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June 20, 2022

Mr. Shaun Bollers
New York State Department
of Environmental Conservation
Division of Environmental Remediation
47-40 21st Street
Long Island City, New York 11101-5407

Re: **Former Sep's Cleaners**
250 Livonia Ave.
Brooklyn, New York

Dear Mr. Bollers:

Korlipara Engineering/Dermody Consulting is providing this update regarding activities at the above-referenced site.

As discussed, the groundwater monitoring at the site has been deemed complete and the New York State Department of Environmental Conservation (NYSDEC) requested that the site groundwater monitoring wells be abandoned. The two-inch diameter PVC flush-to-grade wells were abandoned on May 16, 2022 by removal of the manholes and j-caps from each well. The wells ranged in depth from 25 to 40 feet below grade. The abandonment was performed by filling each will with bentonite-cement grout. Cement was then placed in the well manhole annulus to grade. The wells included MW-4S, MW-4D, MW-5S, MW-5D, MW-6S, and MW-6D that were located in the rear parking lot, plus three additional wells to the west and northwest of the building that were pre-existing and installed by others.

As per our work plan dated March 15, 2022, a Sub-Slab Depressurization System (SSDS) will be installed within the basement of the building to replace the existing Soil Vapor Extraction System (SVE) that remains in operation for the purpose of acting as an SSDS to prevent soil vapor intrusion at the building. The proposed SSDS will be installed so that the use of SVE can be discontinued.

To determine the effectiveness of the SSDS, a pilot test was performed. This consisted of the installation of two SSDS suction wells (SW-1 and SW-2 as shown on attached Figure

1) along with three vacuum monitoring points (MP-1, MP-2, and MP-3) within the basement of the westernmost store (the deli) within the building.

The suction wells were installed on June 1 and 2, 2022. At each suction well location, a concrete saw was used to remove concrete from a 16 by 16-inch area. After removal of the concrete, the underlying soil was hand excavated to create a pit that was 24 by 24-inches wide and 24 inches deep. The excavated soil at both locations consisted of dark brown medium sand that contained minor amounts of brick fragments. A one-inch layer of No. 2 gravel was placed at the base of the excavation and then a 20-inch-long segment of PVC screen with a slot size of 0.020 inches was installed in the center of the excavation. A four-foot segment of two-inch PVC riser pipe was connected to the screen segment. The excavation was then filled with No. 2 gravel to the base of the concrete. A piece of plastic sheeting was placed over the surface of the gravel and the concrete was placed on the plastic to seal the floor and match the existing grade.

A RadonAway GP-501 suction fan was then installed in-line, on the PVC pipe. Then, additional PVC pipe was installed above the suction fan (on the discharge side) to the basement's ceiling then along the ceiling (and pitched downward towards the suction pit) and through the building's rear wall. Then, the piping ran along the exterior rear wall, upwards, to a point approximately two feet above the roofline.

The monitoring points were installed at three locations generally along the walls and in corners to represent locations most distant from the suction wells and, therefore, readings at these locations will generally represent minimum vacuum levels beneath the basement. The vacuum monitoring points were installed for the pilot test by creating one-inch diameter holes through the concrete and then a further two inches into the underlying soil. A length of one-quarter-inch food grade polyethylene tubing was placed to the base of the hole. The tubing was sealed at the surface with hydrated bentonite to create an airtight seal.

The pilot test was performed on June 16, 2022. The SVE blower was shut down two hours prior to performing the pilot test. Then, the suction fans at the two locations were operated. After operating the suction fans for approximately 15 minutes, an Infiltec micromanometer capable of providing readings to 0.001 inches of water column (wc) was connected to the tubing at each location to obtain a vacuum reading. The vacuum results were as follows: MP-1: 0.183 wc, MP-2: 0.096 wc, MP-3: 0.152 wc. The minimum required vacuum for the SSDS is 0.004 wc.

Following the completion of the pilot testing, the SVE was re-started. The SVE will continue to operate until the installation of the SSDS is complete and NYSDEC approves the discontinuation of its use.

Based on the results of the pilot testing, the vacuum created by the two suction fans was significantly above the 0.004 wc minimum vacuum guideline. Based on these findings, it appears that the design of the SSDS for the building is adequate to address the potential

for soil vapor intrusion at the site building. No modifications or additional suction wells are recommended for the full-scale operation beyond the measures already proposed and approved by NYSDEC.

Upon your approval, we will schedule the commencement of the full-scale installation.

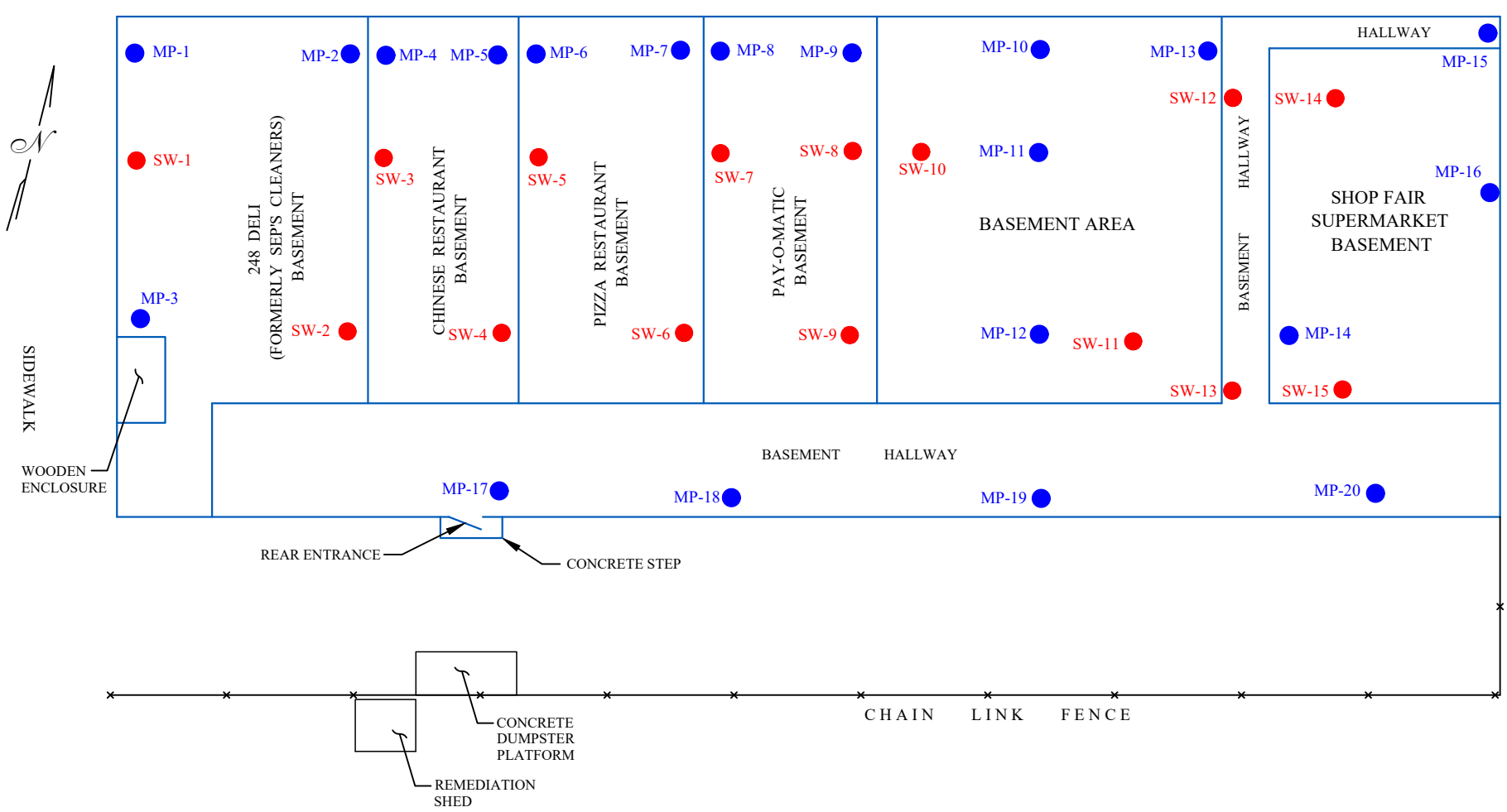
Should you have any questions or comments, please do not hesitate to contact us.

Very truly yours,

Peter Dermody, C.P.G.
Principal Hydrogeologist

Ravi Korlipara, PhD, P.E.
Engineer

cc: Mandy Yau
Barry Cohen



LEGEND

SW-1 SUCTION WELL LOCATION

MP-1 VACUUM MONITORING POINT

DRAWING SCALE 1" = 20'

DERMODY CONSULTING
CENTER MORICHES, NEW YORK

FIGURE 1

SSDS SUCTION WELL AND
MONITORING POINT LOCATIONS
250 LIVONIA AVENUE
BROOKLYN, NEW YORK