measurements within the excavation and the spoil materials generated during the excavation process did not exceed the instrument threshold. Readings of 5,000 to 16,000 cpm unshielded were recorded for this excavation. Thus, there was no indication of the presence of radiologically-contaminated material and/or an exceedance of the USEPA cleanup value of 7.1 pCi/g total radium.

## **North Abutment Footing**

On June 18, 2014 additional excavation of the North Abutment footing located north of the Lake Shore Drive viaduct on Jane Addams Park was performed. The excavation was extended approximately 2 feet wider to facilitate the placement of the footing. For the instrument used, the gamma count threshold indicative of the 7.1 pCi/g cleanup value is 19,958 (cpm) unshielded. The field gamma background for the area is approximately 4,766 cpm unshielded. The field gamma measurements within the excavation and the spoil materials generated during the excavation process did not exceed the instrument threshold previously stated. A maximum reading of 18,000 cpm unshielded was recorded during the excavation. Thus, there was no indication of the presence of radiologically-contaminated material and/or an exceedance of the USEPA cleanup value of 7.1 pCi/g total radium.

## **East Abutment**

On July 2, 2014 additional excavation was required to terrace the excavation in order to provide safe entry/access during the removal of old wood piles. At the surface this extended the excavation to approximately 40-50 feet south of the existing exit ramp and approximately 25-feet west of the exit ramp east abutment. For the instrument used, the gamma count threshold indicative of the 7.1 pCi/g cleanup value is 19,958 (cpm) unshielded. The field gamma background for the area is approximately 6,300 cpm unshielded. Field gamma measurements for the fill soil within the excavation and the spoil generated ranged from 5,800 to 9,000 cpm and did not exceed the instrument threshold previously stated. Therefore, no indication of the presence of radiologically-contaminated material was observed.

## **South Stairs**

On July 3, 2014 additional excavation was required to remove obstructions and locate the position of piles relative to the existing ComEd service. A 20-foot long and 12-foot wide excavation was opened to a depth of about 7-ft bgs. The ComEd service ran approximately through the center of the excavation. For the instrument used, the gamma count threshold indicative of the 7.1 pCi/g cleanup value is 19,958 (cpm) unshielded. The field gamma background for the area is approximately 6,513 cpm unshielded. Field gamma measurements for the fill soil spoil generated ranged from 6,300 to 7,780 cpm. Therefore, no indication of the presence of radiologically-contaminated material was observed.

## **Stairs # 2 Landing**

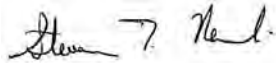
On June 23 and 26, 2014 excavation of Stairs #2 Landing located south of E. Illinois Street was performed. For the instrument used, the gamma count threshold indicative of the 7.1 pCi/g cleanup value is 19,958 (cpm) unshielded. The field gamma background for the area is approximately 4,766 cpm unshielded. The field gamma measurements within the excavation and the spoil materials generated during the excavation process did not exceed the instrument threshold previously stated. A maximum reading of 15,000 cpm unshielded was recorded during the excavation. Thus, there was no indication of the presence of radiologically-contaminated material and/or an exceedance of the USEPA cleanup value of 7.1 pCi/g total radium.

## **Pile 6**

On June 27, 2014 excavation of Pile 6 located south of E. Illinois Street was performed in preparation for the installation of the micropiles. For the instrument used, the gamma count threshold indicative of the 7.1 pCi/g cleanup value is 19,958 (cpm) unshielded. The field gamma background for the area is approximately 6,513 cpm unshielded. The field gamma measurements within the excavation and the spoil materials generated during the excavation process did not exceed the instrument threshold previously stated. A maximum reading of 16,000 cpm unshielded was recorded during excavation. The installation of the micropiles was initiated on July 1 and finished on July 3, 2014. The installation process utilized water. Therefore, the mud from the drilling process was screened after the water drained away from the mud. The gamma readings of the 8-inch layer of mud ranged between 6,300 and 8,100 cpm, which was essentially identical to the readings observed for the surrounding fill soil. Thus, there was no indication of the presence of radiologically-contaminated material and/or an exceedance of the USEPA cleanup value of 7.1 pCi/g total radium.

Please contact us with any questions you have regarding this letter or the reported results.

Regards,



Steve T. Newlin  
Senior Project Geologist

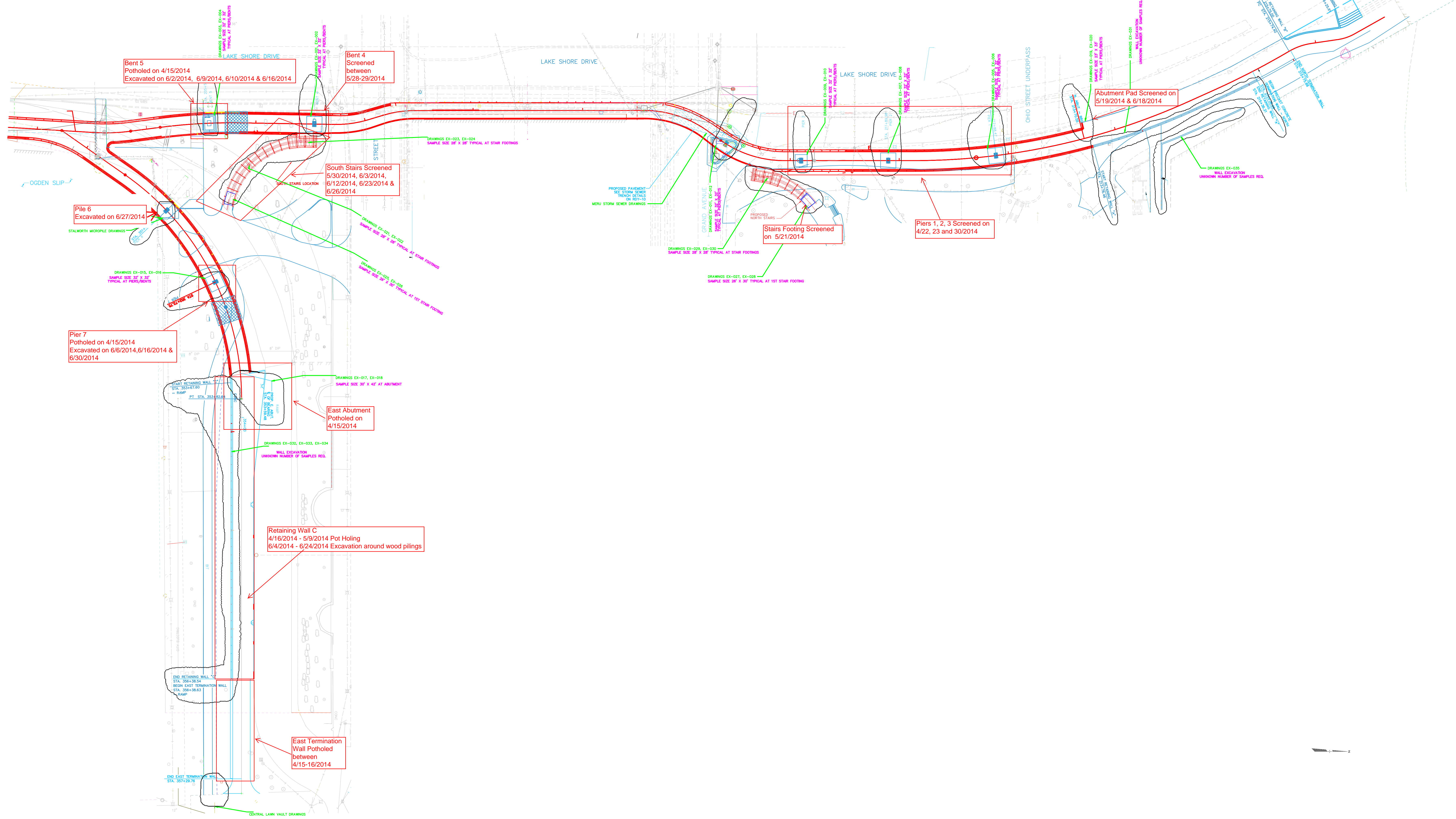


Steven C. Kornder, Ph.D.  
Senior Project Geoscientist

cc: Chris Tryka, F.H. Paschen

Attachments: Location Map

## LOCATION MAP



LAKEFRONT TRAIL IMPROVEMENT  
FROM JANE ADDAMS PARK  
TO OGDEN SLIP

OVERALL PROJECT PLAN  
AECOM EXCAVATION PITS

REVISIONS			
NO.	BY	DATE	DESCRIPTION

	<b>F.H. PASCHEN, S.N. NIELSEN &amp; ASSOCIATES LLC</b> GENERAL CONTRACTORS	
	DATE: 11/11/2013	SCALE: N.T.S.
DRAWING: G-001		