

Appendix 10
Hazardous Materials



**Environmental
Protection**

Carter H. Strickland, Jr.
Commissioner

Angela Licata
Deputy Commissioner
of Sustainability
alicata@dep.nyc.gov

59-17 Junction Boulevard
Flushing, NY 11373
T: (718) 595-4398
F: (718) 595-4479

February 22, 2012

Matt Mason
Vice President
New York City Economic Development Corporation
110 William Street, 3rd Floor
New York, New York 10038

**Re: Cornell University New York City Tech Campus
Roosevelt Island
Block 1373, Lot 20 and p/o Lot 1
12DME004M/ 12DEPTECH038M**

Dear Mr. Mason:

The New York City Department of Environmental Protection, Bureau of Environmental Planning and Analysis (DEP) has reviewed the May 2011 Phase I Environmental Site Assessment Report (Phase I) and the July 2011 Phase II Environmental Site Investigation (Phase II) prepared by AKRF Engineering, P.C. on behalf of the New York City Economic Development Corporation (EDC) for the above referenced project. It is our understanding that the proposed project is the construction of an approximately 2,000,000 square foot complex for the New York City Tech Campus, a new applied science and engineering campus to be developed by Cornell University. The New York City Tech Campus project area is located in Community District 8 on Roosevelt Island south of the Queensboro Bridge on the site of the current Goldwater Memorial Hospital. Specifically, the site is comprised of approximately 11 acres of land located within the ring created by the one-way East Road and West Road and includes Manhattan Block 1373, Lot 20 and the portion of Block 1373, Lot 1 immediately surrounding Lot 20 (Project Site). The Project Site is currently occupied by the Goldwater Memorial Hospital, a chronic care and nursing facility consisting of nine buildings ranging from one to seven stories in height. The New York City Health and Hospitals Corporation plans to consolidate and relocate the beds in Goldwater Hospital to other facilities within the City in the near future, leaving the Project Site available for redevelopment. When complete, the project is anticipated to include at least 620,000 square feet of academic and research space; approximately 800,000 square feet of graduate student, staff, and faculty housing; approximately 500,000 square feet of space targeted to related commercial partner research and development, accessory parking; and an approximately 100,000 square foot academic conference center and, potentially, related facilities. The campus will contain significant publically accessible open spaces. The project will be built out over approximately 25 years, with an initial phase anticipated to be complete in 2017 and the remainder of the campus built out over the next 20 years (2037). The following actions may be necessary to facilitate this project: Amendment of

the New York City Health and Hospitals Corporation operating agreement with the City by the Corporation Board in order to surrender the Project Site; Disposition of City-owned property from the City of New York to EDC for a subsequent proposed long-term lease and potential future sale to Cornell University; Mayoral approval of the lease and sale terms of the disposition parcels pursuant to Section 384(b)(4) of the New York City Charter; Modification of the City's lease with Roosevelt Island Operating Corporation; Zoning Map amendment to change the Project Site zoning from R7-2 to C4-4; Zoning Text amendment to create the Special Southern Roosevelt Island District and to establish special bulk, use, parking and waterfront controls for the site; and City Map Amendment to map the one-way ring road surrounding the Project Site as a City street.

The May 2011 Phase I report revealed that historical on-site and surrounding area land uses consisted of a prison, a steam plant, a vacant building, a gym, parkland, residential and institutional uses, the Queensboro Bridge, a laboratory building, a transformer house, firehouses, and an incinerator plant. Fluorescent lighting fixtures and electrical equipment may include polychlorinated biphenyl (PCB)-containing components as well as mercury-containing components. Based on the age of the subject buildings, asbestos containing materials (ACM) and lead based paints (LBP) could be present in the on-site structures. The New York State Department of Environmental Conservation (NYSDEC) SPILLS database identified 34 active status spills within a 1/2-mile radius of the project site.

During the June 2011 fieldwork, AKRF Engineering, P.C. and Zebra Environmental Corp., completed ten soil borings (SB-1 through SB-10) to a depth of approximately 1 to 15 feet below surface grade (bsg). Seventeen soil samples were collected and analyzed for volatile organic compounds (VOCs) by United States Environmental Protection Agency (EPA) method 8260, semi-volatile organic compounds (SVOCs) by EPA method 8270, pesticides by EPA method 8081, polychlorinated biphenyls (PCBs) by EPA method 8082, and Target Analyte List (TAL) metals. Due to the shallow refusal, only one soil sample per boring was collected from borings SB-1, SB-2, and SB-5. Groundwater was encountered at approximately 12 to 15 feet bsg in the borings. Three groundwater samples were collected from borings SB-6, SB-8, and SB-10. Groundwater was not encountered in borings SB-1 through SB-5, due to refusal at depths ranging from 2 to 13 feet. The groundwater samples were analyzed for VOCs by EPA method 8260, SVOCs by EPA method 8270, pesticides by EPA method 8081, PCBs by EPA method 8082, and TAL metals (filtered and unfiltered).

The soil analytical results revealed pesticides and PCB concentrations were either non-detect (ND) or below NYSDEC 6 NYCRR Part 375 Unrestricted Use Soil Cleanup Objectives (SCOs) and SCOs for Restricted Residential Use. One VOC (acetone) was detected above its NYSDEC Unrestricted Use SCO. Several SVOCs [benzo(a)anthracene, benzo(b)fluoranthene, chrysene and indeno(1,2,3-cd)pyrene] were detected above their respective NYSDEC Unrestricted Use SCOs with three of these polycyclic aromatic hydrocarbons also exceeding their respective NYSDEC Restricted Residential Use SCOs. Several metals (chromium, copper, lead, mercury, nickel, and zinc) were detected above their respective NYSDEC Unrestricted Use SCOs and two metals (chromium and mercury) were detected above their respective NYSDEC Restricted Residential Use SCOs.

The groundwater analytical results revealed VOCs, SVOCs, pesticides, and PCBs concentrations were either ND or below NYSDEC Class GA standards. Several metals (antimony, barium, beryllium, chromium, copper, iron, lead, magnesium, manganese, mercury, nickel, sodium and thallium) were detected above their respective NYSDEC Water Quality Standards.

Based upon our review of the submitted documentation, we have the following comments and recommendations to EDC:

- EDC should instruct the applicant to develop and submit a Remedial Action Plan (RAP) for the proposed construction project (New York City Tech Campus) for review and approval. The RAP should delineate that contaminated soils should be properly disposed of in accordance with the applicable NYSDEC regulations. Additional testing of the soils may be required by the disposal and/or recycling facility.
- EDC should instruct the applicant to submit a site-specific Construction Health and Safety Plan (CHASP) on the basis of worker exposure to contaminants for the proposed construction project. The CHASP should be submitted to DEP for review and approval. Soil disturbance should not occur without DEP's written approval of the CHASP.
- EDC should instruct the applicant that, for all areas which will either be landscaped or covered with grass (not capped), a minimum of two (2) feet of clean fill/top soil must be imported from an approved facility/source and graded across all landscaped/grass covered areas of the sites not capped with concrete/asphalt. The clean fill/top soil must be segregated at the source/facility, have qualified environmental personnel collect representative samples at a frequency of one (1) sample for every 250 cubic yards, analyze the samples for Target Compound List (TCL) VOCs, SVOCs, pesticides, PCBs, and TAL metals by a New York State Department of Health Environmental Laboratory Approval Program certified laboratory, and compared to NYSDEC Part 375 Environmental Remediation Programs.
- EDC should instruct the applicant that excavated soils, which are temporarily stockpiled on-site, must be covered with polyethylene sheeting while disposal options are determined. Additional testing may be required by the disposal/recycling facility. Excavated soil should not be reused for grading purposes.
- EDC should inform the applicant that ACM, LBP, and suspected PCB containing materials may be present in the on-site structures. These materials should be properly removed and/or managed prior to the start of any renovation/construction activities and disposed of in accordance with all federal, state, and local regulations.
- EDC should instruct the applicant that if any petroleum-impacted soils (which display petroleum odors and/or staining) are encountered during the excavation/grading activities, the impacted soils should be removed and properly disposed of in accordance with all NYSDEC regulations.

- EDC should instruct the applicant that dust suppression must be maintained by the contractor during the excavating and grading activities at the site.
- EDC should instruct the applicant that all known or found underground storage tanks and above-ground storage tanks (including dispensers, piping, and fill-ports) must be properly removed/closed in accordance with all applicable NYSDEC regulations.
- EDC should instruct the applicant that if de-watering into New York City storm/sewer drains will occur during the proposed construction, a New York City Department of Environmental Protection Sewer Discharge Permit must be obtained prior to the start of any de-watering activities at the site.

Future correspondence related to this project should include the following tracking number 12DEPTECH038M. If you have any questions, you may contact me at (718) 595-4473.

Sincerely,



Terrell Estes
Director, Wastewater Review and Special Projects

c: E. Mahoney
M. Winter
W. Yu
T. Estes
R. Kulikowski – MOEC
H. Adasko – EDC



Carter H. Strickland, Jr.
Commissioner

Angela Licata
Deputy Commissioner
of Sustainability
alicata@dep.nyc.gov

59-17 Junction Boulevard
Flushing, NY 11373
T: (718) 595-4398
F: (718) 595-4479

November 8, 2012

Mr. Robert Kulikowski
Director
Mayor's Office of Environmental Coordination
100 Gold Street – 2nd Floor
New York, NY 10038

**Re: Cornell University NYC Tech Campus – Roosevelt Island
Block 1373, Lot 20 and p/o Block 1373, Lot 1
DEP # 12DEPTECH038M / CEQR # 12DME004M
New York, New York**

Dear Mr. Kulikowski:

The New York City Department of Environmental Protection, Bureau of Environmental Planning and Analysis (DEP) has reviewed the October 2012 Remedial Action Plan (RAP) and the October 2012 Construction Health and Safety Plan (CHASP) prepared by AKRF, Inc. in coordination with the Mayor's Office of Environmental Coordination (OEC) for the above referenced project. It is our understanding that the proposed project is the construction of an approximately 2,000,000 square foot complex for the New York City Tech Campus, a new applied science and engineering campus to be developed by Cornell University. The New York City Tech Campus project area is located in Community District 8 on Roosevelt Island south of the Ed Koch-Queensboro Bridge on the site of the current Goldwater Memorial Hospital. Specifically, the site is comprised of approximately 11 acres of land located within the ring created by the one-way East Road and West Road and includes Manhattan Block 1373, Lot 20 and the portion of Block 1373, Lot 1 immediately surrounding Lot 20 (Project Site). The Project Site is currently occupied by the Goldwater Memorial Hospital, a chronic care and nursing facility consisting of nine buildings ranging from one to seven stories in height. The New York City Health and Hospitals Corporation plans to consolidate and relocate the beds in Goldwater Hospital to other facilities within the City in the near future, leaving the Project Site available for redevelopment. When complete, the project is anticipated to include at least 620,000 square feet of academic and research space; approximately 800,000 square feet of graduate student, staff, and faculty housing; approximately 500,000 square feet of space targeted to related commercial partner research and development, accessory parking; and an approximately 100,000 square foot academic conference center and, potentially, related facilities. The campus will contain significant publically accessible open spaces. The project will be built out over approximately 25 years, with an initial phase anticipated to be complete in 2017 and the remainder of the campus built out over the next 20 years (2037). The following actions may be necessary to facilitate this project: Amendment of the New York City Health and Hospitals Corporation operating agreement with the City by the Corporation Board in

order to surrender the Project Site; Disposition of City-owned property from the City of New York to EDC for a subsequent proposed long-term lease and potential future sale to Cornell University; Mayoral approval of the lease and sale terms of the disposition parcels pursuant to Section 384(b)(4) of the New York City Charter; Modification of the City's lease with Roosevelt Island Operating Corporation; Zoning Map amendment to change the Project Site zoning from R7-2 to C4-4; Zoning Text amendment to create the Special Southern Roosevelt Island District and to establish special bulk, use, parking and waterfront controls for the site; and City Map Amendment to map the one-way ring road surrounding the Project Site as a City street.

The October 2012 RAP proposes the installation of Grace Preprufe 300R or equivalent vapor barriers; proper handling, transportation, and disposal of contaminated soil in accordance with applicable New York State Department of Environmental Conservation (NYSDEC) regulations; proper removal/closing of underground storage tanks in accordance with applicable NYSDEC regulations; de-watering into storm/sewer drains in accordance with applicable New York City Department of Environmental Protection requirements; dust monitoring; on-site soil will be stockpiled and covered with polyethylene sheeting and installation of 24 inches of certified clean fill for high/medium-activity areas (i.e., publicly accessible open space) and 12 inches of clean fill for low-activity areas (i.e., landscaping and planting beds). The October 2012 CHASP addresses worker and community health and safety during redevelopment.

Based upon our review of the submitted documentation, we have the following comments and recommendations to OEC:

- It should be noted that the proposed project would involve the creation of landscaped areas and publicly accessible open space, as well as Site regrading which would raise the grade in some areas of the Site. In areas where soil excavation occurs or previously excavated soil/fill is placed (either originating at that location or imported from elsewhere on the Site) and the area will not be capped with buildings, asphalt, concrete or other impervious materials, a "soil cap" will be required following the completion of construction-related soil disturbance. The cap will consist of either imported clean fill or existing site soils meeting the criteria for imported clean fill. The following clean fill requirements are proposed: in high/medium-activity areas (i.e., publicly accessible open space) – 24 inches (as measured from top of final grade) of soil meeting NYSDEC Part 375 Restricted Residential Soil Cleanup Objectives (SCOs); and in low-activity areas (i.e., landscaping and planting beds) – 12 inches of soil meeting NYSDEC Part 375 Soil Commercial Use SCOs. If the above capping requirements cannot be met in certain areas without the risk of damage, e.g., to nearby mature trees or existing infrastructure, capping in these areas would be less than specified above. To the extent possible, some combination of a cap and mulch would still be installed.

OEC should instruct the applicant that for all areas, which will either be landscaped or covered with grass (not capped), a minimum of two feet (for active recreational use areas, i.e., publicly accessible open space) and a minimum of one foot (for passive recreational use areas, i.e., landscaping and planting beds) of clean fill/top soil must be imported from an approved facility/source and graded across all landscaped/grass covered areas of the sites not capped with concrete/asphalt. The clean fill/top soil must be segregated at the source/facility, have qualified environmental personnel collect representative samples in accordance with

NYSDEC CP-51/ Soil Cleanup Guidance and analyze the samples for Target Compound List volatile organic compounds, semi-volatile organic compounds, pesticides, polychlorinated biphenyls, and Target Analyte List metals by a New York State Department of Health Environmental Laboratory Approval Program certified laboratory, compared to NYSDEC Part 375 Environmental Remediation Programs.

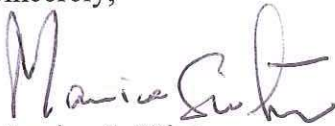
Construction Health and Safety Plan

- OEC should instruct the applicant to include the names and phone numbers of the site safety personnel (i.e. Project Manager, Site Supervisor, Site Health and Safety Officer, and Alternates) in the CHASP.

DEP finds the October 2012 RAP and October 2012 CHASP for the proposed project acceptable as long as the aforementioned information is incorporated into the RAP and CHASP. OEC should instruct the applicant that at the completion of the project, a Professional Engineer (P.E.) certified Remedial Closure Report should be submitted to DEP for review and approval for the proposed project. The P.E. certified Remedial Closure Report should indicate that all remedial requirements have been properly implemented (i.e., proof of installation of vapor barriers, proper transportation/disposal manifests and certificates from impacted soils removed and properly disposed of in accordance with all NYSDEC regulations, and two feet (for active recreational use areas, i.e., publicly accessible open space) and one foot (for passive recreational use areas, i.e., landscaping and planting beds) of certified clean fill/top soil capping requirement in any landscaped/grass covered areas not capped with concrete/asphalt, etc.).

Future correspondence related to this project should include the following tracking number **12DEPTECH038M**. If you have any questions, you may contact Mr. Wei Yu at (718) 595-4358.

Sincerely,



Maurice S. Winter
Deputy Director, Site Assessment

- c: E. Mahoney
M. Winter
W. Yu
T. Estes
M. Wimbish
File