

Full Environmental Assessment Form
Part 1 - Project and Setting

Instructions for Completing Part 1

Part 1 is to be completed by the applicant or project sponsor. Responses become part of the application for approval or funding, are subject to public review, and may be subject to further verification.

Complete Part 1 based on information currently available. If additional research or investigation would be needed to fully respond to any item, please answer as thoroughly as possible based on current information; indicate whether missing information does not exist, or is not reasonably available to the sponsor; and, when possible, generally describe work or studies which would be necessary to update or fully develop that information.

Applicants/sponsors must complete all items in Sections A & B. In Sections C, D & E, most items contain an initial question that must be answered either “Yes” or “No”. If the answer to the initial question is “Yes”, complete the sub-questions that follow. If the answer to the initial question is “No”, proceed to the next question. Section F allows the project sponsor to identify and attach any additional information. Section G requires the name and signature of the applicant or project sponsor to verify that the information contained in Part 1 is accurate and complete.

A. Project and Applicant/Sponsor Information.

Name of Action or Project:		
Project Location (describe, and attach a general location map):		
Brief Description of Proposed Action (include purpose or need):		
Name of Applicant/Sponsor:		Telephone:
		E-Mail:
Address:		
City/PO:	State:	Zip Code:
Project Contact (if not same as sponsor; give name and title/role):		Telephone:
		E-Mail:
Address:		
City/PO:	State:	Zip Code:
Property Owner (if not same as sponsor):		Telephone:
		E-Mail:
Address:		
City/PO:	State:	Zip Code:

B. Government Approvals

B. Government Approvals, Funding, or Sponsorship. (“Funding” includes grants, loans, tax relief, and any other forms of financial assistance.)

Government Entity	If Yes: Identify Agency and Approval(s) Required	Application Date (Actual or projected)
a. City Counsel, Town Board, or Village Board of Trustees <input type="checkbox"/> Yes <input type="checkbox"/> No		
b. City, Town or Village Planning Board or Commission <input type="checkbox"/> Yes <input type="checkbox"/> No		
c. City, Town or Village Zoning Board of Appeals <input type="checkbox"/> Yes <input type="checkbox"/> No		
d. Other local agencies <input type="checkbox"/> Yes <input type="checkbox"/> No		
e. County agencies <input type="checkbox"/> Yes <input type="checkbox"/> No		
f. Regional agencies <input type="checkbox"/> Yes <input type="checkbox"/> No		
g. State agencies <input type="checkbox"/> Yes <input type="checkbox"/> No		
h. Federal agencies <input type="checkbox"/> Yes <input type="checkbox"/> No		
<p>i. Coastal Resources.</p> <p><i>i.</i> Is the project site within a Coastal Area, or the waterfront area of a Designated Inland Waterway? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p><i>ii.</i> Is the project site located in a community with an approved Local Waterfront Revitalization Program? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p><i>iii.</i> Is the project site within a Coastal Erosion Hazard Area? <input type="checkbox"/> Yes <input type="checkbox"/> No</p>		

C. Planning and Zoning

C.1. Planning and zoning actions.

Will administrative or legislative adoption, or amendment of a plan, local law, ordinance, rule or regulation be the only approval(s) which must be granted to enable the proposed action to proceed? Yes No

- **If Yes**, complete sections C, F and G.
- **If No**, proceed to question C.2 and complete all remaining sections and questions in Part 1

C.2. Adopted land use plans.

a. Do any municipally- adopted (city, town, village or county) comprehensive land use plan(s) include the site where the proposed action would be located? Yes No

If Yes, does the comprehensive plan include specific recommendations for the site where the proposed action would be located? Yes No

b. Is the site of the proposed action within any local or regional special planning district (for example: Greenway; Brownfield Opportunity Area (BOA); designated State or Federal heritage area; watershed management plan; or other?) Yes No

If Yes, identify the plan(s):

c. Is the proposed action located wholly or partially within an area listed in an adopted municipal open space plan, or an adopted municipal farmland protection plan? Yes No

If Yes, identify the plan(s):

C.3. Zoning

a. Is the site of the proposed action located in a municipality with an adopted zoning law or ordinance. Yes No
If Yes, what is the zoning classification(s) including any applicable overlay district?

b. Is the use permitted or allowed by a special or conditional use permit? Yes No

c. Is a zoning change requested as part of the proposed action? Yes No

If Yes,

i. What is the proposed new zoning for the site? _____

C.4. Existing community services.

a. In what school district is the project site located? _____

b. What police or other public protection forces serve the project site?

c. Which fire protection and emergency medical services serve the project site?

d. What parks serve the project site?

D. Project Details

D.1. Proposed and Potential Development

a. What is the general nature of the proposed action (e.g., residential, industrial, commercial, recreational; if mixed, include all components)?

b. a. Total acreage of the site of the proposed action? _____ acres

b. Total acreage to be physically disturbed? _____ acres

c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? _____ acres

c. Is the proposed action an expansion of an existing project or use? Yes No

i. If Yes, what is the approximate percentage of the proposed expansion and identify the units (e.g., acres, miles, housing units, square feet)? % _____ Units: _____

d. Is the proposed action a subdivision, or does it include a subdivision? Yes No

If Yes,

i. Purpose or type of subdivision? (e.g., residential, industrial, commercial; if mixed, specify types)

ii. Is a cluster/conservation layout proposed? Yes No

iii. Number of lots proposed? _____

iv. Minimum and maximum proposed lot sizes? Minimum _____ Maximum _____

e. Will the proposed action be constructed in multiple phases? Yes No

i. If No, anticipated period of construction: _____ months

ii. If Yes:

• Total number of phases anticipated _____

• Anticipated commencement date of phase 1 (including demolition) _____ month _____ year

• Anticipated completion date of final phase _____ month _____ year

• Generally describe connections or relationships among phases, including any contingencies where progress of one phase may determine timing or duration of future phases: _____

f. Does the project include new residential uses? Yes No
 If Yes, show numbers of units proposed.

	<u>One Family</u>	<u>Two Family</u>	<u>Three Family</u>	<u>Multiple Family (four or more)</u>
Initial Phase	_____	_____	_____	_____
At completion	_____	_____	_____	_____
of all phases	_____	_____	_____	_____

g. Does the proposed action include new non-residential construction (including expansions)? Yes No
 If Yes,

i. Total number of structures _____

ii. Dimensions (in feet) of largest proposed structure: _____ height; _____ width; and _____ length

iii. Approximate extent of building space to be heated or cooled: _____ square feet

h. Does the proposed action include construction or other activities that will result in the impoundment of any liquids, such as creation of a water supply, reservoir, pond, lake, waste lagoon or other storage? Yes No
 If Yes,

i. Purpose of the impoundment: _____

ii. If a water impoundment, the principal source of the water: Ground water Surface water streams Other specify: _____

iii. If other than water, identify the type of impounded/contained liquids and their source.

iv. Approximate size of the proposed impoundment. Volume: _____ million gallons; surface area: _____ acres

v. Dimensions of the proposed dam or impounding structure: _____ height; _____ length

vi. Construction method/materials for the proposed dam or impounding structure (e.g., earth fill, rock, wood, concrete):

D.2. Project Operations

a. Does the proposed action include any excavation, mining, or dredging, during construction, operations, or both? Yes No
 (Not including general site preparation, grading or installation of utilities or foundations where all excavated materials will remain onsite)
 If Yes:

i. What is the purpose of the excavation or dredging? _____

ii. How much material (including rock, earth, sediments, etc.) is proposed to be removed from the site?

- Volume (specify tons or cubic yards): _____
- Over what duration of time? _____

iii. Describe nature and characteristics of materials to be excavated or dredged, and plans to use, manage or dispose of them.

iv. Will there be onsite dewatering or processing of excavated materials? Yes No
 If yes, describe. _____

v. What is the total area to be dredged or excavated? _____ acres

vi. What is the maximum area to be worked at any one time? _____ acres

vii. What would be the maximum depth of excavation or dredging? _____ feet

viii. Will the excavation require blasting? Yes No

ix. Summarize site reclamation goals and plan: _____

b. Would the proposed action cause or result in alteration of, increase or decrease in size of, or encroachment into any existing wetland, waterbody, shoreline, beach or adjacent area? Yes No
 If Yes:

i. Identify the wetland or waterbody which would be affected (by name, water index number, wetland map number or geographic description): _____

ii. Describe how the proposed action would affect that waterbody or wetland, e.g. excavation, fill, placement of structures, or alteration of channels, banks and shorelines. Indicate extent of activities, alterations and additions in square feet or acres:

iii. Will the proposed action cause or result in disturbance to bottom sediments? Yes No

If Yes, describe: _____

iv. Will the proposed action cause or result in the destruction or removal of aquatic vegetation? Yes No

If Yes:

- acres of aquatic vegetation proposed to be removed: _____
- expected acreage of aquatic vegetation remaining after project completion: _____
- purpose of proposed removal (e.g. beach clearing, invasive species control, boat access): _____
- proposed method of plant removal: _____
- if chemical/herbicide treatment will be used, specify product(s): _____

v. Describe any proposed reclamation/mitigation following disturbance: _____

c. Will the proposed action use, or create a new demand for water? Yes No

If Yes:

i. Total anticipated water usage/demand per day: _____ gallons/day

ii. Will the proposed action obtain water from an existing public water supply? Yes No

If Yes:

- Name of district or service area: _____
- Does the existing public water supply have capacity to serve the proposal? Yes No
- Is the project site in the existing district? Yes No
- Is expansion of the district needed? Yes No
- Do existing lines serve the project site? Yes No

iii. Will line extension within an existing district be necessary to supply the project? Yes No

If Yes:

- Describe extensions or capacity expansions proposed to serve this project: _____
- Source(s) of supply for the district: _____

iv. Is a new water supply district or service area proposed to be formed to serve the project site? Yes No

If Yes:

- Applicant/sponsor for new district: _____
- Date application submitted or anticipated: _____
- Proposed source(s) of supply for new district: _____

v. If a public water supply will not be used, describe plans to provide water supply for the project: _____

vi. If water supply will be from wells (public or private), what is the maximum pumping capacity: _____ gallons/minute.

d. Will the proposed action generate liquid wastes? Yes No

If Yes:

i. Total anticipated liquid waste generation per day: _____ gallons/day

ii. Nature of liquid wastes to be generated (e.g., sanitary wastewater, industrial; if combination, describe all components and approximate volumes or proportions of each): _____

iii. Will the proposed action use any existing public wastewater treatment facilities? Yes No

If Yes:

- Name of wastewater treatment plant to be used: _____
- Name of district: _____
- Does the existing wastewater treatment plant have capacity to serve the project? Yes No
- Is the project site in the existing district? Yes No
- Is expansion of the district needed? Yes No

• Do existing sewer lines serve the project site? Yes No
 • Will a line extension within an existing district be necessary to serve the project? Yes No
 If Yes:
 • Describe extensions or capacity expansions proposed to serve this project: _____

iv. Will a new wastewater (sewage) treatment district be formed to serve the project site? Yes No
 If Yes:
 • Applicant/sponsor for new district: _____
 • Date application submitted or anticipated: _____
 • What is the receiving water for the wastewater discharge? _____

v. If public facilities will not be used, describe plans to provide wastewater treatment for the project, including specifying proposed receiving water (name and classification if surface discharge or describe subsurface disposal plans):

vi. Describe any plans or designs to capture, recycle or reuse liquid waste: _____

e. Will the proposed action disturb more than one acre and create stormwater runoff, either from new point sources (i.e. ditches, pipes, swales, curbs, gutters or other concentrated flows of stormwater) or non-point source (i.e. sheet flow) during construction or post construction? Yes No
 If Yes:
 i. How much impervious surface will the project create in relation to total size of project parcel?
 296,742 Square feet or _____ acres (impervious surface)
 663,592 Square feet or _____ acres (parcel size)
 ii. Describe types of new point sources. _____

iii. Where will the stormwater runoff be directed (i.e. on-site stormwater management facility/structures, adjacent properties, groundwater, on-site surface water or off-site surface waters)?

 • If to surface waters, identify receiving water bodies or wetlands: _____

 • Will stormwater runoff flow to adjacent properties? Yes No

iv. Does the proposed plan minimize impervious surfaces, use pervious materials or collect and re-use stormwater? Yes No

f. Does the proposed action include, or will it use on-site, one or more sources of air emissions, including fuel combustion, waste incineration, or other processes or operations? Yes No
 If Yes, identify:
 i. Mobile sources during project operations (e.g., heavy equipment, fleet or delivery vehicles)

 ii. Stationary sources during construction (e.g., power generation, structural heating, batch plant, crushers)

 iii. Stationary sources during operations (e.g., process emissions, large boilers, electric generation)

g. Will any air emission sources named in D.2.f (above), require a NY State Air Registration, Air Facility Permit, or Federal Clean Air Act Title IV or Title V Permit? Yes No
 If Yes:
 i. Is the project site located in an Air quality non-attainment area? (Area routinely or periodically fails to meet ambient air quality standards for all or some parts of the year) Yes No
 ii. In addition to emissions as calculated in the application, the project will generate:
 • _____ Tons/year (short tons) of Carbon Dioxide (CO₂)
 • _____ Tons/year (short tons) of Nitrous Oxide (N₂O)
 • _____ Tons/year (short tons) of Perfluorocarbons (PFCs)
 • _____ Tons/year (short tons) of Sulfur Hexafluoride (SF₆)
 • _____ Tons/year (short tons) of Carbon Dioxide equivalent of Hydroflouorocarbons (HFCs)
 • _____ Tons/year (short tons) of Hazardous Air Pollutants (HAPs)

h. Will the proposed action generate or emit methane (including, but not limited to, sewage treatment plants, landfills, composting facilities)? Yes No

If Yes:

i. Estimate methane generation in tons/year (metric): _____

ii. Describe any methane capture, control or elimination measures included in project design (e.g., combustion to generate heat or electricity, flaring): _____

i. Will the proposed action result in the release of air pollutants from open-air operations or processes, such as quarry or landfill operations? Yes No

If Yes: Describe operations and nature of emissions (e.g., diesel exhaust, rock particulates/dust):

j. Will the proposed action result in a substantial increase in traffic above present levels or generate substantial new demand for transportation facilities or services? Yes No

If Yes:

i. When is the peak traffic expected (Check all that apply): Morning Evening Weekend
 Randomly between hours of _____ to _____.

ii. For commercial activities only, projected number of truck trips/day and type (e.g., semi trailers and dump trucks): _____

iii. Parking spaces: Existing _____ Proposed _____ Net increase/decrease _____

iv. Does the proposed action include any shared use parking? Yes No

v. If the proposed action includes any modification of existing roads, creation of new roads or change in existing access, describe:

vi. Are public/private transportation service(s) or facilities available within 1/2 mile of the proposed site? Yes No

vii. Will the proposed action include access to public transportation or accommodations for use of hybrid, electric or other alternative fueled vehicles? Yes No

viii. Will the proposed action include plans for pedestrian or bicycle accommodations for connections to existing pedestrian or bicycle routes? Yes No

k. Will the proposed action (for commercial or industrial projects only) generate new or additional demand for energy? Yes No

If Yes:

i. Estimate annual electricity demand during operation of the proposed action: _____

ii. Anticipated sources/suppliers of electricity for the project (e.g., on-site combustion, on-site renewable, via grid/local utility, or other):

iii. Will the proposed action require a new, or an upgrade, to an existing substation? Yes No

l. Hours of operation. Answer all items which apply.

<p><i>i.</i> During Construction:</p> <ul style="list-style-type: none"> • Monday - Friday: _____ • Saturday: _____ • Sunday: _____ • Holidays: _____ 	<p><i>ii.</i> During Operations:</p> <ul style="list-style-type: none"> • Monday - Friday: _____ • Saturday: _____ • Sunday: _____ • Holidays: _____
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<p>m. Will the proposed action produce noise that will exceed existing ambient noise levels during construction, operation, or both? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>If yes:</p> <p>i. Provide details including sources, time of day and duration:</p> <p>_____</p> <p>_____</p>	
<p>ii. Will the proposed action remove existing natural barriers that could act as a noise barrier or screen? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>Describe: _____</p> <p>_____</p>	
<p>n. Will the proposed action have outdoor lighting? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>If yes:</p> <p>i. Describe source(s), location(s), height of fixture(s), direction/aim, and proximity to nearest occupied structures:</p> <p>_____</p> <p>_____</p>	
<p>ii. Will proposed action remove existing natural barriers that could act as a light barrier or screen? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>Describe: _____</p> <p>_____</p>	
<p>o. Does the proposed action have the potential to produce odors for more than one hour per day? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>If Yes, describe possible sources, potential frequency and duration of odor emissions, and proximity to nearest occupied structures: _____</p> <p>_____</p> <p>_____</p>	
<p>p. Will the proposed action include any bulk storage of petroleum (combined capacity of over 1,100 gallons) or chemical products 185 gallons in above ground storage or any amount in underground storage? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>If Yes:</p> <p>i. Product(s) to be stored _____</p> <p>ii. Volume(s) _____ per unit time _____ (e.g., month, year)</p> <p>iii. Generally, describe the proposed storage facilities: _____</p> <p>_____</p>	
<p>q. Will the proposed action (commercial, industrial and recreational projects only) use pesticides (i.e., herbicides, insecticides) during construction or operation? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>If Yes:</p> <p>i. Describe proposed treatment(s):</p> <p>_____</p> <p>_____</p> <p>_____</p>	
<p>ii. Will the proposed action use Integrated Pest Management Practices? <input type="checkbox"/> Yes <input type="checkbox"/> No</p>	
<p>r. Will the proposed action (commercial or industrial projects only) involve or require the management or disposal of solid waste (excluding hazardous materials)? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>If Yes:</p> <p>i. Describe any solid waste(s) to be generated during construction or operation of the facility:</p> <ul style="list-style-type: none"> • Construction: _____ tons per _____ (unit of time) • Operation : _____ tons per _____ (unit of time) <p>ii. Describe any proposals for on-site minimization, recycling or reuse of materials to avoid disposal as solid waste:</p> <ul style="list-style-type: none"> • Construction: _____ _____ • Operation: _____ _____ <p>iii. Proposed disposal methods/facilities for solid waste generated on-site:</p> <ul style="list-style-type: none"> • Construction: _____ _____ • Operation: _____ _____ 	

s. Does the proposed action include construction or modification of a solid waste management facility? Yes No
 If Yes:
 i. Type of management or handling of waste proposed for the site (e.g., recycling or transfer station, composting, landfill, or other disposal activities): _____
 ii. Anticipated rate of disposal/processing:
 • _____ Tons/month, if transfer or other non-combustion/thermal treatment, or
 • _____ Tons/hour, if combustion or thermal treatment
 iii. If landfill, anticipated site life: _____ years

t. Will the proposed action at the site involve the commercial generation, treatment, storage, or disposal of hazardous waste? Yes No
 If Yes:
 i. Name(s) of all hazardous wastes or constituents to be generated, handled or managed at facility: _____

 ii. Generally describe processes or activities involving hazardous wastes or constituents: _____

 iii. Specify amount to be handled or generated _____ tons/month
 iv. Describe any proposals for on-site minimization, recycling or reuse of hazardous constituents: _____

 v. Will any hazardous wastes be disposed at an existing offsite hazardous waste facility? Yes No
 If Yes: provide name and location of facility: _____

 If No: describe proposed management of any hazardous wastes which will not be sent to a hazardous waste facility:

E. Site and Setting of Proposed Action

E.1. Land uses on and surrounding the project site

a. Existing land uses.
 i. Check all uses that occur on, adjoining and near the project site.
 Urban Industrial Commercial Residential (suburban) Rural (non-farm)
 Forest Agriculture Aquatic Other (specify): _____
 ii. If mix of uses, generally describe:

b. Land uses and covertypes on the project site.

Land use or Covertypes	Current Acreage	Acreage After Project Completion	Change (Acres +/-)
• Roads, buildings, and other paved or impervious surfaces			
• Forested			
• Meadows, grasslands or brushlands (non-agricultural, including abandoned agricultural)			
• Agricultural (includes active orchards, field, greenhouse etc.)			
• Surface water features (lakes, ponds, streams, rivers, etc.)			
• Wetlands (freshwater or tidal)			
• Non-vegetated (bare rock, earth or fill)			
• Other Describe: _____ _____			

* Existing impervious includes foundations and gravel surfaces. Proposed impervious includes foundations, gravel roads, and yard stones.
 ** The "forested area" is a small portion of the site with some street trees and is not an undisturbed forested areas.

c. Is the project site presently used by members of the community for public recreation? Yes No
i. If Yes: explain: _____

d. Are there any facilities serving children, the elderly, people with disabilities (e.g., schools, hospitals, licensed day care centers, or group homes) within 1500 feet of the project site? Yes No
If Yes,
i. Identify Facilities:

e. Does the project site contain an existing dam? Yes No
If Yes:
i. Dimensions of the dam and impoundment:

- Dam height: _____ feet
- Dam length: _____ feet
- Surface area: _____ acres
- Volume impounded: _____ gallons OR acre-feet

ii. Dam's existing hazard classification: _____
iii. Provide date and summarize results of last inspection:

f. Has the project site ever been used as a municipal, commercial or industrial solid waste management facility, or does the project site adjoin property which is now, or was at one time, used as a solid waste management facility? Yes No
If Yes:
i. Has the facility been formally closed? Yes No

- If yes, cite sources/documentation: _____

ii. Describe the location of the project site relative to the boundaries of the solid waste management facility:

iii. Describe any development constraints due to the prior solid waste activities: _____

g. Have hazardous wastes been generated, treated and/or disposed of at the site, or does the project site adjoin property which is now or was at one time used to commercially treat, store and/or dispose of hazardous waste? Yes No
If Yes:
i. Describe waste(s) handled and waste management activities, including approximate time when activities occurred:

h. Potential contamination history. Has there been a reported spill at the proposed project site, or have any remedial actions been conducted at or adjacent to the proposed site? Yes No
If Yes:
i. Is any portion of the site listed on the NYSDEC Spills Incidents database or Environmental Site Remediation database? Check all that apply: Yes No
 Yes – Spills Incidents database Provide DEC ID number(s): _____
 Yes – Environmental Site Remediation database Provide DEC ID number(s): _____
 Neither database
ii. If site has been subject of RCRA corrective activities, describe control measures: _____

iii. Is the project within 2000 feet of any site in the NYSDEC Environmental Site Remediation database? Yes No
If yes, provide DEC ID number(s): _____
iv. If yes to (i), (ii) or (iii) above, describe current status of site(s):

v. Is the project site subject to an institutional control limiting property uses? Yes No

- If yes, DEC site ID number: _____
- Describe the type of institutional control (e.g., deed restriction or easement): _____
- Describe any use limitations: _____
- Describe any engineering controls: _____
- Will the project affect the institutional or engineering controls in place? Yes No
- Explain: _____

E.2. Natural Resources On or Near Project Site

a. What is the average depth to bedrock on the project site? _____ feet

b. Are there bedrock outcroppings on the project site? Yes No
 If Yes, what proportion of the site is comprised of bedrock outcroppings? _____%

c. Predominant soil type(s) present on project site: _____ %
 _____ %
 _____ %

d. What is the average depth to the water table on the project site? Average: _____ feet

e. Drainage status of project site soils: Well Drained: _____ % of site
 Moderately Well Drained: _____ % of site
 Poorly Drained _____ % of site
 Soil Resource Report included as Attachment E.

f. Approximate proportion of proposed action site with slopes: 0-10%: _____ % of site
 10-15%: _____ % of site
 15% or greater: _____ % of site

g. Are there any unique geologic features on the project site? Yes No
 If Yes, describe: _____

h. Surface water features.

i. Does any portion of the project site contain wetlands or other waterbodies (including streams, rivers, ponds or lakes)? Yes No

ii. Do any wetlands or other waterbodies adjoin the project site? Yes No
 If Yes to either *i* or *ii*, continue. If No, skip to E.2.i.

iii. Are any of the wetlands or waterbodies within or adjoining the project site regulated by any federal, state or local agency? Yes No

iv. For each identified regulated wetland and waterbody on the project site, provide the following information:

- Streams: Name _____ Classification _____
- Lakes or Ponds: Name _____ Classification _____
- Wetlands: Name _____ Approximate Size _____
- Wetland No. (if regulated by DEC) _____

v. Are any of the above water bodies listed in the most recent compilation of NYS water quality-impaired waterbodies? Yes No
 If yes, name of impaired water body/bodies and basis for listing as impaired: _____

i. Is the project site in a designated Floodway? Yes No

j. Is the project site in the 100-year Floodplain? Yes No

k. Is the project site in the 500-year Floodplain? Yes No

l. Is the project site located over, or immediately adjoining, a primary, principal or sole source aquifer? Yes No
 If Yes:
 i. Name of aquifer: _____

<p>m. Identify the predominant wildlife species that occupy or use the project site: _____</p> <p>_____</p> <p>_____</p>	
<p>n. Does the project site contain a designated significant natural community? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>If Yes:</p> <p style="margin-left: 20px;">i. Describe the habitat/community (composition, function, and basis for designation): _____</p> <p style="margin-left: 20px;">ii. Source(s) of description or evaluation: _____</p> <p style="margin-left: 20px;">iii. Extent of community/habitat:</p> <ul style="list-style-type: none"> • Currently: _____ acres • Following completion of project as proposed: _____ acres • Gain or loss (indicate + or -): _____ acres 	
<p>o. Does project site contain any species of plant or animal that is listed by the federal government or NYS as endangered or threatened, or does it contain any areas identified as habitat for an endangered or threatened species? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>If Yes:</p> <p style="margin-left: 20px;">i. Species and listing (endangered or threatened): _____</p> <p>_____</p>	
<p>p. Does the project site contain any species of plant or animal that is listed by NYS as rare, or as a species of special concern? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>If Yes:</p> <p style="margin-left: 20px;">i. Species and listing: _____</p> <p>_____</p>	
<p>q. Is the project site or adjoining area currently used for hunting, trapping, fishing or shell fishing? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>If yes, give a brief description of how the proposed action may affect that use: _____</p> <p>_____</p>	
<p>E.3. Designated Public Resources On or Near Project Site</p>	
<p>a. Is the project site, or any portion of it, located in a designated agricultural district certified pursuant to Agriculture and Markets Law, Article 25-AA, Section 303 and 304? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>If Yes, provide county plus district name/number: _____</p>	
<p>b. Are agricultural lands consisting of highly productive soils present? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p style="margin-left: 20px;">i. If Yes: acreage(s) on project site? _____</p> <p style="margin-left: 20px;">ii. Source(s) of soil rating(s): _____</p>	
<p>c. Does the project site contain all or part of, or is it substantially contiguous to, a registered National Natural Landmark? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>If Yes:</p> <p style="margin-left: 20px;">i. Nature of the natural landmark: <input type="checkbox"/> Biological Community <input type="checkbox"/> Geological Feature</p> <p style="margin-left: 20px;">ii. Provide brief description of landmark, including values behind designation and approximate size/extent: _____</p> <p>_____</p>	
<p>d. Is the project site located in or does it adjoin a state listed Critical Environmental Area? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>If Yes:</p> <p style="margin-left: 20px;">i. CEA name: _____</p> <p style="margin-left: 20px;">ii. Basis for designation: _____</p> <p style="margin-left: 20px;">iii. Designating agency and date: _____</p>	

<p>e. Does the project site contain, or is it substantially contiguous to, a building, archaeological site, or district which is listed on the National or State Register of Historic Places, or that has been determined by the Commissioner of the NYS Office of Parks, Recreation and Historic Preservation to be eligible for listing on the State Register of Historic Places? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>If Yes:</p> <p style="margin-left: 20px;">i. Nature of historic/archaeological resource: <input type="checkbox"/> Archaeological Site <input type="checkbox"/> Historic Building or District</p> <p style="margin-left: 20px;">ii. Name: _____</p> <p style="margin-left: 20px;">iii. Brief description of attributes on which listing is based: _____</p>
<p>f. Is the project site, or any portion of it, located in or adjacent to an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory? <input type="checkbox"/> Yes <input type="checkbox"/> No</p>
<p>g. Have additional archaeological or historic site(s) or resources been identified on the project site? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>If Yes:</p> <p style="margin-left: 20px;">i. Describe possible resource(s): _____</p> <p style="margin-left: 20px;">ii. Basis for identification: _____</p>
<p>h. Is the project site within five miles of any officially designated and publicly accessible federal, state, or local scenic or aesthetic resource? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>If Yes:</p> <p style="margin-left: 20px;">i. Identify resource: _____</p> <p style="margin-left: 20px;">ii. Nature of, or basis for, designation (e.g., established highway overlook, state or local park, state historic trail or scenic byway, etc.): _____</p> <p style="margin-left: 20px;">iii. Distance between project and resource: _____ miles.</p>
<p>i. Is the project site located within a designated river corridor under the Wild, Scenic and Recreational Rivers Program 6 NYCRR 666? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>If Yes:</p> <p style="margin-left: 20px;">i. Identify the name of the river and its designation: _____</p> <p style="margin-left: 20px;">ii. Is the activity consistent with development restrictions contained in 6NYCRR Part 666? <input type="checkbox"/> Yes <input type="checkbox"/> No</p>

F. Additional Information

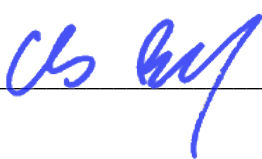
Attach any additional information which may be needed to clarify your project.

If you have identified any adverse impacts which could be associated with your proposal, please describe those impacts plus any measures which you propose to avoid or minimize them.

G. Verification

I certify that the information provided is true to the best of my knowledge.

Applicant/Sponsor Name _____ Date _____

Signature  _____ Title _____



Disclaimer: The EAF Mapper is a screening tool intended to assist project sponsors and reviewing agencies in preparing an environmental assessment form (EAF). Not all questions asked in the EAF are answered by the EAF Mapper. Additional information on any EAF question can be obtained by consulting the EAF Workbooks. Although the EAF Mapper provides the most up-to-date digital data available to DEC, you may also need to contact local or other data sources in order to obtain data not provided by the Mapper. Digital data is not a substitute for agency determinations.



B.i.i [Coastal or Waterfront Area]	Yes
B.i.ii [Local Waterfront Revitalization Area]	Yes
C.2.b. [Special Planning District]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h [DEC Spills or Remediation Site - Potential Contamination History]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.i [DEC Spills or Remediation Site - Listed]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.i [DEC Spills or Remediation Site - Environmental Site Remediation Database]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.iii [Within 2,000' of DEC Remediation Site]	Yes
E.1.h.iii [Within 2,000' of DEC Remediation Site - DEC ID]	V00015, 243022, 243001
E.2.g [Unique Geologic Features]	No
E.2.h.i [Surface Water Features]	Yes
E.2.h.ii [Surface Water Features]	Yes
E.2.h.iii [Surface Water Features]	Yes - Digital mapping information on local and federal wetlands and waterbodies is known to be incomplete. Refer to EAF Workbook.
E.2.h.iv [Surface Water Features - Wetlands Name]	Tidal Wetlands, Federal Waters, NYS Wetland
E.2.h.iv [Surface Water Features - Wetlands Size]	NYS Wetland (in acres):24.5
E.2.h.iv [Surface Water Features - DEC Wetlands Number]	AR-43
E.2.h.v [Impaired Water Bodies]	No
E.2.i. [Floodway]	No

E.2.j. [100 Year Floodplain]	Yes
E.2.k. [500 Year Floodplain]	Yes
E.2.l. [Aquifers]	No
E.2.n. [Natural Communities]	Yes
E.2.n.i [Natural Communities - Name]	Red Maple-Sweetgum Swamp
E.2.n.i [Natural Communities - Acres]	75.0
E.2.o. [Endangered or Threatened Species]	Yes
E.2.o. [Endangered or Threatened Species - Name]	Pied-billed Grebe
E.2.p. [Rare Plants or Animals]	No
E.3.a. [Agricultural District]	No
E.3.c. [National Natural Landmark]	No
E.3.d [Critical Environmental Area]	No
E.3.e. [National or State Register of Historic Places or State Eligible Sites]	Yes - Digital mapping data for archaeological site boundaries are not available. Refer to EAF Workbook.
E.3.e.ii [National or State Register of Historic Places or State Eligible Sites - Name]	Eligible property: Mohlenhoff Farm (Greenbelt Native Plant Center), Sylven Grave Cemetery
E.3.f. [Archeological Sites]	Yes
E.3.i. [Designated River Corridor]	No

Expanded Environmental Assessment

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- Figure 4. Mapped and Delineated Water Resources

Attachments

Attachment A. Site Plans

Attachment B. Decommissioning Plan

Attachment C. Government Approvals Table

Attachment D. Agency Correspondence

Attachment E. NRCS Soils Report

Attachment F. Wetland and Stream Delineation Report

Attachment G. Sound Impact Assessment

1. Project Description and Information

Site Description

Hecate Grid Swiftsure, LLC (the Applicant) is proposing to construct the Hecate Grid Swiftsure Project (the Project), a new, up to 650 MW Battery Energy Storage System (BESS) located on approximately 9 acres of land. The Project will include an underground generation tie (gen-tie) line to connect the energy storage system to the 345 kV Fresh Kills Substation in the Borough of Staten Island, Richmond County, New York (Figure 1). The Project Site will include the BESS, operational maintenance parking, a buried transmission line, a collection substation, and a Point of Interconnect (POI) substation.

The Project will be composed of modular, self-contained metal cabinets approximately eight feet tall and 12 feet wide, aligned in rows that will house the battery systems. The cabinets will be connected to Power Conditioning Stations (PCSs) and step-up transformers. The step-up transformers will be connected by a medium voltage (34.5kV) underground collection system that will connect the energy storage system to the Project substation. The energy storage portion of the Project will occupy approximately eight acres and will be encompassed by a security fence and visual screening. The Project substation will be composed of substation transformers, power conditioning equipment, protection and controls, and a control house. The Project substation is anticipated to occupy approximately one acre.

The interconnecting gen-tie will be approximately 4,500 feet long and buried underground along Victory Boulevard to the Fresh Kills substation located southwest of the battery portion of the Project Site (see Figure 1). At this time, the Applicant is considering two installation options for the gen-tie line along Victory Boulevard at the location of New York State Route 440 (NYS Route 440) and the associated bridge/highway overpass. The first option is to install the gen-tie line in a conduit under the bridge and the second option is to utilize a horizontal directional drill (HDD) for approximately 1,500 feet to cross under NYS Route 440. Both options are shown in the Site Plans in Attachment A.

Operations and Maintenance

A remote monitoring system will control and monitor operations 24 hours per day, seven days a week, 365 days per year to ensure the BESS is operating properly. The Project will be staffed once operational with routine maintenance and site management to be conducted by a Facility Manager and support staff. Typical maintenance includes routine inspections, routine and preventative maintenance and site management. All routine maintenance will occur during normal business hours. The remote monitoring system will automatically report and notify the Facility Manager and operations team if an unanticipated operation occurs. The Facility Manager and service technicians will inspect the equipment and return the facility to its normal operating conditions.

Safety and Security

A Site Security Plan establishing minimum security infrastructure requirement for the construction phase, and for sustained operations once energized will be developed. The Site Security Plan will be provided to local authorities including, but not limited to, the FDNY for review and comment prior to implementation.

A standard 2" mess chain link, 8' tall security fence with a locked gate that will be consistent with local codes, will surround the entire project and will be erected as early in the site development process as

practical to protect construction and stored materials. Access to the Project Site will be restricted to authorized Project personnel and authorized construction contractor crews and a detailed process for controlling and granting access will be documented in the plan and executed and managed by the General Contractor. The Project is located along Victory Boulevard with primary site access from Latimer Road. Video surveillance will be implemented at the Project site which will be monitored by Hecate Operations staff and their associated operations and maintenance teams. The Project will also include exterior lighting and emergency temporary lighting consistent with local requirements.

Fire Protection/Emergency Response

An Emergency Response Plan will be developed prior to Project construction and operation in consultation with the FDNY prior to the Project receiving its building permits. The Project will be designed in accordance with the applicable national, state and local codes, including FDNY 3 RCNY 608-01 and NY FC 608 for fire detection, protection, and suppression. In addition, a Certificate of Fitness (COF) holder will be designated for the site per FDNY B-28. The BESS, and associated equipment utilized, are listed by a nationally recognized testing laboratory to the UL 9540 standard and will be selected from the FDNY list of approved manufacturers. The BESS shall also have required working space clearances, and the electric circuitry utilized shall be within the weatherproof enclosures marked with the environmental rating suitable for the type of exposure in compliance with NFPA 70. Controls will be incorporated within the BESS enclosure that will be compliant to either NFPA 68 or NFPA 69 in accordance with the local regulations.

Further, a remote monitoring system will be installed with controls, including alarm systems, that would trigger the shut down of the system in the event of an emergency. The site will be staffed and the BMS will also be monitored 24/7 by a remote monitoring team as per local regulations.

Several safety measures will be employed to prevent emergencies and optimize safety at the Project. The BESS will undergo large scale fire testing in accordance with UL 9540A. The Project also has been designed to adhere to all required setbacks and be enclosed with security fencing to prevent unauthorized access. Additionally, the BESS containers have smoke alarms/fire detection systems that can detect fires through the use of photoelectric smoke detectors and thermal detectors. Each module will have a temperature sensor that will shut down the system if a condition develops that is outside of the normal, tested operating range and each battery pack will have a fire suppression system. The remote monitoring system will be alerted if a smoke detector or thermal detector is triggered. In the event of an emergency, the monitoring system will shut down necessary equipment remotely.

In the event of an emergency, there are 5 existing fire hydrants located along Victory Boulevard for use by the FDNY. FDNY will have the emergency action plan, will be educated prior to operations on the potential hazards on site, and will have access to guidance on how to respond to the event.

Decommissioning

A Decommissioning Plan has been drafted to provide the general scope of decommissioning work as well as a construction cost estimate for a decommissioning assurance mechanism of the Project (Attachment B). The Plan outlines the decommissioning requirements for removal of above-ground structures, debris, underground foundations, and cables and restoration of soil and vegetation after termination of operations of the BESS.

Government Approvals

Implementation and construction of the Swiftsure BESS Project is subject to a number of federal, state, and local permits in addition to State Environmental Quality Review (“SEQR”). The table included in Attachment C summarizes the regulatory requirements identified thus far as applicable to this project. Discretionary approvals are subject to the State Environmental Quality Review Act (“SEQRA”), codified at Article 8 of the New York Environmental Conservation Law, and its implementing regulations, promulgated at Part 617 of Title 6 of the New York Codes, Rules and Regulations (N.Y.C.R.R.), which collectively contain the requirements for the State Environmental Quality Review (SEQR) process. Ministerial approvals are not subject to SEQRA.

2. Assessment of Potential Environmental Impacts

A. Land Use and Zoning

Introduction

A land use and zoning analysis assesses the existing land uses and zoning districts in the area that may be affected by a proposed project and determines whether the proposed project is compatible with those conditions or if it may affect those conditions. A detailed assessment of land use and zoning is appropriate if an action would result in a significant change in land use or would substantially affect regulations or policies governing land use.

Existing Conditions

Land Use

The Subject Property is located on the north side of Victory Boulevard, south of the intersection with Travis Avenue in the Travis-Chelsea neighborhood of Staten Island within Community District 2. Block 2784 is generally bounded by wetlands and vegetated areas to the north (Meredith Woods Nature Preserve); Baron Boulevard to the east; Victory Boulevard to the south; and surface parking and vacant land to the west. According to New York City Zoning and Land Use (“ZoLa”), Tax Lot 29 has an area totaling approximately 664,621 square-feet (sf), with approximately 359 feet of frontage along Victory Boulevard.

The Subject Property is a split lot within an M1-1 zoning district and an R3A zoning district. Approximately 541,587 sf of the 644,621-sf site is with the M1-1 district; the balance, approximately 123,034 sf, is within the R3A district. According to ZoLa, the property’s current land use is categorized as “Parking Facility.” The property is currently vacant and is used for unlicensed parking or storage of vehicles.

Land uses in the immediate vicinity of the Subject Property are generally classified as vacant land and natural areas; industrial/manufacturing; commercial/retail; and low-density residential. Specifically, Block 2784 is occupied by a 2-story two-family residential building (Lot 16); a 2-story mixed commercial/office building (Lot 13); three 1- to 2- story single-family residential buildings (Lots 1, 7, and 10); a vacant parcel (Lot 4); and a parking facility (Lot 29).

Zoning

As stated above, the Subject Property is a split lot (M1-1 and R3A). M1 districts are often buffers between M2 or M3 districts and adjacent residential or commercial districts. Typical uses include light industry, wholesale service and storage facilities.

Use

Pursuant ZR § 42-10, the following uses are generally permitted in M1-1 zoning districts: Community Facility (Use Groups 4); Retail and Commercial (Use Groups 5-14); General Service (Use Group 16); and Manufacturing (Use Group 17). Pursuant ZR § 42-20, uses must also comply with applicable performance standards regulating noise, vibration, smoke and other particulate matter, odorous matter, toxic or noxious matter, radiation hazards, fire and explosive hazards, humidity, heat, or glare applicable to the district in which such use, building, or other structure or open area is located. The specific performance standards regulations for manufacturing uses in the M1-1 district are established in §§ 42-21 through 42-28.

The NYC Department of Buildings (“DOB”) Bulletin 2019-007, dated September 26, 2019, clarifies the applicable zoning use group and limitation when establishing facilities for non-accessory fuel cell systems and battery energy storage systems. According to the Bulletin, “a non-accessory fuel cell facility and non-accessory battery energy storage system facility may be classified as Zoning Use Group 6D, Electric/Gas Utility Substation,” provided certain conditions are met, as established therein. The Bulletin further determines that “a non-accessory fuel cell facility or non-accessory battery energy storage system facility, which occupies more than 10,000 square feet of the site area within an individual zoning lot or does not meet the conditions outlined therein shall not be classified as Zoning Use Group 6D. Depending on the size, characteristics, and technical specification of the facility, it may be classified under other Use Groups such as Zoning Use Group 17C, ‘Public transit, railroad or electric utility substations, open or enclosed, with no limitation as to size,’ or may be considered as other uses permitted by special permits.”

Floor Area

The maximum permitted manufacturing floor area ratio (“FAR”) in an M1-1 zoning district is 1.0, pursuant to ZR § 43-12. Based on the M1-1 lot area of approximately 541,587 sf, a maximum of 541,587 sf of manufacturing floor area may be developed within the M1-1 portion of the Subject Property.

Yard Regulations

Pursuant to ZR § 43-301, an open area not higher than curb level and at least 15 feet wide along the portion of the boundary of the Manufacturing District which coincides with a side lot line of a zoning lot in a Residential District is required. Pursuant to ZR § 43-26, in M1-1 districts, a rear yard with a depth of not less than 20 feet is required from every rear lot line. Pursuant to ZR § 43-304, if the boundary of an adjoining Residence District is located at the center line of a street less than 60 feet wide, a front yard not higher than curb level and at least 20 feet in depth shall be provided along any front lot line forming the boundary between a zoning lot located within the Manufacturing District and that portion of the street in which the district is located.

Pursuant to ZR § 43-23, the following obstructions are permitted within a required yard or rear yard equivalent:

Power systems, including, but not limited to, generators, solar energy systems, fuel cells, batteries, and other energy storage systems, provided that all equipment shall not exceed a height of 23 feet above curb level [ZR § 43-23(a)(10)].

Walls, not exceeding eight feet in height and not roofed or part of a building [ZR § 43-23(a)(14)].

Height Regulations

Pursuant to ZR § 43-43, in M1-1 districts, if the front wall (base height) or any other portion of a building or other structure is located at the street line or within an initial setback distance of 20 feet on a narrow street, the height of such front wall shall not exceed the maximum height of 30 feet or 2 stories, whichever is less. Above such maximum height and beyond the initial setback distance, the building or other structure shall not penetrate the sky exposure plane of 1 to 1 (vertical to horizontal distance). However, pursuant ZR § 43-44, if an open area is provided along the full length of front lot line within the minimum depth of 15 feet on a narrow street, the height of such front wall shall not exceed the maximum height of 30 feet. Above such maximum height and beyond the setback distance, the building or other structure shall not penetrate the sky exposure plan of 1.4 to 1 (vertical to horizontal distance).

Parking and Loading

In M1-1 zoning districts, parking and loading requirements vary by district use. M1-1 districts are subject to parking requirements based on the type of use and size of an establishment. For Use Group 17C the minimum parking requirement is 1 per 2,000 square feet of floor area, or 1 per 3 employees, whichever will require a lesser number of spaces (ZR § 44-20).

ZR § 44-50 establishes off-street loading requirements in Manufacturing Districts. The required number of off-street loading berths are based on the type of use and size of the establishment. Use Group 17C is not explicitly identified in ZR § 44-50 for a required number of off-street loading berths; therefore, it is understood that no loading berths are required for structures classified as Use Group 17C. This interpretation should be verified with the Department of City Planning during the design phase.

Assessment

The proposed Project would improve a vacant site, currently occupied by surface parking and abandoned vehicles, with a 650 MW Battery Energy Storage System (BESS). In addition to the BESS facility, the Project Site would be improved with operational maintenance parking (surface parking), a buried transmission line, a collection substation, and a Point of Interconnect (POI) substation. The proposed BESS facility would be generally consistent with the industrial, manufacturing, utility, and other non-residential uses that dominate the West Shore of Staten Island.

No zoning actions are required to facilitate the proposed Project, and none are proposed. The proposed Project would be sited entirely within the M1-1 portion of the Subject Property and occupy an area greater than 10,000 sf. Therefore, pursuant to the DOB Bulletin 2019-007, the Proposed Project meets the

definition of Use Group 17C and would comply with the use requirements of the M1-1 district (ZR 42-10). Further, the proposed Project would comply with all dimensional requirements of the M1-1, including floor area, yard and height, and parking and loading standards.

Based on this information, the proposed actions would not result in any potentially significant land use or zoning impacts; therefore, no further assessment is warranted.

B. Community Facilities and Services

This section evaluates the community facilities and services within a half-mile of the Project (the Study Area). Community facilities are public or publicly funded facilities such as schools, hospitals, libraries, day care centers, places of worship, and places of recreation. Impacts to community facilities may occur when a project either physically alters a community facility or when a project causes a change in population that could affect essential community services, including emergency response departments.

Existing Conditions

The Project will be constructed in the Chelsea-Travis neighborhood in the Borough of Staten Island, Richmond County, New York. The Study Area is serviced by School District 31. There is one public school within the Study Area: P.S. 026, also called The Carteret School. This school serves grades pre-k through 5th grade. There are four private and charter schools located within a half-mile radius of the Project: Nicotra Early College Charter School, New Ventures Charter School, Richmond Preparatory Charter School, and the John W. Lavelle Preparatory Charter School (City of New York, 2023).

There are two places of worship within the Study Area: The Circle of Love Fellowship at 79 Cannon Avenue and the Staten Island Christian Church at 3980 Victory Boulevard.

There are several recreational facilities within the Study Area. Meredith Woods, a nature reserve, is located immediately adjacent to the Project along the northwestern edge. Richmond County Youth Complex is located to the north of the Project and contains five baseball diamonds. Mid Island Babe Ruth sports complex is located to the northeast of the Project and contains five baseball diamonds. The Greenbelt Native Plant Center and Schmul Park are both located within the Study Area on the south side of Victory Boulevard, and Sylvan Grove Cemetery is located within the Study Area on the north side of Victory Boulevard (City of New York, 2023).

There are no libraries, hospitals, or senior centers located in the Study Area (City of New York, 2023).

There is one emergency service located within the Study Area. The Fire Department of New York Engine 154 Command Center (FDNY Squad 8) is located at 3730 Victory Boulevard.

Potential Impacts

The Project will not result in any impacts to community facilities and services during construction or operation. During construction of 12 to 18 months, approximately 100 total construction jobs will be required during the construction period. The Project will have on-site staff during operations and anticipates this being from 2 to 4 employees. Due to the limited duration of construction and potential

small number of full-time employees on site, there will not be a material increase in the number of individuals using community facilities and services.

C. Cultural Resources

This section identifies applicable laws, policies, and regulations related to protecting archaeological and historical resources within the vicinity of the Project.

Applicable Laws, Policies, Regulations

A cultural resources review was conducted in accordance with the New York State Historic Preservation Office (SHPO) Environmental Review Program which includes:

- Parks, Recreation and Historic Preservation Law § 14.09, which was enacted by the New York State Historic Preservation Act of 1980 (Chapter 354 of the Laws of 1980); and
- SEQRA regulations (6 NYCRR Part 617).

Under Section 14.09 of the New York State Historic Preservation Act, the SHPO's role in the review process is to ensure that effects or impacts on eligible or listed properties are considered and avoided or mitigated during the project planning process. In addition, the SHPO advises local communities on local preservation environmental reviews, upon request, under the provisions of SEQRA.

Existing Conditions

Preliminary background research of the Project location and the vicinity around the Project was conducted using the National Park Service (NPS), National Register of Historic Places (NRHP), and the OPRHP Cultural Resource Information System (CRIS) websites.

The CRIS website identified nine cultural resource management (CRM) studies completed within 0.5 miles of the Project Area and one CRM study overlaps with the Project, Report of the State IA Literature Research and Cultural Resources Sensitivity Assessment for Proposed Fortistar Power Facilities Transmission Lines, Town of Northfield, Richmond County, New York (01SR52227). The Phase IA resulted in determination that most of the project area was previously disturbed. Three Historic period archaeological sites exist within 0.5 mile of the Project; however, none of the archaeological sites overlap with the Project (OPRHP, 2023).

The CRIS website also identified 17 Historic structures located within 0.5 mile of the Project Area. One structure is listed on the NRHP, one is eligible for NRHP listing, 11 are not eligible for listing on the NRHP, and the remaining four have undetermined NRHP eligibility. The Sylvan Grove Cemetery is listed on the NRHP due to its association with prominent figures who aided in the early development of Staten Island. It is located on Victory Boulevard adjacent to the gen-tie line route.

Potential Impacts

There are no known archaeological resources that overlap with the Project and one historical resource listed on the NRHP. The site listed on the NRHP is located adjacent to the gen-tie line that will be buried underground within previously disturbed right of way. Therefore, there are no anticipated impacts to

archaeological or historical architectural resources. TRC, on behalf of the Applicant, consulted with the OPRHP to confirm this determination. A letter to OPRHP was submitted on April 20, 2023 and follow up information was submitted on June 22, 2023. Both submissions are included in Attachment D. A response has not been received as of July 31, 2023.

D. Visual Resources

This section considers the potential of the Project to impact visual resources within or nearby the Study Area.

Existing Conditions

The Project Site will be located on a parcel off Victory Boulevard and along approximately 4,500 feet of roadway within Victory Boulevard and under West Shore Expressway. The portion of the Project within 3889 Victory Boulevard is currently being used as a parking and storage area for vehicles and equipment, and the rest of the Project is paved roadway. The Study Area contains lands within a half-mile radius of the Project Site and includes residential properties and natural space/parkland to the north, commercial and recreational facilities to the east, residential and commercial properties to the south, and undeveloped forested land to the west.

Landforms - The elevation of the Study Area is between 20 and 30 feet above mean sea level.

Travel Corridors - The major thoroughfares in the Study Area are West Shore Expressway (NYS Route 440) and Victory Boulevard.

Water Resources - There are multiple wetland complexes and one waterway within the Study Area. Meredith Woods, a coastal wetland complex connecting to Arthur Kill, is located within the northern portion of the Study Area. Arthur Kill is located within the western portion of the Study Area. Freshkills Park and Fresh Kills Main Creek are located within the southern portion of the Study Area.

Land Use Patterns - The land use within the Study Area consists primarily of commercial properties, single-family residential properties and undeveloped, natural open space.

State, County, and Local Parks/Management Areas - Freshkills Park, Schmul Park, and William T. Davis Wildlife Refuge are located in the Study Area to the south of Victory Boulevard. Meredith Woods, Zuckerman Natural Resource Area, Richman County Youth Complex, Mid Island Babe Ruth sports complex, and Sylvan Grove Cemetery are located in the Study Area to the north of Victory Boulevard.

Historic Resources - A review of the NPS, NRHP, the OPRHP CRIS websites listed one NRHP site within a half-mile of the Project Site along Victory Boulevard (see discussion in Section C above).

NYSDEC Visual Policy Resource Inventory

The New York State Department of Environmental Conservation (NYSDEC) issued a revised Program Policy, "Assessing and Mitigating Visual Impacts" on December 13, 2019. This document provides a guidance for evaluating visual and aesthetic resources and for making a determination of significance. The aesthetic resources to be considered and evaluated include the following:

1. *Historic resource listed or eligible for inclusion in the State or National Register of Historic Places [16 U.S.C. § 471a et seq., Parks, Recreation and Historic Preservation Law § 14.07]* There is one property listed on the NRHP within 0.5 mile of the Project. Additional consultation with OPRHP is ongoing.
2. *State Parks [Parks, Recreation and Historic Preservation Law Section 3.09]* There are no state parks within 0.5 mile of the Project.
3. *NYS Heritage Areas [Parks, Recreation and Historic Preservation Law Section 35.15]* The closest Heritage Area, Harbor Park, is not located within 0.5 mile of the Project.
4. *The State Forest Preserve [NYS Constitution Article XIV]* The State Forest Preserve lands are located in the Adirondack Park and Catskill Parks. The Project is located outside of these two areas.
5. *National Wildlife Refuges [a6 U.S.C. 668dd], and State Game Refuges [ECL 11-2105]* There are no National Wildlife Refuges or State Game Refuges within 0.5 mile of the Project.
6. *National Natural Landmarks [36 CFR Part 62]* There are no National Natural Landmarks located within 0.5 mile of the Project.
7. *National Park System, Recreation Areas, Seashores, Forests [16 U.S.C 1c]* There are no national parks are located within 0.5 mile of the Project.
8. *Rivers designated as National or State Wild, Scenic or Recreational [16 U.S.C. Chapter 28, ECL 15-2701 est seq.]* There are no rivers designated as National or State Wild, Scenic or Recreational within 0.5 mile of the Project.
9. *A site, area, lake, reservoir or highway designated or eligible for designation as scenic including NYS Scenic Byways [ECL Article 49 Title 1] or DOT equivalent* There are no designated scenic byways or scenic roads within 0.5 mile of the Project.
10. *Scenic Areas of Statewide Significance [Article 42 of Executive Law]* There are no Scenic Areas of Statewide Significance located within 0.5 mile of the Project.
11. *A state or federally designated trail, or one proposed for designation [16 U.S.C Chapter 27 or equivalent]* There are no state or federally designated trails within 0.5 mile of the Project.
12. *Adirondack Park Scenic Vistas [Adirondack Park Land Use and Development Map]* The Project is not located in the Adirondack Park.
13. *State Nature and Historic Preserve Areas [Section 4 of Article XIV f the State Constitution]* The Project is not located in a State Nature or Historic Preserve Area.
14. *Palisades Park [Palisades Interstate Park Commission]* The Project is not located in the Palisades Park.
15. *Bond Act Properties purchased under Exceptional Scenic Beauty category [ECL Article 51, 51, and 56]* There are no properties with this designation within 0.5 miles of the Project.

Potential Impacts

The Project is not anticipated to have adverse visual impacts to the surrounding areas as it is located on a previously developed commercial property and will be enclosed by a security fence with visual screening.

The associated generation tie-line will be buried underground and therefore will not have a visual impact to surrounding areas.

E. Socioeconomic Disadvantaged Communities and Environmental Justice

This section evaluates existing demographics and economic status of the Study Area and assesses social and economic effects associated with the Project during construction and operation.

Existing Conditions

The Project Site is located on Staten Island in Richmond County, New York. According to the 2021 American Community Survey, Richmond County has an estimated population of 493,194 persons, with a population density of 8,481.4 persons per square mile. For comparison, New York State’s population density is 414.06 persons per square mile.

Richmond County has a higher median household income (\$89,427) than New York State (\$75,157). A lower percentage of individuals are living in poverty in Richmond County (10.3 percent) than are in New York State as a whole (13.5 percent). The unemployment rate in Richmond County (5.3 percent) is higher than of New York State (4.5 percent). Table 1 summarizes key existing economic conditions in Richmond County, with New York State provided for comparison.

Table 1. Existing Economic Conditions						
Location	Population (2021) ¹	Density (Persons/ square mile) ¹	Median Household Income ¹	Persons in Poverty ¹	Unemployment Rate (Feb 2023) ²	Civilian Labor Force (Feb 2023) ²
New York State	20,114,745	414	\$75,157	13.45%	4.5%	9,663,959
Richmond County	493,194	8,481	\$89,427	10.30%	5.3%	230,610

Source:
¹U.S. Census Bureau, 2021. 2017-2021 American Community Survey 5-Year Estimates.
²U.S. Bureau of Labor Statistics, Feb 2023.

As shown below, 40.4 percent of the residents of Richmond County identify as belonging to a minority group. Detailed data on race and ethnicity are shown in Table 2 below.

Table 2. Existing Demographic Characteristics									
Location	Minority	White, non-Hispanic	Black or African American	American Indian & Alaska Native	Asian	Native Hawaiian & Other Pacific Islanders	Some Other Race	Two or More Races	Hispanic or Latino ¹
New York State	45.3%	54.7%	29.8%	0.4%	8.6%	0.0%	9.0%	6.0%	19.2%
Richmond County	40.4%	59.6%	10.1%	0.3%	10.4%	0.0%	4.1%	5.8%	18.4%

Source:
 U.S. Census American Community Survey, 2017-2021, File# B03002
¹ Persons of Hispanic or Latino ethnicity may be of any race.

TRC reviewed the most current data available from the U.S. Census Bureau’s American Community Survey (ACS) to obtain estimates of nearby minority populations and persons below poverty level and the map of areas meeting the criteria for disadvantaged communities as defined by the Climate Justice Working Group (CJWG) to assess potential socio-economic and Environmental Justice effects that could be caused by the development of the proposed Project (U.S. Census Bureau 2023; NYCJWG 2023).

The Project Site, including a 0.5-mile surrounding buffer (Study Area), is wholly contained within five Census block groups in Richmond County. Three of these block groups are populated and are shown in Table 3 below. The buffer includes a small portion of Prall Creek and Fresh Kills where no persons reside.

Table 3 below provides the most recent data from the U.S. Census Bureau’s ACS (2017-2021) regarding populations below the poverty level and minority populations. As shown in Table 3, one of the Census block groups overlapping the Study Area meets the criteria for a Potential Environmental Justice Area (PEJA) as defined by the State of New York Commissioner Policy 29 based on its minority composition (NYSDEC 2023c).

Table 3. Low-income and Minority Populations in the Study Area, American Community Survey			
Block Group	Population Below Poverty Level¹	Minority Population (non-white and/or Hispanic)^{2,3}	Potential Environmental Justice Area
Tract 291.02, Block Group 1 (host)	6.5%	53.9%	Yes
Tract 291.02, Block Group 2	11.4%	41.8%	No
Tract 291.05, Block Group 1	4.4%	13.9%	No

¹ U.S. Census American Community Survey, 2017-2021, File# B17021
² U.S. Census American Community Survey, 2017-2021, File# B03002
³ Persons of Hispanic or Latino ethnicity may be of any race.

Based on the final determinations for Disadvantaged Communities (DACs) by the CJWG, the Project Area is located within a DAC: Tract 291.02.

The intent of an Environmental Justice evaluation is to determine if air quality and associated health impacts are disproportionately affecting certain communities or populations. Based on the review of the minority and low-income populations of these Census block groups, the Project Area does include one PEJA as defined by the State of New York and is located within a DAC.

Potential Impacts

The Project will generate positive economic benefits to the surrounding communities, including new annual tax payments, construction jobs, local spending in the area on supplies and materials for construction, and spending by construction workers in the area on food, lodging, increasing grid reliability and resiliency, and other services. As described herein, the Project will result in beneficial effects on air quality (replacing combustion turbines in NYC with energy storage technology further enabling NYC and NY to meet its electrification targets while maintaining grid reliability and reducing commercial traffic in

and out of the site compared with current use) and will have no significant adverse visual or noise impacts; therefore, the Project will not result in a disproportionate or adverse impacts to any disadvantaged communities nor any potential EJ communities.

F. Topography and Soils

This section includes a discussion of the topography, soils, and potential impacts resulting from the proposed construction and operation of the Project.

Existing Conditions

The Project Site is relatively level, remaining between 20 and 30 feet above mean sea level from eastern edge to western edge. The Study Area is also relatively level; however, it contains a gradual decrease in elevation towards the western edge due to the proximity to Arthur Kill.

Table 4 below presents the soil units mapped by the U.S. Department of Agriculture Natural Resources Conservation Service (NRCS) Web Soil Survey for the Project Site. According to the NRCS Web Soil Survey, 11 soil units were identified within the Project Site (Table 4 and Figure 3). The Project Site is comprised primarily of well drained soils (85.6%) and the average depth to bedrock is greater than 80 inches. The complete NRCS Soil Survey for the Project Site is included in Attachment E.

Table 4. NRCS Mapped Soil Units within Project Site		
Soil Map Unit	Name	Drainage Class ¹
BmB	Boonton loam, moderately well drained, 3 to 8 percent slopes	Moderately well drained
GbA	Greenbelt loam, 0 to 3 percent slopes	Well drained
GuA	Greenbelt-Urban land complex, 0 to 3 percent slopes	Well drained
LUA	Laguardia-Urban land complex, 0 to 3 percent slopes	Well drained
PaA	Pawcatuck mucky peat, 0 to 2 percent slopes, very frequently flooded	Very poorly drained
UGA	Urban land-Greenbelt complex, 0 to 3 percent slopes	N/a
UsA	Urban land, sandy substratum, 0 to 3 percent slopes	N/a
UtA	Urban land, sandy substratum, 0 to 3 percent slopes	N/a
UVA	Urban land-Verrazano complex, 0 to 3 percent slopes	N/a
UVAI	Urban land-Verrazano complex, 0 to 3 percent slopes, low impervious surface	N/a
VzA	Verrazano sandy loam, 0 to 3 percent slopes	Well drained

¹ Soils that have a drainage class as N/a have an average of approximately 20 inches of cemented material above a sand or gravel layer and a parent material of asphalt over human-transported material. This accounts for approximately 6.7 acres primarily in the roadway of Victory Boulevard.
Source: USDA NRCS Soils Report; Attachment E

Phase 1 Environmental Site Assessment (ESA)

A Phase 1 ESA was conducted for the property located at 3889 Victory Boulevard, where the BESS will be located, in 2019. The report identified two Recognized Environmental Conditions (RECs) including petroleum staining on unpaved surface and historical and current land uses of adjoining and surrounding properties. The petroleum staining source was found to be parked cars and no petroleum bulk storage was observed. Several historic and current businesses surrounding the Project site were noted including an automobile service and repair shop, storage for telephone equipment, and a dry-cleaning facility. The Phase 1 ESA also noted that based on historical topographic maps the grade of the Project site has been altered, presumable with historic fill material. Historic fill materials may contain contaminants, however there are no regulatory reporting requirements. Special soil handling, management, and off-site disposal procedures will be required.

There is no evidence of a release at the Project site or other environmental concerns that affect the suitability for development of the Project at this location.

Potential Impacts

Grading and Drainage

The Project's Site Plan Drawings include proposed contours, drainage areas and stormwater runoff. As the site is already developed and primarily impervious cover, a significant increase in surface runoff is not expected. The Project will develop a Stormwater Pollution Prevention Plan (SWPPP) in accordance with the NYSDEC State Pollutant Discharge Elimination System (SPDES) General Permit for Stormwater Discharges from Construction Activity prior to the commencement of construction. The SWPPP will also be compliant with the NYSDEC Stormwater Management Design Manual.

The SWPPP will detail the proposed stormwater management practices and best management practices (BMPs) for the Project. The Project is anticipated to require a storm sewer system including manholes and culvert to capture stormwater runoff throughout the Project Site.

Erosion and Sediment Control

The Project will develop a SWPPP in accordance with the NYSDEC SPDES General Permit. The SWPPP will detail the proposed stormwater management practices as well as the recommended erosion and sediment control practices to be employed at the Project during construction and inspection and reporting requirements for the erosion and sediment controls. The following erosion and sediment controls may be used at the Project:

- Stabilized Construction Entrance: A stabilized construction entrance is a stabilized aggregate underlain with geotextile fabric, placed at the entrance/exit points of the construction site. The entrance aids in the removal and reduction of sediment tracking onto public roadways.
- Silt Fencing: Silt fence is a temporary barrier used to intercept sediment laden stormwater runoff. The fence is made of a geotextile fabric that is buried into the ground and impounds water to allow sediment settling in the runoff to occur. Silt fence can be reinforced with wire or chain-link if needed based on site conditions. Silt fence is typically used as a perimeter control but may also be used throughout the construction site.

- Compost Filter Socks: Compost filter socks are a temporary sediment control practice which prevents the migration of sediment offsite. The socks are composed of a degradable geotextile mesh tube and filled with compost filter media which filters runoff as it passed through the tube. Compost filter socks may be used as a perimeter control or throughout the construction site.
- Storm Drain Inlet Protection: Inlet protection is a temporary barrier used to prevent sediment laden stormwater runoff from entering storm sewer systems. This practice shall be used where the drainage area to an inlet is disturbed and diverting runoff is not feasible.
- Concrete Truck Washout: Concrete truck washouts shall be used by concrete truck mixers and equipment to wash the equipment and prevent concrete waste and runoff from entering storm sewer systems or leaching into soils. Concrete washout facilities may be a temporary excavated or above ground lines construction pit and shall be adequately sized.
- Topsoiling: Spreading of topsoil should be completed prior to placing final seed and mulch for final stabilization of the site. The topsoil provides a suitable ground cover for establishment of grass and reduces the need for fertilizer application.
- Mulching: Application of mulch may be used as a temporary or permanent erosion control method. Temporary mulch shall be applied to idle disturbed soil areas during construction. Mulch shall be applied during permanent seeding application for final stabilization and vegetation establishment. Mulching shall be placed at double the normal rate during the winter stabilization period from November 15th to April 1st.

BMPs will also be utilized to minimize erosion and sedimentation during construction. The erosion and sediment controls and BMPs employed during construction of the Project shall comply with the NYSDEC Standards and Specifications for Erosion and Sediment Control (dated November 2016, or most current version). The SWPPP will require review and approval by the New York City Department of Environmental Protection (DEP) prior to issuance of the SPDES General Permit for the Project by the NYSDEC. The Site Plan Drawings in Attachment A include an Erosion and Sediment Control Plan. A copy of the Erosion and Sediment Control Plan shall be included in the Project SWPPP.

G. Water Resources

This section includes a description of the water resources evaluated at the Project Site and any potential impacts resulting from the construction and operation of the Project. Resources evaluated within and surrounding the Study Area include surface waters, wetlands, floodplains, and various groundwater resources. In addition to a review of agency maps and databases, an in-person wetland investigation and delineation was conducted to document any regulated wetlands or waterways within the Project Site. This review was conducted on November 7th, 2022, and is included as Attachment F.

Existing Conditions

Surface Waters. The Study Area contains several surface water features, including Springville Creek, Main Creek, Fresh Kills Main Creek, Neck Creek, and Arthur Kill. The closest surface water feature to the Project Site is Neck Creek, which is located approximately 330 feet from the northernmost point of the Project Site.

Wetlands. The Study Area contains several large coastal wetland complexes associated with the surface water features listed above. There are no wetlands located within the Project Site, as confirmed during field reconnaissance in November 2022 (Attachment F). However, there is a wetland complex associated with Meredith Woods within the parcel hosting the northern portion of the Project Site. This wetland complex was delineated as W-MJR-1 and is classified as an estuarine emergent wetland (Figure 4). The New York State Department of Environmental Conservation (NYSDEC) classification system of freshwater wetlands designates wetlands into four class ratings, with Class I being the highest quality and Class IV being the lowest quality. W-MJR-1 is classified as a Class II wetland and is presumed to be jurisdictional under the U.S. Army Corps of Engineers (USACE) and NYSDEC. Hydrology from this wetland originates from tidal activity associated with Neck Creek, rainfall, and runoff from surrounding uplands. Predominant vegetation in W-MJR-1, and presumably in other wetlands within the Study Area that were not delineated by TRC, consists of Common reed (*Phragmites australis*).

Floodplains. The Federal Emergency Management Agency (FEMA) develops materials to support flood hazard mapping as part of the National Flood Insurance Program (NFIP). The Study Area is located within four different Flood Insurance Rate Map (FIRM) panels with identification codes 3604970302F, 3604970306F, 3604970304F, and 3604970308F, all with effective dates 9/5/2007 (FEMA, 2023). The Study Area contains Special Flood Hazard Area Zone AE and Zone X. Zone AE is defined as a base floodplain where base flood elevation data is available. Zone X is defined as an area with 0.2 percent annual chance of flood hazard, an area with 1 percent annual chance of flood hazard with flood depth less than one foot, or an area with drainage areas of less than one square mile. The battery storage portion of the Project does not fall within the FEMA flood zones as shown on Figure 4.

Aquifers. The Study Area is located within the Long Island Aquifer, which is among the most productive aquifers in the U.S (NYSDEC, 2023a). This aquifer consists of several clay layers. The Study Area is not located within any Primary Aquifers or Sole Source Aquifers. Primary aquifers are “highly productive aquifers presently utilized as sources of water supply by major municipal water supply systems,” and are afforded special protection. Sole Source Aquifers are designated as the sole or main source of drinking water for a community by the US Environmental Protection Agency under provisions of the Federal Safe Drinking Water Act.

Drinking Water/Recharge Areas. The Project Area is located within the Catskill/Delaware water service area. The drinking water for the Project site and surrounding area is from reservoirs located west of the Hudson River.

Potential Impacts

The Project will not result in any adverse impacts to surface waters or regulated wetlands. The Project Site does not contain any federal or state regulated wetlands. Erosion and sediment control measures will be installed during construction and BMPs will be used to protect the water resources located off site. During construction and operation the stormwater discharges will be managed under the SWPPP.

H. Terrestrial Resources

This section includes a description of the existing terrestrial resources and a discussion of potential impacts resulting from the Project. The Project was submitted to the Natural Heritage Program (NYNHP) through their online project review request and a response was received on April 26, 2023, regarding the potential presence of state listed species. The United States Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) online tool was used on May 16, 2023, regarding federally listed species that may be present on the Site. Consultation packages were also submitted to USFWS and NYSDEC on July 7, 2023, requesting a potential effect determination. A response has not been received as of July 31, 2023. Copies of agency correspondence is included in Attachment D.

Existing Conditions

Vegetation. The Project Site is located within existing paved roadway (gen-tie line) and developed impervious space with little to no vegetation. The Study Area surrounding the Project Site contains an estuarine emergent wetland, shrubland and forestland, and developed residential or commercial space. During the wetland and stream delineation, dominant vegetation included black locust (*Robinia pseudoacacia*) and Common reed (*Phragmites australis*).

Wildlife. The diversity of wildlife expected in the Study Area is consistent with surrounding areas that are urban (residential and commercial) and estuarine in nature. Avian species and small foraging mammal species are likely the predominant users of the Study Area. These species include, but are not limited to, species such as the American crow (*Corvus brachyrhynchos*), red-tailed hawk (*Buteo jamaicensis*), mourning dove (*Zenaidra*), blue jay (*Cyanocitta cristata*), wild turkey (*Meleagris gallopavo*), Canada goose (*Branta canadensis*), American robin (*Turdus migratorius*), European starling (*Sturnus vulgaris*), house sparrow (*Passer domesticus*), rock pigeon (*Columba livia*), white-tailed deer (*Odocoileus virginianus*), eastern gray squirrel (*Sciurus carolinensis*), eastern chipmunk (*Tamias striatus*), white-footed mouse (*Peromyscus leucopus*), eastern cottontail (*Sylvilagus floridanus*), woodchuck (*Marmota monax*), raccoon (*Procyon lotor*), Virginia opossum (*Didelphis virginiana*), muskrat (*Ondatra zibethicus*), striped skunk (*Mephitis mephitis*), Norway rat (*Rattus norvegicus*), and house mouse (*Mus musculus*).

Endangered, Threatened, and Species of Special Concern

Information regarding federally protected species was obtained via the USFWS IPaC system on May 16, 2023 (USFWS, 2023). The IPaC Species List generated listed two federally listed species that may occur within the vicinity of the Project. These species are listed in Table 5 below.

Additionally, the NYNHP response indicated three state-listed species that may be located within the vicinity of the Project. These species are listed in Table 5 below.

Table 5. NYS and Federally Listed Species that May Occur within the Vicinity of the Project		
Species	NYS Status	Federal Status
Pied-billed grebe (<i>Podilymbus podiceps</i>)	Threatened	Not listed
Piping plover (<i>Charadrius melodus</i>)	Endangered	Threatened
Monarch butterfly (<i>Danaus plexippus</i>)	-	Candidate
Atlantic coast leopard frog (<i>Lithobates kauffeldi</i>)	Unlisted – Critically Imperiled in NYS	Not listed
Persimmon (<i>Diospyros virginiana</i>)	Threatened – Imperiled in NYS	Not listed

The potential presence of each listed species is described below.

Pied-billed grebe

Per the NYNHP response, the pied-billed grebe has been documented breeding within 0.5 mile of the Project Site. Pied-billed grebes are small waterbirds that inhabit wetland areas such as quiet marshes, marshy shorelines of ponds, shallow lakes, marshy bays, and slow-moving streams with sedgy banks or adjacent marshes (NYNHPc 2023). For breeding they prefer a 50/50 combination of emergent vegetation interspersed with open water (NYNHPc 2023). They avoid dense emergent vegetation and prefer water depth ranging from 25 to 50 cm for nesting (NYNHPc 2023). They more commonly set up breeding territories in wetlands impounded by beavers or humans than in those of glacial origins (NYNHPc 2023). Individual pairs appear to favor wetlands of intermediate size (0.6-7.0 ha) over very large or small wetlands (NYNHPc 2023).

The Project Site is not suitable pied-billed grebe habitat as it is primarily a vacant lot that was used to store automobiles, has active commercial activity on a daily basis and is made up of gravel with little vegetation. An estuarine emergent wetland was delineated along the northwestern edge of the Project Site, and this wetland may provide suitable habitat for the pied-billed grebe further offsite. Onsite, the wetland is made up of thick vegetation of the invasive species common reed. This wetland will not be impacted by the Project. Additionally, best management practices (BMPs) outlined in the SWPPP will be implemented during construction and operation to ensure erosion and sediment controls are used so there are no wetland or stream impacts. Based on the factors considered herein, no take of the pied-billed grebe is anticipated.

Atlantic coast leopard frog

Per the NYNHP response, the Atlantic coast leopard frog has been documented within 0.5 mile of the Project Site. In New York, leopard frogs occur primarily in open habitats, including grasslands, wet

meadows, grassy edges, shallow wetlands, and clear, slow-moving ditches (NYNHPb 2023). They are rarely found far from water although in summer they may use grassy areas adjacent to breeding habitat (NYNHPb 2023).

The Project Site is not suitable Atlantic coast leopard frog habitat as it is primarily a vacant lot that was used to store automobiles, has active commercial activity on a daily basis and is made up of gravel with little vegetation. An estuarine emergent wetland was delineated along the northwestern edge of the Project Site, and this wetland may provide suitable habitat for the Atlantic coast leopard frog further offsite. Onsite, the wetland is made up of thick vegetation of common reed. This wetland will not be impacted by the Project. Additionally, BMPs outlined in the SWPPP will be implemented during construction and operation to ensure erosion and sediment controls are used so there are no wetland or stream impacts. Based on the factors considered herein, no take of the Atlantic coast leopard frog is anticipated. Additionally, while considered “Critically Imperiled or Imperiled in New York” it is not a listed species.

Piping plover

Per the USFWS IPaC Official Species List, the piping plover may be found in vicinity of the Project Site. The piping plover is federally threatened (Atlantic coast populations) and New York State endangered species. They are shorebirds that nest in dry sandy areas with little vegetation, above the high water line (i.e., marshes, ocean shores, bays, and reservoirs). In the winter, foraging habitat consists of areas exposed during low tide (i.e., coastal beaches, sandflats, and mudflats). They arrive on breeding grounds from early to mid-March, lay eggs in May/June, and have left for wintering areas by September.

The Project is located on Staten Island and, therefore, these birds would likely only be present during the breeding season. However, the Project Site is in a developed/disturbed gravel lot that was a used-car depository, has active commercial activity on a daily basis and is in a commercial and residential area. This is not suitable habitat for the piping plover and therefore it is unlikely that they would be breeding or foraging in this location. The Project is also not located within defined critical habitat of the piping plover. The wetland in vicinity of the Project will not be impacted and a SWPPP will be developed to ensure erosion and sediment controls are being used so there are no wetland or stream impacts. Additionally, the NYNHP response did not indicate any known occurrences of piping plover within vicinity of the Project Site. Based on the factors considered herein, no take of the piping plover is anticipated due to the Project.

Monarch butterfly

Per the USFWS IPaC Official Species List, the monarch butterfly may be found in vicinity of the Project Site. The monarch butterfly was listed as a federal candidate species in December 2020. Candidate species are species that the USFWS has sufficient information to propose them as endangered or threatened but development of a proposed listing regulation is precluded by other higher priority listing activities. Until the species is proposed for listing, candidate species are not legally protected pursuant to the Endangered Species Act (ESA).

Suitable monarch habitat includes milkweed (their obligate host plant) and flowering plants, often located in open meadows and fields or man-made butterfly gardens. There are open areas within the Project Site and along the edges of the road, that may provide monarch habitat within the Project; however, milkweed

was not a species observed during the wetland and stream delineation. Based on the limited to lack of suitable habitat, take of the monarch butterfly due to the Project is not anticipated.

Persimmon

Per the NYNHP response, persimmon have been documented within 0.5 mile of the Project Site. In New York, native persimmon populations occur in a variety of forested habitats on Long Island and in New York City (NYNHPa 2023). They have been found in coastal oak-hickory forests, in swampy woods with black gum, red maple, and spicebush, and along the margin of coastal ponds and wet depressions (NYNHPa 2023). They're found in forests (mostly in dry woods), seasonally flooded bottomlands, dry ridgetops, and abandoned agricultural land (NYNHPa 2023).

While there is potential suitable habitat for persimmon associated with the wetland on the edge of the Project Site, majority of the Project Site is unsuitable as a vacant lot that was used to store automobiles and is made up of gravel with little vegetation. No persimmons were observed on the Project Site during the wetland and stream delineation. Additionally, the Project will be avoiding the delineated wetland. A SWPPP will be developed to ensure erosion and sediment controls are being used so there are no wetland or stream impacts. Based on the factors considered herein, no take of persimmon is anticipated. Additionally, it is a violation of the Environmental Conservation Law §9-1503 to collect or destroy listed plants without the permission of the landowner.

Potential Impacts

The Project Site does not contain suitable habitat for the species that have been identified as potentially occurring in the vicinity of the Project and potential offsite habitat will be protected via the SWPPP and BMPs for sediment and erosion controls. No known occurrences occur on the actual Project Site. Therefore, impacts to listed species are not anticipated due to the Project.

I. Traffic and Transportation

This section discusses traffic and transportation conditions in the Study Area, as well as potential impacts to traffic and transportation from the Project. Access to the Project Site is planned from the northeast on Latimer Avenue.

Existing Conditions

Roadways. The Project Site is located within a parcel to the north of Victory Boulevard and along the existing roadway of Victory Boulevard. The Project Site will likely be accessed from Latimer Avenue. Major roadways within the Study Area include the West Shore Expressway (NY-440) and Victory Boulevard. NY-440 is a four-lane divided highway that travels in a north/south direction. An east and west service road run parallel to the NY-440. The NY-440 and associated access roads are under NYS jurisdiction. Victory Boulevard is a two-lane road that travels in a northeast/southwest direction. Victory Boulevard is under the NYS jurisdiction.

Additional roads within the Study Area and direct adjacent to the Project Site include residential roads: Ridgeway Avenue, Cannon Avenue, Simmons Lane, Towers Lane, Leroy Street, Church Avenue, Burke

Avenue, Shelley Avenue, Parish Avenue, Wild Avenue, Melvin Avenue, Roswell Avenue, and Alberta Avenue. All of the residential roadways listed run perpendicular to Victory Boulevard.

Public Transportation. There are several Metropolitan Transportation Authority (MTA) bus routes within the Study Area. Bus routes 62, 92, and SIM 32 are located along the length of Victory Boulevard within the Project Site. Several other Staten Island Express Bus Services run along NY-440 within the Study Area. Additionally, bus routes 46 and 96 run along South Avenue in the northern portion of the Study Area (MTA, 2022). There are no public transportation rail lines within the Study Area.

Railways. There is one industrial or shipping rail line that runs within the Study Area from the southernmost point to the northernmost point. This rail line does not intersect the Project Site. As mentioned above, there are no public transportation rail lines within the Study Area.

Potential Impacts

During construction of the BESS Facility, there will be approximately 100 total project related construction workers commuting to and from the site and material/equipment deliveries during the construction phase. Based on the current Project design, most of the construction parking will be contained within the Project Site and access will be through an entrance on Latimer Avenue.

General

During the construction period, anticipated Project-related traffic would consist of commuting construction workers and material/equipment deliveries. During construction, approximately 100 construction workers will be on site over the 12 to 18-month construction period. Based on preliminary engineering, most construction parking and staging areas will be located within the Project Site and within the temporary traffic control pattern. Construction is anticipated to occur between the hours of 7:00 AM and 6:00 PM, Monday through Friday. Access to the Project Site will utilize temporary ingress/egress via Baron Boulevard, which intersects Victory Boulevard approximately 200 ft to the north. It is anticipated that Project-related deliveries and construction crews will utilize NY-440/Victory Boulevard from the west and Victory Boulevard from the east. Deliveries can be dispersed throughout the day and any large delivery will be scheduled to occur outside of the roadway peak hours.

Based on the limited number of construction workers and production rate, the temporary construction of the Project will not have a significant impact on traffic operating conditions. The existing roadway network will be able to support this anticipated traffic. No roadway improvements will be required for the construction phase of this Project other than the restoration of the trench with in-kind replacement of the bituminous pavement structure.

After completion of the Project, the operation of the Facility would result in minimal traffic in the area as the Facility will be staffed by 2 to 4 employees during operation, a major improvement over existing Site-generated traffic. Typical maintenance requirements are performed during normal operation with BESS service technicians inspecting all equipment, replace/clean filters, as necessary, and perform any required sampling dictated by operational and/or permit requirements. Therefore, Project-related traffic during operation will not have a significant impact on traffic operating conditions or the existing roadway network.

It is anticipated two options will be considered for the installation of the new cable and conduit, Open Trench (4,500 LF) vs. Open Trench (3,000 LF) with Horizontal Directional Drilling (1,500 LF). It is anticipated the open trench will be 3 ft wide by 8 ft deep, utilizing a trench box. It is estimated the production rate for the installation of the new cable and conduit via open trench will be approximately 200 ft per day. Therefore, the temporary traffic control will be considered a short term operation. It is assumed all work to be completed during the daytime. A summary of potential impacts to each major roadway for Option 1 and Option 2 are included below.

Option #1 – Open Trench

Victory Boulevard - During construction, it is anticipated that traffic will be temporarily impacted along Victory Boulevard from the Project site to approximately 250 ft west of the intersection with Cannon Avenue. It is anticipated a temporary single lane closure will be used due to the location of the proposed alignment, width of the work zone and remaining space available to convey traffic.

Additionally, it is anticipated that traffic will not be impacted as there is sufficient space available for two temporary lanes along Victory Boulevard from Cannon Avenue to the substation on the west side of NY-440.

It is assumed that the daily work zone will be approximately 200 ft long plus the required distance for the lane shifts/tapers and advanced signing for any given day. Therefore, in the vicinity of the work zone and tapers, parking spots will be temporarily unavailable.

NY-440 - It is anticipated that traffic may be temporarily impacted along NY-440 with the overhead installation of the new conduit between the existing bridge beams.

It is important to note that NY-440 has two 12 ft lanes, 4 ft inside shoulder and 10 ft outside shoulder. It is assumed half width construction will be utilized to cross NY-440 in two stages via a temporary single lane/shoulder closure.

NY-440 Northbound On-Ramp / Glen Street - It is anticipated the northbound on-ramp traffic and the corresponding crosswalk will be temporarily impacted. It is assumed half width construction will be utilized to cross the on-ramp in two stages. It is estimated that a sidewalk detour will be required to reroute pedestrians.

NY-440 Southbound Off-Ramp - It is anticipated the southbound off-ramp traffic and the corresponding crosswalk will be temporarily impacted. It is assumed half width construction will be utilized to cross the on-ramp in two stages.

Side Streets - It is anticipated that traffic using Melvin Avenue, Wild Avenue, Parish Avenue, Burke Avenue, Leroy Street and Cannon Avenue will be temporarily impacted by half width construction, crossing the side streets in two stages. It is important to note the minimum side street width is approximately 24 ft.

Additionally, it is anticipated sidewalk detours will be employed to mitigate the temporary impact to the crosswalks at the Melvin Avenue and Wild Avenue intersections.

Private Driveways - There are several driveways located along the north side Victory Boulevard that will be temporarily impacted on between Ridgeway Avenue and Melvin Avenue intersections. Coordination with the property owners will be required when trenching near residential or business driveways.

Option #2 – Open Trench with Horizontal Directional Drilling (HDD)

Victory Boulevard - It is anticipated that traffic will be temporarily impacted along Victory Boulevard from the project site to approximately 250 ft west of the Cannon Avenue intersection, via a temporary single lane closure during the daytime. Additionally, it is anticipated that traffic will not be impacted as there is sufficient space for two temporary lanes along Victory Boulevard from Cannon Avenue to approximately 175 ft east of the intersection with Roswell Avenue.

There is a transverse open trench on Victory Boulevard, east of the Roswell Avenue intersection, that will temporarily impact traffic by using half width construction. This transverse trench will be constructed in two stages to cross Victory Boulevard.

It is estimated that HDD will be utilized from Roswell Avenue to the site containing the substation. Therefore, no impacts to traffic are anticipated.

It is assumed that the work zone will be 200 ft long plus the required distance for the lane shifts/tapers and advanced signing for any given day. In the vicinity of the work zone and tapers, parking spots will be temporarily unavailable.

NY-440 - It is anticipated with the use of HDD, NY-440 traffic will not be impacted.

NY-440 Northbound On-Ramp / Glen Street - It is anticipated with the use of HDD, the northbound on-ramp traffic and the corresponding crosswalk will not be impacted.

NY-440 Southbound Off-Ramp - It is anticipated with the use of HDD, the southbound off-ramp traffic and the corresponding crosswalk will not be impacted.

Side Streets - During construction, it is anticipated that traffic using Melvin Avenue, Wild Avenue, Parish Avenue, Burke Avenue, Leroy Street and Cannon Avenue will be temporarily impacted by half width construction, crossing the side streets in two stages. It is important to note the minimum side street width is approximately 24 ft.

Additionally, it is anticipated sidewalk detours will be employed to mitigate the temporary impact to the crosswalks at Melvin Avenue and Wild Avenue.

It is anticipated with the use of HDD, Roswell Avenue and the corresponding crosswalk will not be impacted.

Private Driveways - There are several driveways located along the north side Victory Boulevard that will be temporarily impacted between Ridgeway Avenue and Melvin Avenue intersections. Coordination with property owners will be required when trenching near any residential or business driveways.

J. Noise

This section discusses the noise study conducted for the Project, which included background noise measurements to characterize the existing noise environment, noise modeling to predict the sound levels resulting from the operation of the Project at the property line and any nearby sensitive receptors, including an assessment of compliance with the New York City Noise Control Code and the NYSDEC) Assessing and Mitigating Noise Impacts (DEP-00-1, February 2, 2001) guidance policy. The Noise Analysis Report is included in Attachment G.

APPLICABLE STANDARDS AND GUIDELINES

The New York City Noise Code includes the maximum sound pressure levels from any sound source operating in connection with any commercial or business enterprise at the specified receiving properties:

Table 6. New York City Noise Control Code Maximum Sound Pressure Levels (dB) as Measured Within a Receiving Property as Specified Below		
Octave Band Frequency (Hz)	Residential Receiving Property (A-weighted)	Commercial Receiving Property (A-weighted)
63	61 (34.8)	64 (37.8)
125	53 (36.9)	56 (39.9)
250	46 (37.4)	50 (41.4)
500	40 (36.8)	45 (41.8)
1,000	36 (36.0)	41 (41.0)
2,000	34 (35.2)	39 (40.2)
4,000	33 (34.0)	38 (39.0)
8,000	32 (30.9)	37 (35.9)

The NYSDEC noise Guidelines establishes thresholds for the determination of whether an increase in sound level caused by a new source constitutes a significant adverse impact as follows:

- Increases from 0 to 3 dBA should have no appreciable effect on receptors;
- Increases of 3 to 6 dBA may have the potential for adverse impacts only in cases where the most sensitive receptors (e.g., hospital or school) are present;
- Increases of more than 6 dBA may require a closer analysis of impact potential depending on existing noise levels and the character of surrounding land uses and receptors; and

- Increases of 10 dBA or more deserve consideration of avoidance and mitigation measures in most cases.

The NYSDEC guidance also establishes that the addition of any noise source in a no-industrial setting should not raise the ambient level above 65 dBA or in an industrial or commercial setting above 79 dBA without exploring the feasibility of implementing mitigation.

Existing Conditions

Ambient sound level measurements were taken at the Property site property line to characterize the existing sound environment. Short term measurements were taken at several locations during both daytime and nighttime periods and 24-hour measurements were taken at a single location continuously over a 3-day period.

The ambient sound level measurements were taken at the following measurement points:

- MP-1: East side of property, near Latimer Ave and Baron Boulevard
- MP-2: West side of property, near residences on Cannon Ave
- MP-3: South side of property, closest to Victory Blvd
- MP-4: North side of property, next to Meredith Woods

The results of the ambient sound level measurements are summarized in the following tables:

Table 7. Short Term Noise Monitoring Results Summary (dBA)

Site ID	LA _{EQ}	LC _{EQ}	LA ₁₀	LA ₅₀	LA ₉₀
7AM - 8AM					
MP-1	64.0	75.0	69.4	57.5	55.0
MP-2	60.5	73.1	73.1	57.4	56.1
MP-3	54.3	54.3	54.3	54.3	54.3
MP-4	58.0	69.1	59.3	57.4	55.9
10AM - 11AM					
MP-1	52.6	65.1	53.8	51.0	49.2
MP-2	53.5	66.6	55.8	52.6	51.1
MP-3	55.6	66.8	57.7	52.8	51.6
MP-4	56.4	68.6	57.8	55.5	54.6

Site ID	LA _{EQ}	LC _{EQ}	LA ₁₀	LA ₅₀	LA ₉₀
4:30PM - 5:30PM					
MP-1	53.6	65.5	55.8	52.5	51.4
MP-2	55.6	67.5	57.7	54.0	52.5
MP-3	56.3	68.4	68.4	54.2	52.4
MP-4	57.6	68.3	59.0	57.0	56.1
10PM - 11PM					
MP-1	57.2	67.6	57.8	55.9	54.5
MP-2	58.3	72.4	59.7	57.4	56.2
MP-3	58.7	69.4	62.6	55.5	54.0
MP-4	60.1	69.8	61.4	59.8	58.9

Table 8. Short Term A-Weighted Octave Band Analysis Summary (dBA)

Site ID	Octave Band Center Frequency (Hz)									
	16	31.5	63	125	250	500	1000	2000	4000	8000
7AM - 8AM										
MP-1	14.4	28.0	37.8	47.6	48.7	52.8	55.2	50.8	49.0	32.0
MP-2	5.4	22.7	35.9	46.0	53.5	58.9	52.0	53.2	53.0	50.9
MP-3	12.9	24.5	31.5	37.5	39.2	43.6	46.4	38.7	32.3	20.0
MP-4	9.8	20.8	32.6	38.1	42.3	46.4	51.2	41.6	30.4	18.9
10AM - 11AM										
MP-1	2.1	17.3	29.6	36.5	41.8	42.7	43.2	32.5	21.0	11.1
MP-2	0.4	17.4	33.8	40.4	40.8	41.9	45.1	34.1	20.9	16.6
MP-3	-0.5	18.1	32.1	39.5	42.8	45.5	46.4	39.3	36.9	27.7
MP-4	2.5	18.8	34.5	40.8	44.4	43.8	48.6	36.0	16.6	10.0

Site ID	Octave Band Center Frequency (Hz)									
	16	31.5	63	125	250	500	1000	2000	4000	8000
4:30PM - 5:30PM										
MP-1	4.5	17.5	29.2	34.4	39.2	43.6	45.3	39.3	31.0	22.6
MP-2	2.4	19.7	34.2	38.3	43.6	45.6	45.3	40.1	32.5	23.2
MP-3	2.6	21.0	33.1	40.0	44.1	46.6	47.0	40.1	34.3	25.3
MP-4	4.7	19.2	34.0	40.1	44.7	45.4	50.5	40.9	30.6	19.5
10PM - 11PM										
MP-1	8.8	20.5	28.4	34.6	40.8	47.0	49.0	44.9	35.2	24.6
MP-2	12.9	23.8	38.2	40.3	45.5	47.4	49.9	42.7	34.1	26.0
MP-3	5.2	21.6	34.3	40.8	44.3	48.7	50.3	42.3	35.6	28.8
MP-4	9.1	20.6	33.7	40.3	45.6	47.9	53.1	44.7	31.3	22.0

Table 9. Long Term Noise Monitoring Results Summary (dBA)

Site ID	LA _{EQ}	LC _{EQ}	LA ₁₀	LA ₅₀	LA ₉₀
May 2 - 5					
MP-2	56.7	67.4	59.4	54.9	48.9

Table 10. Long Term A-Weighted Octave Band Analysis Summary (dBA)

Site ID	Octave Band Center Frequency (Hz)									
	16	31.5	63	125	250	500	1000	2000	4000	8000
May 2 - 5										
MP-2	3.4	20.0	33.2	38.3	42.4	45.2	48.9	41.5	35.8	27.2

Potential Impacts

Construction Noise

There will be temporary noise impacts during Project construction. These impacts will vary with the specific construction activities but will be temporary and transient. Equipment and vehicle idling will be minimized, and construction vehicle traffic will be timed and routed in order to minimize potential noise impacts on the local community. All construction activities will be conducted in accordance with the applicable state and local hourly restrictions on such activities.

Operational Noise

Noise modeling has been conducted to predict the sound levels resulting from the operation of the Project at the property line and at nearby sensitive receptors. The noise modeling was conducted using Cadna-A, which accounts for site topography and the presence of intervening topographical features and structures to predict the propagation of sound from numerous sound sources. A terrain model was built using the proposed Project site grading and the Project sound sources were placed into the model at their proposed locations at their design sound power levels.

The primary noise producing sources during Project operation will be the BESS containers, the power inverters, and the transformers. Representative sound power levels for each proposed source were placed into the model at their proposed locations. Since the sound producing equipment was assumed to be continuously operating, the L_{90} (background level) and the L_{eq} (equivalent constant level) of the proposed equipment are the same for the purposes of this assessment.

Cadna-A[®] allows the user to place receptors at selected locations and predicts sound levels at those specific receptor locations. For this analysis, specific receptors were placed at the monitoring locations specified above, as well as at the closest exterior walls of the nearest residential receptor (RR-1) and the nearest commercial receptor (CR-1).

To estimate interior sound levels at residential and commercial receptors (with open windows) for comparison to NYC Noise Code thresholds, an additional reduction of 10 A-weighted decibels can be applied to the model results, which are based on receptor points conservatively placed at the nearest point on the exterior wall of the receiving building (Locher et al, 2018).

The model also calculated sound levels for the surrounding area, using a 10-foot receptor grid, with a receptor height of 5.1 feet (representative of average ear height).

The results of the modeling are summarized in the following table:

Table 11. Results of the Noise Modeling

Site ID	Ambient Sound Level (LA ₉₀)*	BESS Sound Level (dBA)	Combined Sound Level (dBA)	Sound Level Increase (dBA)
Early Morning (7 AM - 8 AM)				
MP-2	56.1	56.8	59.5	3.4
RR-1	55.3	59.8	61.1	5.8
CR-1	55.3	58.2	60.0	4.7
Late Morning (10 AM - 11 AM)				
MP-2	51.1	56.8	57.8	6.7
RR-1	51.6	59.8	60.4	8.8
CR-1	51.6	58.2	59.1	7.5
Afternoon (4:30 PM - 5:30 PM)				
MP-2	52.5	56.8	58.2	5.7
RR-1	53.1	59.8	60.6	7.5
CR-1	53.1	58.2	59.4	6.3
Night (10 PM - 11 PM)				
MP-2	56.2	56.8	59.5	3.3
RR-1	55.9	59.8	61.3	5.4
CR-1	55.9	58.2	60.2	4.3

The results of the noise modeling predicted that the Project will likely create noise increases (over 6 dBA) and have the potential to affect neighboring residences near the property line. Therefore, noise mitigation will be required to comply with the New York City Noise Code requirements and NYSDEC Guidelines. The noise modeling was repeated to evaluate the effectiveness of noise barrier walls on reducing the noise impact from the Project during operation. The following tables show the results of the noise modeling with the addition of noise walls. The modeled barrier walls are 8 feet high and placed along the south, east, and north interior perimeter of the site access road, with an assumed reflection loss of 5 dB.

Table 12. Cadna-A Modeling Octave Band Sound Level Results (dBA) – Exterior w/Noise Walls

Site ID	Octave Band Center Frequency (Hz)									Total dBA
	31.5	63	125	250	500	1000	2000	4000	8000	
MP-2	-5.1	7.9	28.1	28.0	38.5	47.3	45.9	41.2	19.2	50.6
RR-1	-2.9	10.1	30.3	31.8	41.8	50.4	50.0	46.8	27.5	54.4
CR-1	-4.2	8.9	29.2	30.0	40.3	49.1	48.6	45.0	25.5	53.0

Table 13. Cadna-A Modeling Octave Band Sound Level Results (dBA) – Interior w/Noise Walls

Site ID	Octave Band Center Frequency (Hz)									Total dBA
	31.5	63	125	250	500	1000	2000	4000	8000	
RR-1	-12.9	0.1	20.3	21.8	31.8	40.4	40.0	36.8	17.5	44.4
CR-1	-14.2	-1.1	19.2	20.0	30.3	39.1	38.6	35.0	15.5	43.0

Table 14. Cadna-A Modeling Results Sound Levels – With Noise Walls

Site ID	Ambient Sound Level (LA ₉₀)*	BESS Sound Level (dBA)	Combined Sound Level (dBA)	Sound Level Increase (dBA)
Early Morning (7 AM – 8 AM)				
MP-2	56.1	50.6	57.2	1.1
RR-1	55.3	54.4	57.9	2.6
CR-1	55.3	53.0	57.3	2.0
Late Morning (10 AM – 11 AM)				
MP-2	51.1	50.6	53.9	2.8
RR-1	51.6	54.4	56.2	4.6
CR-1	51.6	53.0	55.4	3.8

Site ID	Ambient Sound Level (LA ₉₀)*	BESS Sound Level (dBA)	Combined Sound Level (dBA)	Sound Level Increase (dBA)
Afternoon (4:30 PM – 5:30 PM)				
MP-2	52.5	50.6	54.7	2.2
RR-1	53.1	54.4	56.8	3.7
CR-1	53.1	53.0	56.1	3.0
Night (10 PM – 11 PM)				
MP-2	56.2	50.6	57.3	1.1
RR-1	55.9	54.4	58.2	2.3
CR-1	55.9	53.0	57.7	1.8

As shown on the preceding tables, the addition of noise walls significantly reduces the sound level increases at the monitoring locations to the point where there will not be adverse impacts to adjacent residential and commercial properties. Based on the results of this sound assessment, the Project will comply with the applicable New York City noise control requirements and NYSDEC Guidelines during operation.

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