ENVIRONMENTAL REVIEW RECORD

Documentation of an Environmental Assessment for Projects/Activities Found at 24 C.F.R. Part 58.35(a), Which Categorically Excluded from Environmental Review But Are Subject to the Federal Laws and Authorities Found at 24 C.F.R. Part 58.5.

Project/Activity Information, Executive Summary, Determinations, and Certification:

Project Name: Bright Power – The Resilient Power Hub

Project Location:

- Banner Properties, LLC, 2715 West 15th Street, Brooklyn, NY 11224
- 284 Van Brunt, LLC, 284 Van Brunt St, Brooklyn, NY 11231
- LTD Machine Shop/Dwight Street Acquisitions, 163 Dwight St, Brooklyn, NY 11231

Project Funding Program: RISE: NYC, Resiliency Innovations for a Stronger Economy

Project Loan or Grant Number: B-13-MS-36-0001

Project Total Development Cost (provide best estimate): $2,892,350

Project HUD assistance: $2,892,350

Grant Recipient: New York City Office of Management and Budget

Grant Recipient's Address: 255 Greenwich St, 8th floor, New York, NY 10007

Project Representative: Calvin Johnson, Assistant Director, CDBG-DR

Project Representative's Telephone Number: 212-788-6024

Responsible Entity (RE): New York City Office of Management and Budget (OMB)

Certifying Official or Official Designate: Dean Fuleihan, Budget Director, OMB

Statement of Purpose and Need for the Proposed Action:

[40 C.F.R. Part 1508.9(b)]

Extreme storm surge caused by Hurricane Sandy in October 2012 resulted in severe flooding, particularly in the low-lying coastal portions of Brooklyn, Staten Island, Queens, and Lower Manhattan. Businesses and homes, as well as critical power infrastructure facilities throughout these areas sustained significant damages due to flooding. Prolonged power outages and fuel shortages exacerbated flood damage and delayed the recovery efforts.

The three small businesses proposed for installation of a Resilient Power Hub, located in low-lying coastal neighborhoods of Brooklyn, all experienced heavy flooding as a result of Hurricane Sandy. As demonstrated during and after Hurricane Sandy, such sites are vulnerable to significant flood damage. Direct damage sustained during flooding can be greatly exacerbated by prolonged power outages when the electric grid is disrupted and/or natural gas is unavailable. Such power outages delay recovery efforts, causing suspension of business production and services. Each of these small businesses contributes to

their local economy and the economic resilience of the New York City area as a whole. Absent a source of reliable and resilient power, service interruptions such as those experienced during Hurricane Sandy are likely to occur again during future storm events.

The proposed project would provide a resilient source of power for these three businesses during power outages resulting from future storm events and other emergency situations.

Description of the Proposed Action:

[24 C.F.R. Part 58.32, 40 C.F.R. Part 1508.25]

The proposed project would install Resilient Power Hubs provided by Bright Power at three small businesses in flood-prone neighborhoods in Brooklyn. Resilient Power Hubs use a combination of three main power generation devices: a micro-Combined-Heat-and-Power (mCHP) plant, a solar photovoltaic (PV) panel array, and an energy storage (ES) battery system to provide back-up power and reduce use of grid electricity.

The businesses proposed for Resilient Power Hub installation are Banner Properties, LLC located at 2715 West 15th Street in Coney Island, New York, 284 Van Brunt, LLC located at 284 Van Brunt Street, and LTD Machine Shop/Dwight Street Acquisitions, located at 163 Dwight Street in the Red Hook neighborhood (see Figure 1 and Figures 2a-2c).

The mCHP plant consists of a 10 kilowatt (kW) natural-gas-fired reciprocating engine coupled with an electric generator and a heat exchanger. When necessary, the mCHP plant uses natural gas to create electricity, while recapturing the waste heat from the engine, which is then used to heat up to 120 gallons of water to 120 degrees for high energy conversion efficiency. The mCHP provides a continuous source of electricity when the electric grid is disrupted. Each Resilient Power Hub would include 58 solar PV panels, each with a capacity of 345 watts. The solar PV panels would provide a renewable and reliable source of power for critical system facilities, even during outages of the electric grid and when natural gas is unavailable. The battery system stores and discharges the clean energy produced onsite and can be configured to charge using grid electricity at off-peak hours. The battery system further improves the system's resiliency in the event of a grid power outage, providing electricity to power critical system functions.

The three separate components of the Resilient Power Hub are interconnected by a dynamic control system that manages the output of the Resilient Power Hub elements and the draw from the electric grid and natural gas demand. In addition to the back-up power and energy savings benefits to the three small businesses, the electricity produced by the Resilient Power Hub is cleaner and more sustainable than that obtained from the electric grid. Installation of Resilient Power Hub equipment would require minor construction activities in the interiors and on the rooftops of existing facilities.

Rooftop mCHP equipment installations would be located within enclosure structures measuring approximately 8 feet wide by 10 feet tall by 13 feet long. The proposed installation would include 58 roof-mounted solar PV panels at each project site, occupying a total area of approximately 1,500 square feet. PV panel installations will either be ballasted to the existing roof structures or racked on a steel canopy structure, extending approximately 10 feet above the top of the roof (see Figure 6). All installations would be in accordance with zoning requirements.

The duration of construction for installation of the proposed project is anticipated to be four (4) months or less at each proposed project location. Required construction would include both building system modifications required for connection to existing utilities and providing required electrical, plumbing, and mechanical support, and installation of the solar PV, electrical storage, and mCHP equipment. Construction equipment required for installation is anticipated to include a crane (up to 50 tons) and scissor lift, power tools, and a soldering blow torch for hot water piping. The crane would be required to lift materials to the roof of the existing facilities. The duration of crane use is anticipated to be limited to one (1) day per site and would require permits from the New York City Department of Transportation (DOT) and Department of Buildings (DOB), which would be obtained by the appropriate contractor(s) in advance

of relevant construction activities. Construction staging will take place within an indoor space or on the rooftop of the existing facilities and will not require use of public space or right-of-way.

Existing Conditions and Trends:

[24 C.F.R. Part 58.40(a)]

The proposed project locations are in the Coney Island and Red Hook neighborhoods of Brooklyn, both of which are low-lying coastal neighborhoods that experienced significant flooding as a result of Hurricane Sandy.[1] Both neighborhoods are adjacent to New York Bay. The three small businesses proposed for installation of Resilient Power Hubs are all located within the Special Flood Hazard Area in the Federal Emergency Management Agency (FEMA) 100-year floodplain as defined on both the 2007 Flood Insurance Rate Maps (FIRM) and the 2015 Preliminary Flood Insurance Rate Maps (pFIRM) (see Figures 3a-3c). The small businesses proposed to be served by the project are currently connected to the Consolidated Edison (Con Edison) electric service grid and are provided with natural gas from National Grid.

1 United States Geological Survey, Hurricane Sandy Storm Tide Mapper http://water.usgs.gov/floods/events/2012/sandy/sandymapper.html, accessed April 5, 2016

Classification of Project/Activity:

☐ 24 CFR Part 58.35(a)(1): Acquisition, repair, improvement, reconstruction, or rehabilitation of public facilities and improvements (other than buildings) when the facilities and improvements are in place and will be retained in the same use without change in size or capacity of more than 20 percent (e.g., replacement of water or sewer lines, reconstruction of curbs and sidewalks, repaving of streets)

☐ 24 CFR Part 58.35(a)(2): Special projects directed to the removal of material and architectural barriers that restrict the mobility of and accessibility to elderly and handicapped persons

☒ 24 CFR Part 58.35(a)(3): Rehabilitation of buildings and improvements when the following conditions are met:

- 1 to 4 unit building for residential use, when density is not increased beyond 4 units; land use is not changed; and the footprint of the building is not increased in a floodplain or in a wetland area
- Multifamily residential buildings, when:
  - Unit density is not changed more than 20 percent;
  - The project does not involve changes in land use from residential to non-residential; and
  - The estimated cost of rehabilitation is less than 75 percent of the total estimated cost of replacement after rehabilitation
- Non-residential structures, including commercial, industrial, and public buildings, when:
  - Facilities and improvement are in place and will not be changed in size or capacity by more than 20 percent; and
  - The activity does not involve a change in land use, such as from non-residential to residential, commercial to industrial, or from one industrial use to another

☐ 24 CFR Part 58.35(a)(4):

- An individual action (non-rehabilitation) on up to 4 dwelling units where there are maximum 4 units on any one site. The units can be 4 one-unit buildings or 1 four-unit building or any combination in between
- An individual action (non-rehabilitation) on a project of 5 or more housing units developed on scattered sites when the sites are more than 2,000 feet apart and there are not more than 4 housing units on any one site

☐ 24 CFR Part 58.35(a)(5):

- Acquisition (including leasing) or disposition of, or equity loans on, an existing structure
- Acquisition (including leasing) of vacant land provided the structure or land acquired, financed, or disposed of will be retained for the same use

☐ 24 CFR Part 58.35(a)(6): Combinations of the above activities

Finding:

[24 CFR Part 58.40(g)]

Project is Categorically Excluded per 24 CFR Part 58.35(a)(3) and cannot convert to Exempt status because one or more statues or authorities listed at 24 CFR Part 58.5 require compliance.

Statutory Checklist (ref.: 24 C.F.R. Part 58.5 – Related Federal laws and authorities)

DIRECTIONS: *Write **"A"** in the Status Column when the project, by its nature, does not affect the resources under consideration, OR write **"B"** if the project triggers formal compliance consultation procedures with the oversight agency, or requires mitigation (see the attached "Statutory Checklist Instructions"). Compliance documentation must contain verifiable source documents and relevant base data. Attach reviews, consultations, and special studies as needed.*

Compliance Factors Statutes, Executive Orders, and Regulations listed at 24 CFR §58.5	Status (A or B)	Compliance Finding and Documentation
Historic Preservation ▪ 36 CFR Part 800 regulations ▪ National Historic Preservation Act of 1966 ▪ Executive Order 11593, Protection and Enhancement of the Cultural Environment	A	No in-ground construction would occur with the project. Further, none of the affected buildings are listed on or have been determined eligible for listing on the State/National Registers (S/NR) of Historic Places, nor do any of the properties meet S/NR eligibility criteria. Therefore, no effects to historic, tribal, or cultural resources are anticipated as a result of the proposed project. Consultation letters detailing this determination of no effect were sent to the New York State Historic Preservation Office (SHPO) and the New York City Landmarks Preservation Commission (LPC) and can be found in Appendix B. A response from SHPO concurring with this determination of no effect was received on June 8, 2016 and is included in Appendix B. The proposed project is compliant with this regulation. http://www.nationalregisterofhistoricplaces.com/ny/state.html http://parks.ny.gov/shpo/online-tools/
Floodplain Management ▪ Executive Order 11988 ▪ 24 CFR Part 55 regulations	B	The proposed project locations are all located within flood hazard zone AE as determined by the FEMA 2007 FIRM and 2015 pFIRM (see Figures 3a-3c). A Floodplain Management Plan has been prepared and is attached in Appendix A. The proposed project would be located within and on the roof of existing structures and is not anticipated to have any adverse impacts on the floodplain. The proposed project is compliant with this regulation. https://msc.fema.gov, Map Numbers 3604970192F and 3604970353F http://apps.femadata.com/PreliminaryViewer/?appid=687703427dd347018b8fa2bb0adee979
Wetlands Protection ▪ Executive Order 11990	A	The proposed project sites are not located in freshwater or marine wetlands as determined by the NYSDEC State-Regulated Freshwater Wetlands map or the USFWS National Wetlands Inventory (see Figures 4a-4c). No impacts to wetlands are anticipated. The proposed project is compliant with this regulation. http://www.dec.ny.gov/imsmaps/ERM/viewer.htm http://www.fws.gov/wetlands/Data/Mapper.html

Coastal Zone Management Act ▪ Coastal Zone Management Act of 1972	B	All of the proposed project locations are located within the New York State Coastal Zone and within an area subject to the New York City Local Waterfront Revitalization Program (LWRP). As such, an LWRP Consistency Assessment Form has been prepared and submitted to the New York City Department of City Planning (DCP) and a Federal Consistency Assessment Form to assess consistency with the New York State Coastal Management Program (CMP) has been prepared and submitted to the New York State Department of State (DOS). DCP concurrence with the determination of LWRP policy consistency was received on June 17, 2016. The completed Consistency Assessment Forms are provided in Appendix A. Agency correspondence is provided in Appendix B. The proposed project is compliant with this regulation. http://www.dos.ny.gov/opd/atlas/ http://appext20.dos.ny.gov/coastal_map_public/map.aspx http://www.dos.ny.gov/opd/programs/WFRevitalization/LWRP_status.html http://www1.nyc.gov/site/planning/applicants/wrp/wrpcoastalmaps.page
Sole Source Aquifers ▪ Safe Drinking Water Act of 1974 ▪ 40 CFR Part 149 regulations	A	All of the proposed project locations are located on the Brooklyn-Queens Sole Source Aquifer (SSA) system. As the Proposed Project includes only minor construction on the interior and rooftop of existing buildings and has no effect on water supply, wastewater discharge, or any subsurface components, no impacts to the SSA system are anticipated. The proposed project is compliant with this regulation. http://www.epa.gov/region02/water/aquifer/brooklyn/broo_fig.htm
Endangered Species Act ▪ Endangered Species Act of 1973	A	The USFWS Information for Planning and Conservation System lists the piping plover (*Charadrius melodus*; Threatened), roseate tern (*Sterna dougallii*; Endangered), rufa subspecies of the red knot (*Calidris canutus rufa*; Proposed Threatened), and seabeach amaranth (*Amaranthus pumilus*; Threatened) as occurring within Kings County. Each of these species is associated with coastal habitats and would be limited to the oceanfront and/or bayside shorelines of Brooklyn, with the exception of the roseate tern, which could also be found on island marshes and over open water. The three businesses proposed for the installation of the Bright Power Resilient Power Hubs are inland from the shoreline, on city streets within heavily urbanized areas, where no impervious surfaces or suitable habitat for these species occurs in close proximity (Figures 2a-2c). As such, piping plovers, red knots, roseate terns, and seabeach amaranth do not have the potential to occur near the project sites and there would be no potential impacts to these species from the rooftop installation of the Bright Power Resilient Power Hubs. Overall, it is concluded that the proposed project would not adversely affect the piping plover, red knot, roseate tern, or

		seabeach amaranth, and would therefore be in compliance with section 7 of the Endangered Species Act. A consultation letter was sent to USFWS detailing this finding of no effect and is included in Appendix B. The proposed project is compliant with this regulation. http://ecos.fws.gov/ipac/wizard/chooseLocation!prepare.action http://www.dec.ny.gov/natureexplorer/app/
Migratory Bird Treaty Act ▪ [50 CFR 10, 20, 21, Executive Order 13186]	A	As the proposed project includes only minor construction on the interior and rooftop of existing buildings, no effects on migratory birds are anticipated as a result of the project. The proposed project would comply with the Neotropical Migratory Bird Treaty Act given that no take of birds protected under the Act would result from the proposed project. A consultation letter was sent to USFWS detailing this finding of no effect and is included in Appendix B. The proposed project is compliant with this regulation. http://ecos.fws.gov/ipac/wizard/chooseLocation!prepare.action
Coastal Barrier Resources Act ▪ 16 U.S.C 3501-3510	A	Not applicable. According to the Coastal Barrier Resource System maps provided by USFWS, none of the proposed project site locations are located in a Coastal Barrier Resource System or Otherwise Protected Area. Therefore, the proposed project is anticipated to have no adverse impact on any Coastal Barrier Resources. http://www.fws.gov/ecological-services/habitat-conservation/cbra/maps/mapper.html
Wild and Scenic Rivers Act ▪ Wild and Scenic Rivers Act of 1968	A	Not applicable. Only one river in New York State is included in the National Wild and Scenic Rivers Systems and it is the Delaware River (Upper). The proposed project site is not located near this river and no adverse impacts are anticipated. http://www.rivers.gov/maps/conus.php
Air Quality ▪ Clean Air Act of 1970 ▪ 40 CFR Parts 6, 51, & 93 regulations	A	The proposed project would be located in Kings County, which is within a nonattainment or maintenance area for the ozone, carbon monoxide, and particulate matter ($PM_{2.5}$) standards. Therefore, a conformity analysis for the EDC RISE program as a whole (see Appendix A) was made according to the requirements of 40 CFR 93, Subpart B (federal general conformity regulations) assuming that the emissions rates for the RISE projects, including the Bright Power project subject to review in this document, would be less than or equal to the maximum air pollutant emission factors documented in the Environmental Protection Agency's AP-42, Fifth Edition, Volume I. Total maximum potential emissions associated with the reasonable worst case operation of projects funded via the RISE Program were calculated (see Appendix A) and the resulting annual emissions are well below the applicable de minims criteria defined in the general conformity regulations. Based on this analysis, the funding of the RISE program would conform to all applicable state implementation plans, and would not require a conformity determination or any further evaluation. The proposed project is compliant with this regulation.

		http://www.epa.gov/airquality/greenbook/ http://www.epa.gov/airquality/greenbook/adden.html
Farmland Protection Policy Act ▪ Farmland Protection Policy act of 1981 ▪ 7 CFR Part 658 regulations	A	The proposed project is not located within an agricultural district or in an area with prime farmland soils. The proposed project is compliant with this regulation. http://www.agriculture.ny.gov/ap/agservices/agricultural-districts.html http://websoilsurvey.sc.egov.usda.gov/app/WebSoilSurvey.aspx
Environmental Justice ▪ Executive Order 12898	A	The following proposed project locations are located within Potential Environmental Justice Areas as identified by the New York State Department of Environmental Conservation (NYSDEC): - 284 Van Brunt LLC - LTD Machine Shop/Dwight Street Acquisitions The proposed project includes minor construction on the interior and rooftop of existing buildings. No impacts associated with waste, air emissions, or noise would result from the proposed project. Since the proposed project would not result in the potential for significant adverse impacts, there are no disproportionate adverse impacts anticipated on the surrounding community. The proposed project is compliant with this regulation. http://www.dec.ny.gov/docs/permits_ej_operations_pdf/kingsejdetail.pdf
HUD Environmental Standards	**Status**	**Determinations and Compliance Documentation**
Noise Abatement and Control ▪ 24 CFR Part 51B regulations	A	The proposed project is not a noise sensitive use. The micro Combined Heat and Power (mCHP) engine would be located on the rooftop for the Banner Properties, LLC and 284 Van Brunt, LLC locations. This equipment is required to meet section 24-227 of the New York City Noise Control Code governing noise from Circulation Devices. This requirement prohibits noise generated by circulation devices at a given property in excess of 42 dBA for a single unit or 45 dBA for combined units, as measured 3 feet inside the open window of the nearest receiving property. By complying with these applicable limits, the equipment would not have the potential to result in noise at any surrounding noise receptors that would constitute a significant adverse impact. At the two proposed project sites at which the equipment would be installed on rooftops, the equipment would be installed within an enclosure which will ensure compliance with this requirement. The proposed project is compliant with this regulation. http://portal.hud.gov/hudportal/documents/huddoc?id=noiseabatement.pdf http://www.nyc.gov/html/dep/pdf/law05113.pdf
Explosive and Flammable Operations ▪ 24 CFR Part 51C regulations	A	This criterion is applicable to HUD-assisted projects that involve new residential construction, conversion of non-residential buildings to residential use, rehabilitation of residential

		properties that increase the number of units, or restoration of abandoned properties to habitable condition. As such, this criterion is not applicable to the proposed project.
Toxic Chemicals and Radioactive Materials ▪ 24 CFR Part 58.5(i)(2)(i) regulation	A	Review of the NEPA Assist RCRA Hazardous Waste site database indicates that there are multiple Resource Conservation and Recovery Act (RCRA) hazardous waste sites adjacent to or near the proposed project sites. However, as the proposed project will not require any ground disturbance or subsurface work, it is anticipated that these sites would have no effect on the proposed project. Each site will be required to obtain a New York City Department of Building (NYCDOB) permit for the installation of the Resilient Power Hub systems. In order to obtain the permits, an asbestos survey must be performed at each site prior to installation of the systems. For health and safety purposes, a lead paint survey shall also be performed at each site. If any asbestos-containing material (ACM) or lead paint is identified as a result of the surveys, appropriate mitigation and disposal measures will be taken and all asbestos and lead abatement work will be performed in accordance with all applicable Federal, State and local rules and regulations. All solid waste materials will be managed and transported in accordance with federal, State, and local solid and hazardous waste rules. The proposed project is compliant with this regulation. http://nepassisttool.epa.gov/nepassist/nepamap.aspx
Airport Clear Zones and Accident Potential Zones ▪ 24 CFR Part 51D regulations	A	Not applicable. Based on guidance provided by HUD in Fact Sheet #D1, the National Plan of Integrated Airport Systems was reviewed for civilian, commercial service airports within the vicinity of the project sites. No known civil airports are located within 2,500 feet and no known military airports are located within 15,000 feet of the proposed project site. Therefore there are no anticipated adverse impacts. https://www.hudexchange.info/resources/documents/Siting-HUD-Assisted-Projects-in-Accident-Potential-Zones.pdf
Magnuson-Stevens Fishery Conservation and Management Act ▪ 16 USC 1801 et seq	A	As the proposed project includes only minor construction on the interior and rooftop of existing buildings, no effects on fisheries are anticipated as a result of the project. The proposed project is compliant with this regulation.
Fish and Wildlife Coordination Act ▪ 16 USC 661-666c	A	As the proposed project includes only minor construction on the interior and rooftop of existing buildings, no effects on birds, fishes, mammals, or vegetation are anticipated as a result of the project. The project includes no impoundment, diversion, or control of waters and would not result in any sewage or industrial wastes. Therefore there are no anticipated adverse impacts. The proposed project is compliant with this regulation.
Agriculture and Markets Law ▪ Title 1 NYCRR Section 139.2	A	The proposed project is located outside of the regulated areas as defined in Title 1 NYCRR Section 139.2 subparts (a) and (b). This regulation is not applicable to the proposed project.

Determination:

( ) **This project converts to Exempt** status, per 24 C.F.R. Part 58.34(a)(12), provided there are no circumstances which require compliance with any listed statutes, executive orders, or regulations, nor require any formal permit or license (Status "A" has been determined in the status column for all authorities). **Funds may be drawn down** for this (now) EXEMPT project; OR

(**X**) **This project cannot convert to Exempt** status because one or more of the listed statutes, executive orders, or regulations require(s) consultation or mitigation. Environmental consultation/mitigation requirements, pursuant to 24 C.F.R. Part 58 must be completed/determined to the point of reaching closure. A Notice of Intent to Request a Release of Funds must be published with its associated public comment periods pursuant to 24 C.F.R. Part 58.45 and Subpart H in coordination with HUD/State government (as applicable). Form HUD 7015.15, *"Request for Release of Funds and Certification"*, must be properly executed pursuant to 24 C.F.R. Part 58, Subpart H and forwarded to HUD/State government (as applicable). Appropriate authority to use grant funds must be obtained from HUD/State government (as applicable) before drawing down funds; OR

( ) **The unusual circumstances of this project may result in a significant environmental impact.** This project requires preparation of an Environmental Assessment (EA). An EA should be prepared pursuant to 24 C.F.R. Part 58, Subpart E.

Regulatory Checklist (ref.: 24 C.F.R. Part 58.6 – Other requirements):

Project Name: Bright Power – The Resilient Power Hub
ERR FILE: B-13-MS-36-0001

24 C.F.R. Part 58.6(a): Flood Disaster Protection Act of 1973, as amended:

(**NOTE**: Applicable only when project/activity site is located in a community participating in the National Flood Insurance Program, administered by the Federal Emergency Management Agency.)

Is the project/activity located within a Special Flood Hazard Area (SFHA) as mapped by the Federal Emergency Management Agency (FEMA)?

☒ Yes ☐ No

If No, compliance with this section is complete.
If Yes, continue.

FEMA Map Number(s): 3604970192F and 3604970353F.

If the answer to this question is yes, the project/activity cannot proceed unless flood insurance is obtained through the National Flood Insurance Program.

Insurance Policy Number(s): see Source Document below.

Source Document:
Though all recipient businesses may not currently hold Flood Insurance under the NFIP, project recipients located within the FEMA Special Flood Hazard Area will be required to obtain and maintain flood insurance through FEMA's National Flood Insurance Program in accordance with Federal requirements at Sections 102(a) and 202(a) of the Flood Disaster Protection Act of 1973 as amended, and Sec. 582(1) of the National Flood Insurance Reform Act of 1994, and Federal Register Notices from the U.S. Department of Housing and Urban Development (HUD) applicable to the Disaster Relief Appropriations Act, 2013 (Public Law 113-2), which specify flood insurance requirements applicable to disaster recovery assistance provided to homeowners and businesses:

1. For building-based technologies, building coverage may be required for the full value of the technology plus installation costs for the useful life of the building in which the technology is installed; and
2. For business-based technologies, personal property "contents" coverage may be required for the full value of the technology plus installation costs for the useful life of the technology.

All project recipients located within the floodplain will be required to secure NFIP flood insurance as a requirement of participating in the RISE:NYC program.

24 C.F.R. Part 58.6(b): National Flood Insurance Reform Act of 1994, Section 582, (42 U.S.C. 5154a):

(**NOTE**: Applicable only when the project site is located in an area where HUD disaster assistance is being made available.)

Is the project/activity located within a Special Flood Hazard Area (SFHA) as mapped by the Federal Emergency Management Agency (FEMA)?

☒ Yes ☐ No

If No, compliance with this section is complete.

If Yes, continue.

FEMA Map Number(s): 3604970192F and 3604970353F.

If "Yes", would the HUD disaster assistance be made to a person who had previously received Federal flood disaster assistance conditioned on obtaining and maintaining flood insurance and that person failed to obtain and maintain the flood insurance?

☐ Yes ☒ No

If "Yes", the HUD disaster assistance cannot be made to that person in the Special Flood Hazard Area to make a payment (including any loan assistance payment) for repair, replacement, or restoration for flood damage to any personal, residential, or commercial property.

Insurance Policy Number(s): see Source Document below.

Source Document:
Though all recipient businesses may not currently hold Flood Insurance under the NFIP, project recipients located within the FEMA Special Flood Hazard Area will be required to obtain and maintain flood insurance through FEMA's National Flood Insurance Program in accordance with Federal requirements at Sections 102(a) and 202(a) of the Flood Disaster Protection Act of 1973 as amended, and Sec. 582(1) of the National Flood Insurance Reform Act of 1994, and Federal Register Notices from the U.S. Department of Housing and Urban Development (HUD) applicable to the Disaster Relief Appropriations Act, 2013 (Public Law 113-2), which specify flood insurance requirements applicable to disaster recovery assistance provided to homeowners and businesses:

3. For building-based technologies, building coverage may be required for the full value of the technology plus installation costs for the useful life of the building in which the technology is installed; and
4. For business-based technologies, personal property "contents" coverage may be required for the full value of the technology plus installation costs for the useful life of the technology.

All project recipients located within the floodplain will be required to secure NFIP flood insurance as a requirement of participating in the RISE:NYC program.

§58.6(c) Coastal Barrier Improvement Act, as amended by the Coastal Barriers Improvement Act of 1990 (16 U.S.C. 3501)

Does the project involve new construction, conversion of land uses, major rehabilitation of existing structure, or acquisition of undeveloped land?

☐ Yes ☒ No

If No, compliance with this section is complete.
If Yes, continue below.

Is the project located in a coastal barrier resource area?

☐ Yes ☒ No

If No, compliance with this section is complete.
If Yes, Federal assistance may not be used in such an area.

Source Document: Not applicable. Project does not involve new construction, conversion of land uses, major rehabilitation of existing structure, or acquisition of undeveloped land.

§58.6(d) Runway Clear Zones and Clear Zones [24 CFR §51.303(a) (3)]

Does the project involve the sale or purchase of existing property?

Yes ☐ No ☒

If No, compliance with this section is complete.
If yes, continue below.

Is the project located within 2,500 feet of the end of a civil airport runway (Civil Airport's Runway Clear Zone) or within 15,000 feet of the end of a military runway (Military Airfield's Clear Zone)?

Yes ☐ No ☒

If No, compliance with this section is complete.
If Yes, If yes, the responsible entity must advise the buyer that the property is in a runway clear zone or clear zone, what the implications of such a location are, and that there is a possibility that the property may, at a later date, be acquired by the airport operator. The buyer must sign a statement acknowledging receipt of this information and be maintained in this ERR. For the appropriate content, go to:
http://www.hud.gov/offices/cpd/environment/review/qa/airporthazards.pdf.

Source Document: Not applicable. Project does not involve the sale or purchase of existing property.

Attachments:

Figure 1: Project Location Regional Map
Figures 2a – 2c: Project Location Maps
Figures 3a – 3c: FEMA preliminary Flood Hazard Area Maps
Figures 4a – 4c: USFWS NWI and NYSDEC Wetlands Maps
Figures 5a – 5b: USGS Topographic Maps
Figure 6: Proposed PV Panel Configurations

List of Sources, Agencies, and Persons Consulted

[40 C.F.R. Part 1508.9(b)]
EPA, Greenbook: http://www.epa.gov/oaqps001/greenbk/index.html

EPA, Greenbook – Federal Register Notices: http://www.epa.gov/oaqps001/greenbk/adden.html

EPA NEPAssist: http://nepassisttool.epa.gov/nepassist/entry.aspx

EPA Region 2 Sole Source Aquifers: http://www.epa.gov/region02/water/aquifer/

FEMA Coastal Barrier Resource System – New York: https://www.fema.gov/national-floodinsurance-program/coastal-barrier-resource-system-new-york

FEMA Mapping Service Center: https://msc.fema.gov/portal

Military and Civilian Airports:
https://www.michigan.gov/documents/mshda/mshda_cd_nsp2_air_accident_315724_7.pdf

National Park Service – New York Segments:
http://www.nps.gov/ncrc/programs/rtca/nri/states/ny.html

New York State Department of Agriculture and Markets:
http://www.agriculture.ny.gov/ap/agservices/agricultural-districts.html

New York State Department of Environmental Conservation (NYSDEC), Coastal Management:
http://www.dec.ny.gov/lands/86541.html

NYSDEC Environmental Resource Mapper: http://www.dec.ny.gov/animals/38801.html

NYSDEC Wild, Scenic and Recreational Rivers: http://www.dec.ny.gov/permits/32739.html

NYSDEC Potential Environmental Justice Areas in Kings County:
http://www.dec.ny.gov/docs/permits_ej_operations_pdf/kingsejdetail.pdf

New York State Department of State (NYSDOS) – Coastal Boundary Map:
http://www.dos.ny.gov/opd/atlas/ and http://appext20.dos.ny.gov/coastal_map_public/map.aspx

NYSDOS – Local Waterfront Revitalization Program – Coastal Waterbodies and Inland Waterways:
http://www.dos.ny.gov/opd/programs/pdfs/Waterways_List_08-14.pdf

State Register of Historic Places – Cultural Resources Information Systems (CRIS):
http://parks.ny.gov/shpo/online-tools/

United States Fish and Wildlife Service (USFWS) IPaC:
http://ecos.fws.gov/ipac/

USFWS Coastal Barrier Resources Act:

http://www.fws.gov/cbra/Maps/index.html

USFWS Wetlands Online Mapper – National Wetlands Inventory Map:
http://www.fws.gov/wetlands/Data/Mapper.html

Wild and Scenic Rivers Act – Sections 3 and 5 (16 USC 1274 and 1276):
http://www.rivers.gov/rivers/delaware-upper.php
http://www.rivers.gov/maps/conus.php

List of Permits Obtained or Required

NYCDOB electrical permits – to be obtained by contractor prior to start of installation
NYCDOB & NYCDOT crane and rigging permits – to be obtained by contractor prior to start of installation

Appendices:

Appendix A – Supplemental Technical Information
Appendix B – Agency Correspondence

Environmental Review Preparer's Information:

Environmental Preparer's name, title, and organization (printed or typed):

Jennifer Franco, Senior Technical Director, AKRF, Inc.

Environmental Preparer's signature: Jennifer Franco

Date: 7/21/16

Responsible Entity, Representative's Information/Certification:

Responsible Entity, Representative's name, title, and organization (printed or typed):

Calvin Johnson, Assistant Director, CDBG-DR, New York City Office of Management and Budget

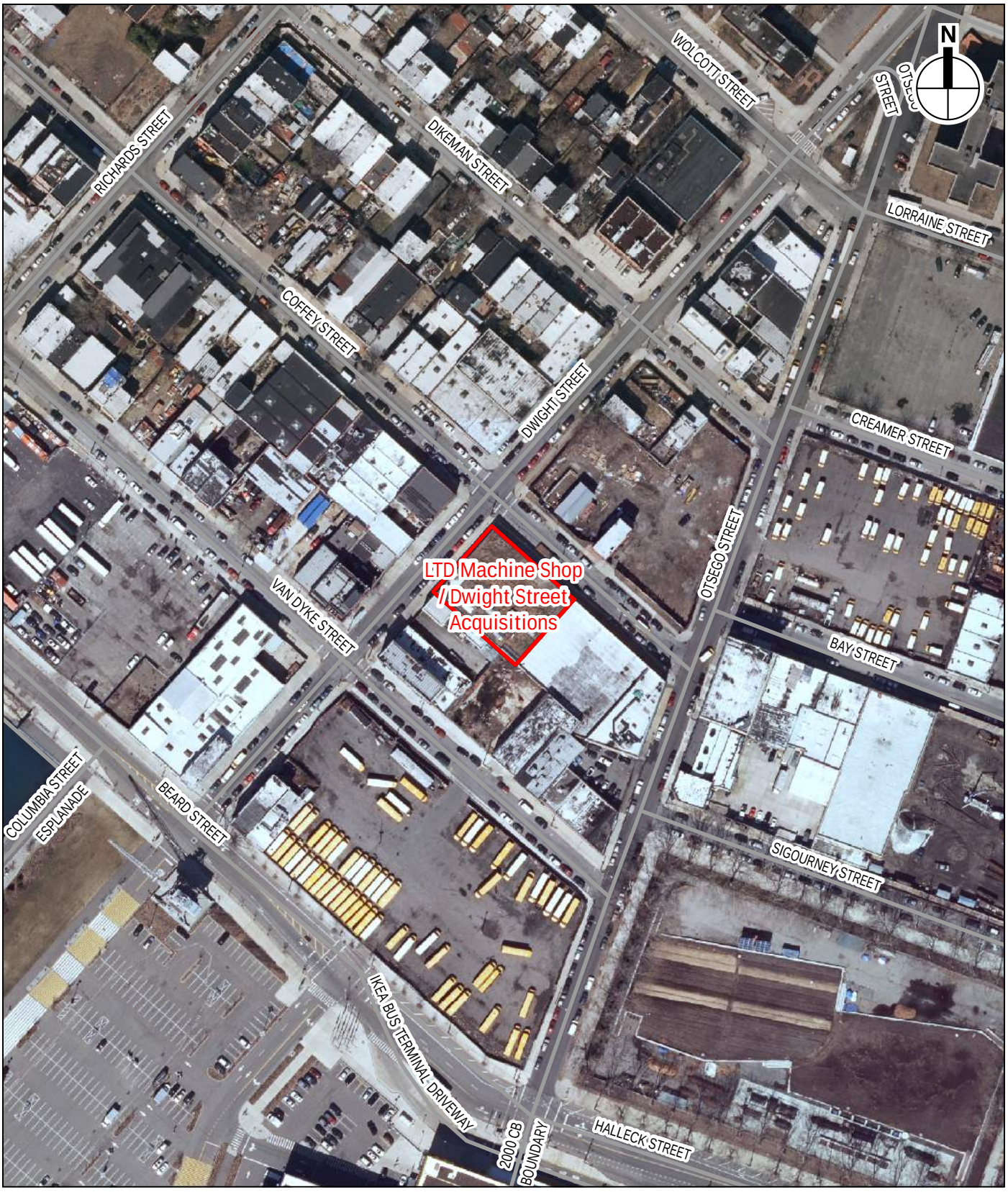
Responsible Entity, Representative's signature:

Date: 7/20/16

EDC RISE - NYC: Bright Power

Study Area
Figure 1

4/26/2016



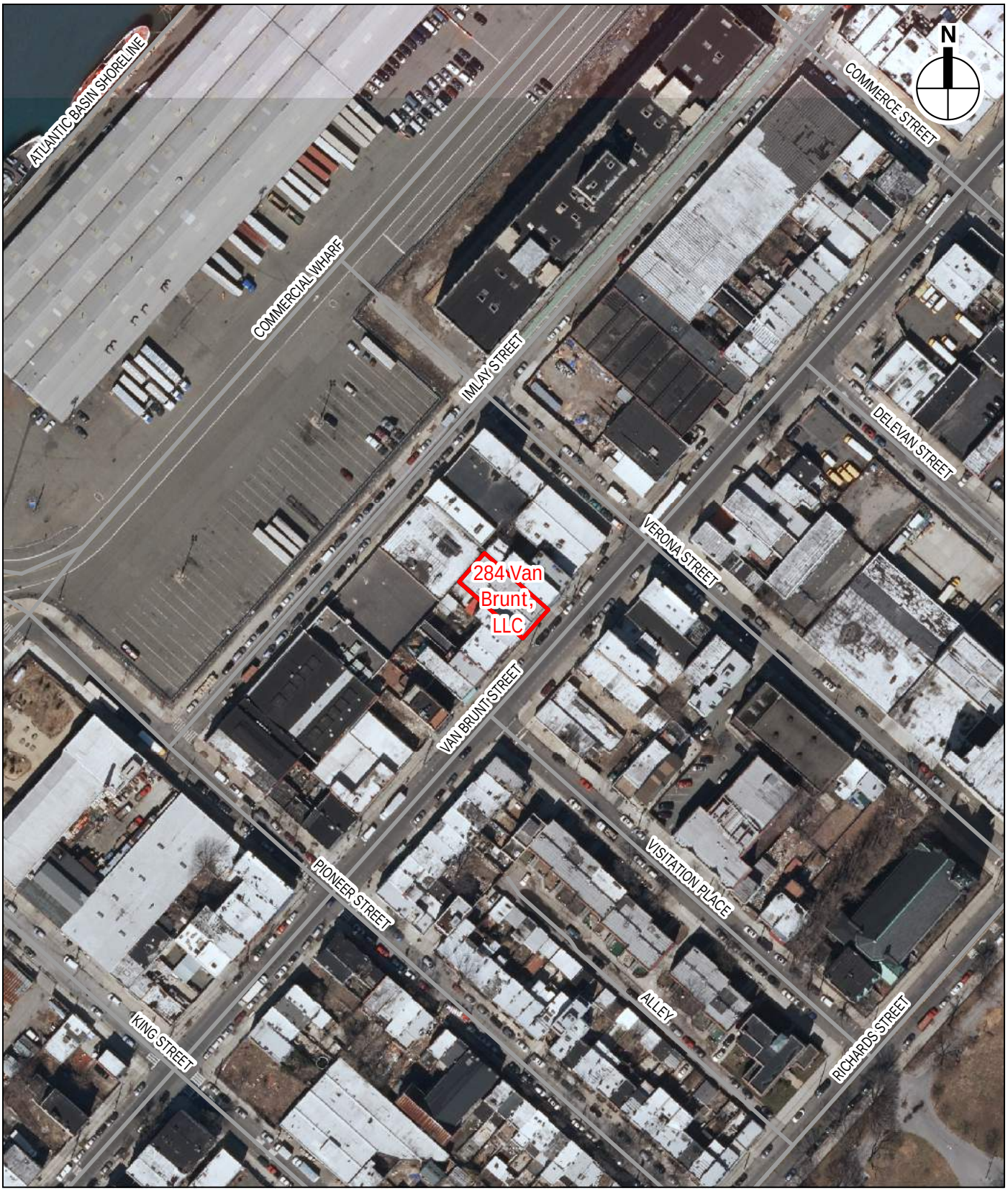
Subject Project Sites

Bright Power
Project Sites

EDC RISE - NYC: Bright Power

Figure 2A

4/26/2016



0 300 FEET

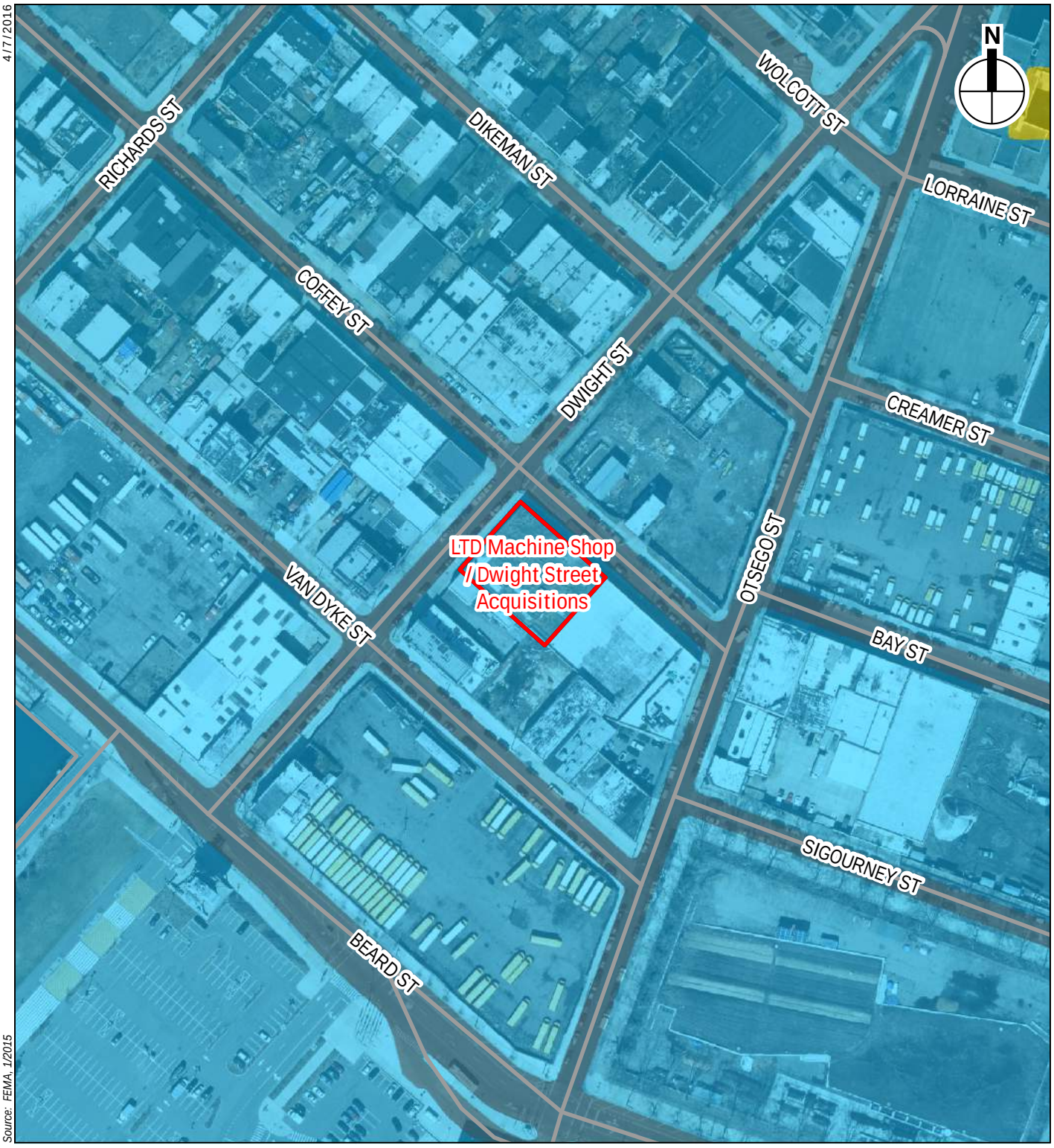
Subject Project Sites

Bright Power
Project Sites
Figure 2B

EDC RISE - NYC: Bright Power

Bright Power
Project Sites
Figure 2C

EDC RISE - NYC: Bright Power



Subject Project Sites

100-Year Flood Hazard Area

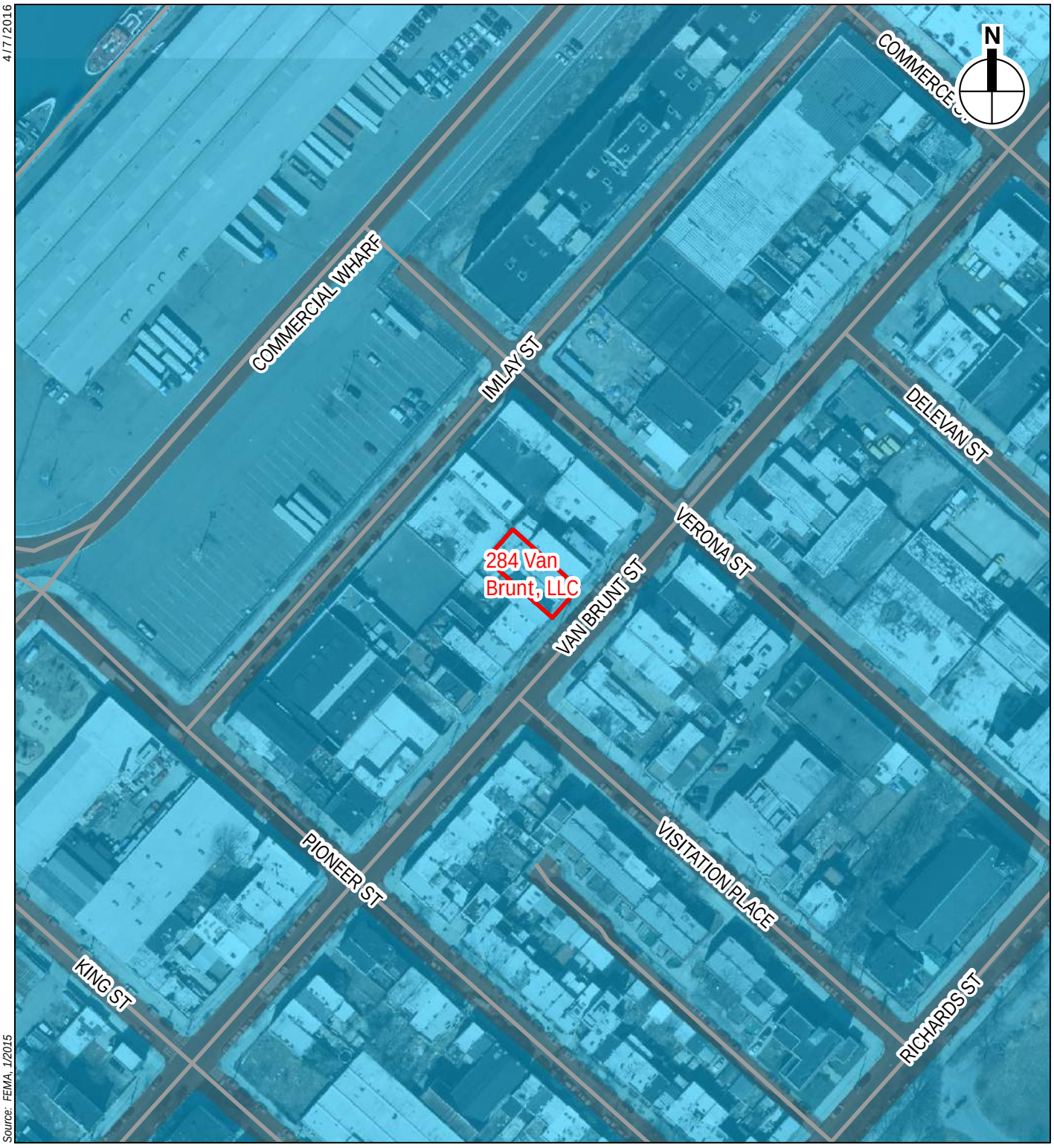
500-Year Flood Hazard Area

Bright Power

Flood Hazard Areas (2015 pFIRM)

Figure 3A

EDC RISE - NYC: Bright Power



Subject Project Sites

100-Year Flood Hazard Area

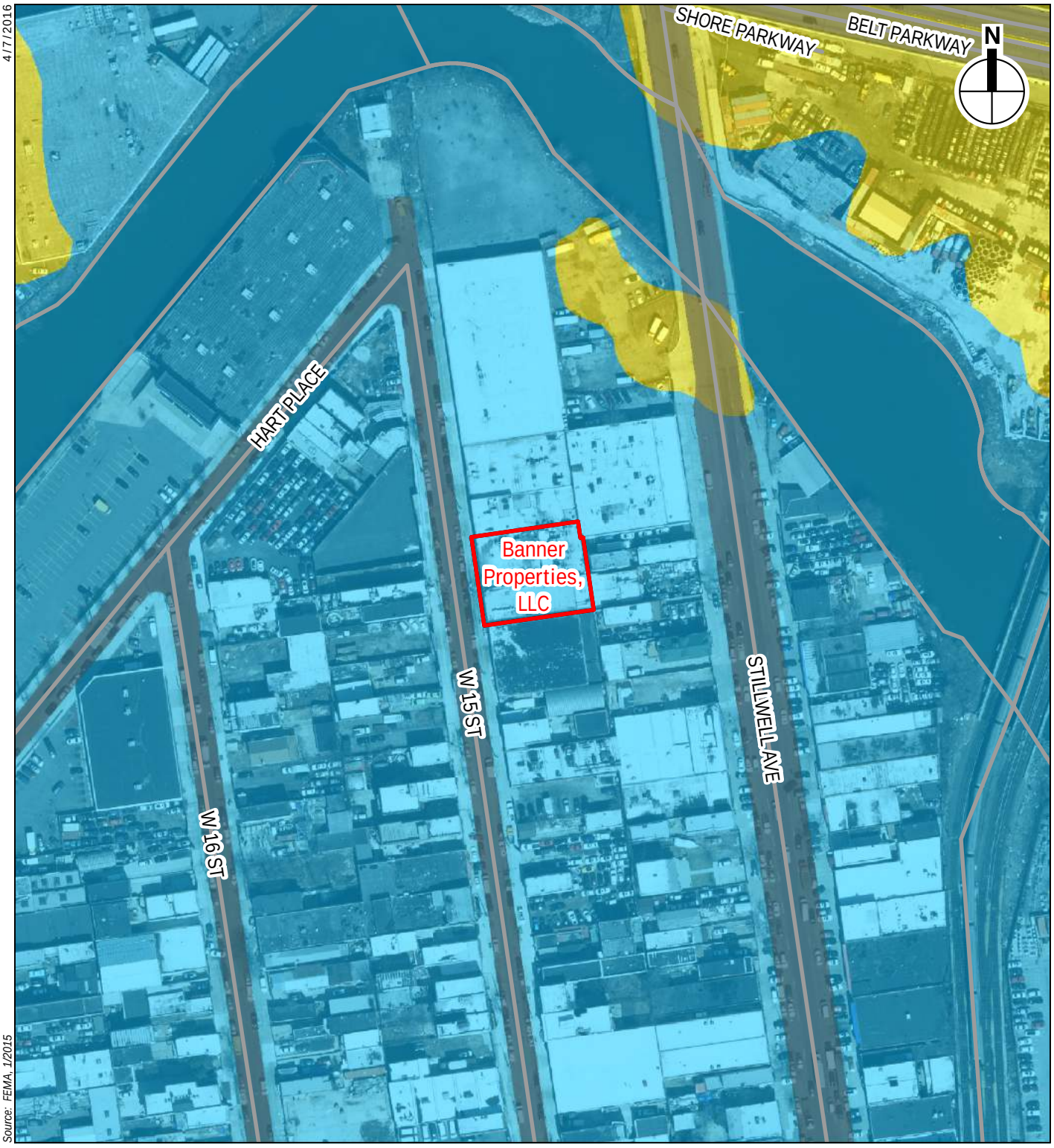
500-Year Flood Hazard Area

Bright Power

Flood Hazard Areas (2015 pFIRM)

Figure 3B

EDC RISE - NYC: Bright Power



Subject Project Sites

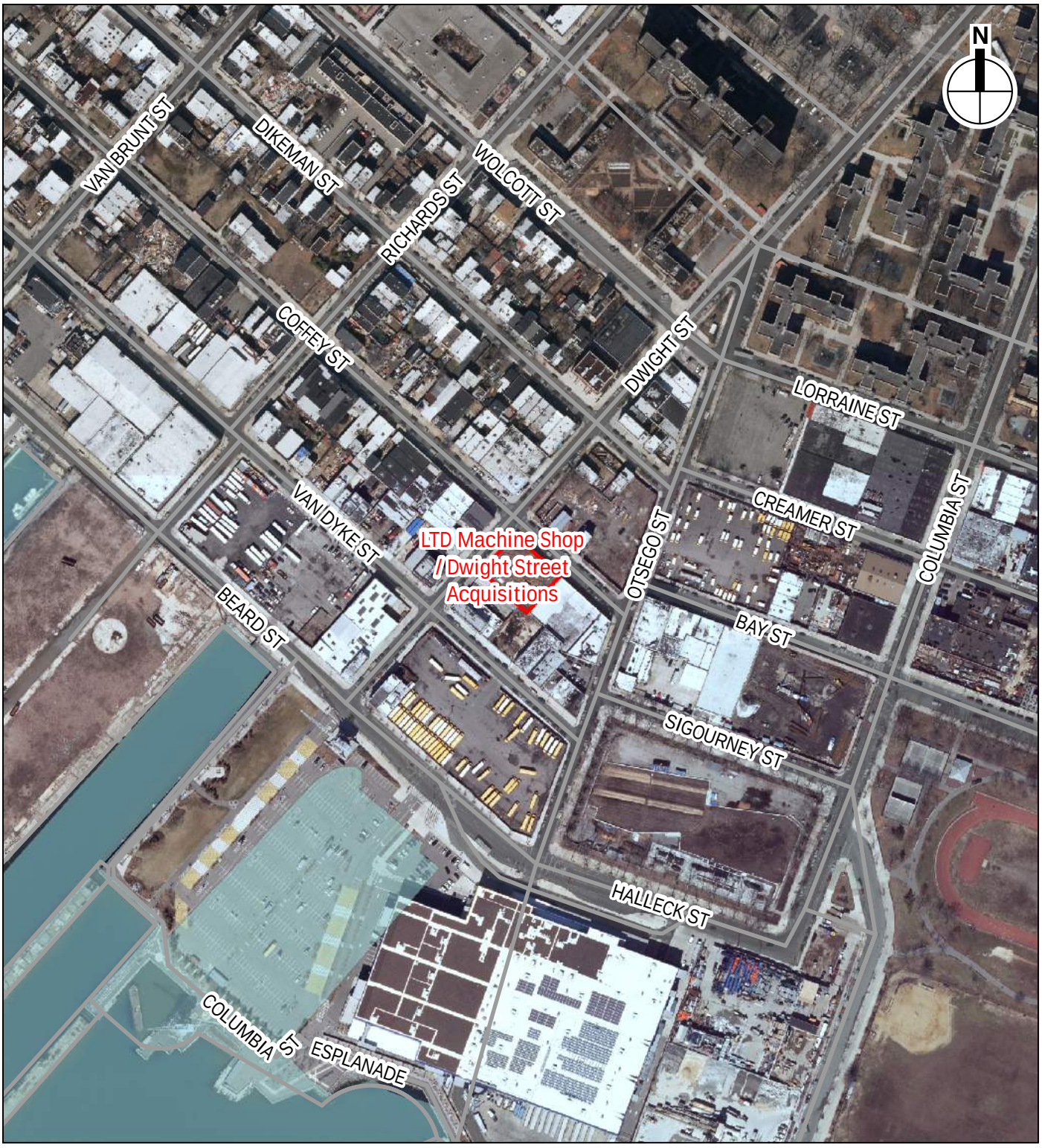
100-Year Flood Hazard Area

500-Year Flood Hazard Area

Bright Power
Flood Hazard Areas (2015 pFIRM)
Figure 3C

EDC RISE - NYC: Bright Power

4/26/2016



0 500 FEET

NYSDEC Tidal Wetlands

Fresh Marsh

High Marsh

Intertidal Marsh

Littoral Zone

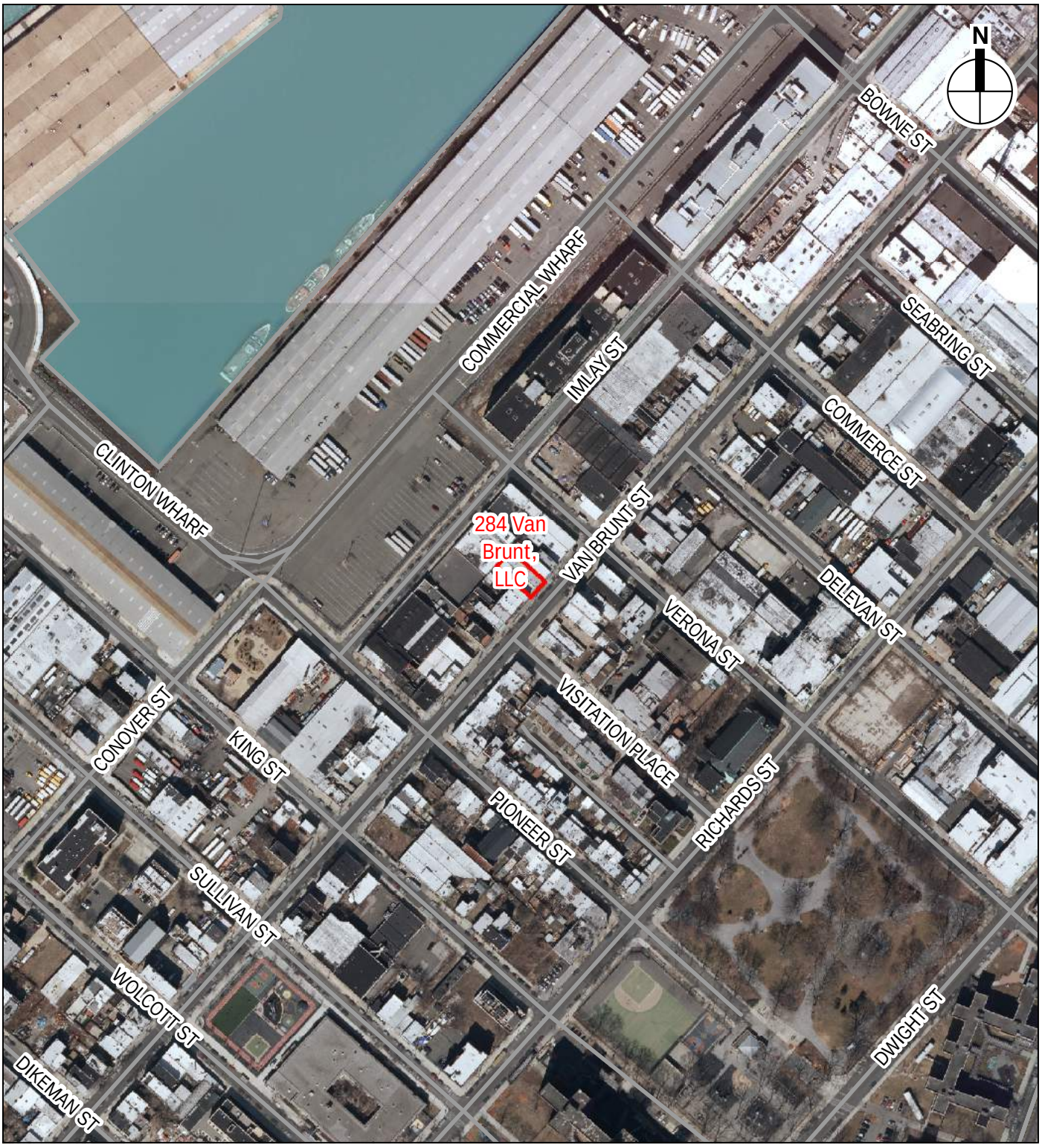
Coastal Shoals, Bars and Mudflats

Subject Project Sites

EDC RISE - NYC: Bright Power

Bright Power
NWI Wetlands
Figure 4A

4/26/2016



NYSDEC Tidal Wetlands

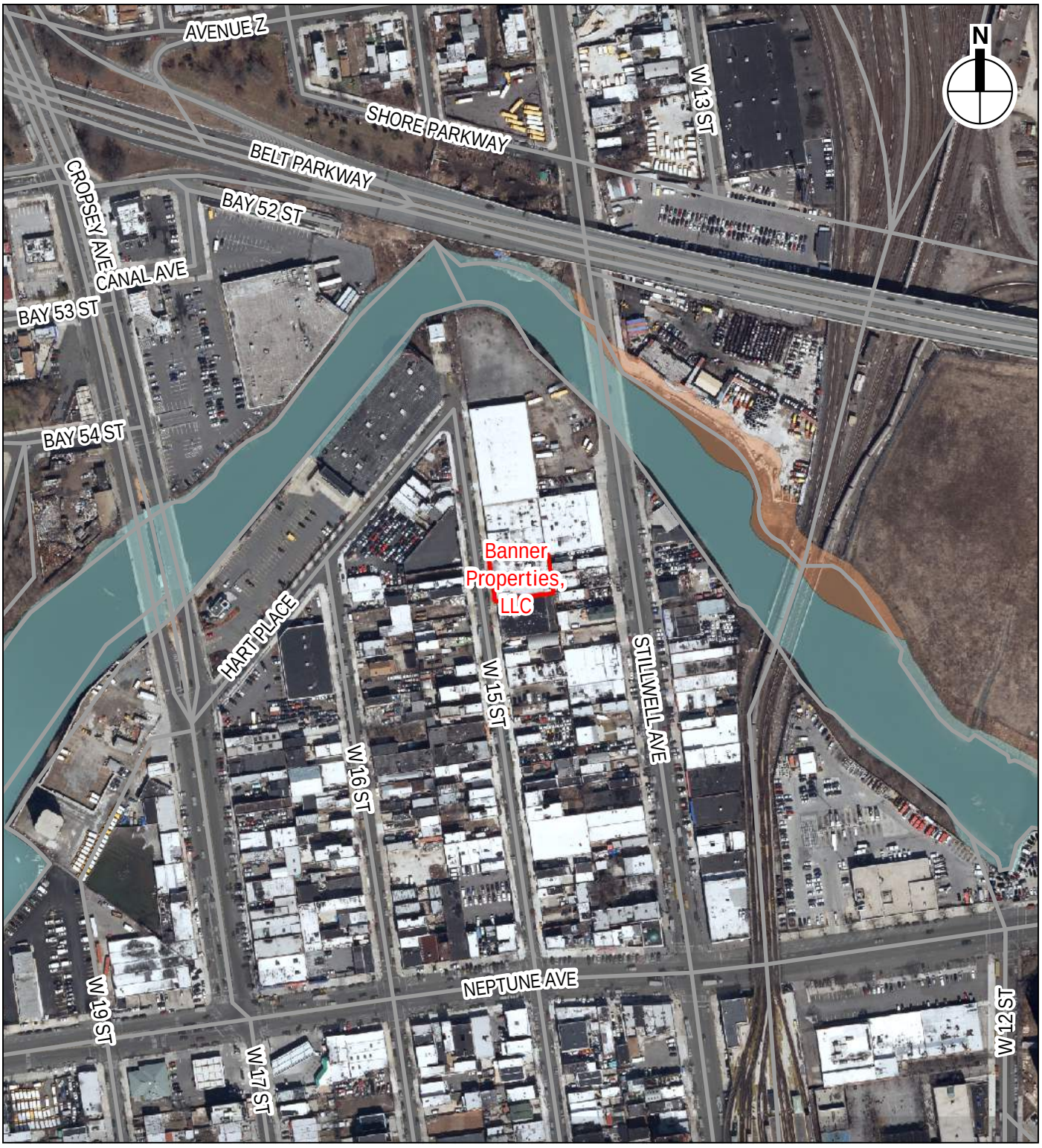
- *Fresh Marsh*
- *High Marsh*
- *Intertidal Marsh*
- *Littoral Zone*
- *Coastal Shoals, Bars and Mudflats*

Subject Project Sites

EDC RISE - NYC: Bright Power

Bright Power
NWI Wetlands
Figure 4B

4/26/2016



NYSDEC Tidal Wetlands

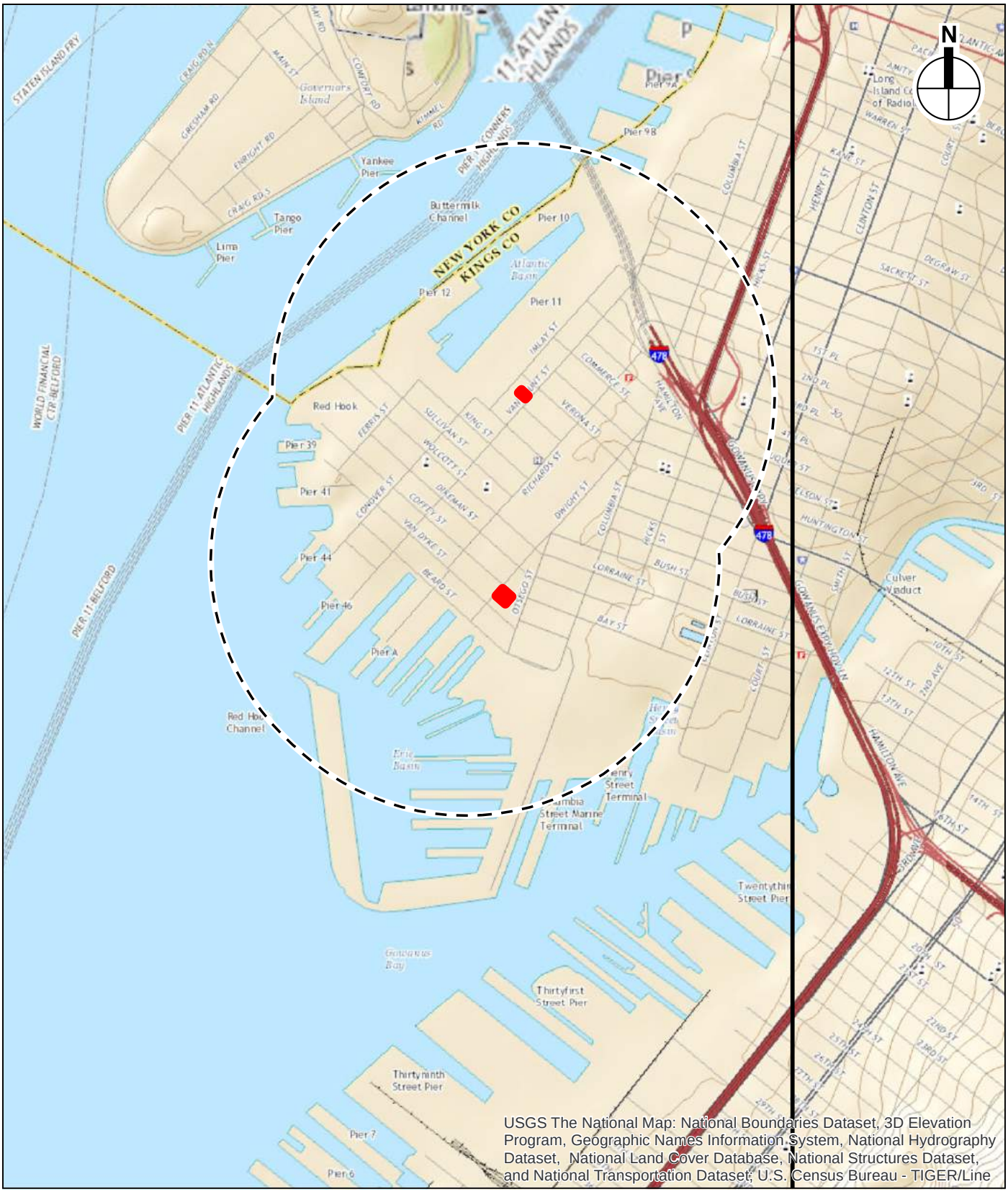
- *Fresh Marsh*
- *High Marsh*
- *Intertidal Marsh*
- *Littoral Zone*
- *Coastal Shoals, Bars and Mudflats*

Subject Project Sites

EDC RISE - NYC: Bright Power

Bright Power
NWI Wetlands
Figure 4C

4/7/2016



1/2 Mile Buffer

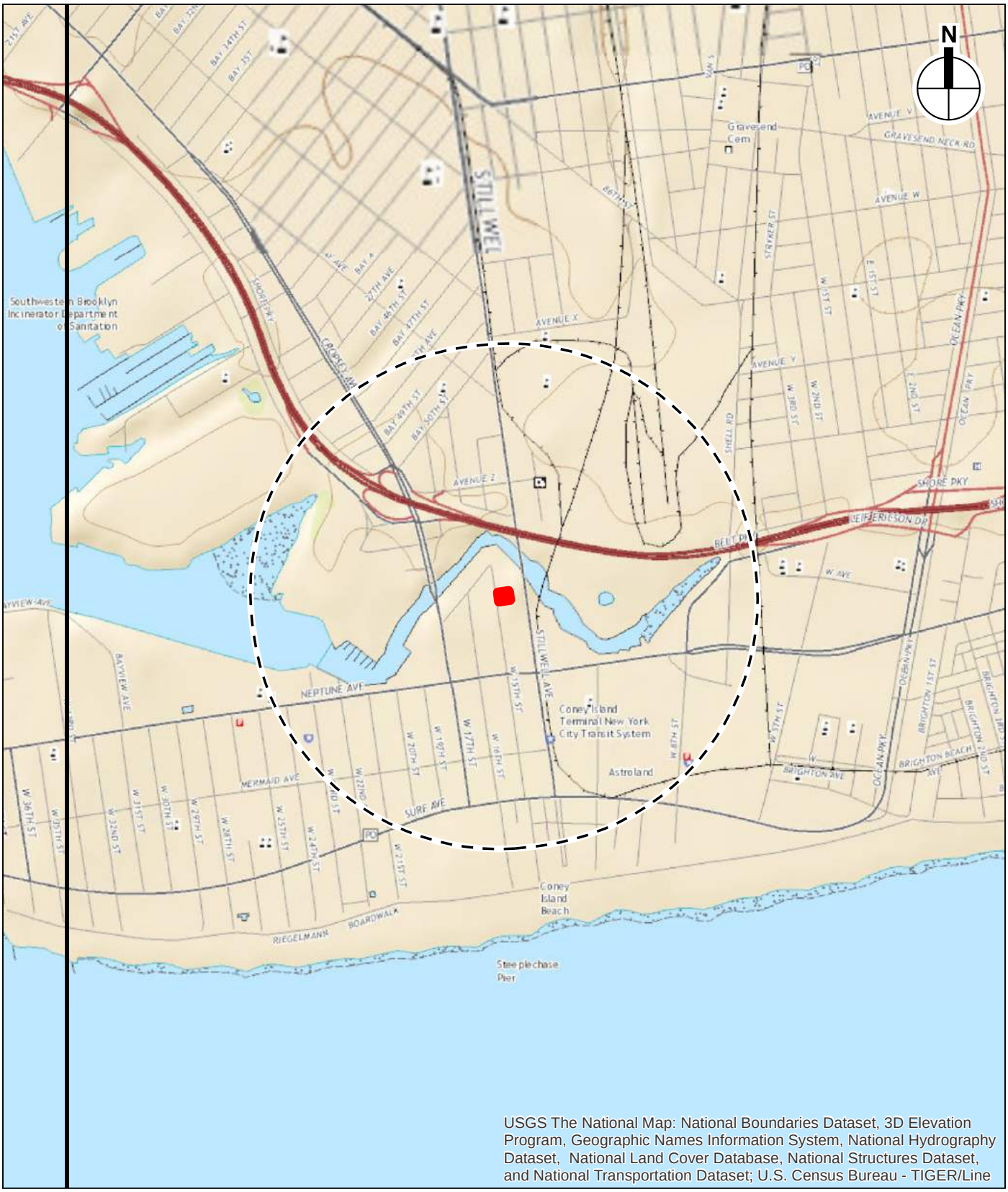
Subject Project Sites

USGS 7.5 MinuteTopographic Map
Jersey City | Brooklyn | Coney Island Quads

EDC RISE - NYC: Bright Power

Figure 5A

4/7/2016



1/2 Mile Buffer

Subject Project Sites

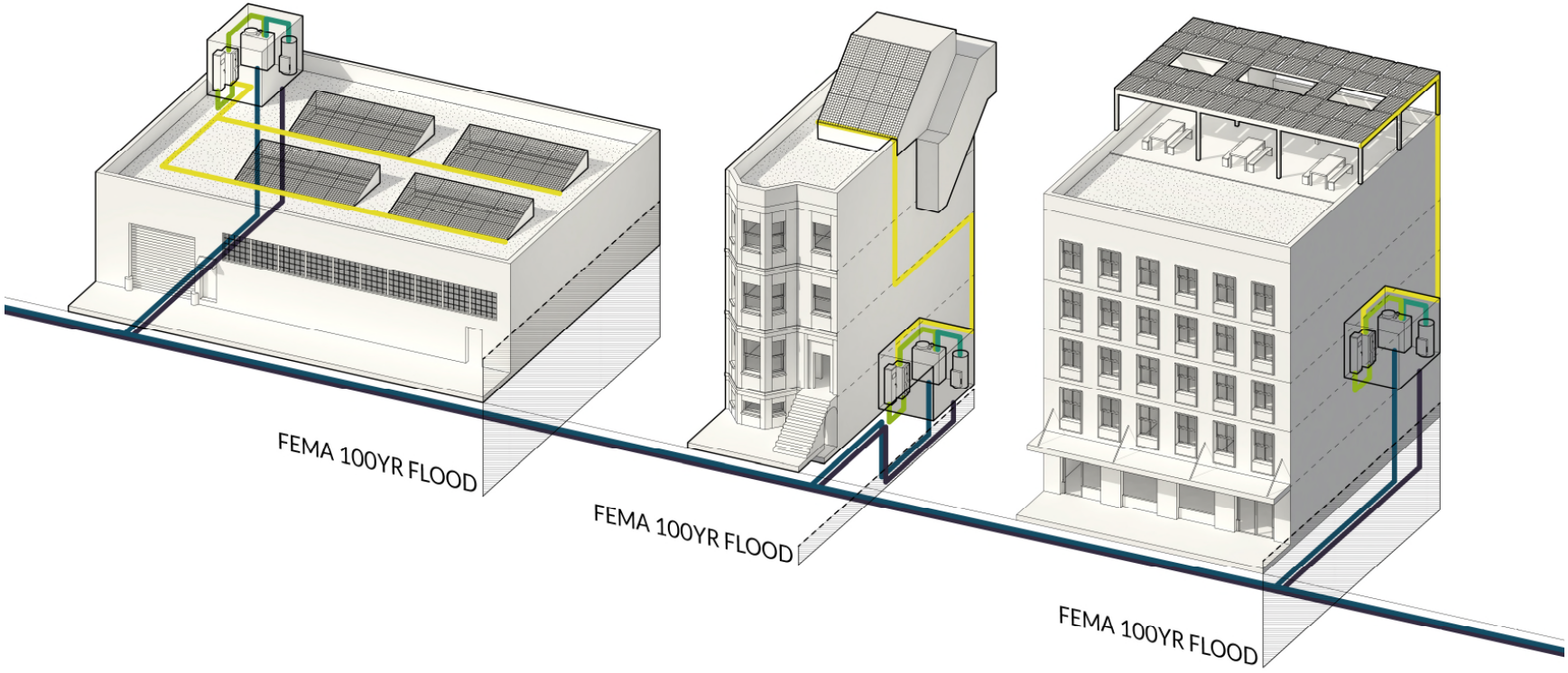
USGS 7.5 MinuteTopographic Map
Jersey City | Brooklyn | Coney Island Quads

EDC RISE - NYC: Bright Power

Figure 5B

ARCHITECTURES OF

THE RESILIENT MICROGRID



Proposed PV Panel Installation Configurations

Figure 6

Appendix A
Supplemental Technical Information

Floodplain Management Plan

Floodplain Management Plan

New York City Office of Management and Budget

U.S. Department of Housing and Urban Development

Community Development Block Grant – Disaster Recovery

RISE: NYC, Resiliency Innovations for a Stronger Economy

Bright Power

Kings County, New York

Effective Date: June 30, 2016

Executive Order 11988 – Floodplain Management

New York City Office of Management and Budget

U.S. Department of Housing and Urban Development
Community Development Block Grant – Disaster Recovery (CDBG-DR)

RISE: NYC, Resiliency Innovations for a Stronger Economy
Bright Power

New York City Economic Development Corporation
Effective Date: June 30, 2016

This Floodplain Management Plan Compliance Document meets the requirements of 24 CFR Part 55.20 and Executive Order 11988—Floodplain Management—for the RISE: NYC – Bright Power project ("proposed project"). The New York City Office of Management and Budget (OMB) is the recipient of disaster recovery funds from the U.S. Department of Housing and Urban Development's (HUD) Community Development Block Grant – Disaster Recovery (CDBG-DR) Program. The activities proposed in the Bright Power project will be conducted in compliance with Executive Order 11988.

Proposed Project

This project proposes to install Bright Power Resilient Power Hubs at three (3) small businesses in flood-prone neighborhoods in Brooklyn. Resilient Power Hubs use a combination of a micro-Combined-Heat-and-Power (mCHP) plant, a solar photovoltaic (PV) panel array, and an energy storage (ES) battery system to provide back-up power and reduce use of grid electricity. The businesses proposed for Resilient Power Hub installation are Banner Properties, LLC, located on Coney Island, and 284 Van Brunt, LLC and LTD Machine Shop/Dwight Street Acquisitions, both located in the Red Hook neighborhood (see Figures 1a through 1c).

The mCHP plant consists of a 10 kilowatt (kW) natural-gas-fired reciprocating engine coupled with an electric generator and a heat exchanger. When necessary, the mCHP plant uses grid natural gas to create electricity, while waste heat from the engine is used to heat up to 120 gallons of water to 120 degrees. The mCHP could provide a continuous source of electricity if the electric grid is disrupted but the natural gas grid is functional. Each Resilient Power Hub would include 58 solar PV panels, each with a capacity of 345 watts. The solar PV panels would provide a renewable and reliable source of power for critical system facilities, even during outages of both the electric and natural gas grids. The battery system stores and discharges the clean energy produced onsite and can be configured to charge using grid electricity at off-peak hours. The battery system further improves the system's resiliency in the event of a grid power outage, providing electricity to power critical system functions. The separate components of the Resilient Power Hub are interconnected by a dynamic control system that manages the output of the Resilient Power Hub elements and the draw from the electric and natural gas grids.

Installation of Resilient Power Hub equipment would require minor construction activities in the interiors and on the rooftops of existing facilities, as well as connection to the electric and natural gas grids. Required construction would include both building system modifications required for connection to existing utilities and providing required electrical, plumbing, and mechanical support, and installation of the solar PV, electrical storage, and mCHP equipment. Construction equipment required for installation is anticipated to include a crane (up to 50 tons) and scissor lift, power tools, and a soldering blow torch for hot water piping. The crane would be required to lift materials to the roof of the existing facilities. The duration of crane use is anticipated to be limited to one (1) day per site and would require

permits from the New York City Department of Transportation (DOT) and Department of Buildings (DOB), which would be obtained by the appropriate contractor(s) in advance of relevant construction activities. Construction staging will take place within an indoor space or on the rooftop of the existing facilities and will not require use of public space or right-of-way.

Rooftop mCHP equipment installations would be located within enclosure structures measuring approximately 8 feet wide by 10 feet tall by 13 feet long. The proposed installation would also include 58 roof-mounted solar PV panels at each project site, occupying a total area of approximately 1,500 square feet. PV panel installations will either be ballasted to the existing roof structures or racked on a steel canopy structure, extending approximately 10 feet above the top of the roof (see Figure 3). All installations would be in accordance with zoning requirements.

Description of Proposed Project Activities In The Special Flood Hazard Area

The proposed project includes installation of Resilient Power Hubs at the following small businesses in Brooklyn, New York (see also Figures 1a through 1c):

- Banner Properties, LLC, 2715 West 15th Street, Brooklyn, NY 11224
- 284 Van Brunt, LLC, 284 Van Brunt St, Brooklyn, NY 11231
- LTD Machine Shop/Dwight Street Acquisitions, 163 Dwight St, Brooklyn, NY 11231

The systems to be installed include electrical generation and storage equipment to be installed on the roof and in the interior of the existing buildings. No structural modifications are required for installation and no land would be disturbed as part of construction.

The three (3) small businesses proposed for installation of Resilient Power Hubs are all located within the Special Flood Hazard Area in the Federal Emergency Management Agency (FEMA) 100-year floodplain as defined on both the 2007 Flood Insurance Rate Maps (FIRM) and the 2015 Preliminary Flood Insurance Rate Maps (pFIRM). Maps of the project sites and the 2015 pFIRM are provided as Figures 2a through 2c.

Executive Order 11988 & 24 CFR Part 55

HUD regulation 24 CFR Part 55 implements Executive Order 11988 for Floodplain Management. The Order requires Federal agencies (or a City agency implementing a Federal funding program) to reduce the loss of life and property caused by floods, minimize impacts of floods on human safety, health, and welfare, and preserve the natural and beneficial functions of floodplains. Under this Order, Federal agencies must evaluate the potential effects of the proposed action. In addition, Federal agencies are required to demonstrate that all practicable alternatives have resulted in the reduction or elimination of the long-and short-term adverse impacts associated with occupancy and modifications of the floodplain.

Projects located within a Special Flood Hazard Area (SFHA) are subject to Executive Order 11988. Information on where SFHAs are located is available on Flood Insurance Rate Maps (FIRMs) published by FEMA. FEMA uses engineering studies to determine the delineation of these areas or zones subject to flooding. The relevant data source for the SFHA is the latest issued FEMA data or guidance, which includes advisory data, such as Advisory Base Flood Elevations (ABFEs) or preliminary and final FIRMs.

The SFHA is the area that would be inundated by a 100-year flood: an area that has a one percent or greater chance of experiencing a flood in any single year. SFHAs are shown on FIRMs as shaded areas labeled with the letter “A” or “V”.

- “V” zones are coastal flood hazard zones subject to wave run-up in addition to storm surge.

- "A" zones include all other SFHAs.
- "VE" zones, "AE" zones, "V" zones, or "A" zones followed by a number are areas with specific flood elevations, known as Base Flood Elevations (BFE).
- A zone with the letter "A" or "V" by itself is an appropriately studied flood hazard area without a specific flood elevation.
- Within an "AE" zone or a numbered "A" zone, there may be an area known as the "regulatory floodway," which is the channel of a river and adjacent land areas which must be reserved to discharge a 100-year flood without causing a rise in flood elevations.

The proposed project would install Resilient Power Hubs at three (3) locations within the 100 year floodplain (see Figures 2a through 2c). The base flood elevation (BFE) on the 2007 FIRM for these locations is 10 feet on the North American Vertical Datum of 1988 (NAVD88). The BFEs for these locations per the 2015 pFIRM range from 11 feet to 12 feet (NAVD88). All proposed installations would be in the interior of or on the roofs of existing structures, and will be designed such that all equipment is installed above the identified BFE.

24 CFR Part 55.1 (c)

According to 24 CFR Part 55.1(c), except with respect to actions listed in Part 55.12(c), no HUD financial assistance (including mortgage insurance) may be approved after May 23, 1994 with respect to:

(1) Any action, other than a functionally dependent use, located in a floodway;

(2) Any critical action located in a coastal high hazard area (V zone) (a "critical action" is an action such as storage of volatile materials, irreplaceable record storage, or construction of a hospital or nursing home); or

(3) Any non-critical action located in a coastal high hazard area, unless the action is designed for location in a coastal high hazard area or is a functionally dependent use and complies with the construction standards outlined in HUD Regulations 24 CFR Part 55 (c)(3).

24 CFR Parts 55.11 & 55.20

According to 24 CFR Parts 55.11 (including Table 1) and 55.20, non-critical actions are allowed in A or V zones only if the actions are reviewed in accordance with the floodplain management decision making process outlined in 24 CFR Part 55.20.

Pursuant to §55.12(a)(4), "Inapplicability of 24 CFR part 55 to certain categories of proposed actions," the decision making steps in §55.20(b), (c), and (g) (Steps 2, 3, and 7) do not apply to the, "…repair, rehabilitation, modernization, weatherization, or improvement of existing nonresidential buildings and structures, in communities that are in the Regular Program of the National Flood Insurance Program (NFIP) and are in good standing, provided that the action does not meet the thresholds for 'substantial improvement' under §55.2(b)(10) and that the footprint of the structure and paved areas is not significantly increased." The proposed project is limited to the installation of resilient power generation and storage equipment in existing facilities. As such, this Floodplain Management Plan documents the five-step decision making process for the proposed project and pertains to activities within the SFHA as defined by the Federal Emergency Management Agency (FEMA), or its successors, pursuant to the NFIP, or a successor program, whether advisory, preliminary, or final.

Step One: Determine whether the proposed action is located in a 100-year floodplain.

The proposed project includes installation of Resilient Power Hub Systems at three (3) existing small business facilities in Brooklyn, New York, all of which are located within the SFHA in the Federal Emergency Management Agency (FEMA) 100-year floodplain as defined on both the 2007 Flood Insurance Rate Maps (FIRM) and the 2015 Preliminary Flood Insurance Rate Maps (pFIRM). Maps of the project sites and the 2015 pFIRM are provided as Figures 2a through 2c.

Step Two: Notify the public at the earliest possible time of a proposal to consider an action in a floodplain, and involve the affected and interested public in the decision making process.

The proposed project is exempt from Step Two, pursuant to §55.12(a)(4).

Step Three: Identify and evaluate practicable alternatives to locating the proposed action in a floodplain.

The proposed project is exempt from Step Three, pursuant to §55.12(a)(4).

Step Four: Identify the potential direct and indirect impacts associated with the occupancy or modification of the floodplain.

The proposed project would have no impact on occupancy within the floodplain or result in any modifications of the floodplain. All work to be performed under the proposed project would be limited to rooftop and interior construction. No ground disturbance or other modifications to the floodplain would occur.

As all locations selected for work in the proposed project are existing small businesses, existing occupancy and activities within the floodplain would remain. All project recipients located within the floodplain will be required to secure NFIP flood insurance as a requirement of participating in the RISE:NYC program.

The proposed project would have a beneficial impact on resiliency of businesses and residents of the Red Hook and Coney Island neighborhoods of Brooklyn, in which the proposed project sites are located. By alleviating reliance on the electrical grid or backup generators, local businesses would be able to return to operations more quickly following a future storm event and continue to provide vital goods and services. No adverse impacts to the floodplain are anticipated from the proposed project.

Step Five: Where practicable, design or modify the proposed action to minimize the potential adverse impacts within the floodplain and to restore and preserve its natural and beneficial values.

As designed, the proposed project would install resilient power generation and storage equipment in existing small businesses in coastal neighborhoods of Brooklyn, New York. Since the proposed project is anticipated to only install equipment in existing facilities and would not have any adverse impacts to the floodplain, no modifications to the proposed project are proposed.

Step Six: Reevaluate the proposed action to determine: (1) Whether it is still practicable in light of its exposure to flood hazards in the floodplain, the extent to which it will aggravate the current hazards to other floodplains, and its potential to disrupt floodplain values; and (2) Whether alternatives preliminarily rejected at Step Three are practicable in light of the information gained in Steps Four and Five.

The proposed project would not aggravate the current hazards to other floodplains, or disrupt floodplain values. There are no practicable alternatives to the proposed project.

Step Seven: If the reevaluation results in a determination that there is no practicable alternative to locating the proposal in the floodplain, publish a final notice.

The proposed project is exempt from Step Seven, pursuant to §55.12(a)(4).

Step Eight: Implement the Action

Step Eight is implementation of the proposed action. NYC EDC will ensure that required measures prescribed in the steps above will be adhered to. Furthermore, a NEPA review in accordance with 24 CFR Part 58 was conducted for the proposed project.

Air Quality Conformity Analysis

Environmental, Planning, and Engineering Consultants

440 Park Avenue South
7th Floor
New York, NY 10016
tel: 212 696-0670
fax: 212 213-3191
www.akrf.com

Memorandum

To:	File
From:	Hillel Hammer
Date:	May 17, 2016
Re:	*RISE : NYC, Resiliency Innovations for a Stronger Economy* **Evaluation of Conformity with State Air Quality Implementation Plans**
cc:	Jennifer Franco

REGULATORY SETTING

The conformity requirements of the Clean Air Act and regulations promulgated thereunder (conformity requirements) limit the ability of federal agencies to assist, fund, permit, and approve projects that do not conform to the applicable state implementation plan (SIP) for attaining or maintaining air quality that meets the National Ambient Air Quality Standards (NAAQS). When subject to this regulation, the lead agency is responsible for demonstrating conformity for its proposed action. Conformity of federal actions other than those related to transportation plans, programs, and projects which are developed, funded, or approved under title 23 U.S.C. or the Federal Transit Act (49 U.S.C. 1601 et seq.) must be addressed according to the requirements of 40 CFR Part 93 Subpart B (federal general conformity regulations).

The general conformity requirements apply to those federal actions in non-attainment or maintenance areas where the action's direct and indirect emissions have the potential to emit one or more of the six criteria pollutants or their precursor pollutants at rates equal to or exceeding the prescribed rates or representing 10 percent or more of a non-attainment or maintenance area's total emissions inventory for that pollutant. New York City is in an ozone non-attainment area and transport region, a carbon monoxide (CO) maintenance area, a fine respirable particulate matter ($PM_{2.5}$) maintenance area, and, in Manhattan only, a moderate respirable particulate matter (PM_{10}) non-attainment area. The prescribed annual rates are 50 tons of volatile organic compounds (VOCs) and 100 tons of nitrogen oxides (NO_x), CO, $PM_{2.5}$, sulfur dioxide (SO_2), or PM_{10}.

As the funding federal agency, the U.S. Department of Housing and Urban Development (HUD) is responsible for ensuring the conformity of its action (the decision to fund the projects). This memorandum provides a conservative analysis of the total potential emissions that could result from the funded projects.

SOURCE INFORMATION AND ASSUMPTIONS

Information regarding the potential emission sources was taken from *Attachment 1—RISE: NYC, Resiliency Innovations for a Stronger Economy, Environmental Retainer Project Briefs, Conditional Awardees*, May 5, 2015 and updated information and data provided by the applicants.

The sources evaluated are described below. All sources would provide backup power during power outage, and some may also provide peak power consumption shaving via demand response programs. In addition to the projects listed below, the action would fund—

- the Home Free project that would include small efficient gas fired hot water heaters. These sources are not included in the estimate since data was not available, but they are expected to contribute very little emissions (and may replace larger existing systems); and
- other projects that did not include any emissions sources.

BRIGHT POWER—RESILIENT POWER HUB (#55090002)

Three systems would be installed, each including a natural gas fired Yanmar micro-combined heat and power (mCHP) 10 kW CP10WN unit consuming 119,100 British thermal units per hour (Btu/hr) by high heating value. The cogeneration system will regularly provide power and heat. The systems may also provide peak shaving by providing battery power in lieu of grid power; the battery would be recharged by solar units, but possibly also by the mCHP unit if sufficient solar power is not available. The system is anticipated to operate regularly, up to 5,000 hours per year, providing heat and hot water (including testing).

CALM ENERGY—ENERGY WATCHDOG STANDBY GENERATION (# 55090003)

Systems would be installed at eight locations, each including one or two GT Power Systems generator/engine set, either natural gas fired in the 30-400 kilowatt (kW) range, or diesel fired 350 kW. The systems are currently assumed to include one 400-kW natural gas unit with a 4,230,000 Btu/hr fuel consumption, six 260-kW natural gas units with a 3,000,000 Btu/hr fuel consumption each, one 50-kW natural gas unit with a 600,000 Btu/hr fuel consumption, one 30-kW natural gas unit with a 361,000 Btu/hr fuel consumption, and one 350-kW diesel unit with a 99 liter/hr fuel consumption. The units might also provide demand response generation. The systems are anticipated to operate regularly, up to 2,200 hours per year, providing heat and hot water (including testing).

GO-ELECTRIC -- BLINKLESS UPS (#55090006)

Four systems would be installed, including three 30-kW Generac Guardian Series QT030 natural gas or propane fired generators consuming 492,000 Btu/hr, and one 250-kW Joe Sentry Series Model 265 SN-3-4 natural gas fired generator, consuming 2,782,000 Btu/hr. These systems would provide peak shaving via battery only, not using the generators (recharging occurs via the electric grid at off-peak hours). Nonetheless, 200 hours per year for testing and demand response were conservatively included in the evaluation.

URBAN GREEN ENERGY (#55090012)

17 natural gas fired 20-kW Generac generators would be installed, one unit at each site, consuming 308,000 Btu/hr. No peak shaving option is included in this application. Up to 200 hours per year were included for maintenance testing of the units.

EMISSION RATES

Where available, emission factors were obtained from the certification data for the units, including some of the pollutants for the CALM Energy and Go Electric systems (presented in **Table 1)**.

Table 1
Emission Factors From Engine Specifications
(grams per horsepower-hour)

Unit	Maximum Power (brake horsepower)	NO_x	CO	VOC	PM
CALM Energy					
260 kW	402	0.22	0.06	NA	NA
400 kW	612	0.39	0.1	NA	NA
50 kW	83.4	5.76	23.55	NA	NA
30 kW	50.8	5.38	21.98	NA	NA
350 kW (diesel)	547	4.06	0.52	NA	0.05
Go Electric					
30 kW	30	2.7	4.4	NA	NA
250 kW	335	1.0	2.0	0.7	NA

Notes: NA—not available
Sources: Manufacturers engine specifications

In all other cases where specific emission factors were not available, emission factors per energy unit were obtained from EPA's AP-42, Fifth Edition, Volume I, *Compilation of Air Pollutant Emission Factors*, Chapter 3, presented in **Table 2**. Emission rates were calculated by multiplying the emission factors by the number of units, the energy input per hour, and the number of hours per year. In cases where the specific type of engine was not known, the highest factor for that fuel and general type of engine was used.

Table 2
Emission Factors (pounds per million Btu)

Engine Type	NO_x	CO	VOC	PM
Uncontrolled Natural Gas-Fired Reciprocating Engines				
2-stroke lean burn, highest (varies by load)	3.14	0.386	0.12	0.0483
4-stroke lean burn, highest (varies by load)	4.08	0.557	0.118	0.00998
4-stroke rich burn, highest (varies by load)	2.27	3.72	0.0296	0.0194
Uncontrolled Diesel-Fired Industrial Engines				
Any	4.41	0.95	0.36	0.31

Notes: Factors represent the highest of all listed varieties.
Sources: EPA, AP42.

RESULTS AND CONCLUSION

Total maximum potential emissions associated with the reasonable worst case operation of projects funded via the RISE program are presented in **Table 3**. The resulting annual emissions are well below the applicable *de minims* criteria defined in the general conformity regulations. Based on this analysis, the funding of the RISE program would conform to all applicable state implementation plans, and would not require a conformity determination or any further evaluation.

Table 3
Annual Emissions (tons per year)

Project	NO_x	CO	VOC	PM
Bright Power	3.64	3.32	0.11	0.04
CALM Energy	9.08	8.66	3.06	1.30
Go-Electric	0.13	0.24	0.06	0.01
Urban Green Energy	2.14	1.95	0.06	0.01
Total	**14.99**	**14.17**	**3.29**	**1.36**
Applicable de minimis criteria	*100*	*100*	*50*	*100*

Notes: Factors represent the highest of all listed varieties. Numbers represent significant figures, and may not sum due to individual rounding.

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Coastal Consistency Assessments

NEW YORK STATE DEPARTMENT OF STATE
COASTAL MANAGEMENT PROGRAM

Federal Consistency Assessment Form

An applicant, seeking a permit, license, waiver, certification or similar type of approval from a federal agency which is subject to the New York State Coastal Management Program (CMP), shall complete this assessment form for any proposed activity that will occur within and/or directly affect the State's Coastal Area. This form is intended to assist an applicant in certifying that the proposed activity is consistent with New York State's CMP as required by U.S. Department of Commerce regulations (15 CFR 930.57). It should be completed at the time when the federal application is prepared. The Department of State will use the completed form and accompanying information in its review of the applicant's certification of consistency.

A. APPLICANT (please print)

1. Name: Dina Rybak, Assistant Vice President, NYC Economic Development Corporation

2. Address: 110 William Street, 4th floor, NY NY 10038

3. Telephone: Area Code (212) 618.5763

B. PROPOSED ACTIVITY

1. Brief description of activity:

Install small-scale resilient power generation and storage equipment in the interior of and on the rooftops of three (3) existing buildings in the Red Hook and Coney Island neighborhoods of Brooklyn, Kings County, NY.

2. Purpose of activity:

Improve resiliency of small businesses by decreasing dependence on electricity grid and generator power.

3. Location of activity:

Kings	Brooklyn	- 163 Dwight Street - 284 Van Brunt Street - 2715 West 15th Street
County	City, Town, or Village	Street or Site Description

4. Type of federal permit/license required:

5. Federal application number, if known:

6. If a state permit/license was issued or is required for the proposed activity, identify the state agency and provide the application or permit number, if known:

C. COASTAL ASSESSMENT Check either "YES" or "NO" for each of these questions. The numbers following each question refer to the policies described in the CMP document (see footnote on page 2) which may be affected by the proposed activity.

1. Will the proposed activity result in any of the following:	YES	NO
a. Large physical change to a site within the coastal area which will require the preparation of an environmental impact statement? (11, 22, 25, 32, 37, 38, 41, 43)	☐	☒
b. Physical alteration of more than two acres of land along the shoreline, land under water or coastal waters? (2, 11, 12, 20, 28, 35, 44)	☐	☒
c. Revitalization/redevelopment of a deteriorated or underutilized waterfront site? (1)	☐	☒
d. Reduction of existing or potential public access to or along coastal waters? (19, 20)	☐	☒
e. Adverse effect upon the commercial or recreational use of coastal fish resources? (9,10)	☐	☒
f. Siting of a facility essential to the exploration, development and production of energy resources in coastal waters or on the Outer Continental Shelf? (29)	☐	☒
g. Siting of a facility essential to the generation or transmission of energy? (27)	☐	☒
h. Mining, excavation, or dredging activities, or the placement of dredged or fill material in coastal waters? (15, 35)	☐	☒
i. Discharge of toxics, hazardous substances or other pollutants into coastal waters? (8, 15, 35)	☐	☒
j. Draining of stormwater runoff or sewer overflows into coastal waters? (33)	☐	☒
k. Transport, storage, treatment, or disposal of solid wastes or hazardous materials? (36, 39)	☐	☒
l. Adverse effect upon land or water uses within the State's small harbors? (4)	☐	☒

2. Will the proposed activity affect or be located in, on, or adjacent to any of the following:	YES	NO
a. State designated freshwater or tidal wetland? (44)	☐	☒
b. Federally designated flood and/or state designated erosion hazard area? (11, 12, 17,)	☒	☐
c. State designated significant fish and/or wildlife habitat? (7)	☐	☒
d. State designated significant scenic resource or area? (24)	☐	☒
e. State designated important agricultural lands? (26)	☐	☒
f. Beach, dune or barrier island? (12)	☐	☒
g. Major ports of Albany, Buffalo, Ogdensburg, Oswego or New York? (3)	☐	☒
h. State, county, or local park? (19, 20)	☐	☒
i. Historic resource listed on the National or State Register of Historic Places? (23)	☐	☒

3. Will the proposed activity require any of the following:	YES	NO
a. Waterfront site? (2, 21, 22)	☐	☒
b. Provision of new public services or infrastructure in undeveloped or sparsely populated sections of the coastal area? (5)	☐	☒
c. Construction or reconstruction of a flood or erosion control structure? (13, 14, 16)	☐	☒
d. State water quality permit or certification? (30, 38, 40)	☐	☒
e. State air quality permit or certification? (41, 43)	☐	☒

4. Will the proposed activity occur within and/or affect an area covered by a State approved local waterfront revitalization program? (see policies in local program document)	YES	NO
	☒	☐

D. ADDITIONAL STEPS

1. If all of the questions in Section C are answered "NO", then the applicant or agency shall complete Section E and submit the documentation required by Section F.

2. If any of the questions in Section C are answered "YES", then the applicant or agent is advised to consult the CMP, or where appropriate, the local waterfront revitalization program document*. The proposed activity must be analyzed in more detail with respect to the applicable state or local coastal policies. On a separate page(s), the applicant or agent shall: (a) identify, by their policy numbers, which coastal policies are affected by the activity, (b) briefly assess the effects of the activity upon the policy; and, (c) state how the activity is consistent with each policy. Following the completion of this written assessment, the applicant or agency shall complete Section E and submit the documentation required by Section F.

E. CERTIFICATION

The applicant or agent must certify that the proposed activity is consistent with the State's CMP or the approved local waterfront revitalization program, as appropriate. If this certification cannot be made, the proposed activity shall not be undertaken. If this certification can be made, complete this Section.

"The proposed activity complies with New York State's approved Coastal Management Program, or with the applicable approved local waterfront revitalization program, and will be conducted in a manner consistent with such program."

Applicant/Agent's Name: Dina Rybak, NYC Economic Development Corporation

Address: 110 William Street 4th Floor, NY NY 10038

Telephone: Area Code (212) 618.5763

Applicant/Agent's Signature: _____ Date: 5/23/16

F. SUBMISSION REQUIREMENTS

1. The applicant or agent shall submit the following documents to the **New York State Department of State, Office of Coastal, Local Government and Community Sustainability, Attn: Consistency Review Unit, 1 Commerce Plaza, 99 Washington Avenue - Suite 1010, Albany, New York 12231.**

a. Copy of original signed form.
b. Copy of the completed federal agency application.
c. Other available information which would support the certification of consistency.

2. The applicant or agent shall also submit a copy of this completed form along with his/her application to the federal agency.

3. If there are any questions regarding the submission of this form, contact the Department of State at (518) 474-6000.

*These state and local documents are available for inspection at the offices of many federal agencies, Department of environmental Conservation and Department of State regional offices, and the appropriate regional and county planning agencies. Local program documents are also available for inspection at the offices of the appropriate local government.

This document is the addendum to the Federal Consistency Assessment Form (FCAF) for the RISE: NYC – Bright Power Project. After describing the proposed project in more detail, this document analyzes the consistency of the proposed project with the policies of the New York State Costal Management Program (CMP), specifically those policies that were identified as potentially applicable to this project in the CAF.

PROJECT DESCRIPTION

This project proposes to install Bright Power Resilient Power Hubs at three (3) small businesses in flood-prone neighborhoods in Brooklyn. The businesses proposed for Resilient Power Hub installation are Banner Properties, LLC, located on Coney Island, and 284 Van Brunt, LLC and LTD Machine Shop/Dwight Street Acquisitions, both located in the Red Hook neighborhood (see Figures 1a through 1c).

Resilient Power Hubs use a combination of a micro-Combined-Heat-and-Power (mCHP) plant, a solar photovoltaic (PV) panel array, and an energy storage (ES) battery system to provide back-up power and reduce use of grid electricity.

The mCHP plant consists of a 10 kilowatt (kW) natural-gas-fired reciprocating engine coupled with an electric generator and a heat exchanger. When necessary, the mCHP plant uses grid natural gas to create electricity, while waste heat from the engine is used to heat up to 120 gallons of water to 120 degrees. The mCHP could provide a continuous source of electricity if the electric grid is disrupted but the natural gas grid is functional. Each Resilient Power Hub would include 58 solar PV panels, each with a capacity of 345 watts. The solar PV panels would provide a renewable and reliable source of power for critical system facilities, even during outages of both the electric and natural gas grids. The battery system stores and discharges the clean energy produced onsite and can be configured to charge using grid electricity at off-peak hours. The battery system further improves the system's resiliency in the event of a grid power outage, providing electricity to power critical system functions. The separate components of the Resilient Power Hub are interconnected by a dynamic control system that manages the output of the Resilient Power Hub elements and the draw from the electric and natural gas grids. Installation of Resilient Power Hub equipment would require minor construction activities in the interiors and on the rooftops of existing facilities, as well as connection to the electric and natural gas grids.

Funding for the Project will be provided by the United States Department of Housing and Urban Development (HUD) Community Development Block Grant – Disaster Recovery (CDBG-DR) program.

Pursuant to the Disaster Relief Appropriations Act, 2013 (Public Law 113-2) and the Housing and Community Development Act (42 U.S.C. § 5301 et seq.), the New York City Office of Management and Budget (OMB) is acting as a recipient of CDBG-DR funds from HUD. OMB

is the entity responsible for compliance with the HUD environmental review procedures set forth in 24 CFR Part 58.

CONSISTENCY WITH NYS COASTAL MANAGEMENT PLAN

Policy 11: *Buildings and other structures will be sited in the coastal area so as to minimize damage to property and the endangering of human lives caused by flooding and erosion.*

Response: The proposed project would result in interior and rooftop improvements to existing facilities and would have no effect on the siting of buildings and structures within the coastal area. The project would improve resiliency of existing buildings but have no effect on property damage or human safety.

Policy 12: *Activities or development in the coastal area will be undertaken so as to minimize damage to natural resources and property from flooding and erosion by protecting natural protective features including beaches, dunes, barrier islands and bluffs.*

Response: The proposed project would consist of interior and rooftop improvements to existing facilities and would not have any effect on natural protective features.

Policy 17: *Non-structural measures to minimize damage to natural resources and property from flooding and erosion shall be used whenever possible.*

Response: The proposed project would consist of interior and rooftop improvements to existing facilities and would not have any effect on natural resource or property damage from flooding or erosion.

Local Waterfront Revitalization Program (LWRP)

Response: Consistency with the New York City Local Waterfront Revitalization Program (LWRP) policies is reviewed in the attached LWRP Consistency Assessment Form.

FOR INTERNAL USE ONLY	WRP No. _____
Date Received: _____	DOS No. _____

NEW YORK CITY WATERFRONT REVITALIZATION PROGRAM
Consistency Assessment Form

Proposed actions that are subject to CEQR, ULURP or other local, state or federal discretionary review procedures, and that are within New York City's Coastal Zone, must be reviewed and assessed for their consistency with the *New York City Waterfront Revitalization Program (WRP)* which has been approved as part of the State's Coastal Management Program.

This form is intended to assist an applicant in certifying that the proposed activity is consistent with the WRP. It should be completed when the local, state, or federal application is prepared. The completed form and accompanying information will be used by the New York State Department of State, the New York City Department of City Planning, or other city or state agencies in their review of the applicant's certification of consistency.

A. APPLICANT INFORMATION

Name of Applicant: New York City Economic Development Corporation

Name of Applicant Representative: Dina Rybak, Assistant Vice President

Address: 110 William Street, 4th Floor, NY NY

Telephone: 212.618.5763 Email: drybak@edc.nyc

Project site owner (if different than above): various private owners

B. PROPOSED ACTIVITY

If more space is needed, include as an attachment.

1. Brief description of activity

This project proposes to install Resilient Power Hubs provided by Bright Power at three small businesses in flood-prone neighborhoods in Brooklyn. The businesses proposed for Resilient Power Hub installation are Banner Properties, LLC located at 2715 West 15th Street in Coney Island, New York, 284 Van Brunt, LLC located at 284 Van Brunt Street, and LTD Machine Shop/Dwight Street Acquisitions, located at 163 Dwight Street in the Red Hook neighborhood.

Resilient Power Hubs use a combination of three main power generation devices: a micro-Combined-Heat-and-Power (mCHP) plant, a solar photovoltaic (PV) panel array, and an energy storage (ES) battery system to provide back-up power and reduce use of grid electricity. The mCHP provides a continuous source of electricity when the electric grid is disrupted. The solar PV panels would provide a renewable and reliable source of power for critical system facilities, even during outages of the electric grid and when natural gas is unavailable. The battery system stores and discharges the clean energy produced onsite and can be configured to charge using grid electricity at off-peak hours. The battery system further improves the system's resiliency in the event of a grid power outage, providing electricity to power critical system functions. In addition to the back-up power and energy savings benefits to the three small businesses, the electricity produced by the Resilient Power Hub is cleaner and more sustainable that that obtained from the electric grid. Installation of Resilient Power Hub equipment would require minor construction activities in the interiors and on the rooftops of existing facilities.

2. Purpose of activity

Extreme storm surge caused by Hurricane Sandy in October 2012 resulted in severe flooding, particularly in the low-lying coastal portions of Brooklyn, Staten Island, Queens, and Lower Manhattan. Businesses and homes, as well as critical power infrastructure facilities, throughout these areas sustained significant damages due to flooding. Prolonged power outages and fuel shortages exacerbated flood damage and delayed the recovery efforts.

The three small businesses proposed for installation of a Resilient Power Hub, located in low-lying coastal neighborhoods of Brooklyn, all experienced heavy flooding as a result of Hurricane Sandy. As demonstrated during and after Hurricane Sandy, such sites are vulnerable to significant flood damage. Direct damage sustained during flooding can be greatly exacerbated by prolonged power outages when the electric grid is disrupted and/or natural gas is unavailable. Such power outages delay recovery efforts, causing suspension of business production and services. Each of these small businesses contributes to their local economy and the economic resilience of the New York City area as a whole. Absent a source of reliable and resilient power, service interruptions such as those experienced during Hurricane Sandy are likely to occur again during future storm events.

C. PROJECT LOCATION

Borough: Kings Tax Block/Lot(s): 3-600-5, 3-00529-0028, 3-6997-42

Street Address: Multiple (see section B-I for addresses)

Name of water body (if located on the waterfront): n/a

D. REQUIRED ACTIONS OR APPROVALS

Check all that apply.

City Actions/Approvals/Funding

City Planning Commission ☐ Yes ☑ No

- ☐ City Map Amendment
- ☐ Zoning Map Amendment
- ☐ Zoning Text Amendment
- ☐ Site Selection – Public Facility
- ☐ Housing Plan & Project
- ☐ Special Permit
  (if appropriate, specify type: ☐ Modification ☐ Renewal ☐ other) Expiration Date: _____
- ☐ Zoning Certification
- ☐ Zoning Authorizations
- ☐ Acquisition – Real Property
- ☐ Disposition – Real Property
- ☐ Other, explain: _____
- ☐ Concession
- ☐ UDAAP
- ☐ Revocable Consent
- ☐ Franchise

Board of Standards and Appeals ☐ Yes ☑ No

- ☐ Variance (use)
- ☐ Variance (bulk)
- ☐ Special Permit
  (if appropriate, specify type: ☐ Modification ☐ Renewal ☐ other) Expiration Date: _____

Other City Approvals

- ☐ Legislation
- ☐ Rulemaking
- ☐ Construction of Public Facilities
- ☐ 384 (b) (4) Approval
- ☐ Other, explain: _____
- ☐ Funding for Construction, specify: _____
- ☐ Policy or Plan, specify: _____
- ☑ Funding of Program, specify: _____
- ☐ Permits, specify: _____

State Actions/Approvals/Funding

- ☐ State permit or license, specify Agency: _____ Permit type and number: _____
- ☐ Funding for Construction, specify: _____
- ☐ Funding of a Program, specify: _____
- ☐ Other, explain: _____

Federal Actions/Approvals/Funding

- ☐ Federal permit or license, specify Agency: _____ Permit type and number: _____
- ☐ Funding for Construction, specify: _____
- ☑ Funding of a Program, specify: HUD CDBG-DR funding of EDC's RISE:NYC program
- ☐ Other, explain: _____

Is this being reviewed in conjunction with a Joint Application for Permits? ☐ Yes ☑ No

E. LOCATION QUESTIONS

1. Does the project require a waterfront site? ☐ Yes ☑ No
2. Would the action result in a physical alteration to a waterfront site, including land along the shoreline, land under water or coastal waters? ☐ Yes ☑ No
3. Is the project located on publicly owned land or receiving public assistance? ☐ Yes ☑ No
4. Is the project located within a FEMA 1% annual chance floodplain? *(6.2)* ☑ Yes ☐ No
5. Is the project located within a FEMA 0.2% annual chance floodplain? *(6.2)* ☐ Yes ☑ No
6. Is the project located adjacent to or within a special area designation? *See Maps – Part III of the NYC WRP. If so, check appropriate boxes below and evaluate policies noted in parentheses as part of WRP Policy Assessment (Section F).* ☐ Yes ☑ No

   ☐ Significant Maritime and Industrial Area (SMIA) (*2.1*)

   ☐ Special Natural Waterfront Area (SNWA) (*4.1*)

   ☐ Priority Martine Activity Zone (PMAZ) (*3.5*)

   ☐ Recognized Ecological Complex (REC) (*4.4*)

   ☐ West Shore Ecologically Sensitive Maritime and Industrial Area (ESMIA) (*2.2, 4.2*)

F. WRP POLICY ASSESSMENT

Review the project or action for consistency with the WRP policies. For each policy, check Promote, Hinder *or* Not Applicable (N/A). *For more information about consistency review process and determination, see* ***Part I*** *of the NYC Waterfront Revitalization Program. When assessing each policy, review the full policy language, including all sub-policies, contained within* ***Part II*** *of the WRP. The relevance of each applicable policy may vary depending upon the project type and where it is located (i.e. if it is located within one of the special area designations).*

For those policies checked Promote *or* Hinder, *provide a written statement on a separate page that assesses the effects of the proposed activity on the relevant policies or standards. If the project or action promotes a policy, explain how the action would be consistent with the goals of the policy. If it hinders a policy, consideration should be given toward any practical means of altering or modifying the project to eliminate the hindrance. Policies that would be advanced by the project should be balanced against those that would be hindered by the project. If reasonable modifications to eliminate the hindrance are not possible, consideration should be given as to whether the hindrance is of such a degree as to be substantial, and if so, those adverse effects should be mitigated to the extent practicable.*

		Promote	Hinder	N/A
1	**Support and facilitate commercial and residential redevelopment in areas well-suited to such development.**	☐	☐	☑
1.1	Encourage commercial and residential redevelopment in appropriate Coastal Zone areas.	☐	☐	☑
1.2	Encourage non-industrial development with uses and design features that enliven the waterfront and attract the public.	☐	☐	☑
1.3	Encourage redevelopment in the Coastal Zone where public facilities and infrastructure are adequate or will be developed.	☐	☐	☑
1.4	In areas adjacent to SMIAs, ensure new residential development maximizes compatibility with existing adjacent maritime and industrial uses.	☐	☐	☑
1.5	Integrate consideration of climate change and sea level rise into the planning and design of waterfront residential and commercial development, pursuant to WRP Policy 6.2.	☐	☐	☑

		Promote	Hinder	N/A
2	**Support water-dependent and industrial uses in New York City coastal areas that are well-suited to their continued operation.**	☐	☐	☑
2.1	Promote water-dependent and industrial uses in Significant Maritime and Industrial Areas.	☐	☐	☑
2.2	Encourage a compatible relationship between working waterfront uses, upland development and natural resources within the Ecologically Sensitive Maritime and Industrial Area.	☐	☐	☑
2.3	Encourage working waterfront uses at appropriate sites outside the Significant Maritime and Industrial Areas or Ecologically Sensitive Maritime Industrial Area.	☐	☐	☑
2.4	Provide infrastructure improvements necessary to support working waterfront uses.	☐	☐	☑
2.5	Incorporate consideration of climate change and sea level rise into the planning and design of waterfront industrial development and infrastructure, pursuant to WRP Policy 6.2.	☐	☐	☑
3	**Promote use of New York City's waterways for commercial and recreational boating and water-dependent transportation.**	☐	☐	☑
3.1.	Support and encourage in-water recreational activities in suitable locations.	☐	☐	☑
3.2	Support and encourage recreational, educational and commercial boating in New York City's maritime centers.	☐	☐	☑
3.3	Minimize conflicts between recreational boating and commercial ship operations.	☐	☐	☑
3.4	Minimize impact of commercial and recreational boating activities on the aquatic environment and surrounding land and water uses.	☐	☐	☑
3.5	In Priority Marine Activity Zones, support the ongoing maintenance of maritime infrastructure for water-dependent uses.	☐	☐	☑
4	**Protect and restore the quality and function of ecological systems within the New York City coastal area.**	☐	☐	☑
4.1	Protect and restore the ecological quality and component habitats and resources within the Special Natural Waterfront Areas.	☐	☐	☑
4.2	Protect and restore the ecological quality and component habitats and resources within the Ecologically Sensitive Maritime and Industrial Area.	☐	☐	☑
4.3	Protect designated Significant Coastal Fish and Wildlife Habitats.	☐	☐	☑
4.4	Identify, remediate and restore ecological functions within Recognized Ecological Complexes.	☐	☐	☑
4.5	Protect and restore tidal and freshwater wetlands.	☐	☐	☑
4.6	In addition to wetlands, seek opportunities to create a mosaic of habitats with high ecological value and function that provide environmental and societal benefits. Restoration should strive to incorporate multiple habitat characteristics to achieve the greatest ecological benefit at a single location.	☐	☐	☑
4.7	Protect vulnerable plant, fish and wildlife species, and rare ecological communities. Design and develop land and water uses to maximize their integration or compatibility with the identified ecological community.	☐	☐	☑
4.8	Maintain and protect living aquatic resources.	☐	☐	☑

		Promote	Hinder	N/A
5	**Protect and improve water quality in the New York City coastal area.**	☐	☐	☑
5.1	Manage direct or indirect discharges to waterbodies.	☐	☐	☑
5.2	Protect the quality of New York City's waters by managing activities that generate nonpoint source pollution.	☐	☐	☑
5.3	Protect water quality when excavating or placing fill in navigable waters and in or near marshes, estuaries, tidal marshes, and wetlands.	☐	☐	☑
5.4	Protect the quality and quantity of groundwater, streams, and the sources of water for wetlands.	☐	☐	☑
5.5	Protect and improve water quality through cost-effective grey-infrastructure and in-water ecological strategies.	☐	☐	☑
6	**Minimize loss of life, structures, infrastructure, and natural resources caused by flooding and erosion, and increase resilience to future conditions created by climate change.**	☑	☐	☐
6.1	Minimize losses from flooding and erosion by employing non-structural and structural management measures appropriate to the site, the use of the property to be protected, and the surrounding area.	☐	☐	☑
6.2	Integrate consideration of the latest New York City projections of climate change and sea level rise (as published in *New York City Panel on Climate Change 2015 Report, Chapter 2: Sea Level Rise and Coastal Storms*) into the planning and design of projects in the city's Coastal Zone.	☑	☐	☐
6.3	Direct public funding for flood prevention or erosion control measures to those locations where the investment will yield significant public benefit.	☐	☐	☑
6.4	Protect and preserve non-renewable sources of sand for beach nourishment.	☐	☐	☑
7	**Minimize environmental degradation and negative impacts on public health from solid waste, toxic pollutants, hazardous materials, and industrial materials that may pose risks to the environment and public health and safety.**	☐	☐	☑
7.1	Manage solid waste material, hazardous wastes, toxic pollutants, substances hazardous to the environment, and the unenclosed storage of industrial materials to protect public health, control pollution and prevent degradation of coastal ecosystems.	☐	☐	☑
7.2	Prevent and remediate discharge of petroleum products.	☐	☐	☑
7.3	Transport solid waste and hazardous materials and site solid and hazardous waste facilities in a manner that minimizes potential degradation of coastal resources.	☐	☐	☑
8	**Provide public access to, from, and along New York City's coastal waters.**	☐	☐	☑
8.1	Preserve, protect, maintain, and enhance physical, visual and recreational access to the waterfront.	☐	☐	☑
8.2	Incorporate public access into new public and private development where compatible with proposed land use and coastal location.	☐	☐	☑
8.3	Provide visual access to the waterfront where physically practical.	☐	☐	☑
8.4	Preserve and develop waterfront open space and recreation on publicly owned land at suitable locations.	☐	☐	☑

		Promote	Hinder	N/A
8.5	Preserve the public interest in and use of lands and waters held in public trust by the State and City.	☐	☐	☑
8.6	Design waterfront public spaces to encourage the waterfront's identity and encourage stewardship.	☐	☐	☑
9	**Protect scenic resources that contribute to the visual quality of the New York City coastal area.**	☐	☐	☑
9.1	Protect and improve visual quality associated with New York City's urban context and the historic and working waterfront.	☐	☐	☑
9.2	Protect and enhance scenic values associated with natural resources.	☐	☐	☑
10	**Protect, preserve, and enhance resources significant to the historical, archaeological, architectural, and cultural legacy of the New York City coastal area.**	☐	☐	☑
10.1	Retain and preserve historic resources, and enhance resources significant to the coastal culture of New York City.	☐	☐	☑
10.2	Protect and preserve archaeological resources and artifacts.	☐	☐	☑

G. CERTIFICATION

The applicant or agent must certify that the proposed activity is consistent with New York City's approved Local Waterfront Revitalization Program, pursuant to New York State's Coastal Management Program. If this certification cannot be made, the proposed activity shall not be undertaken. If this certification can be made, complete this Section.

"The proposed activity complies with New York State's approved Coastal Management Program as expressed in New York City's approved Local Waterfront Revitalization Program, pursuant to New York State's Coastal Management Program, and will be conducted in a manner consistent with such program."

Applicant/Agent's Name: Dina Rybak on behalf of the New York City Economic Development Corporation

Address: 110 William Street 4th floor, NY NY 10038

Telephone: 212.618.5763 Email: drybak@edc.nyc

Applicant/Agent's Signature: Dina Rybak

Date: 5/23/2016

This document is the addendum to the Local Waterfront Revitalization Program (LWRP) Consistency Assessment Form (FCAF) for the RISE: NYC – Bright Power Project. After describing the proposed project in more detail, this document analyzes the consistency of the proposed project with the policies of the New York City LWRP, specifically those policies that were identified as potentially applicable to this project in the CAF.

PROJECT DESCRIPTION

This project proposes to install Bright Power Resilient Power Hubs at three (3) small businesses in flood-prone neighborhoods in Brooklyn. The businesses proposed for Resilient Power Hub installation are Banner Properties, LLC, located on Coney Island, and 284 Van Brunt, LLC and LTD Machine Shop/Dwight Street Acquisitions, both located in the Red Hook neighborhood (see Figures 1a through 1c).

Resilient Power Hubs use a combination of a micro-Combined-Heat-and-Power (mCHP) plant, a solar photovoltaic (PV) panel array, and an energy storage (ES) battery system to provide back-up power and reduce use of grid electricity.

The mCHP plant consists of a 10 kilowatt (kW) natural-gas-fired reciprocating engine coupled with an electric generator and a heat exchanger. When necessary, the mCHP plant uses grid natural gas to create electricity, while waste heat from the engine is used to heat up to 120 gallons of water to 120 degrees. The mCHP could provide a continuous source of electricity if the electric grid is disrupted but the natural gas grid is functional. Each Resilient Power Hub would include 58 solar PV panels, each with a capacity of 345 watts. The solar PV panels would provide a renewable and reliable source of power for critical system facilities, even during outages of both the electric and natural gas grids. The battery system stores and discharges the clean energy produced onsite and can be configured to charge using grid electricity at off-peak hours. The battery system further improves the system's resiliency in the event of a grid power outage, providing electricity to power critical system functions. The separate components of the Resilient Power Hub are interconnected by a dynamic control system that manages the output of the Resilient Power Hub elements and the draw from the electric and natural gas grids. Installation of Resilient Power Hub equipment would require minor construction activities in the interiors and on the rooftops of existing facilities, as well as connection to the electric and natural gas grids.

Funding for the Project will be provided by the United States Department of Housing and Urban Development (HUD) Community Development Block Grant – Disaster Recovery (CDBG-DR) program.

Pursuant to the Disaster Relief Appropriations Act, 2013 (Public Law 113-2) and the Housing and Community Development Act (42 U.S.C. § 5301 et seq.), the New York City Office of Management and Budget (OMB) is acting as a recipient of CDBG-DR funds from HUD. OMB

is the entity responsible for compliance with the HUD environmental review procedures set forth in 24 CFR Part 58.

CONSISTENCY WITH LWRP POLICIES

Policy 6: *Minimize loss of life, structures, infrastructure, and natural resources caused by flooding and erosion, and increase resilience to future conditions created by climate change.*

Response: The proposed project would consist of small interior and rooftop improvements to existing facilities and would not have any effect on natural resource or property damage from flooding or erosion.

Policy 6.2: *Integrate consideration of the latest New York City projections of climate change and sea level rise (as published in New York City Panel on Climate Change 2015 Report, Chapter 2: Sea Level Rise and Coastal Storms) into the planning and design of projects in the city's Coastal Zone.*

Response: The proposed project would install Resilient Power Hubs in the interiors and on the rooftops of existing facilities at multiple locations within the 100 year floodplain (see Figures 1a through 1c). The proposed project would provide a resilient and renewable source of electricity to these local small businesses. Provision of such an energy source would enable businesses to operate throughout power outages, providing local goods and services to residents, in addition to reducing greenhouse gas emissions through use of renewable power sources. As such, the proposed project is in direct support of New York City's overall goal for enhanced resiliency within the city's Coastal Zone.

New York State Coastal Management Plan

Response: Consistency with the New York State Coastal Management Plan (CMP) policies is reviewed in the attached Federal Consistency Assessment Form (FCAF).

Appendix B
Agency Correspondence

State Historic Preservation Office (SHPO)

NYCEDC
New York City Economic Development Corporation

May 19, 2016

Mr. John Bonafide
Director, Technical Preservation Bureau
Division of Historic Preservation
New York State Office of Parks, Recreation and Historic Preservation
Peebles Island
P.O. Box 189
Waterford, New York 12188-0189

Re: Section 106 Compliance for RISE: NYC—Bright Power Project
(Kings County, NY)

Dear Mr. Bonafide:

Pursuant to the Disaster Relief Appropriations Act, 2013 (Public Law 113-2) and the Housing and Community Development Act (42 U.S.C. § 5301 et seq.), the New York City Office of Management and Budget (OMB) is acting as a recipient of Community Development Block Grant—Disaster Recovery (CDBG-DR) funds from the United States Department of Housing and Urban Development (HUD). The funding program is for storm recovery activities in New York State. OMB is serving as the entity responsible for compliance with the HUD environmental review procedures set forth in 24 CFR Part 58. The New York City Economic Development Corporation (NYCEDC), as a project sponsor, is acting on behalf of OMB in providing the enclosed information and request for consultation.

NYCEDC Resiliency Innovations for a Stronger Economy (RISE: NYC) is a Superstorm Sandy business recovery and resiliency program that helps New York City small businesses adapt to and mitigate the impacts of climate change through the use of innovative technologies. Businesses and residences alike throughout the five boroughs sustained substantial damage from Superstorm Sandy. Flood damage to businesses was significant and recovery was slow due to widespread power outages and fuel shortages. The current proposed project under RISE: NYC is installation of Resilient Power Hubs by Bright Power, which use a combination of a micro-Combined-Heat-and-Power (mCHP) plant, a solar photovoltaic (PV) panel array, and an energy storage (ES) battery system to provide back-up power and reduce use of grid electricity.

Area of Potential Effect

The Bright Power project would install Resilient Power Hubs at three small businesses in flood-prone neighborhoods of Brooklyn, NY (Kings County). The equipment would be installed on the roof of the businesses at 284 Van Brunt Street (284 Van Brunt LLC) and 2715 West 15th Street (Banner Properties LLC); it would be installed in the basement of the 163 Dwight Street business (LTD Machine Shop/Dwight Street Acquisitions). The small business addresses, blocks/lots, and brief descriptions are provided in **Table 1**. They are also mapped on **Figures 1A through 1C** and shown in photographs 1 through 3.

Proposed Project Description:

The proposed project would result in the installation of Bright Power Resilient Power Hubs at each of the three small businesses identified above. The Bright Power Resilient Power Hubs installed on rooftops would be located within an enclosure system, approximately 8 feet by 10 feet by 13 feet in exterior dimensions. Installation of Resilient Power Hub equipment would require minor construction activities

at the installation locations within the three businesses (i.e., on the roof of the businesses at 284 Van Brunt Street and 2715 West 15th Street; and in the basement of the 163 Dwight Street business). Therefore, no in-ground construction would be required.

The mCHP plant consists of a 10 kilowatt (kW) natural-gas-fired reciprocating engine coupled with an electric generator and a heat exchanger. When necessary, the mCHP plant uses grid natural gas to create electricity, while waste heat from the engine is used to heat up to 120 gallons of water to 120 degrees. The mCHP could provide a continuous source of electricity if the electric grid is disrupted but the natural gas grid is functional. Each Resilient Power Hub would include 58 solar PV panels, each with a capacity of 345 watts. The solar PV panels would provide a renewable and reliable source of power for critical system facilities, even during outages of both the electric and natural gas grids. The battery system stores and discharges the clean energy produced onsite and can be configured to charge using grid electricity at off-peak hours. The battery system further improves the system's resiliency in the event of a grid power outage, providing electricity to power critical system functions. The three separate components of the Resilient Power Hub are interconnected by a dynamic control system that manages the output of the Resilient Power Hub elements and the draw from the electric and natural gas grids.

Because the project described herein would not involve any in-ground disturbance, the proposed project does not have the potential to result in any effects on archaeological resources; consultation with Tribal Historic Preservation Offices is not required. None of the affected buildings is listed on or has been determined eligible for listing on the State/National Registers of Historic Places, nor do any of the properties appear to meet S/NR eligibility criteria, therefore the proposed project does not have the potential to result in adverse effects on historic architectural resources.

The purpose of this letter is to notify your office of the proposed undertaking and to initiate consultation under Section 106 of the NHPA, per the implementing regulations at 36 Code of Federal Regulations (CFR) Part 800. Because the proposed project would not involve any in-ground disturbance and there are no historic architectural resources on any of the affected properties, it is anticipated that no further consultation under Section 106 is required. NYCEDC respectfully request SHPO's review of the proposed project within 30 days of receiving this notice or sooner. If the Area of Potential Effect encompasses properties of religious or cultural significance, or if you have any other concerns about the implementation of the proposed project, please contact me by email to drybak@edc.nyc, by phone at 212.618.5763, or in writing to Dina Rybak, c/o NYCEDC, 110 William Street, NY, NY 10036. Thank you for your time and consideration.

Sincerely,

Dina Rybak
Assistant Vice President
NYC Economic Development Corporation

enc: **Figures 1A through 1C**, Project Location Maps
Table 1, RISE: NYC—Bright Power Resilient Power Hubs

cc: Eram Qadri, New York City Office of Management and Budget
Gina Santucci, New York City Landmarks Preservation Commission

TABLE 1

RISE: NYC
Bright Power Project Sites
Contract Number 55090002

Figure Name	Photo Number	Owner	Business	Require Flood Insurance[1]	Require Flood Insurance[2] (2013 PFIRMS)	Sites	Addresses	BBLs	Building description/condition
2A	See Photo 1	LTD Machine Shop/Dwight Street Acquisitions	LTD Machine Shop/Dwight Street Acquisitions	Yes	Yes	Linda Tool	163 Dwight Street, Brooklyn, NY 11231	3-600-5	1-story brick industrial building with banded original windows and garage entrances. New Construction 1953 (Sanborn map)
2B	See Photo 2	284 Van Brunt LLC	284 Van Brunt LLC	Yes	Yes	Red Hook Lobster Pound	284 Van Brunt Street, Brooklyn, NY 11231	3-00529-0028	1-story small brick-faced commercial building with two commercial entrances, one garage entrance, and an oculus window. Recent entrance/façade modifications using found materials. Circa 1931, estimated (NYCDoITT).
2C	See Photo 3	Banner Properties LLC	Banner Properties LLC	Yes	Yes	Banner Smoked Fish	2715 West 15th Street, Brooklyn, NY 11224	3-6997-42	1-story brick-faced warehouse building with commercial entrances and garage entrances. No architectural detail. Circa 1930 (NYCDoITT)

[1] The RISE : NYC program flood insurance requirements apply to all businesses located in the Special Flood Hazard Area. This analysis is based on the accepted 2007 FIRMs.
[2] For comparision, this analysis indicates which sites are in the SFHA according to the 2013 PFRIMs

NEW YORK STATE OF OPPORTUNITY.
Parks, Recreation, and Historic Preservation

ANDREW M. CUOMO
Governor

ROSE HARVEY
Commissioner

June 08, 2016

Ms. Dina Rybak
Assistant Vice President
NYC Economic Development Corporation
110 William Street, 4th floor
New York, NY 10038

Re: CDBG-DR
RISE:NYC - Brightpower
284 Van Brunt Street, 2715 West 15th Street, and 163 Dwight Street, Brooklyn, NY
16PR03430

Dear Ms. Rybak:

Thank you for requesting the comments of the State Historic Preservation Office (SHPO). We have reviewed the project in accordance with Section 106 of the National Historic Preservation Act of 1966. These comments are those of the SHPO and relate only to Historic/Cultural resources. They do not include potential environmental impacts to New York State Parkland that may be involved in or near your project. Such impacts must be considered as part of the environmental review of the project pursuant to the National Environmental Policy Act and/or the State Environmental Quality Review Act (New York Environmental Conservation Law Article 8).

Based upon this review, the New York SHPO has determined that no historic properties will be affected by this undertaking.

If further correspondence is required regarding this project, please be sure to refer to the OPRHP Project Review (PR) number noted above.

Sincerely,

Ruth L. Pierpont

Deputy Commissioner for Historic Preservation

New York State Department of State (DOS)

NYCEDC
New York City Economic Development Corporation

May 23, 2015

New York State Department of State
Office of Coastal, Local Government, and Community Sustainability
Attn: Consistency Review Unit
One Commerce Plaza
99 Washington Avenue
Albany, NY 12231

Re: General Consistency Concurrence for the RISE: NYC – Bright Power Project, Kings County, New York

To whom it may concern:

Pursuant to the Disaster Relief Appropriations Act, 2013 (Public Law 113-2) and the Housing and Community Development Act (42 U.S.C. § 5301 et seq.), the New York City Office of Management and Budget (OMB) is acting as a recipient of Community Development Block Grant—Disaster Recovery (CDBG-DR) funds from the United States Department of Housing and Urban Development (HUD). The funding program is for storm recovery activities in New York City. OMB is serving as the entity responsible for compliance with the HUD environmental review procedures set forth in 24 CFR Part 58. The New York City Economic Development Corporation (NYCEDC), as a project sponsor, is acting on behalf of OMB in providing the enclosed information and request for consultation.

NYCEDC Resiliency Innovations for a Stronger Economy (RISE: NYC) is a Superstorm Sandy business recovery and resiliency program that helps New York City small businesses adapt to and mitigate the impacts of climate change through the use of innovative technologies. Businesses and residences alike throughout the five boroughs sustained substantial damage from Superstorm Sandy. Flood damage to businesses was significant and recovery was slow due to widespread power outages and fuel shortages.

As part of the next project, NYCEDC is proposing to install Bright Power Resilient Power Hubs at three small businesses in flood-prone neighborhoods in Brooklyn, New York (Kings County). The businesses proposed for Resilient Power Hub installation are Banner Properties, LLC, located on Coney Island, and 284 Van Brunt, LLC, and LTD Machine Shop/Dwight Street Acquisitions, both located in the Red Hook neighborhood (**Figures 1a-1c**).

Resilient Power Hubs use a combination of a micro-Combined-Heat-and-Power (mCHP) plant, a solar photovoltaic (PV) panel array, and an energy storage (ES) battery system to provide back-up power and reduce use of grid electricity.

- The mCHP plant consists of a 10 kilowatt (kW) natural-gas-fired reciprocating engine coupled with an electric generator and a heat exchanger. When necessary, the mCHP plant uses grid natural gas to create electricity, while waste heat from the engine is used to heat up to 120 gallons of water to 120 degrees. The mCHP could provide a continuous source of electricity if the electric grid is disrupted but the natural gas grid is functional.
- Each Resilient Power Hub would include 58 solar PV panels, each with a capacity of 345 watts. The solar PV panels would provide a renewable and reliable source of power for critical system facilities, even during outages of both the electric and natural gas grids.
- The battery system stores and discharges the clean energy produced onsite and can be configured to charge using grid electricity at off-peak hours. The battery system further improves the

system's resiliency in the event of a grid power outage, providing electricity to power critical system functions.

The three separate components of the Resilient Power Hub are interconnected by a dynamic control system that manages the output of the Resilient Power Hub elements and the draw from the electric and natural gas grids. Installation of Resilient Power Hub equipment would require minor construction activities in the interiors and on the rooftops of the three businesses' existing buildings.

The purpose of this letter is to notify your office of the proposed undertaking and to initiate your review of the project's consistency with the New York Coastal Management Program. A Federal Consistency Assessment Form is attached to this letter. It is our determination that the proposed project is consistent with the policies of the State's Coastal Management Program, as well as with the New York City's Local Waterfront Revitalization Program. Consultation has also been initiated with the New York City Department of City Planning/City Planning Commission acting at the City Coastal Commission; materials submitted to NYCDCP are also attached to this letter.

If you have any other concerns about the implementation of the proposed project, please contact me by email to drybak@edc.nyc, by phone at 212.618.5763, or in writing to Dina Rybak, c/o NYCEDC, 110 William Street, NY, NY 10036. Thank you for your time and consideration.

Sincerely,

Dina Rybak
Assistant Vice President
NYC Economic Development Corporation

enc: Figures 1a through 1c, Project Location Maps
Materials submitted to NYCDCP for LWRP consistency review

cc: Eram Qadri, New York City Office of Management and Budget

New York City Department of City Planning (DCP)

NYCEDC
New York City Economic Development Corporation

May 23, 2015

Michael Marrella, Director of Waterfront and Open Space
New York Department of City Planning
120 Broadway, 31st Floor
New York, NY 10271

Re: Waterfront Revitalization Program Consistency Concurrence for the RISE: NYC – Bright Power Project, Kings County, New York

Mr. Marrella:

Pursuant to the Disaster Relief Appropriations Act, 2013 (Public Law 113-2) and the Housing and Community Development Act (42 U.S.C. § 5301 et seq.), the New York City Office of Management and Budget (OMB) is acting as a recipient of Community Development Block Grant—Disaster Recovery (CDBG-DR) funds from the United States Department of Housing and Urban Development (HUD). The funding program is for storm recovery activities in New York City. OMB is serving as the entity responsible for compliance with the HUD environmental review procedures set forth in 24 CFR Part 58. The New York City Economic Development Corporation (NYCEDC), as a project sponsor, is acting on behalf of OMB in providing the enclosed information and request for consultation.

NYCEDC Resiliency Innovations for a Stronger Economy (RISE: NYC) is a Superstorm Sandy business recovery and resiliency program that helps New York City small businesses adapt to and mitigate the impacts of climate change through the use of innovative technologies. Businesses and residences alike throughout the five boroughs sustained substantial damage from Superstorm Sandy. Flood damage to businesses was significant and recovery was slow due to widespread power outages and fuel shortages.

As part of the next project, NYCEDC is proposing to install Bright Power Resilient Power Hubs at three small businesses in flood-prone neighborhoods in Brooklyn, New York (Kings County). The businesses proposed for Resilient Power Hub installation are Banner Properties, LLC, located on Coney Island, and 284 Van Brunt, LLC, and LTD Machine Shop/Dwight Street Acquisitions, both located in the Red Hook neighborhood (**Figures 1a-1c**).

Resilient Power Hubs use a combination of a micro-Combined-Heat-and-Power (mCHP) plant, a solar photovoltaic (PV) panel array, and an energy storage (ES) battery system to provide back-up power and reduce use of grid electricity.

- The mCHP plant consists of a 10 kilowatt (kW) natural-gas-fired reciprocating engine coupled with an electric generator and a heat exchanger. When necessary, the mCHP plant uses grid natural gas to create electricity, while waste heat from the engine is used to heat up to 120 gallons of water to 120 degrees. The mCHP could provide a continuous source of electricity if the electric grid is disrupted but the natural gas grid is functional.
- Each Resilient Power Hub would include 58 solar PV panels, each with a capacity of 345 watts. The solar PV panels would provide a renewable and reliable source of power for critical system facilities, even during outages of both the electric and natural gas grids.
- The battery system stores and discharges the clean energy produced onsite and can be configured to charge using grid electricity at off-peak hours. The battery system further improves the system's resiliency in the event of a grid power outage, providing electricity to power critical system functions.

The three separate components of the Resilient Power Hub are interconnected by a dynamic control system that manages the output of the Resilient Power Hub elements and the draw from the electric and natural gas grids. Installation of Resilient Power Hub equipment would require minor construction activities in the interiors and on the rooftops of the three businesses' existing buildings.

The purpose of this letter is to notify your office of the proposed undertaking and to initiate your review of the project's consistency with the New York City Local Waterfront Revitalization Program (LWRP). A LWRP Consistency Assessment Form is attached to this letter. It is our determination that the proposed project is consistent with the policies of the NYC LWRP. Consultation will also be initiated with the New York State Department of State to determine consistency with the New York Coastal Zone Management Program.

If you have any other concerns about the implementation of the proposed project, please contact me by email to drybak@edc.nyc, by phone at 212.618.5763, or in writing to Dina Rybak, c/o NYCEDC, 110 William Street, NY, NY 10038. Thank you for your time and consideration.

Sincerely,

Dina Rybak
Assistant Vice President
NYC Economic Development Corporation

enc: Figures 1a through 1c, Project Location Maps

cc: Eram Qadri, New York City Office of Management and Budget

Allan Zaretsky, New York City Department of City Planning

From: Allan Zaretsky (DCP) [mailto:AZARETSKY@planning.nyc.gov]
Sent: Friday, June 17, 2016 1:59 PM
To: Dina Rybak
Cc: Caldwell, Denise (DOS)
Subject: WRP Consistency Review: RISE:NYC Resilient Power Hubs

Hello Dina,

We have completed the review of the project as described below for consistency with the policies and intent of the New York City Waterfront Revitalization Program (WRP).

RISE:NYC Resilient Power Hubs: Installation of Resilient Power Hubs at three small businesses to use a combination of power generation devices to provide a continuous source of electricity during energy disruptions.

Based on the information submitted, the Waterfront Open Space Division, on behalf of the New York City Coastal Commission, having reviewed the waterfront aspect of this action, finds that the actions will not substantially hinder the achievement of any Waterfront Revitalization Program (WRP) policy and hereby provides its finding to the New York State Department of State (DOS) that this action is consistent with the WRP policies and the local program. Please note that the proposed action(s) are subject to consistency review and approval by the New York State Department of State (DOS) in accordance with the New York State Coastal Management Program.

This finding is only applicable to the information received and the current proposal. Any additional information or project modifications would require an independent consistency review.

For your records, this project has been assigned WRP # 16-089. The matching DOS file reference number is F-2016-0481. If there are any questions regarding this review, please contact me.

Regards,

Allan Zaretsky

ALLAN ZARETSKY
RESILIENCY PLANNER • WATERFRONT & OPEN SPACE

NYC DEPT. OF CITY PLANNING
120 BROADWAY, 31st FLOOR • NEW YORK, NY 10271
212-720-3448 I AZARETSKY@planning.nyc.gov

Follow us on Twitter @NYCPlanning
www.nyc.gov/planning/resiliency

New York Natural Heritage Program (NYNHP)

NYCEDC
New York City Economic Development Corporation

May 19, 2016

Information Services
New York Natural Heritage Program
625 Broadway – 5th Floor
Albany, NY 12233-4757

Re: New York City Economic Development Corporation Resiliency Innovations for a Stronger Economy program, Kings County, NY: request for information on listed species and significant natural communities

To whom it may concern:

I am writing to request a search of your files for any records of state-listed plant or animal species, or significant habitats in the vicinity of three businesses in the Coney Island and Red Hook neighborhoods of Brooklyn, New York (Kings County; **Figures 1 and 2**). The New York City Economic Development Corporation's (EDC) Resiliency Innovations for a Stronger Economy (RISE) program is proposing to install Bright Power Resilient Power Hubs at these locations. Resilient Power Hubs use a combination of a micro-Combined-Heat-and-Power (mCHP) plant, a solar photovoltaic (PV) panel array, and an energy storage (ES) battery system to provide back-up power during extreme weather events and other outages, and reduce use of grid electricity.

In support of Categorical Exclusion documents being prepared for the proposed project, I am requesting records of NYS threatened, endangered, and special concern species, and significant habitats within 0.5 miles of each of the project sites shown in the attached figures. Specific information on the location of sensitive species or habitats provided by NHP will not be published in any document unless permission is granted by the State.

Please send the requested information to me by mail at Dina Rybak, c/o NYCEDC, 110 William Street 4th Floor, New York, NY 10038 or by email to drybak@edc.nyc. I can be reached by phone at 212.618.5763 if you have any questions regarding this request. Thank you for your time and assistance.

Sincerely,

Dina Rybak
Assistant Vice President
NYC Economic Development Corporation

Enclosures:
Attachment: Figures 1-5

cc: Eram Qadri, New York City Office of Management and Budget

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Division of Fish, Wildlife & Marine Resources
New York Natural Heritage Program
625 Broadway, 5th Floor, Albany, New York 12233-4757
Phone: (518) 402-8935 • **Fax:** (518) 402-8925
Website: www.dec.ny.gov

June 17, 2016

Dina Rybak
New York City Economic Development Corporation
110 William Street
New York, NY 10038

Re: Resiliency Innovations for a Stronger Economy Program: Bright Power Resilient Power Hubs in Coney Island and Red Hook (3 sites)
Town/City: City Of New York. County: Kings.

Dear Dina Rybak:

In response to your recent request, we have reviewed the New York Natural Heritage Program database with respect to the above project.

We have no records of rare or state-listed animals or plants, or significant natural communities at your sites or in their immediate vicinity.

The absence of data does not necessarily mean that rare or state-listed species, significant natural communities, or other significant habitats do not exist on or adjacent to the proposed site. Rather, our files currently do not contain information that indicates their presence. For most sites, comprehensive field surveys have not been conducted. We cannot provide a definitive statement on the presence or absence of all rare or state-listed species or significant natural communities. Depending on the nature of the project and the conditions at the project site, further information from on-site surveys or other resources may be required to fully assess impacts on biological resources.

This response applies only to known occurrences of rare or state-listed animals and plants, significan natural communities, and other significant habitats maintained in the Natural Heritage Database. Your project may require additional review or permits; for information regarding other permits that may be required under state law for regulated areas or activities (e.g., regulated wetlands), please contact the NYS DEC Region 2 Office, Division of Environmental Permits, as listed at www.dec.ny.gov/about/39381.html.

Sincerely,

Nicholas Conrad
Information Resources Coordinator
New York Natural Heritage Program

United States Fish and Wildlife Service (USFWS)

NYCEDC
New York City Economic Development Corporation

May 19, 2016

Steve Sinkevich
Senior Fish and Wildlife Biologist
U.S. Fish and Wildlife Service
Long Island Field Office (Region 5)
340 Smith Road
Shirley, NY 11967

RE: Section 7 Informal Consultation – Bright Power Resilient Power Hubs, Brooklyn, NY

Dear Mr. Sinkevich,

Pursuant to the Disaster Relief Appropriations Act, 2013 (Public Law 113-2) and the Housing and Community Development Act (42 U.S.C. § 5301 et seq.), the New York City Office of Management and Budget (OMB) is acting as a recipient of Community Development Block Grant—Disaster Recovery (CDBG-DR) funds from the United States Department of Housing and Urban Development (HUD). The funding program is for storm recovery activities in New York City. OMB is serving as the entity responsible for compliance with the HUD environmental review procedures set forth in 24 CFR Part 58. The New York City Economic Development Corporation (NYCEDC), as a project sponsor, is acting on behalf of OMB in providing the enclosed information and request for consultation.

NYCEDC Resiliency Innovations for a Stronger Economy (RISE: NYC) is a Superstorm Sandy business recovery and resiliency program that helps New York City small businesses adapt to and mitigate the impacts of climate change through the use of innovative technologies. Businesses and residences alike throughout the five boroughs sustained substantial damage from Superstorm Sandy. Flood damage to businesses was significant and recovery was slow due to widespread power outages and fuel shortages.

As part of the next project, NYCEDC is proposing to install Bright Power Resilient Power Hubs at three small businesses in flood-prone neighborhoods in Brooklyn, New York (Kings County). The businesses proposed for Resilient Power Hub installation are Banner Properties, LLC, located on Coney Island, and 284 Van Brunt, LLC, and LTD Machine Shop/Dwight Street Acquisitions, both located in the Red Hook neighborhood (**Figures 1-5**).

Resilient Power Hubs use a combination of a micro-Combined-Heat-and-Power (mCHP) plant, a solar photovoltaic (PV) panel array, and an energy storage (ES) battery system to provide back-up power and reduce use of grid electricity.

- The mCHP plant consists of a 10 kilowatt (kW) natural-gas-fired reciprocating engine coupled with an electric generator and a heat exchanger. When necessary, the mCHP plant uses grid natural gas to create electricity, while waste heat from the engine is used to heat up to 120 gallons of water to 120 degrees. The mCHP could provide a continuous source of electricity if the electric grid is disrupted but the natural gas grid is functional.
- Each Resilient Power Hub would include 58 solar PV panels, each with a capacity of 345 watts. The solar PV panels would provide a renewable and reliable source of power for critical system facilities, even during outages of both the electric and natural gas grids.

- The battery system stores and discharges the clean energy produced onsite and can be configured to charge using grid electricity at off-peak hours. The battery system further improves the system's resiliency in the event of a grid power outage, providing electricity to power critical system functions.

The three separate components of the Resilient Power Hub are interconnected by a dynamic control system that manages the output of the Resilient Power Hub elements and the draw from the electric and natural gas grids. Installation of Resilient Power Hub equipment would require minor construction activities in the interiors and on the rooftops of the three businesses' existing buildings.

Because the proposed project would receive CDBG-DR funding, section 7 of the Endangered Species Act (ESA) requires consultation of the U.S. Fish and Wildlife Service (USFWS) to determine whether any federally threatened, endangered, candidate, or proposed species, or their designated critical habitats could be affected. The USFWS Information for Planning and Conservation System lists the piping plover (*Charadrius melodus*; Threatened), roseate tern (*Sterna dougallii*; Endangered), *rufa* subspecies of the red knot (*Calidris canutus rufa*; Proposed Threatened), and seabeach amaranth (*Amaranthus pumilus*; Threatened) as occurring within Kings County.

Each of these species is associated with coastal habitats and would be limited to the oceanfront and/or bayside shorelines of Brooklyn, with the exception of the roseate tern, which could also be found on island marshes and over open water. The three businesses proposed for the installation of the Bright Power Resilient Power Hubs are inland from the shoreline, on city streets within heavily urbanized areas, where no impervious surfaces or suitable habitat for these species occurs in close proximity (**Figures 3-5**). As such, piping plovers, red knots, roseate terns, and seabeach amaranth do not have the potential to occur near the project sites and there would be no potential impacts to these species from the rooftop installation of the Bright Power Resilient Power Hubs.

Overall, it is concluded that the proposed project would not adversely affect the piping plover, red knot, roseate tern, or seabeach amaranth, and would therefore be in compliance with section 7 of the ESA, as amended. Similarly, it is also concluded that the proposed project would comply with the Neotropical Migratory Bird Treaty Act given that no take of birds protected under the Act would result from the proposed project. We request the concurrence of the USFWS with this determination.

If you have questions or require additional information regarding this request, please contact me at by email at drybak@edc.nyc or by phone at 212.618.5763. Thank you for your time and consideration.

Sincerely,

Dina Rybak
Assistant Vice President
NYC Economic Development Corporation

Enclosures:
Attachment: Figures 1-5

cc: Eram Qadri, New York City Office of Management and Budget