



DiPrete Engineering

April 27, 2023

Mr. Jason Pezzullo
Planning Director
869 Park Avenue
Cranston, Rhode Island 02910

**RE: Sharpe Drive Solar
Cranston, Rhode Island
Assessor's Plat 13 Lot 47
Project #: 2437-033**

Dear Mr. Pezzullo:

On behalf of the Applicant, Reivity Energy, LLC, we have prepared this letter to provide additional information to the City of Cranston on the above project to support the application. The applicant is proposing a Photovoltaic Solar System on A.P. 13 Lot 47 which is currently owned by Pawtuxet River Authority. This lot is located West of Interstate Route 95 and South-East of Sharpe Drive. The Pawtuxet River runs along the eastern edge of the property and all FEMA zones have been shown on the site plans.

EXISTING CONDITIONS

The parcel has a total area of approximately 50 acres and is zoned M2. Access to the site is available through Ross Simons Drive which is an existing access road located off of Sharpe Drive in Cranston, RI. The site as it exists today is predominantly cleared with wetlands located on a large majority of the parcel, yielding a total upland area of approximately 30 acres. The subject parcel is relatively flat and the stormwater will ultimately discharge overland to the Pawtuxet River. The area located in the center of the subject parcel where the proposed solar facility is located, currently includes an existing gravel access pathway and utility poles located within an existing easement for National Grid (Rhode Island Energy) distribution system access and maintenance. There are also existing concrete pads in the proposed project area which will be removed for the proposed development. The project area was formerly leased to a previous user who constructed greenhouses on the property which have since been removed. The existing gravel access pathway extends to AP 13 LOT 44 owned by Narragansett Electric Company which contains their sub-station. DiPrete Engineering will complete a Class IV survey of the property prior to Development Plan Review Submission. At this time a boundary from RIGIS documentation and mapping has been used in the submitted Master Plan Submission set. Natural Resource Services has completed the wetland flagging on wetlands in the vicinity of the proposed disturbance area. All this information has been shown on the current plan set.

PROPOSED DEVELOPMENT

The project proposes to construct a new approximately 0.4 MW AC Solar Photovoltaic System. The output is to be considered approximate at this time because additional field work is required to pin down the usable area and the type of panels to be used is subject to change based on technology advancements. Based on the City of Cranston Zoning Ordinance Schedule of Uses solar power is an allowed use within the M2 zone. This project will also fall under Development Plan Review Submission

and being defined as a Major Land Development Project. The proposed solar development only proposes to disturb approximately 2.4 acres of the 50-acre property which is all located within the existing disturbed area on site. The remaining portion of the 50-acre site will remain in its existing condition. The project site will be accessed by the existing gravel access road which is located within the easement previously provided to Rhode Island Energy. At this time the applicant does not expect to request any waivers or variances for the proposed development.

The solar energy system will be a ground mounted facility and the solar panels will not be greater than 12 feet in height as required by the City of Cranston Solar Ordinance. The solar panel area including interrow spacing will be approximately 1 acre and will only cover 2% of the total site area which is well under the maximum coverage of 85%. A major ground-mounted solar photovoltaic facility within an M-2 zone shall comply with the setback requirements of the zoning district and does not require additional visual screening in areas which abut non-residential zones. There are no residential abutters for this project. The current layout respects the required setbacks from the M-2 zone. The property abuts Warwick to the south and East. These abutting zones include Cranston open space zoned property to the west and Warwick Industrial zoned property to the east which contains no residences. A major ground-mounted solar installation in the M-2 Zone shall cover no greater than 85% of a lot. The solar panel area including interrow spacing will be approximately 1 acre and will only cover 2% of the total site area which is well under the maximum coverage of 85%. Although this percentage will be fine-tuned as we finalize the design, the coverage percentage will be well under the maximum 85%. The area on site located within the proposed development limits includes two existing concrete pads which will be removed for the proposed development. At this time no clearing or increased impervious or gravel area will be proposed for the solar facility. As the project progresses, buffering and potential landscaping measures will be further reviewed including the board determining the appropriate buffer to the residential zone (if needed) based on site conditions. The applicant will provide a form of surety, either through escrow account, bond or otherwise to cover the cost of removal in the event the City must remove the facility and restore the landscape, in an amount and form determined by the board.

MAINTENANCE

All drainage areas and solar facility components including the access roadway will be maintained by the property owner. An Operation and Maintenance Manual will be submitted along with the DPR submission.

UTILITIES

The electrical utilities that will service the site will be brought in through the access roadway, but it is too early to determine the exact location as additional studies from National Grid and RIDEM are required to complete this. No sewer or water service will be proposed for the facility. There is no lighting proposed besides that required for safety and operational purposes.

OPEN SPACE

The proposed development does not require and/or have any defined open space areas although a large portion of the site will remain undisturbed.

PHASING

The project construction is proposed to be completed in one phase.

FEMA FLOOD PLAIN

The Subject Property abuts the Pawtuxet River as shown on the site plans. All proposed disturbance is located out of FEMA Zone AE Regulatory Floodway. A small portion of the solar development will be proposed in FEMA Flood Zone AE and most of the development will be located within FEMA Zone X. The proposed disturbance located within FEMA Flood Zone AE will be located in areas which have been previously disturbed.

PROPOSED ACCESS AND FENCING

The facility will be surrounded by a minimum 8 ft high fence to prevent unauthorized access and the final design will be reviewed with the Department of Public Works and the Fire Marshal. The development will include a 16ft wide access driveway into the site which exists on site for access today. The existing access road from Ross Simons Drive is located off Sharpe Drive and will remain as gravel to be utilized for both solar access and Rhode Island Energy Distribution System maintenance and access. The project will include 20 foot spacing between the edge of the panels and the fence to allow for maintenance and emergency access as needed. Proper access turnarounds will be provided as deemed necessary and will be reviewed by the fire department.

STATE APPROVALS AND STORMWATER

The project will be required to obtain a RIDEM Wetlands Approval. The application type specifics will be coordinated with RIDEM due to the nature of the proposed disturbance. The project limit of disturbance includes areas located within the wetland buffers. The only proposed disturbance within the buffers includes improvements to the existing gravel access road and proposed interconnection poles which are located in areas previously disturbed. There will also be no increase in impervious cover proposed for the solar facility. The site will be planted with low growth/low maintenance grass below and in between the solar panels. While the current plan is conceptual in nature, the applicant anticipates using RIDEM approved low impact development (LID's) to treat Water Quality on site if deemed necessary by RIDEM. The RIDEM submission review will include a full review of the proposed site, stormwater design and the sediment and erosion control plan to be implemented during construction.

RIDEM PROTECTION AREAS

The parcel area includes a RIDEM Natural Heritage Area and information has been acquired from RIDEM and provided within this submission package. All proposed disturbance is located within areas which are previously disturbed and therefore we believe the proposed project will have no impact on the Hispid Hedge-nettle and American Germander species associated with this Natural Heritage Area. All disturbance will be coordinated with a wetland biologist during the design process to prevent any potential impacts to these species. The site is also located within a Groundwater Reservoir Area as defined by RIDEM but we believe the proposed solar facility will have no impact to the groundwater in this area.

ENVIRONMENTAL LAND USE RESTRICTIONS

There is a recorded ELUR from RIDEM for the entirety of Lot 47 (Recorded with the City of Cranston on 7/1/2010, Book: LR4226 Page: 78. The ELUR was declared due to findings of contaminated groundwater on site. The proposed solar development is not prohibited by the terms of the ELUR.

HISTORICAL SIGNIFICANT AREAS

Although there are no cemeteries located on site, a review request is pending with RIHPHC for information on whether there are historic and archeological significant data for the property. This

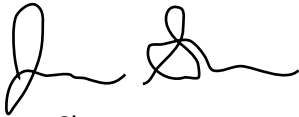
request has been in the queue since April 4, 2023 and we should receive shortly. The letter, once received, will be sent to the City of Cranston.

SOILS

Attached with this letter is the soil map of the existing soils on the land with a map legend and map information.

If you have any questions regarding this development or throughout the design process, please do not hesitate to contact us. We look forward to presenting and further discussing with the Planning Board at the Master Plan Submission meeting for this proposed development.

Sincerely,
DiPrete Engineering Associates, Inc.

A handwritten signature in black ink, appearing to read 'Jenna Shea', with a stylized flourish at the end.

Jenna Shea
Project Manager
jshea@diprete-eng.com

Soil Map—State of Rhode Island: Bristol, Kent, Newport, Providence, and Washington Counties



Map Scale: 1:12,500 if printed on A portrait (8.5" x 11") sheet.



Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 19N WGS84



Natural Resources Conservation Service

Web Soil Survey National Cooperative Soil Survey

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MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

Special Point Features



Blowout



Borrow Pit



Clay Spot



Closed Depression



Gravel Pit



Gravelly Spot



Landfill



Lava Flow



Marsh or swamp



Mine or Quarry



Miscellaneous Water



Perennial Water



Rock Outcrop



Saline Spot



Sandy Spot



Severely Eroded Spot



Sinkhole



Slide or Slip



Sodic Spot



Spoil Area



Stony Spot



Very Stony Spot



Wet Spot



Other



Special Line Features

Water Features



Streams and Canals

Transportation



Rails



Interstate Highways



US Routes



Major Roads



Local Roads

Background



Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:12,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service

Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: State of Rhode Island: Bristol, Kent, Newport, Providence, and Washington Counties

Survey Area Data: Version 22, Sep 12, 2022

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jul 3, 2019—Oct 8, 2020

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
Du	Dumps	4.1	1.8%
HkA	Hinckley loamy sand, 0 to 3 percent slopes	11.8	5.3%
HkD	Hinckley loamy sand, 15 to 25 percent slopes	0.7	0.3%
PD	Paxton-Urban land complex, 3 to 15 percent slopes	0.9	0.4%
Pg	Pits, gravel	3.9	1.7%
Pp	Pootatuck fine sandy loam	46.0	20.4%
QoA	Quonset gravelly sandy loam, 0 to 3 percent slopes	9.6	4.3%
Ru	Rippowam fine sandy loam	61.0	27.1%
UD	Udorthents-Urban land complex	68.6	30.4%
W	Water	18.6	8.3%
Totals for Area of Interest		225.4	100.0%