Executive Summary

This report presents the results of CDM Federal Programs Corporation's (CDM Smith) Phase II Environmental Site Assessment (ESA) for 77 Westchester Avenue, Pound Ridge/Scotts Corners site (the "subject property") located in Pound Ridge, New York. This Phase II ESA was conducted on behalf of the United States Environmental Protection Agency (EPA)to support a Targeted Brownfields Assessment (TBA) request from the Town of Pound Ridge, Contract Number (No.): EP-W-09-002, WA No.: 029-SION-0200. The results of this Phase II ESA will assist the Town of Pound Ridge in identifying areas or contaminants of concern on the property and appropriate options for future commercial use redevelopment.

The subject property is approximately 0.343 acres and is comprised of one tax parcel (parcel No. 9454-9). The subject property is currently owned by John DiFulvio and is improved with a 4,864-square foot, two-story, mixed use building occupied by Pound Ridge Auto Body, Town and Country Auto Repair, with vacant apartments on the second floor. Historically, the property was occupied by a gasoline fueling station from the 1940s or 1950s that closed prior to 2002.

The 2016 Phase II ESA was performed by CDM Smith to investigate and confirm the recognized environmental conditions (RECs) identified by the Phase I ESA conducted by Engineering and Environmental Solutions Joint Venture (EES JV) in March 2016.

The March 2016 Phase I ESA was performed to support the potential redevelopment of the subject property. The Phase I ESA identified three recognized environmental conditions (RECs) for the subject property as detailed below.

- ***REC-1 – Spill #9412600/9507568****:* From 1993 to 1995, the property was investigated in association with a petroleum spill (New York State Department of Environmental Conservation (NYSDEC) Spill #9412600) that originated at a Shell station located downgradient at 66 Westchester Avenue. The subject property was not ruled out as a contributor to the contamination that had been detected in local potable wells. This spill is still open. In 1995, sampling related to Spill #9412600, on the subject property identified six inches of free product in monitoring well (MW-3), and was reported to the (NYSDEC) Spill Hotline. Spill #9507568 was assigned. A soil vapor extraction/air sparge (SVE)/AS system was installed to address the contamination, but was removed based on the reduction of contaminant levels. This spill was closed on March 27, 2013.

- ***REC-2 – On-Site Dry Wells:*** A concealed dry well (eastern dry well) exists in the parking lot to the east of Pound Ridge Auto Body. Floor drains in the garage bay of Pound Ridge Auto Body formerly discharged into the dry well. It is unknown what repair shop chemicals may have been discharged into the dry well. An additional drywell (western dry well) was identified to the northwest of the building during the Phase II ESA and was added to the REC-2 investigation. The subject property owner claimed this well was used for discharge from the laundry machine in the former apartment.

- ***HREC – Spill #020451****:* Three gasoline USTs and one diesel UST associated with the former fueling station operations were removed in August 2002; one fuel oil UST was abandoned in place. During excavation activities, gasoline contamination was observed in the tank graves. A total of 176 tons of contaminated soil was removed. The spill was closed on November 12, 2002.

To investigate the RECs identified by the Phase I ESA, the following Phase II ESA activities were completed by CDM Smith and their subcontractors in 2016 at the subject property:

- *Site Reconnaissance*: Existing site features (monitoring wells, septic tanks, etc.) including evidence of former site features (dry wells and soil vapor extraction/air sparge (SVE/AS) system) previously discussed in the Phase I ESA were confirmed during the site reconnaissance.

- *Geophysical Survey:* The survey was conducted using electromagnetic conductivity, GPR and utility detection equipment to identify any subsurface anomalies including underground storage tanks (USTs), septic tanks, buried drums, and utilities. The survey identified an additional dry well on the northwestern side of the site property building.

- *Soil Borings*: 20 subsurface soil samples were collected from 10 soil boring. Subsurface soil was analyzed for TCL VOCs, semi-volatile organic compounds (SVOCs), total petroleum hydrocarbons (TPH) diesel range organics (DRO), TPH gasoline range organics (GRO), polychlorinated biphenyls (PCBs), and Target Analyte List (TAL) Metals, based on the requirements of each REC.

- *Existing Monitoring Well Sampling*: Two existing monitoring wells (MW-01 and MW-02), set adjacent to the former USTs located in the southeastern portion of the property, were sampled via low flow sample methodology. The analysis for each groundwater sample was based on the goals of the REC and sample volume available, with TCL VOCs, SVOCs, TPH DRO, TPH GRO, PCBs and TAL metals being the full suite of analysis.

- *Installation and Sampling of Temporary Monitoring Wells*: Groundwater samples were collected from five temporary monitoring wells. The analysis for each groundwater sample was based on the goals of the REC and sample volume available, with TCL VOCs, SVOCs, TPH DRO, TPH GRO, PCBs and TAL metals being the full suite of analysis.

- *Potable Water Sampling*: The onsite potable water well was sampled from the tap of a sink within the subject property building. The potable water sample was analyzed for TCL VOCs, SVOCs and TAL metals.

- *Soil Vapor and Ambient Air Sampling*: Two soil vapor samples and one outdoor ambient air sample were collected within the parking lot adjacent to the subject property building. Soil vapor samples were analyzed for Target Compound List (TCL) volatile organic compounds (VOCs)

Phase II ESA Conclusions

CDM Smith's conclusions, based on analytical results, historic information, and visual observations are summarized below.

- There is no significant evidence of impacts from the former USTs or other petroleum related sources at the site (REC-1 and HREC). There are low concentrations of TPH GRO and DRO across the subject property in soil and on the southwestern half of the site in groundwater. There are no exceedances of VOCs above 6 NYCRR Part 375-6(b) Restricted Use – Commercial, NYSDEC CP-51 supplemental soil cleanup objectives (SCOs) or soil cleanup levels for gasoline or fuel oil contaminated soils.

- The subject property potable water well had exceedances of the NYSDEC ambient water quality standards (AWQS) and EPA RSLs for sodium and antimony, respectively. The potable water well is not currently used for drinking water. Therefore, the exceedances do not present concern.

- Soil and groundwater associated with the eastern former dry well contain TPH DRO and GRO, BTEX (benzene, toluene, ethylbenzene, xylenes), chlorinated benzene compounds, PAHs, PCBs, and metals. These compounds are consistent with the former use of the dry well as the discharge for the rinse sink in the automotive garage. There are no exceedances in soil, but compounds from all analyte groups exceed NYSDEC AWQS in groundwater.

- Soil associated with the western dry well contains TPH DRO and GRO, toluene, PAHs, PCBs, and metals, although the only exceedance of NYSDEC Commercial Use SCOs was barium in one sample, which may be related to the laundry wastewater that discharged into the dry well. There were no exceedances in groundwater associated with this dry well.

- The limitation of groundwater recovery in the temporary wells and MW-2 prevented the characterization of DRO, SVOCs, PCBs, and metals across the site.

- Groundwater samples collected downgradient of former USTs (HREC) indicate that petroleum contamination is still present in low concentrations, however no BTEX or methyl tert-butyl ether (MTBE) was detected in these samples.

- Detections of PCE at concentrations in soil vapor above New York State Department of Health Air Guidance Values (NYSDOH AGVs) suggests there is a potential for soil vapor intrusion of PCE into the building located at 77 Westchester Avenue. Soil and groundwater samples collected throughout the subject property did not yield any detections for PCE. Therefore, PCE impacted soil vapor on the subject property is likely a result of off-site activities.

Recommendations

Based on the results of the Phase II ESA activities and an evaluation of subject property information based on previous environmental investigations, the following recommendations are made:

- The exceedances in MW-1 indicate an impact to groundwater associated with the eastern dry well. It is recommended that this groundwater contamination be further characterized to better understand the risks associated with the contamination. CDM Smith recommends groundwater samples be collected on all sides of the dry well and a soil sample be collected through the bottom of the dry well. Insufficient sample volume from MW-2 and temporary wells were a result of poor groundwater volume recovery. Larger diameter permanent

monitoring wells should be installed on the subject property to allow for greater recovery volume and therefore sufficient volume for a full suite of analyses (VOCs, SVOCs, PCBs, Metals, TPH DRO and GRO). This is necessary for a more comprehensive characterization of groundwater impacts associated with the dry wells and the fuel oil UST.

- Should the potable water well on the subject property be used for drinking water in the future, sampling and treatment would be required to ensure water quality meets EPA RSLs and NYSDEC AWQS. Presently a deed restriction should be employed limiting the use of the well to non-potable.

- Shallow soil in the area of the dry well northwest of the building did exhibit barium contamination at levels exceeding Commercial Use SCOs. It is recommended that this covered dry well be excavated or formally abandoned.

- *NYSDOH Final Guidance for Evaluating Soil Vapor Intrusion in the State of New York* (NYSDOH 2006) does not warrant further vapor intrusion investigation. However, if the current use of the building remains and no means of vapor mitigation is employed, the indoor air quality could be confirmed via an indoor air/sub-slab vapor sampling investigation. In the event that the results of such an investigation warrant mitigation, potential exposure could likely be mitigated via installation of a sub-slab depressurization system or retrofitted vapor barrier.

When undertaking subject property development, it is recommended that the developer enlist a professional engineer or scientist to prepare a health and safety plan, construction contingency plans, and a soils management plan, in order to safely and appropriately remove (and control) impacted materials. It is recommended that any work performed at the subject property be performed by an environmental professional (or if necessary a professional engineer) following approved plans and a site-specific health safety plan approved by a certified industrial hygienist (CIH).

In the absence of the limited remediation suggested above, engineering controls should be implemented, requiring that any construction involving the disturbance of soils within the subject property (including non-emergency excavation, which may be part of utility repair or maintenance, or construction) be performed with the involvement of a professional engineer, and be conducted in accordance with local state and federal rules and regulations, providing adequate engineering controls and worker protection. In the absence of remediation, the values of adjacent and surrounding properties may be (and currently be) negatively impacted. The loss of property value may represent some risk to public welfare, yet this risk may not be considered significant risk.