

May 6, 2022

Ms. Debra Shettlesworth, Regulatory Coordinator
Town of Rockland
242 Union Street
Rockland, Massachusetts 02370

Re: Third Party Environmental Review
Proposed Shingle Mill Project
Map 9, Lot 13
Rockland, Massachusetts

Dear Ms. Shettlesworth:

Roux Associates, Inc. is pleased to present this correspondence documenting our review of certain environmental conditions at the above-referenced location (the site). Shinglemill LLC has proposed constructing approximately 236 +/- rental units in two multi-story residential apartment buildings at the site. Roux's review was prepared in accordance with the work scope detailed in our February 11, 2022 proposal. Our review included documents provided to Roux and available on the Town of Rockland's website, including the following:

- A partial Sanborn Head Associates *Draft Phase I Environmental Site Assessment* report, dated July 18, 2018, prepared for The NRP Group. The table, figures and appendices were not included in the version reviewed by Roux.
- A Tighe & Bond *Geotechnical Evaluation* letter report, dated July 16, 2020, prepared for Jones Street Residential.
- A Tighe & Bond *Limited Summary of Environmental and Geotechnical Conditions* letter report, dated July 30, 2020, prepared for Jones Street Residential.
- A Coneco Engineers and Scientists *Groundwater Sampling Summary Letter* dated August 20, 2021, prepared on behalf of Shinglemill, LLC. Coneco Engineers and Scientists and Shinglemill appear have the same owners.

Site Description and History

The site includes approximately 28 acres of land located in a mix-use area of Rockland, Massachusetts. Site abutters include residential properties to the east and south; property to the southwest is undeveloped woodlands and wetlands with a reservoir that supplies drinking water; and to the east and north are commercial properties, Hingham Street, and State Route 3. Approximately ½ of the 28-acre project site is mapped as wetlands.

Development at the site reportedly began in the 1950s with the construction of a building in the southeastern portion of the property. Between approximately 1960 and the mid-1980s, the property was used as an auto salvage yard. In 1987, remaining automobiles at the site were removed. The site building was demolished in the early 1990s, and the property has been vacant since.

Proposed Development

As described, the proposed development consists of constructing a new residential complex including 2 multi-story apartment buildings, parking lots, roadways, subsurface utilities and supporting amenities. The proposal includes provisions for on-site management of stormwater, which requires grades to be raised across the site by an average of several feet. Drinking water is proposed to be provided by non-transient community public water supply wells, which will require permitting through the Massachusetts Department of Environmental Protection (MassDEP). Three 6-inch diameter wells are proposed to be used to provide drinking water, 2 of which were previously installed. These wells require a New Source Approval permit to be issued by MassDEP before they can be used to serve as a water supply. Roux understands others will be assisting the project proponent with permitting the water supply through MassDEP.

Previous Environmental Assessments

Several environmental assessments have been performed at the site. In addition to the assessments listed above, the Sanborn Head Associates report references a document titled *Phase I Environmental Site Assessment & Limited Removal Action* by Harborline Enterprises dated August 4, 2003, and also makes reference to an unnamed "Phase II site assessment performed in 2000" which identified two areas of petroleum impacted soil exceeding MCP criteria, that were subsequently excavated/remediated under the aforementioned Limited Removal Action. We note that these documents were not available for review by Roux. We also note that the Sanborn Head Associates report reviewed by Roux was a partial report without tables, figures or appendices included in the report and therefore Roux cannot independently review these other reports. A brief summary follows:

Phase II assessment, 2000: as reported by Sanborn Head Associates, this assessment reportedly identified petroleum impacted soil exceeding MassDEP reporting standards in 2 areas; these 2 areas were subsequently excavated. Groundwater quality was reportedly assessed and found to be unimpacted, but the scope of that assessment is unknown, as the report was not available for Roux to review. The number and locations of soil and groundwater samples collected and analyzed was not available for Roux to evaluate.

Limited Removal Action, Harborline Enterprises, August 2003: as reported by Sanborn Head Associates, 28 tons of petroleum impacted soil was removed from the site in 2003 as a Limited Removal Action. The reports detailing these activities were not available for Roux to review; however, reports of this nature generally include analytical results from soil samples collected at the limits of the excavation that show remedial goal have been achieved.

Environmental Site Assessment, Sanborn Head Associates, 2018: this report is a review of existing information, no environmental samples were analyzed as part of this study. Information summarized in this report is presented above.

Limited Summary of Environmental and Geotechnical Conditions, Tighe & Bond, July 2020: this report describes 17 test pit excavations and 14 test borings performed in June 2020 for geotechnical considerations. According to the report, 8 composite soil samples from fill soil and natural soil from the test pits were collected and submitted for laboratory analyses including metals, petroleum hydrocarbons, volatile organic compounds, and polychlorinated biphenyls. Polycyclic aromatic hydrocarbons were detected in one sample at concentrations exceeding reporting standards, however, ash was identified in the sample, thus reported detections qualified for a notification exemption under MassDEP regulations due to the presence of ash. No other constituents were detected at concentrations exceeding MassDEP notification standards.

The Tighe & Bond Limited Summary report also provided recommended procedures for soil management during construction. Roux has reviewed these procedures and agrees with the recommendations, which are incorporated into our recommendations presented below.

Geotechnical Evaluation, Tighe & Bond, July 2020: this report details the geotechnical analysis of the site and provides an overview of various foundation options for the new development. No environmental sample analyses were presented.

Groundwater Sampling Summary Letter, Coneco Engineers and Scientists, August 20, 2021: this report describes the collection of groundwater samples from three monitoring wells designated as WELL-1, WELL-2 and WELL-3. The text of the report is not clear regarding the construction of the wells, however, photographs in the Coneco report indicate WELL-1 and WELL-3 are 6-inch diameter wells with steel casings, and WELL-2 is a 2-inch diameter well with a PVC well casing. WELL-1 and WELL-3 appear to be wells that were drilled to assess the feasibility of using groundwater supply wells to serve future drinking water supply needs of the development.

WELL-1 was sampled in April 2019 and analyzed for Volatile Organic Compounds (VOCs) and potability parameters (iron, manganese, arsenic, nitrate, nitrite, radionuclides, conductivity, pH, hardness). WELL-1, WELL-2 and WELL-3 were sampled in July 2021 and analyzed for per- and polyfluoroalkyl substances (PFAS). The analytical results indicated the presence of PFAS below drinking water standards. Results also indicated the presence of acetone, a common laboratory reagent, and bromodichloromethane, chlorodibromomethane, chloromethane, and chloroform, which are likely chlorination byproducts from the use of chlorine to disinfect water used during and/or following well installation. None of the detected parameters exceeded primary drinking water standards established by MassDEP or USEPA.

It is unclear to Roux if the water samples collected from these wells are representative of groundwater conditions at the site. Groundwater sampling field sheets completed by Coneco indicate that approximately 5 to 8 gallons of water were purged from each well using a pump intake of 9.5 to 10 feet below ground surface. While WELL-2 appears to be a 2-inch diameter shallow (15 feet deep) well and is likely screened across the groundwater table, WELL-1 and WELL-3 are 6-inch diameter 600+ foot deep bedrock wells with approximately 100 feet of solid steel casing followed by 500 feet or more of open rock borehole. The samples from WELL-1 and WELL-3 should have either been collected from the water bearing section of the well below the bottom of the casing, or the wells should have been more thoroughly purged prior to sample collection.

Since the use of groundwater wells to provide drinking water to the residential development will require MassDEP review and approval, Roux does not consider any potential inconsistencies with sampling procedures to materially affect the development of the water supply, as the MassDEP new source permitting process will include requirements to address water quality in their approval process, such that the finished water supplied to the development meets applicable drinking water quality requirements.

Site Assessment Adequacy

Given the site's previous use as an automotive salvage yard, assessment of soil and groundwater was warranted and has been performed. The complete details of the 2000 and 2003 assessment activities are not specifically known. However, collectively, the assessments have evaluated soil and groundwater, analyzed for a variety of potential contaminants that could be present at auto salvage yards, and the assessments identified two areas of impacted soil that were subsequently excavated and removed from the site. Finally, additional assessment performed in 2020 did not identify additional areas of impacted soil exceeding standards that required notification to MassDEP.

Site assessments are limited in nature, however, the level of assessment performed at this site is generally consistent with the industry standards for this location. Areas of impacted soil were identified and removed. Subsequent assessment did not identify additional areas requiring MassDEP notification or remediation. Additionally, we note that the proposed property use (apartment complex) and the fact that fill needs to be brought into the site to raise grades for design purposes, indicates a low potential for exposure to any low-level residual impacts remaining at the site.

Soil Management and Fill Considerations

Three major considerations for this project are debris management, soil management and fill import considerations. Previous assessments have identified buried solid waste and tires. Where encountered in excavations or during site prep earth work, solid waste should be segregated and removed from the site. Mechanical screening of some of the piles may be warranted.

Additionally, anthropogenic materials are present in existing soils due to past salvage yard operations, including bits of glass, plastic and metal. Roux recommends that this material be managed in-place and covered with clean imported fill. In locations where existing on-site material needs to be excavated for foundations and utilities, Roux recommends that it be consolidated with similar materials and covered with clean imported fill.

Tighe & Bond's July 30, 2020, report offered soil management recommendations. Roux concurs with these soil management recommendations provided by Tighe & Bond, as follows:

- Geotechnically unsuitable soils, including topsoil, should be consolidated and used as non-structural fill. Existing soils that have visible debris should be placed beneath newly imported fill soils;
- Use of Best Management Practices (BMPs) for soil relocation, including not reusing soils with visible debris within the top 12 to 24 inches of ground surface where soils may become accessible to future residents, including not using existing soils for gardening or growing of fruit/vegetables. It should be noted however that soil contamination exceeding MassDEP standards has not been identified following the 2003 Limited Removal Action soil excavation.
- Fill imported to the Site for construction will be completed under review of a Licensed Site Professional and in compliance with a Site-specific soils management plan. Options being evaluated include the acceptance of clean imported borrow from "like" Sites accompanied by an acceptance package documenting the origin of the soils and analytical data to document the geotechnical and environmental suitability of the soils.

A major consideration for this project is the importation of approximately 50,000 cubic yards of fill needed to raise grades sufficiently to allow for on-site stormwater management. Additionally, it has been proposed to use soil from "like" sites as fill, as allowed under MassDEP's "Similar Soils" Policy #WSC-13-500. "Similar Soils" are soils that exhibit low concentrations of oils and hazardous materials below reporting thresholds requiring notification to MassDEP. Given the possibility that Similar Soils may be used at the site as fill, we recommend that the project proponent provide a fill plan for review and comment by an independent environmental professional. The plan should identify sources for imported soil, provide rationale for when chemical testing of imported soil is warranted, and a demonstration that such soil meets the re-use criteria of the MassDEP Similar Soils policy.

Summary / Recommendations

A residential apartment complex is proposed to be constructed on land formerly occupied by an auto salvage yard. Historic site assessments identified 2 areas of petroleum impacts which were remediated; more recent assessment did not identify conditions requiring notification to MassDEP. No groundwater

contamination exceeding standards has reportedly been identified. Soil at the surface of the site exhibits anthropogenic materials (glass, plastic, metal) from past auto salvage operations. A soil management plan should be developed and implemented that provides appropriate controls for existing site soil. Fill imported to raise grades should be obtained from clean sources or be appropriately characterized for re-use in accordance with MassDEP's Similar Soils policy. A fill sourcing and management plan should be developed for implementation during filling activities.

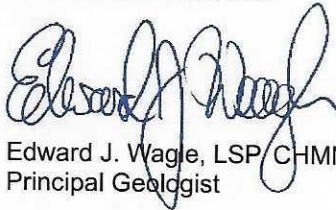
Conclusion

Roux has reviewed documents relative to environmental conditions at the referenced project site and has concluded that the level of effort put into characterizing the site as part of redevelopment is generally consistent with the standard of practice for environmental assessments for similar properties in this area. It is Roux's opinion that soil and groundwater quality at the site do not pose significant risk to workers or future residents of the development if soil management and import fill quality recommendations made above are followed.

We appreciate the opportunity to provide the Town of Rockland assistance and guidance with this project and look forward to participating in the upcoming public meeting on this project on May 17, 2022, at 6:30 pm. Thank you.

Sincerely,

Roux Associates, Inc.

A handwritten signature in blue ink, appearing to read "Edward J. Wagle".

Edward J. Wagle, LSP CHMM
Principal Geologist