# Appendix 3.1-4

## Nassau Coliseum Phase I ESA & Phase II ESI

LANGAN

# Memorandum

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**To:** Marc Gross – Las Vegas Sands

**From:** Kimberly Semon, PE – Langan

**Info:** Judy Tompkins – Las Vegas Sands; Jason Hayes, PE, Saul Shapiro, PE - Langan

**Date:** October 25, 2023

**Re:** Environmental Considerations Memorandum
Sands New York
1255 Hempstead Turnpike
Uniondale, New York
Langan Project No.: 170754501

This memorandum summarizes our findings from the May 2023 Phase I Environmental Site Assessment (ESA) and October 2023 Phase II Environmental Site Investigation (ESI) for property located at 1255 Hempstead Turnpike in Uniondale, New York (the Site). This memo also includes environmental considerations for Site redevelopment.

The Site is identified on the Nassau County Tax Map as Section 44, Block F, Lots 351, 411, 412 and 415. The about 71.5-acre Site is developed with a sports and entertainment arena surrounded by an exterior plaza and asphalt parking lots. The Site is bound by Charles Lindbergh Boulevard and Nassau Energy Corporation to the north; the Long Island Marriott hotel and associated parking lots, followed by James Doolittle Boulevard to the east; Memorial Sloan Kettering Hospital and Hempstead Turnpike to the south; and Earle Ovington Boulevard to the west. Prior to development as a sports and entertainment area, the Site was operated by various military facilities dating back to the Revolutionary War, including Mitchel Air Force Base circa 1910s to the mid-1960s.

Langan's February 2023 Phase I ESA identified the following Recognized Environmental Conditions (RECs) associated with the Site:

REC 1: Historical Use of the Site

The Site and several adjoining and surrounding properties were occupied by Mitchel Air Force Base from the 1910s through the mid-1960s. Use prior to 1910 also included military facilities dating to the Revolutionary War. According to a December 2009 Site Inspection Report for Mitchel Field, prepared for the Army Corps of Engineers (USACE), the northeastern part of the Site is within the former Munitions Response Site (MRS 2) and the southwestern corner of the Site is within the former Machine Gun Range (MRS 5).

Soil samples collected during a 2009 investigation by the USACE found iron above the United States Environmental Protection Agency (USEPA) Residential Direct Contact Soil Screening Level and lead above the USEPA Interim Ecological Screening Level; however, no samples were collected from the Site.

Sewage disposal ponds affiliated with the base were present in the southwestern part of the Site from at least 1955 to the mid-1970s. The most recent publicly available information indicates that the Site is classified by New York State Department of Environmental Conservation (NYSDEC) as a "Class P" Inactive Hazardous Waste Disposal Site (SHWS) site, but the NYSDEC has yet to complete an overall environmental assessment of the former airfield.

Undocumented spills or releases of solvents, chemicals, or other hazardous substances associated with this historical military use may have adversely affected soil, groundwater, and soil vapor on the Site.

REC 2: Historical Petroleum Bulk Storage at the Site

According to Nassau County Fire Commission's – Hazardous Materials Division Department records, a 1,000-gallon diesel fuel underground storage tank (UST) was installed at the Site on January 1, 1973 and abandoned on December 8, 1987 after failing a tank tightness test. A second 1,000-gallon UST was installed in September 1987. Municipal records list both USTs as having been removed; however, UST closure documentation was not provided to Langan. The absence of UST location information and closure documents is considered a REC.

REC 3: Active Hydraulic Oil Release

During the Site reconnaissance on February 2, 2023, Langan was advised of an on-going hydraulic-oil leak in one of the elevator pits associated with a freight elevator. Pooled hydraulic oil was observed in the elevator pit. According to Vito Corbo, chief engineer for Nassau Veterans Memorial Coliseum, the release has been ongoing; oil recovery and leak repairs are pending. This release may constitute a reportable condition, and may have adversely affected soil, groundwater, and/or soil vapor on the Site.

REC 4: Current and Historical Use of the Adjoining and Surrounding Properties

The Site is adjoined by an active gasoline service station (1983 to present) to the south and the Nassau Energy Corporation (1960s to present) to the north. Multiple underground storage tanks (UST) and New York spills listings are associated with the gas station; however, spills have been closed by the NYSDEC. The Nassau Energy Corporation is also identified under the facility names Suez Energy Generation, Trigen Nassau Energy, and Trigen Cogeneration Plant. The facility is listed in the Resource Conservation and Recovery Act (RCRA) generator databases for generation of corrosive-, silver- and halogenated-hazardous wastes. The facility houses aboveground storage tanks (AST) containing solvents, acids and waste oil. Undocumented spills or releases of solvents, chemicals, or other hazardous substances associated with these current and historical operations may have adversely affected groundwater, and/or soil vapor on the Site.

The Purex-Mitchell Field site, about 5,061 feet northwest of the Site (hydraulically upgradient), operated as an industrial facility for chemical distribution from 1955 to 1977. Information on the facility indicates that a chlorinated solvent plume in the vicinity of the Site is related to former chemical distribution operations. Remediation to date has included contaminant recovery wells, air stripping, and a slurry wall constructed to restrict migration of groundwater contaminants. The

results of a 1992 soil investigation indicated that soil clean-up objectives had been met; however, groundwater remediation is ongoing and soil vapor has not been evaluated. Based on proximity, contaminant extents and solubility, migration of contaminants in groundwater, and absence of information about impacts to soil vapor, this historical operation may have adversely affected groundwater, and soil vapor on the Site.

REC-5: Known Area-Wide Groundwater Contamination

The Old Roosevelt Field Contaminated Groundwater Area (USEPA ID No. NYSFN0204234) and New Cassel/Hicksville Groundwater Contamination (USEPA ID No. NY0001095363) are two National Priority List (NPL) sites over 4,000 feet north and upgradient of the Site. Operations at the two sites include aviation activities from (1911 to 1955) and various industrial operations (time unknown). Both sites are considered to have contributed to a chlorinated solvent groundwater plume that has impacted public supply wells in the area of the Site. Contaminants of concern include carbon tetrachloride, 1,1-dichloroethene (1,1-DCE), tetrachloroethene (PCE), and trichloroethene (TCE). The exact source of the contamination is unknown, and according to the database entry, the USEPA is considering various alternatives for remediation. Documented chlorinated solvent impacts to groundwater in the vicinity of the Site is considered a REC.

A Phase II ESI was conducted between July 19 and 21, 2023 and included completion of a geophysical survey, advancement of 11 soil borings, and installation of four temporary groundwater monitoring wells and five soil vapor point across the Site footprint. The following is a summary of Phase II ESI findings:

- The geophysical survey was limited to clearance of boring locations and identified potential utility lines on the northern and northwestern parts of the Site. Geophysical anomalies indicative of USTs were not identified.

- The Site is underlain by a layer of re-worked strata from grade surface to about 5 feet below grade surface (bgs) in most borings that generally consists of medium- to fine-grained sand, with varying amounts of silt and gravel. Trace concrete was observed in the re-worked material in borings SB-13 and SB19. Fine- to medium-grained sand with fine gravel, coarse sand, and silt were observed beneath the re-worked strata. Silt layers were also encountered in boring SB-15. Bedrock was not encountered during the Phase II ESI. Evidence of impacts (i.e., odors, stains, organic vapors) was not observed.

- Soil analytical results identified the volatile organic compound (VOC) acetone and the pesticide 4,4'-DDD at concentrations above NYSDEC Part 375 Unrestricted Use (UU) Soil Cleanup Objectives (SCOs), but below Restricted Use-Restricted Residential (RURR) SCOs. Detected semivolatile organic compounds (SVOCs), polychlorinated biphenyls (PCBs), and metals did not exceed UU SCOs.

- VOCs, pesticides, and PCBs were either not detected in groundwater samples or were reported below NYSDEC Technical and Operational Guidance Series (TOGS) 1.1.1 Ambient Water Quality Standards and Guidance Values (SGVs). Two SVOCs were reported above SGVs in the sample from TMW16 and its duplicate sample. The TMW-16

sample and duplicate were turbid and may have contained entrained sediment, and the results for these contaminants were qualified as an estimate by the laboratory; therefore, the exceeding SVOC results are not considered indicative of a groundwater condition at the Site. Total metals in groundwater samples above the SGVs are attributed to entrained sediment because the only dissolved metals in groundwater above SGVs were iron, manganese, and sodium, which are indicative of naturally occurring regional conditions and not a point source or release.

- Petroleum-related and chlorinated VOCs were detected in soil vapor, but not at concentrations likely indicative of an on-Site release. Of the eight VOCs that were evaluated under the New York State Department of Health (NYSDOH) Decision Matrices, methylene chloride, TCE, PCE, and/or vinyl chloride were detected in the soil vapor samples. When concentrations are evaluated using the NYSDOH Decision Matrices, recommendations range between "no further action" and "identify source(s) and resample or mitigate" for occupied structures depending on corresponding indoor-air concentration. The NYSDOH matrices are conservative in that they do not differentiate commercial/industrial use from residential. The concentration of one VOC, 1,3-Butadiene, marginally exceeded the USEPA Commercial Vapor Intrusion Screening Level (VISL) in one sample; however, the NYSDOH does not have matrix recommendations or air guideline values for this compound.

Based on the findings of the February 2023 Phase I ESA and August 2023 Phase II ESI prepared , we recommend the following be environmental items be considered prior to and during construction:

- The active hydraulic oil release within the freight elevator pit should be repaired and managed in accordance with applicable local, state and/or federal regulations, including proper handling and disposal of wastes generated from the elevator pit. If regulatory criteria are met for reporting, a spill should be reported to the NYSDEC.

- Excess soil generated during future redevelopment should be handled, transported and disposed of or recycled in accordance with 6 NYCRR Part 360 regulations and the requirements of potential recycling and disposal facilities. Soil and/or non-native material should be characterized in accordance with the testing requirements of the proposal permitted disposal or recycling facility.

- Uncontaminated soil and non-native material that is derived from the Site that is not observed to be petroleum-impacted, exhibits no signs of staining or odor may be reused. Reuse of on-site soil or on-native material must be conducted in accordance with applicable agency requirements.

- If encountered during redevelopment of the Site, removal of any USTs and/or associated appurtenances (e.g., fill lines, vent line, and electrical conduit), decommissioning and off-Site disposal will be done in accordance with Nassau County Department of Health

(NCDH) UST closure requirements. Previously unidentified USTs will be registered with the NCDH, as necessary.

- Prepare and implement a health and safety program and plan that addresses the contaminants identified in the Phase II ESI and any other contaminants that can be reasonable anticipated during subsurface work.

These considerations were developed based on the findings of the February 2023 Phase I ESA and August 2023 Phase II ESI prepared by Langan. Special risks occur whenever engineering or related disciplines are applied to identify subsurface conditions. Even a comprehensive sampling and testing program implemented in accordance with a professional standard of care may fail to detect certain conditions. The environmental, geologic, geotechnical, geochemical, and hydrogeologic conditions that Langan interprets to exist between sampling points may differ from those that exist. Actual conditions will vary from those encountered at the locations where borings, sampling, surveys, observations or explorations are made by Langan or its subcontractors and the data, interpretation, and recommendations of Langan are based solely on the information available to it. Furthermore, the passage of time, natural occurrences, and/or direct or indirect human intervention at or near the site may substantially alter discovered conditions.