

City of Cranston

Solar Ordinance Workshop



May 13, 2019

Solar in Cranston: Big Picture Questions

1. What's happened so far?
2. Why have we done what we've done?
3. What are the results?
4. What are we here to do now?
5. How are we going to do it?

1. What's Happened So Far?

2015 - Ordinance adoption

2015 - Hope Farm Solar

2016 - Gold Meadow Farms SSRE

2016 - Seven Mile Road Solar Installation

2017 - Renewable Energy Comprehensive Plan Amendment

2018 - Seven Mile Road Solar II

2019 - Natick Avenue Solar

2019 - Pontiac Ave Solar

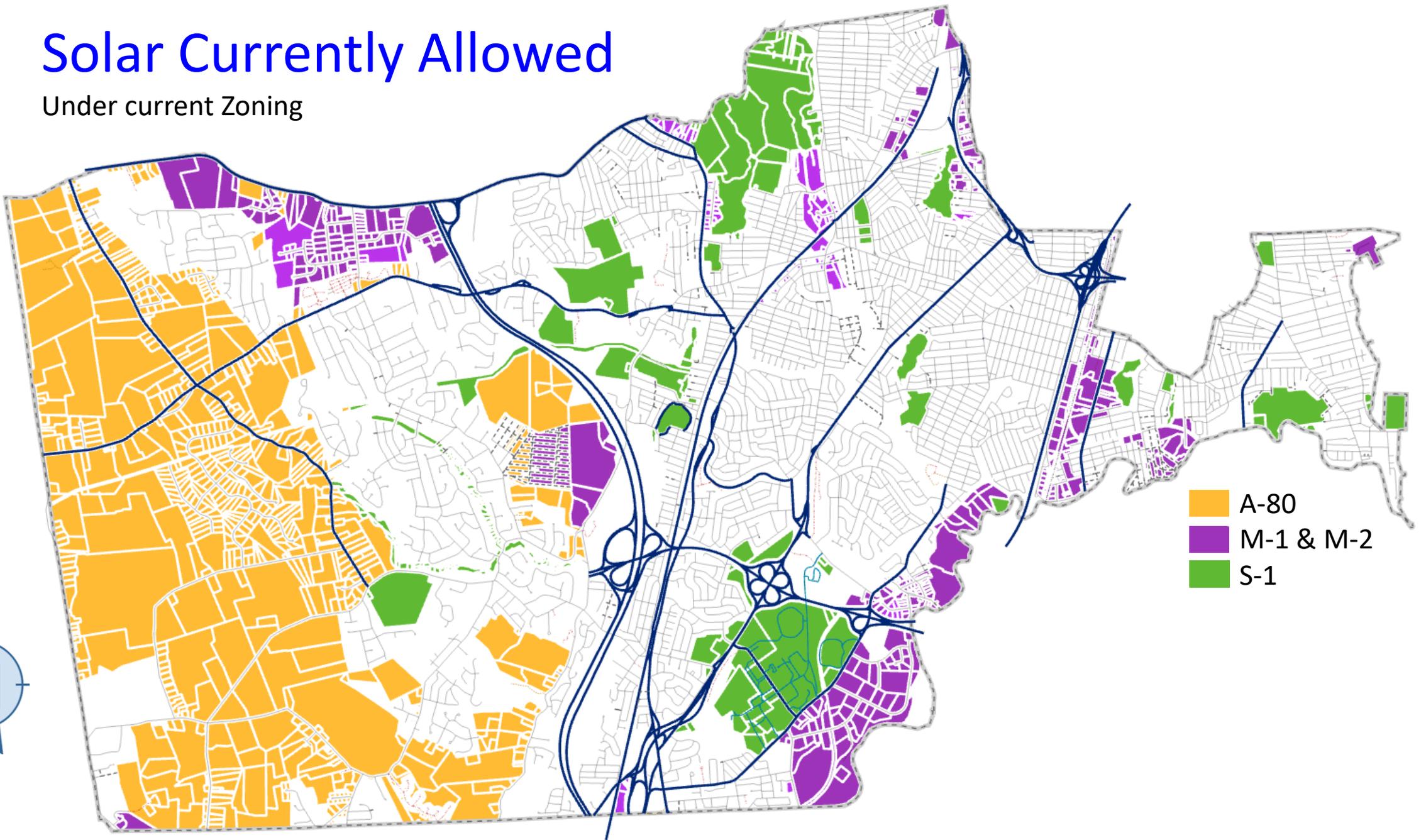
2019 - Adoption of Moratorium

Ordinance Adoption (2015)

- Permitted ground-mounted solar as a by-right use in:
 - A-80
 - S-1
 - M-1; and
 - M-2 zones.
- Ordinance was appealed on grounds that it was inconsistent with the City's Comprehensive Plan. The appeal was denied by the Rhode Island Superior Court.

Solar Currently Allowed

Under current Zoning



-  A-80
-  M-1 & M-2
-  S-1

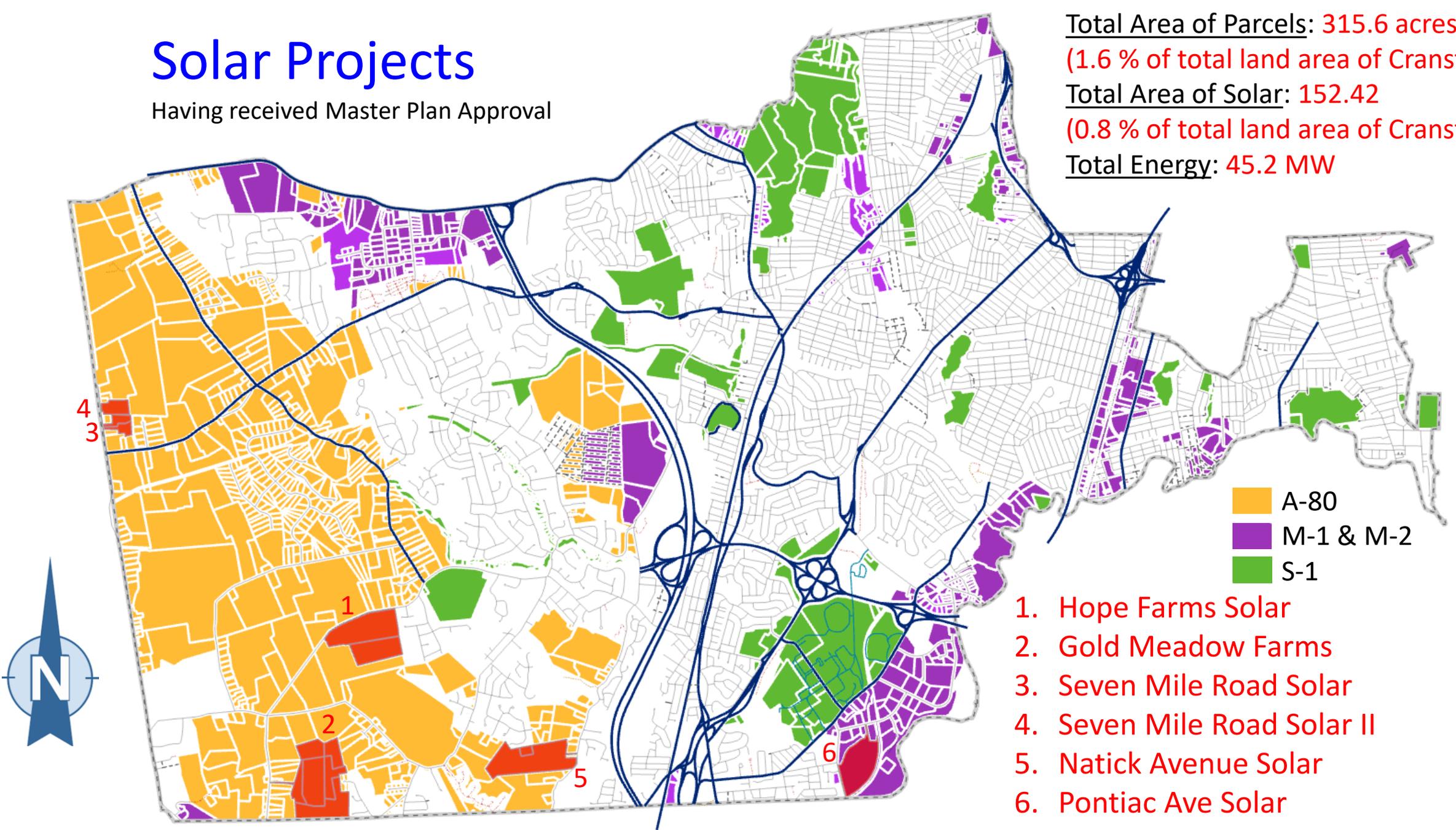
Solar Projects

Having received Master Plan Approval

Total Area of Parcels: 315.6 acres
(1.6 % of total land area of Cranston)

Total Area of Solar: 152.42
(0.8 % of total land area of Cranston)

Total Energy: 45.2 MW



- A-80
- M-1 & M-2
- S-1

- Hope Farms Solar
- Gold Meadow Farms
- Seven Mile Road Solar
- Seven Mile Road Solar II
- Natick Avenue Solar
- Pontiac Ave Solar

Hope Farm Solar

Final Plan (snip)

- Energy: 10 MW
- Total area: 75.4 acres
- Solar area: 46.2 acres
61% of total
- Zone: A-80
- Status: Approved, under construction



Zoning District(S)	Residential A-80		
Overlay District(S)	None		
Zoning Regulation Requirements	Required	Existing Building (Primary Structure)	Proposed Solar Panels
MINIMUM LOT AREA	8,000 SF	1,400 SQ FT	1,400 SQ FT
MINIMUM FRONT YARD SETBACK	20 FEET	1.00 FEET	1.00 FEET
MINIMUM SIDE YARD SETBACK	7.5 FEET	3.5 FEET	4.0 FEET
MINIMUM REAR YARD SETBACK	20 FEET	3.00 FEET	4.0 FEET

NOTE: 1. PLANTING AREAS WILL BE PLANTED WITH SOME COMBINATION OF THE FOLLOWING SPECIES:
 ASPEN, REDWOOD, PINE

Gold Meadow Farms SSRE

Oct 2018 Aerial

Energy:

21.5 MW

Total area:

108.3 acres

Solar area:

60 acres

55% of total

Zone:

A-80

Status:

Approved, built & in operation



Seven Mile Road Solar

Oct 2018 Aerial

Energy:

0.5 MW

Total area:

11.8 acres

Solar area:

Approx. 6 acres

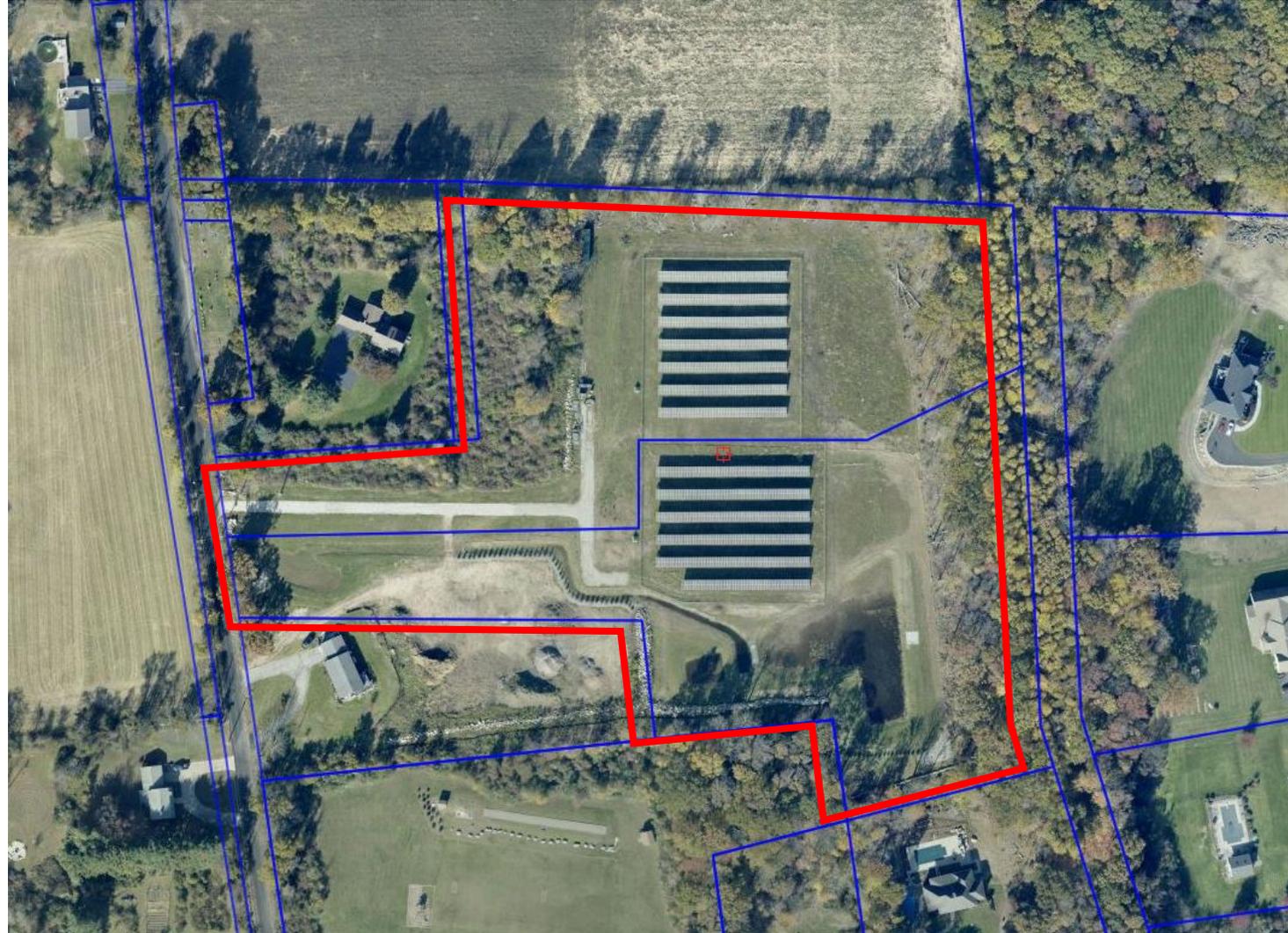
approx. 50% of total

Zone:

A-80

Status:

Approved, built & in operation



Source: <https://explorer.eagleview.com>

Renewable Energy Comprehensive Plan Amendment (01-17-11)

- *“The Council has determined that it is in the best interest of the City to permit renewable energy production facilities to be located within the City, whereas allowing such renewable energy production facilities in the City is consistent with the directives of the Rhode Island Statewide Planning Council.”*
- The ordinance amended the Comprehensive Plan Goals and Policies Statement, Land Use Plan Element, Economic Development Element, and Implementation Program.

Seven Mile Road Solar II

Prelim Plan (snip)

Energy:

2 MW

Total area:

11.1 acres

Solar area:

5.52 acres

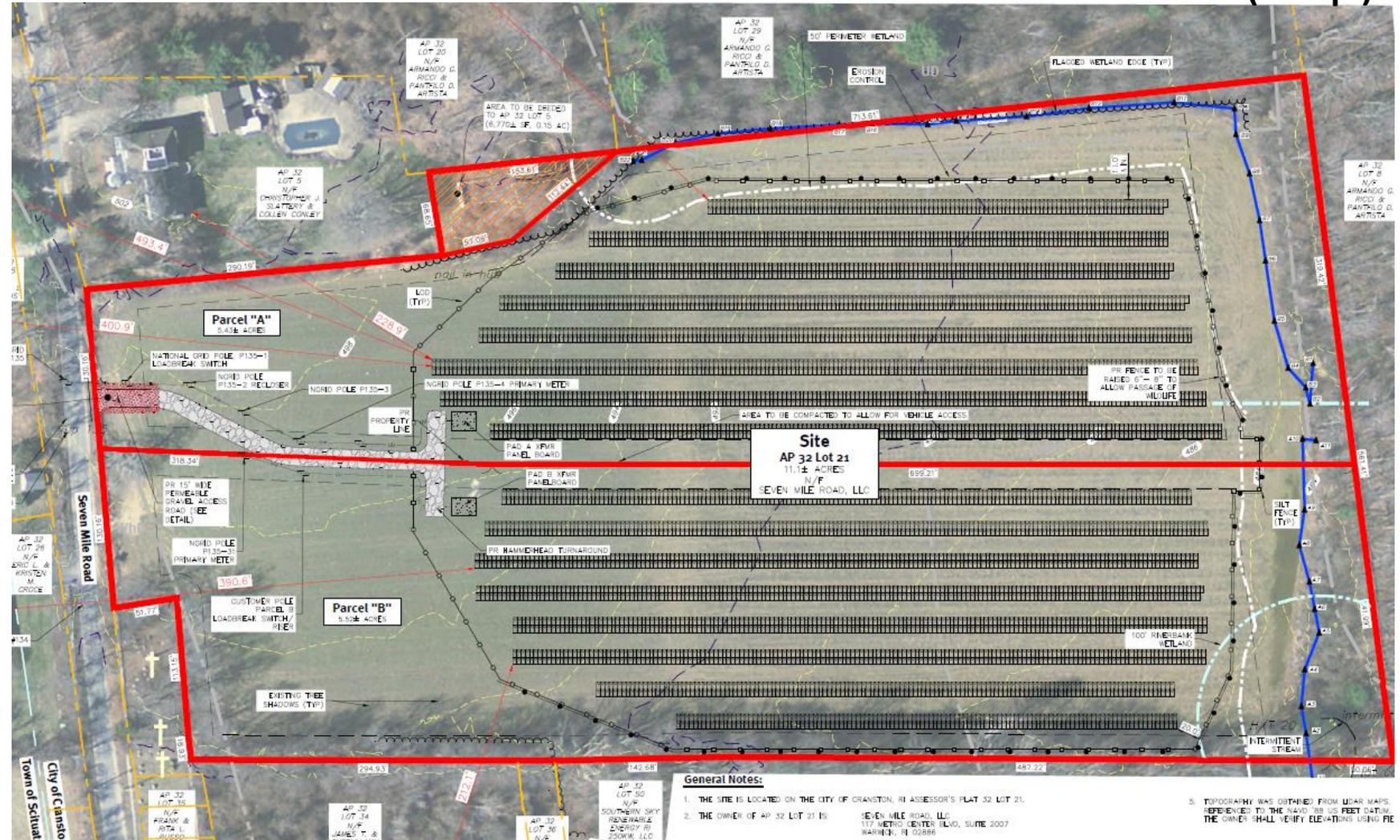
50% of total

Zone:

A-80

Status:

Master Plan approved, prelim plan approved by DPRC, preliminary plan under review for completeness for Plan Comm



Natick Avenue Solar

Approved Master Plan (snip)

Energy:

8.1 MW

Total area:

64 acres

Solar area:

27.3 acres

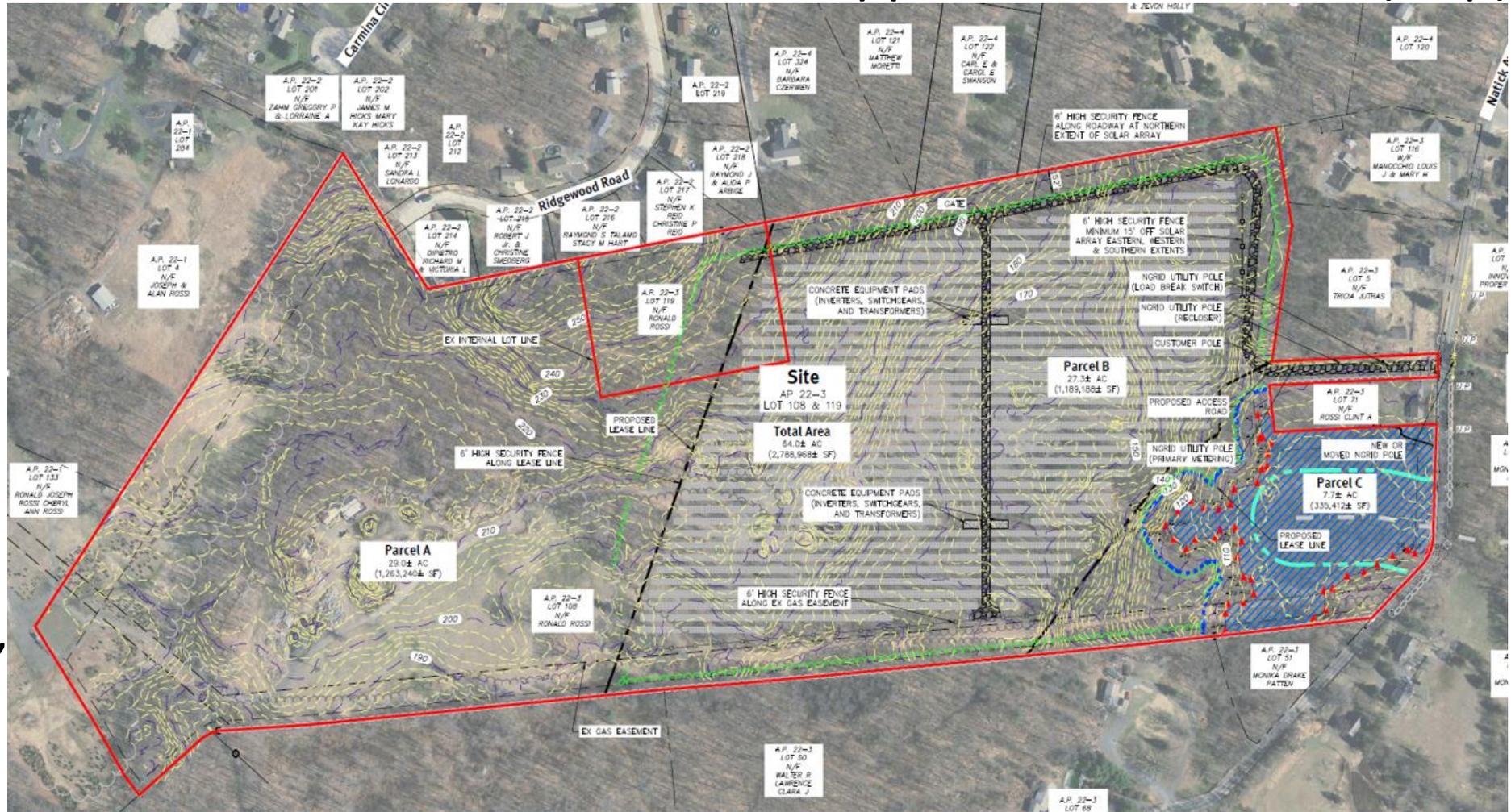
42% of total

Zone:

A-80

Status:

Master Plan approved,
appealed, appeal
denied by Platting
Board of Review



Pontiac Ave Solar

Approved Master Plan (snip)

Energy:

3.1 MW

Total area:

45 acres

Solar area:

7.4 acres

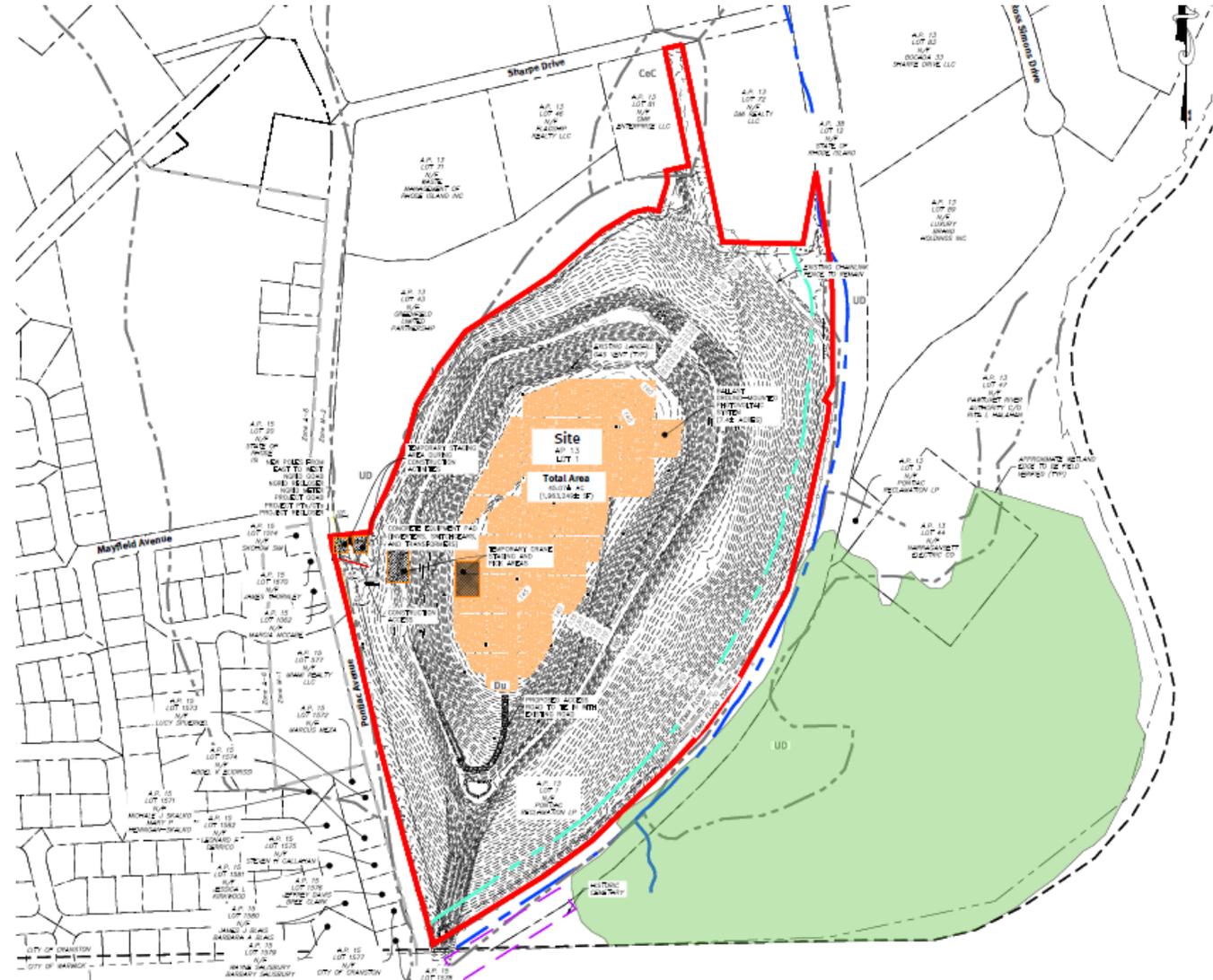
16% of total

Zone:

M-2

Status:

Master Plan
approved



Ground-Mounted Solar Moratorium

- Supported by the public, staff, Plan Commission & Council
- Recognizes that the existing regulatory framework is *“fragmented and are lacking several key provisions necessary to ensure the strictest standards for visual, aesthetic and neighborhood compatibility.”*
- 270 day moratorium beginning February 18th 2019
- Charged Plan Department & Plan Commission with conducting research and producing a new zoning ordinances or amendments

Cranston's Solar Energy Production

- OER reports the following Renewable Energy Fund (REF) numbers between 2013 and 2019:
 - Small Solar (residential projects) – 61 projects ranging between 3 to 15 kilowatts.
Total kW capacity of projects – 395.315 kW
 - Commercial Solar (school, wholesale distributor, real estate, security facility, nursing/rehab center) – 6 projects ranging between 55 and 155 kilowatts.
Total kW capacity of projects – 471.54 kW
- OER reports the following Renewable Energy Growth (REG) Tariff Program numbers between 2015 and 2018:
 - Small Solar (1-25 kilowatts) – 231 projects
- Estimated Total kW Capacity - **1.5 to 2.0 MW**
 - Medium Solar (26-250 kilowatts) – 2 projects
- **Total kW Capacity - 500 kW**

**Total REF & REG:
approx. 3 – 3.5 MW**

2. Why Have We Done What We've Done?

- Strategy to slow down housing development in Western Cranston.
- *“Cranston should actively encourage the availability and implementation of energy infrastructure throughout the City. . . Development of such renewable energy production facilities can advance the City’s goals of developing the City’s economic resources while limiting the impact of development on surrounding areas and on municipal services. Such developments also further the City’s low-impact and green development objectives by improving air quality and reducing reliance on traditional energy resources.”* (Comprehensive Plan Ordinance 01-17-11 “Solar Performance Standards”)

It is important that we reevaluate our motives, goals and objectives as we consider and draft new regulatory framework.

What Are The Benefits To The City?

- Renewable energy production
- Offsetting sprawling subdivisions
- Financial benefits to the City
- Opportunity for long-term preservation

3. What Are The Results?

The con's

- Aesthetics
- Impacts to the environment
- Stormwater runoff issues
- Disruption of neighborhoods

The pro's

- Renewable energy production
- Offsetting sprawling subdivisions
- Financial benefits to the City
- Opportunity for long-term preservation
- Private land owner benefits

Hope Farms

Con's

- Aesthetic
 - Vegetative Screening
 - Fencing
 - Setback
- Stormwater

Pro's

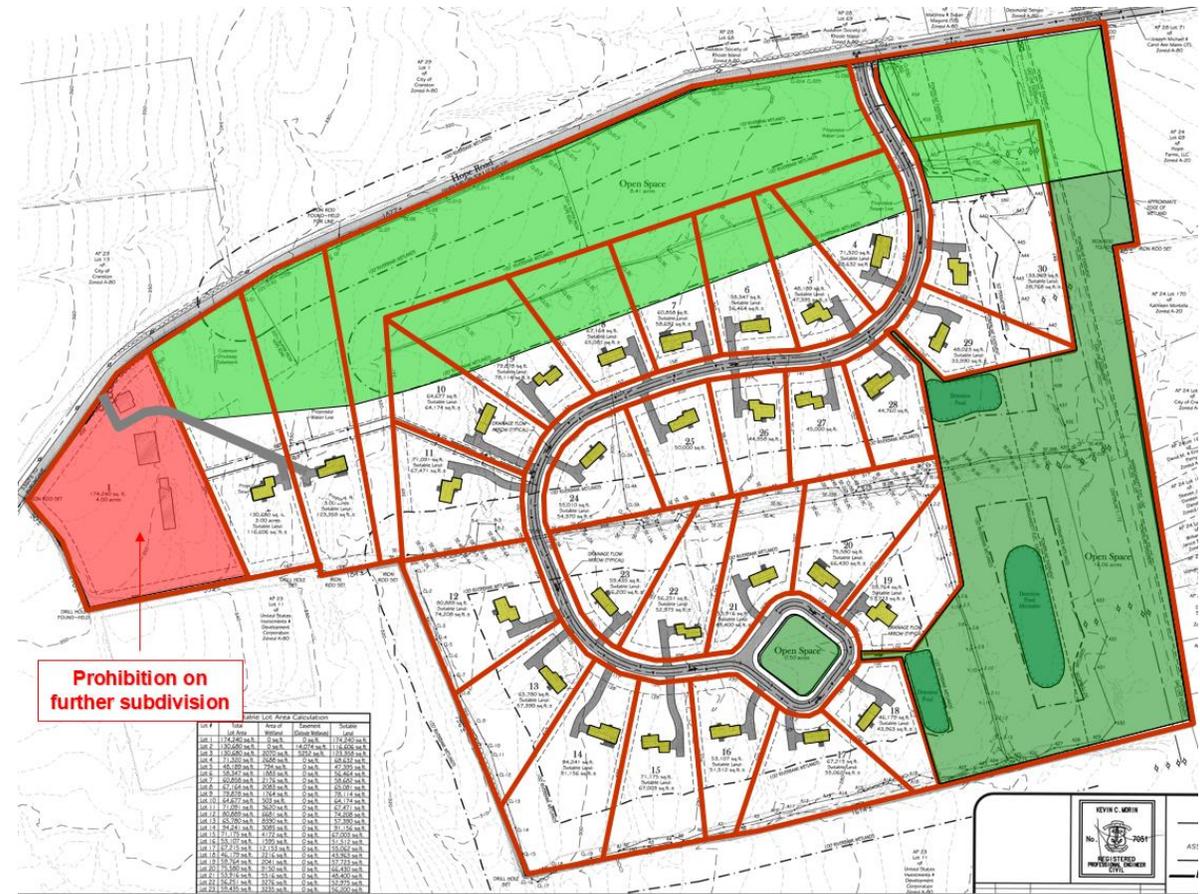
- Renewable energy (10 MW)
- Already Cleared
- Alternative to approved 29 housing subdivision
- Temporary use – maintains potential for preservation
- Financial benefits to City

Farm House Lane Subdivision Proposals

Conventional Subdivision Plan



Approved (prelim) Conservation Subdivision Plan



Gold Meadow Farms SSRE

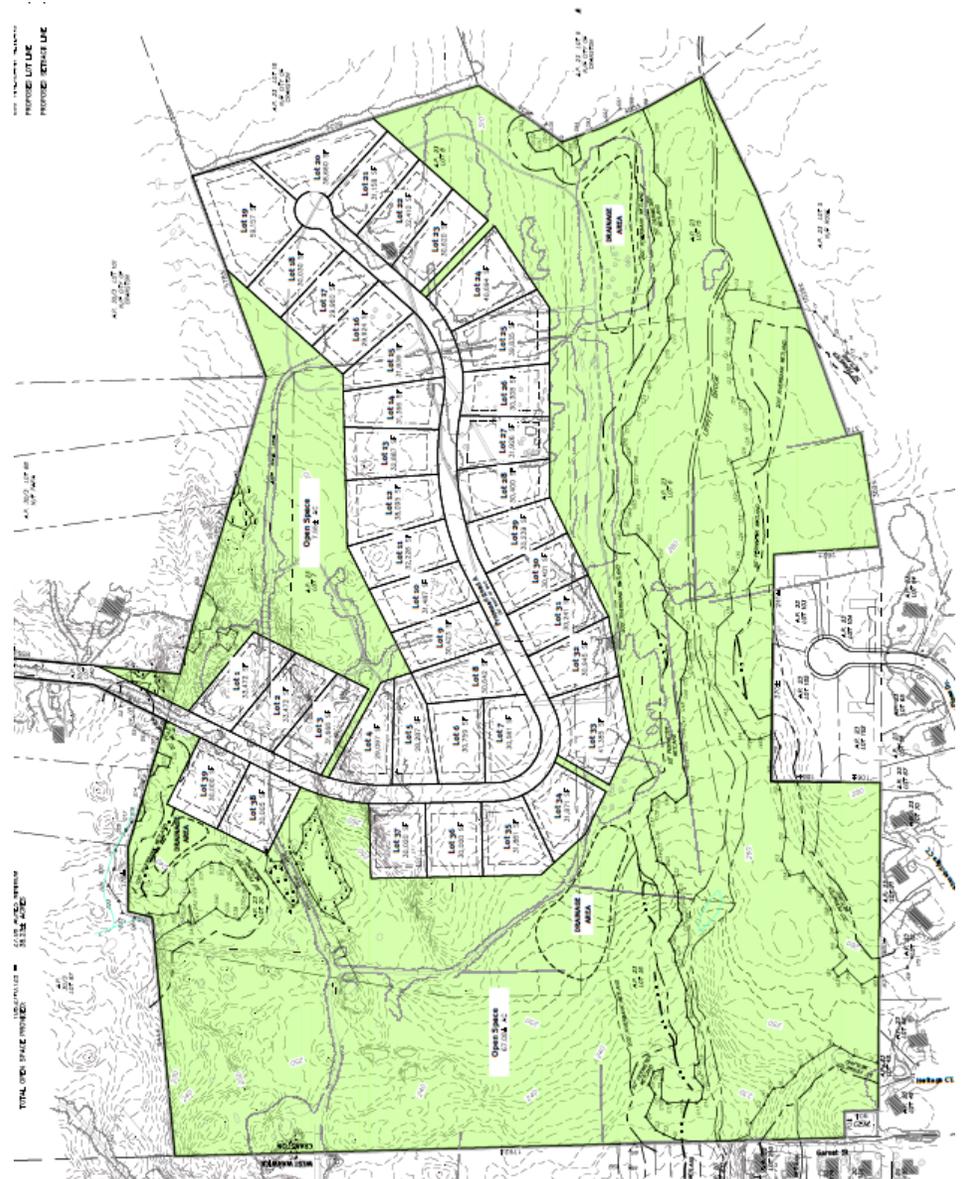
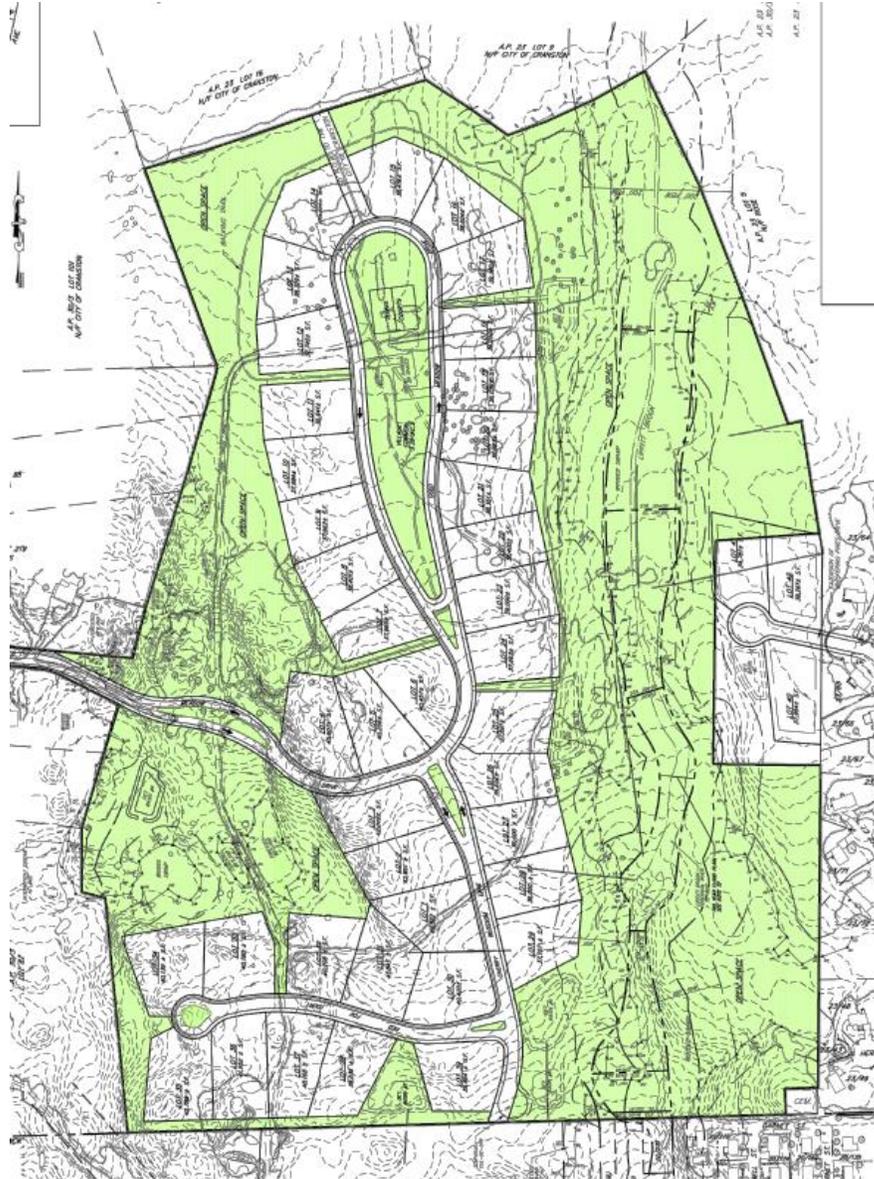
Con's

- Environmental impacts
 - Tree clearing
 - Blasting & grading
 - Fencing
 - Stormwater
- Aesthetic
 - Vegetative Screening
 - Setbacks
 - Poles / Interconnection

Pro's

- Renewable energy (21.5 MW - 1/3rd of solar energy of state at the time)
- Alternative to approved 42 unit housing subdivision (3 units were built)
- Temporary use – maintains potential for preservation
- Financial benefits to City

Approved Subdivision Proposals



Seven Mile Road Solar

Con's

- Environmental impacts
- Aesthetic / Vegetative Screening

Pro's

- Renewable energy (500 KW)
- Alternative to approved housing subdivision
- Temporary use – maintains potential for preservation
- Financial benefits to City

4. What Are We Here To Do Now?

Create an appropriate and responsible regulatory framework for solar.

The Ground-Mounted Solar Farm Installation Moratorium requires that the City:

“ . . . study the existing ordinances, performance standards, zoning regulations and previously permitted and constructed ‘installations’ to determine the implications of future proposed ‘installations’ and to develop reasonable ordinances and zoning regulations or amendments thereto governing the location and operations of such ‘installations’ . . . ”

5. How are we going to do it?

Specifically Address the Following

- Landscape buffer areas
- Minimum setbacks
- Open space conservations areas
- Lot coverage maximums
- Lot clearance maximums
- Minimum lot sizes
- Soil conservation & erosion mgmt
- Operations and maintenance plans
- Noise
- Lighting
- Interconnection
- Fencing
- Grass mixes & pollinator species
- Grading & site prep standards
- Stormwater mgmt.
- Decommissioning bonds
- Taxation and other revenue generation
- Land banking & open space preservation
- Solar farm growth cap

Finding Common Ground

1. We want to responsibly support sustainable energy production to reduce our dependency on non-sustainable energy sources.
 2. We want to minimize negative impacts to our communities and environment to the greatest extent possible.
- The ideal scenario - to responsibly address renewable energy production without negative impacts to our communities and environment.
 - The reality – there are tradeoffs to all known energy solutions, so we are here to work out a fair, balanced and well-thought out approach to best fit the City of Cranston.

Finding Common Ground

- Be consistent with comp plan goals in Western Cranston
 - Rural character
 - Aesthetic
 - Environmental
 - Open space
- Responsible support of renewable energy production
- Promote financially prudent development

What are other communities doing?

- Statewide Guidance (February 2019)
 - <http://www.energy.ri.gov/renewable-energy/solar/model-ordinance.php>
- Inventory of Solar Ordinances in RI (Statewide Guidance Appendix A)
- All communities are different
- Please suggest communities/ordinances

Questions For Consideration

- What are the City's goals in terms of renewable energy production?
- What is the capacity of the City to achieve this goal on previously disturbed sites, brownfields, industrial zones, canopies and rooftops?
- If the capacity of Q#2 is less than goal Q#1, how should we think about bridging the gap?

How can the Public Contribute?

- Tonight
 - General thoughts and observations are great!
 - Suggestions on what to put in the ordinance – even better!
- Future Plan Commission Meetings
 1. FIRST DRAFT presented in June (not up for a vote)
 2. Comments and discussion on draft @ July meeting (not up for a vote)
 3. FINAL DRAFT in August (for comment and vote)
- Ordinance Committee (dates TBD)
- City Council (dates TBD)
- AT ANY TIME: Submit questions/comments in writing to:
 - jberry@cranstonri.org or
 - jpezzullo@cranstonri.org or
 - dmclean@cranstonri.org