



Memorandum

To: City Council
From: Public Facilities Committee Chair Deborah Crossley
Re: Solar Phase III
Date: March 1, 2019

Dear Colleagues,

In response to questions raised during our deliberations at last full Council meeting and over the last few days, and the motion to reconsider that is before us, the administration and clerk's office have prepared the following documents.

Item #1:
Draft Council Order

Item #2:
What is reconsideration?

Several Councilors had questions about the move to reconsider items passed at our last meeting. So I asked Clerk Olson to prepare a brief explanation of this motion, and cite the rule.

Item #3:
Law Department Opinion re disposition of credits

This is the explanation of why, in the Law department's view, why, within the Council's authority to approve lease negotiations, it cannot assign financial terms or benefits.
(Note that an email expressing this opinion was received by the Clerk's office ahead of our last meeting, but it was not a formal document.)

Item #4;
Law Department Opinion re application of 5-58 process

This explains why the 5-58 process applies only to the

Item #5;
Library board of Trustees Resolution

Item #6;
Renderings of proposed installations at Brown Middle School parking areas.

Item #7:

Renderings of proposed installations at the Library parking lot.

Answers to questions that have come in only this morning, may not be available by the time packets go out today.

In addition, the Co-Director Ferguson is still working with Cadmus (the solar consultant) to revise the production numbers in kwh as well as net present value, for each site.

Have a nice weekend all,

CITY OF NEWTON

IN CITY COUNCIL

2019

ORDERED:

That, in accordance with the recommendations of the Public Facilities Committee through its Chairman Deborah J. Crossley, Her Honor the Mayor is authorized to enter into negotiations for the potential lease for the purposes of third-party construction ownership and operation of on-site renewable solar energy generation from which the City will purchase electric output and/or net metering credits on the following city properties:

1) Rooftop solar panels at the following locations:

Fire Station #3 and Headquarters Roof
FA Day Middle School Roof
Williams Elementary School Roof
Carr School Roof

Zervas Elementary School Roof
Angier Elementary School Gym Roof
Cabot Elementary School Gym Roof
Education Center Roof

2) Solar panels installed on new carports at the following locations:

A) Oak Hill Middle School Parking Lot

Site specific condition: Existing and replacement plantings and grass areas, which may be additionally shaded by the canopies shall be maintained in good health or, if necessary, replaced with shade tolerant species as directed by the Deputy Commissioner of Parks and Recreation and approved by the School Department.

B) Memorial Spaulding Elementary School Parking Lot

Site specific condition: Plant twenty-nine new trees of approximately 2-2.5" diameter, comprising at least the total diameter of all trees to be removed for installation of the canopies, on this site as directed by the Deputy Commissioner of Parks and Recreation and approved by the School Department.

C) Education Center Parking Lot

D) Mason Rice Elementary School Parking Lot

Site specific condition: Plant twenty-nine new trees of approximately 2-2.5" diameter, comprising at least the total diameter of all trees to be removed for installation of the canopies, on this site as directed by the Deputy Commissioner of Parks and Recreation and approved by the School Department.

E) Newton North High School Parking Lots

1. Lowell Avenue Lot

Site specific condition: Maintain in good health any existing and replacement plantings and grass areas, which may be additionally shaded by the canopies, and/or replace with shade tolerant species as directed by the Deputy Director of Parks & Recreation and approved by the School Department.

2. Walnut Street Lot

Site specific condition: maintain in good health any existing and replacement plantings and grass areas, which may be additionally shaded by the canopies, and/or replace with shade tolerant species as directed by the Deputy Commissioner of Parks and Recreation and approved by the School Department.

F) Pleasant Street Parking Lot

Site specific conditions:

- As space allows, the administration will explore the possibility of locating additional trees or plantings to further buffer the parking lot from pleasant street, as determined and directed by the deputy commissioner of parks and recreation.
- All solar revenue must go to the City unless an amendment to the Council Order is approved by the Council.

CITY OF NEWTON

IN CITY COUNCIL

2019

ORDERED:

That, in accordance with the recommendations of the Public Facilities Committee through its Chairman Deborah J. Crossley, Her Honor the Mayor is authorized to enter into negotiations for the potential lease for the purposes of third-party construction ownership and operation of on-site renewable solar energy generation from which the City will purchase electric output and/or net metering credits on the following city properties:

A) Brown Middle School Parking Lots

1. Front Parking Lot

Site specific conditions:

- Plant new trees of approximately 2-2.5" diameter, comprising at least the total diameter of all trees to be removed to allow for installation of the canopies, in front of the school as directed by the Deputy Director of Parks & Recreation, and approved by the School Department.
- Relocate the existing flagpole at the vendors' expense, to a location on school grounds as determined by the School Department.

2. Side Parking Lot

Site specific condition: Retain all existing trees on the perimeter of the lot and plant new evergreen species below the tree canopy, as directed by the Deputy Director of Parks & Recreation, with approval of the school department, to further screen the parking lot from abutters.

B) Newton Free Library Parking Lot

Site specific conditions:

- Trees of approximately 2-2.5" diameter, which combined shall equal the total diameter of all trees removed, shall be planted in and around the City Hall complex as directed by the Deputy Director of Parks & Recreation and as approved by the Library Board of Trustees and Council.
- Canopy structures shall be factory painted and incorporate brick pier surrounds as shown on the (date) renderings.
- Prior to installation of canopy structures, the library lot will be redesigned to add to the number of parking spaces and engineered to integrate a robust stormwater management system with the canopy design, to mitigate against flooding of the parking area.
- Detailed schematic plans shall be provided to the Library Board of Trustees for their approval as per their requirements resolved on 12/19/2018.

Nadia Khan

From: David A. Olson
Sent: Friday, March 01, 2019 4:44 PM
To: Nadia Khan
Subject: FW: Reconsideration
Attachments: Memo City Council.dotx

From: David A. Olson
Sent: Friday, February 22, 2019 3:10 PM
To: Deborah J. Crossley <dcrossley@newtonma.gov>; 'Deb Crossley' <djcrossley26@verizon.net>
Subject: Reconsideration

Deb,

What is Reconsideration?

Once the Council has voted an Item, a motion to reconsider that Item can be made by any Council member who was on the prevailing side of the vote. The motion to reconsider asks the Council if it will take the item it has already voted, lay aside its vote, and continue discussion. The motion to reconsider is debatable and must be approved by the Council if the Council wants to set aside its vote and continue discussion.

If the motion to reconsider fails by vote, there is no further discussion and the previous vote on the Item stands. If reconsideration passes, the entire measure is again before the City Council for continued debate and a new vote.

A motion for reconsideration in accordance with section 3-6 of the City Charter and Article II, Section 13 of the Rules of the City Council needs no second under Robert's Rules of Order. If filed, the measure shall be presented to the City Council for reconsideration at its next regularly scheduled meeting or at a Special Meeting pursuant to Sec. 2-6 of the City Charter.

Council Rules and Orders

Article II: Council Meetings and Procedures

Section 13. Reconsideration.

A question having been taken, it shall be in order for any member voting with the prevailing side to move a reconsideration at the same meeting, or at the next meeting, provided the subject of the vote has not passed out of the custody of the Council.

A. Whenever a vote is taken on a question, each member on the prevailing side of the vote may:

- (1) move for reconsideration of the question at the same meeting, and/or
- (2) file with the Clerk of the Council, within 24 hours after adjournment of the meeting at which the question either passed or failed, a motion for reconsideration. The member filing the motion for reconsideration may withdraw such motion provided that the withdrawal occurs within the same time period allowed for the filing of such motion. The Clerk shall schedule this motion for reconsideration for the next regular or special meeting of the Council. Once such written motion shall have been filed and not withdrawn, such matter shall not be twice reconsidered.

If reconsideration fails by vote, the measure shall be deemed to be passed. If reconsideration passes, the entire measure is again before the City Council for disposition.

David

David A. Olson
Newton City Clerk
1000 Commonwealth Avenue
Newton, MA 02459
617-796-1200

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**CITY OF NEWTON
LAW DEPARTMENT
INTEROFFICE MEMORANDUM**

TO: City Council

FROM: Alissa Giuliani, City Solicitor
Andrew S. Lee, Assistant City Solicitor

SUBJECT: Condition on Solar Revenue (behind the meter or credits)

DATE: February 20, 2019

Background

Pursuant to Newton City Ordinance §2-7(6), the Mayor docketed a request with the City Council for authorization to enter into lease negotiations for Solar Phase III Project Sites (Dkt. #23-19). The City Council referred the docket item to the Public Facilities Committee. The Committee recommended the imposition of several restrictions and conditions to the lease terms, including the requirement that all solar revenue produced by the Solar Phase III Project facilities must go to the City of Newton.

Question Presented

Whether the City Council may approve the Committee's recommendation to impose a condition requiring that all solar revenue produced by the Solar Phase III Project facilities must go to the City of Newton.

Answer and Analysis

The imposition of such a condition is improper as the disposition and use of solar revenue is not a "lease term". Newton City Ordinance §2-7(6) provides that if the Public Facilities Committee recommends approval of the Mayor's request to enter into lease negotiations, the Committee is authorized to "affix...restrictions and conditions to...lease terms, other than financial conditions, as it deems in the public interest." (emphasis added). The terms under the leases for the Solar Phase III Project Sites only address the City and the developer's interest in the leased premises, creating a landlord tenant relationship between the parties.

The leases set forth the rights, obligations and liabilities of the parties related to the use and occupancy of the leased premises and the installation, maintenance, operation and removal of the solar energy equipment. None of the provisions in the leases relate to solar energy revenue. Solar energy revenue is addressed in the price and payment sections of the Power Purchase Agreements between the City and the developers, which is a separate legal document than the leases.

**CITY OF NEWTON
LAW DEPARTMENT
INTEROFFICE MEMORANDUM**

TO: Ruthanne Fuller, Mayor
City Council

FROM: Alissa Giuliani, City Solicitor *AG*
Andrew S. Lee, Assistant City Solicitor *AL*

SUBJECT: Solar Phase III – Site Plan Approval

DATE: March 1, 2019

Background

Pursuant to City Ordinance Section 2-7(6), the Mayor submitted a request to the City Council for authorization to enter into lease negotiations for Solar Phase III Project Sites [Docket #23-19]. The Newton Free Library parking lot was proposed as one of the potential sites for the solar project. On February 6, 2019, the Public Facilities Committee voted to recommend authorization for the Mayor to enter into lease negotiations for several sites, including the Newton Free Library. The Public Facilities Committee recommended affixing a condition to the lease terms for the Newton Free Library Site, requiring that the installation of the solar panels be done in concert with the substantial redesign and reconfiguration of the parking lot.

On February 19, 2019, the City Council met and passed a motion postponing the vote on whether to authorize the Mayor to enter into lease negotiations for the Newton Free Library site to March 4, 2019.

Questions

1. Does the reconfiguration of the Newton Free Library parking lot require approval under City Ordinance Section 5-58?

Short Answer: While there is no clear answer as to whether the Newton Free Library site, which involves the substantial redesign and reconfiguration of the parking lot, is subject to Section 5-58, the Law Department recommends that the 5-58 site plan approval process should be followed given the unique circumstances of the project and scope of work of this particular site.

2. Is Section 5-58 apply to the other solar canopy structure sites proposed for the Solar Phase III project?

Short Answer: Site plan approval under Section 5-58 is not required for any of the other proposed Solar Phase III solar canopy sites.

Answer and Analysis

Question 1 – Newton Free Library Parking Lot

The stated purpose of Section 5-58 is to apply standards similar to those found in the zoning ordinance that control density and environmental impact for certain public construction projects. As noted in a prior opinion regarding Section 5-58 from this office, the triggers for application of Section 5-58 pertain to construction activities which affect the site of a municipal building or facility.¹ Section 5-58 does not apply to all municipal construction projects. The following criteria must be met before Section 5-58 is triggered:

- 1) construction or modification of a municipal building or facility is undertaken which involves;
- 2) new construction or a substantial change in usage; and
- 3) a change in vehicular access, off-street parking requirements, site grading, drainage, landscape features, or service areas.

Based on the criteria for Section 5-58, the proposed redesign and reconfiguration of the parking lot, alone, would not be subject to Section 5-58. Nor would the placement of the solar canopy structures on the site, alone, trigger the site plan approval under Section 5-58. It is less clear, however, whether the scope and magnitude of the Newton Free Library project involving both (1) the substantial redesign and reconfiguration of the parking lot: **and** (2) placement of the solar canopy structures are sufficient to require Section 5-58 site plan approval.

The Library Project presents several unique variables that affect the determination of whether Section 5-58 approval is necessary including: (1) the solar canopies will not be owned or installed by the City; (2) it is unclear whether the solar canopy structures are “facilities” under Section 5-58; and (3) the parking lot will be substantially redesigned and reconfigured in concert with the design and installation of the solar canopies. Based on the following analysis of Section 5-58 and the particular circumstances of the Library Project, the Law Department recommends that the Library Project should be subjected to the site plan approval process.

1. Is the Project Sufficiently “Municipal” in Nature?

As a threshold matter, before addressing whether the solar canopies meet the three criteria, it must be determined whether the canopies are “municipal” given that the City will not own the canopies. The language in Section 5-58 and reference to that section in the zoning ordinance suggest that 5-58 applies to construction or modification of City owned property only. The first sentence of Section 5-58 states that the site plan approval process is required “when the **city’s public buildings and facilities** are constructed or modified...” [emphasis added].

Additionally, Section 5-58 contemplates that the construction or modification to the City owned property is undertaken by the City. Section 5-58 is under Chapter 5, Article IV, of the City

¹ See *Opinion* of Daniel M. Funk, City Solicitor, to Chairman Dennis V. Maguire and Members, Public Facilities Committee (June 17, 1998).

Ordinances, which establishes the design selection committee for the purpose of making “recommendations to the mayor whenever an architect is to be **engaged by the city**...” [emphasis added]. The requirement that the City is directly contracting for the work is further evidenced by Section 5-58(a)(1):

The executive department shall include in the architect’s contract the requirement for preparation and submission of site plans suitable for review and approval in accordance with the procedure outlined in section 30-23 of these Revised Ordinances.

Section 5-58 also provides that the City will be directly paying for the work by incorporating the appropriation process within its framework in subsection (b).

The Library Project, however, anticipates that the developer, at its sole cost and expense, will design, construct, maintain and operate the solar energy system, including the solar canopy structures. Nonetheless, given the particulars of this Library Project, rather than strict adherence to the language in the City’s ordinance, we must analyze the purpose of the solar canopies and the City’s role in directing the work.² Although the solar canopy structures are not owned by the City, the City will receive the full benefit as it is required to purchase one hundred percent (100%) of the Solar Services produced by the solar energy system. Additionally, the site for the solar canopy structures is City property and the developer is contractually obligated to coordinate with and receive input from the City’s designated technical staff and submit final design drawings for approval by the City. Notwithstanding the fact that the solar canopies are not owned by the City, the Library Project appears to have sufficient aspects of municipal use to fall within the jurisdiction of Section 5-58 purposes because the City is receiving the full benefit of the solar canopies, the solar canopies are on City land, and the City has significant input for the design and construction of the solar canopies.

2. Does the Project Involve a Municipal “Facility”?

Whether the solar canopy structures are a “municipal facility” under Section 5-58 requires a determination of whether the thing to be constructed or modified is a “municipal building” or “municipal facility.” The two terms are undefined in Chapter 5 of the City ordinances. The term “municipal building” has been interpreted to mean the Building Code’s definition of a building that requires a building permit. However, the term “municipal facility” is more difficult to define.

Massachusetts courts “rely on the principle that a general term such as ‘other municipal facilities’ which is placed in a statute, ordinance, or regulation after specific terms...is to be construed in accordance with the type or character of the earlier specific terms.” Elf Corp. v. Atlantic Road Associates, 72 Mass.App.Ct. 1103 (2008). “That the term ‘facility’ may have been used more generally elsewhere in the city charter or ordinance...or that [a party] locates support for their use of the term in a dictionary, does not inform its meaning...where the language and context dictate a different result.” Id.

² The Newton Free Library parking lot is municipal property, however, as further discussed below, parking lots are not “facilities” for Section 5-58 purpose.

Throughout Chapter 5, the terms “facility” and “building” are used interchangeably. Only in Section 5-58 is there a distinction between the terms “building” and “facility”: “Whenever construction or modification of a municipal building or facility...” [emphasis added]. Notwithstanding the synonymous nature of the use of “building” and “facility” in the remainder of Chapter 5, the plain reading of Section 5-58 suggests that a “facility” is something different or distinguishable from a “building”.

There are two specific examples of a “facility” in Chapter 5. “Athletic facilities” are referenced in Section 5-30(e) and “school facilities” are referenced in Section 5-36. Based on the limited examples of facilities in Chapter 5, the interchangeable use of the terms “facility” and “building”, the fact that Section 5-58 is in the Public Buildings Chapter of the City’s ordinances, and the scope of the site plan approval process under Section 5-58, a fair interpretation of “municipal facility” in Chapter 5 may be a facility that is constructed as part of a larger construction project involving buildings.

This definition is in keeping with previous interpretations of the types of projects subject to Section 5-58 approval. Historically, the City has applied Section 5-58 to projects in which a designer selection process is required by state law, which applies only to vertical projects (projects involving public buildings), not horizontal projects. See M.G.L. c. 7C, §§ 44-57. For example, research and investigation has not disclosed an instance when Section 5-58 was triggered by the construction or modification of a municipal parking lot. This is because such a parking lot is not a “facility” under Section 5-58.

It is a close call as to whether solar canopy structures qualify as a “municipal facility” as it is unclear whether the installation of the solar canopies satisfies the type of “vertical construction” to which Section 5-58 traditionally applies. The City ordinances do not define or address solar canopy structures. However, there are no particular attributes of the solar canopy structures that affirmatively disqualify them from being a “municipal facility”. As such, the law department recommends the interpretation that the solar canopy structures in this project satisfy the term “municipal facility” under Section 5-58.

3. Is there New Construction?

The installation of the solar canopy structures likely satisfies the “new construction” criteria under Section 5-58.

4. Is there a Substantial Change to Site?

The Library Project involves a substantial redesign and reconfiguration of the parking lot. Moreover, the reconfiguration of the parking lot is specifically being undertaken in conjunction with the design and installation of the solar panel canopies. The substantial redesign and reconfiguration of the parking lot satisfies the “change to site” requirement of Section 5-58.

5. Conclusion

Neither the installation of solar panel canopies nor the reconfiguration of a city parking lot would, on their own, trigger Section 5-58 review. While there is no clear answer that the solar

canopy installation in conjunction with parking lot reconfiguration in the Library Project would necessarily trigger such review, due to the scope and magnitude of the project, the Law Department recommends that the prudent approach is to follow the Section 5-58 site plan approval process for the Newton Free Library site. Please note that this recommendation is based solely on the unique facts and circumstances presented by this Project, and should not be viewed as precedent for any future projects.

Question 2 – Other Proposed Sites

The scope of work for the other proposed Solar Phase III solar canopy sites involve only minor alterations to the sites. As such, Section 5-58 does not apply to the installation of the solar canopy structures at those sites. A site of a particular construction project that had previously undergone Section 5-58 site plan approval does not automatically require additional design review for any modification. The question is whether or not the proposed modification or new construction project meets the threshold requirements of Section 5-58 set forth above. The scope of construction for the solar canopy sites, other than the Newton Free Library parking lot, do not meet said threshold requirements and, therefore, site plan approval is not required.

Newton Free Library**Board of Trustees Resolution on Solar Panel Project for the Library Parking Lot****As Approved – December 19, 2018**

The Trustees of the Newton Free Library are supportive of the City's plans to add solar power generation to the City's infrastructure. We recognize the potential gain to the City from reduced energy costs, as well as the important benefits to the environment of reducing fossil fuel use. For those reasons we approve further exploration of installing solar panel canopies in the Library parking lot, with the understanding that the Library Board of Trustees will have to formally approve final plans once detailed issues, including the following, have been addressed to the Trustees' satisfaction:

- (1) Specific tree-planting and landscaping plans that compensate for the removal of existing trees and shrubs, and that enhance the overall aesthetic of the Library lot;
- (2) Design plans for the parking lot that add parking spaces and generally improve parking lot operation, considering the Library's high usage by seniors and families with children;
- (3) Design of the canopies themselves, including aesthetics, night-lighting and rain/snow management;
- (4) Construction management plans and timing, their impact on parking and Library access during installation, and viable plans for mitigating that impact;
- (5) Economic assessment of the impact on the Library.

Newton Free Library Solar Canopy and Parking Space Expansion Project

Key Points

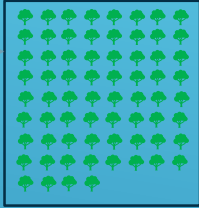
- 24 to 36 spaces added will be significant.
- Solar canopies will provide 49% of Library's demand
- Solar canopies will provide valuable shade and shelter for library customers and their cars, and reduce heat island effects
- At least 10 spaces EV ready for charging stations
- 7 parking lot trees cut, 5 moved, and 68 new replacement trees planted in area
- 133 trees left on library grounds
- Storm water improvements will be made during reconstruction of parking lot
- Solar electric generation is equivalent to 200 tons of annual avoided CO2 Emissions, or carbon sequestration of 214 acres of forests



Library Lot Tree Replacement



5 Trees removed
will be replaced
by 68 new trees
in area
7 trees moved to
nearby areas

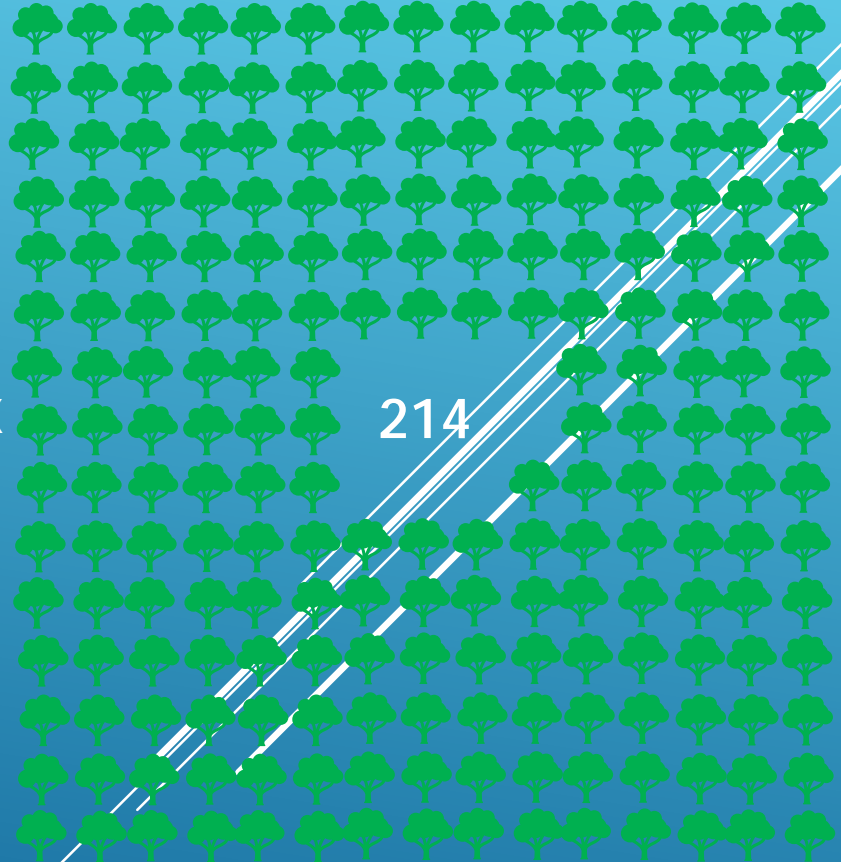


Library Parking Lot Solar Canopy Project

Greenhouse Gas Equivalency Calculation



= ACRES X 214



A New England Forest averages 4,816
trees/acre

EPA Greenhouse Gas Equivalencies Calculator

Library Carport Solar Panels = 415,000
kWh

Equivalent to 214 Acres of Forest

PARKING LOT CANOPY SITES – CARBON ANALYSIS #23-19

| Site Information | | Tree Removal | | | Annual Avoided CO ₂ Emissions | Equal to | |
|-------------------------------|---|--------------------------|---|--|---|---|---|
| Site | Expected First Year Generation (MWh/year) | Trees slated for removal | CO ₂ Stored per year (lbs/tree/year) | Total CO ₂ Stored Per Year (tons) | Annual Avoided CO ₂ Emissions (tons) | Sequestration by U.S. Forests in One Year (acres) | Emissions from Miles driven by an average passenger vehicle |
| Ed Center | 334 | 0 | - | - | 180 | 192 | 400,229 |
| Oak Hill MS | 192 | 0 | - | - | 100 | 107 | 222,349 |
| Memorial Spaulding ES | 197 | 0 | - | - | 90 | 96 | 200,114 |
| Pleasant Street | 122 | 2 | 404.1 | 0.20 | 60 | 64 | 133,410 |
| Mason Rice ES | 196 | 2 | 736.8 | 0.37 | 90 | 96 | 200,114 |
| Newton North HS Lowell Avenue | 589 | 0 | - | - | 290 | 310 | 644,813 |
| Newton North HS Walnut St. | 320 | 0 | - | - | 140 | 150 | 311,289 |
| Brown MS | 448 | 1 | 64.2 | 0.03 | 250 | 267 | 555,873 |
| Auburndale Cove | 421 | 1 | 785.4 | 0.39 | 220 | 235 | 489,168 |
| Newton Free Library | 415 | 7 | 1,275.8 | 0.64 | 200 | 214 | 443,611 |

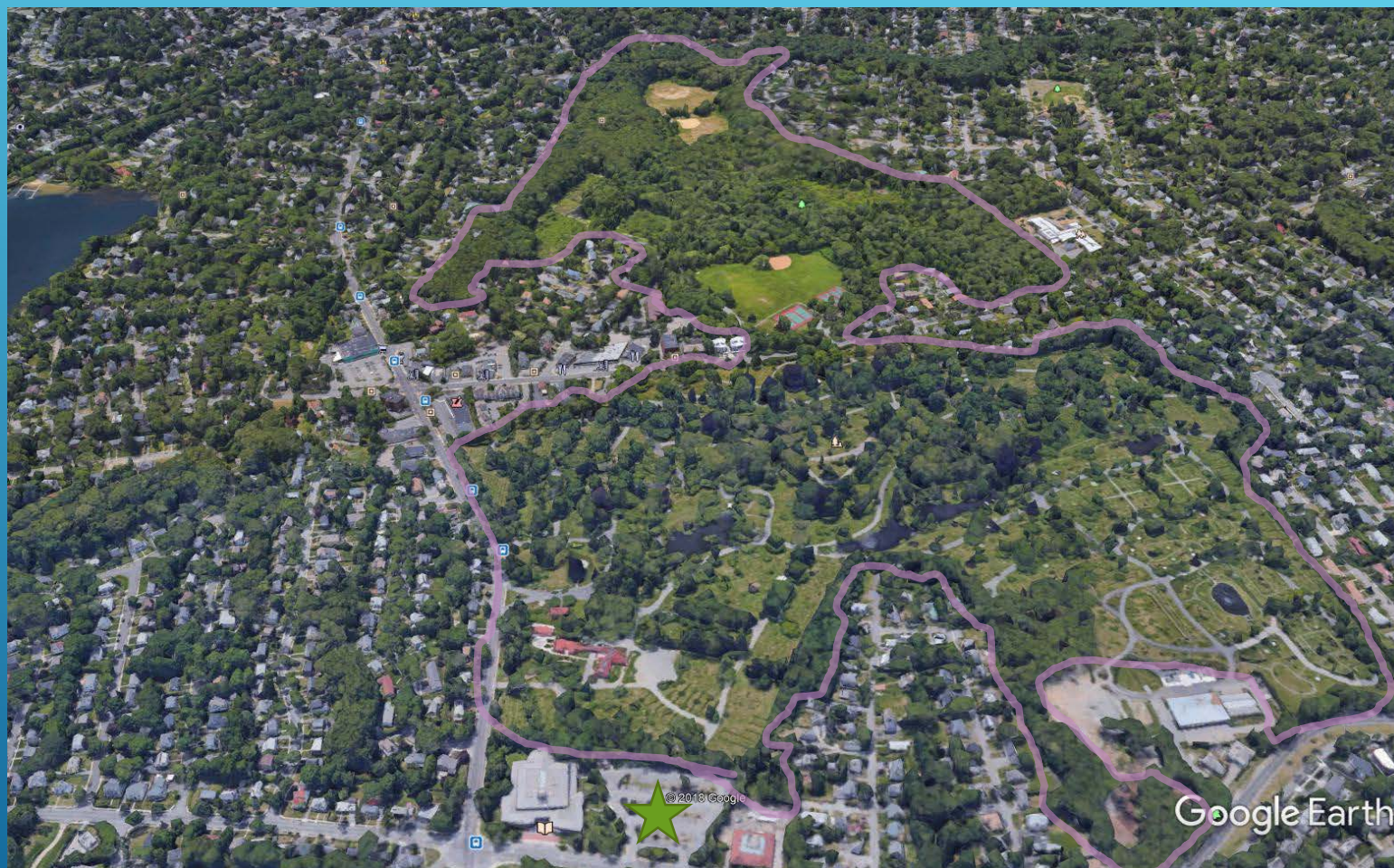
Cadmus conducted an analysis of the Carbon Dioxide Emissions impacts of the Solar Phase 3 Sites. The team utilized the EPA's Avoided Emissions and Generation Tool (AVERT) to calculate regional avoided emissions based on kW capacity (AC). The team utilized the USDA's CUFR Tree Carbon Calculator for carbon sequestration potential of removed trees (using developer assumptions). The team utilized the EPA's Greenhouse Gas Equivalencies Calculator to generate equivalencies.

Newton Free Library Property Tree Canopy – 133 trees outside parking
lot islands
(not including large number of high bushes)



Forests and Green Space Adjacent to Newton Free Library – Newton Cemetery and Cold Spring Park

Many
more local
trees for
bird
habitat



| | | LIBRARY – Revised Project Tree Plan | | | | | | |
|--------------|---|-------------------------------------|--------------------------------------|------------------|--|--|-------------------|---|
| January 2019 | | | | | | | | |
| | | | | | | | | |
| | Trees Removed in Original Proposal | Trees Cut in Revised Plan | Trees Moved in Revised Plan | Trees Trimmed | Replace ment Trees To Be Planted | | Tree Condition | Tree Plan |
| Location | | | | | | Notes | | |
| Library | 12 | 7 | 5 | 0 | 68 | 2 poor,2 fair,5 good, 3 very good. 8 - 8" or less. 4 - 10" to 30". Detailed inventory available. | poor to very good | replace 3 to 4 on site and remainder 64 trees in area |

Newton Free Library's Parking Lot is very frequently filled to capacity, forcing people to go home or park at long distances

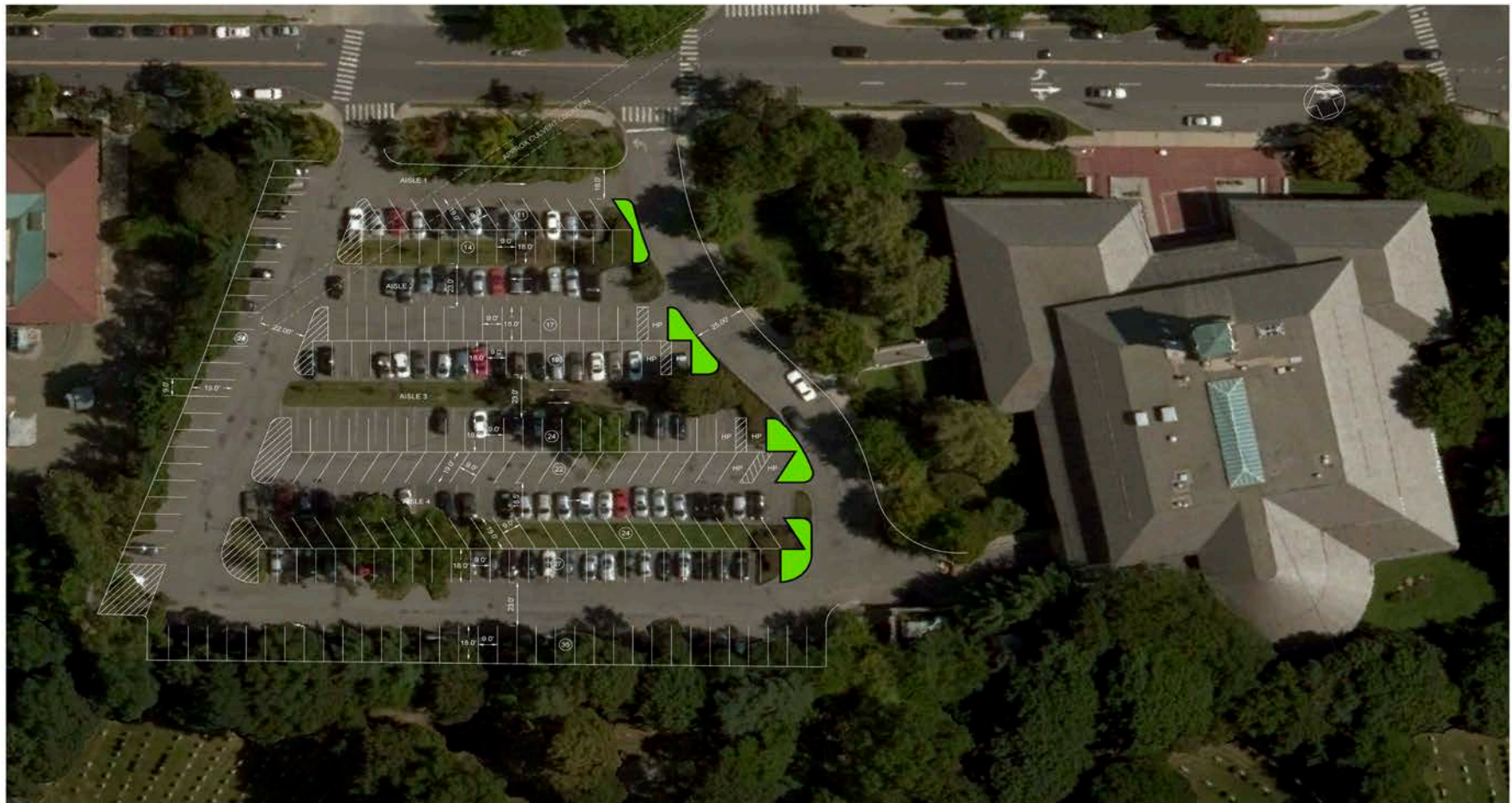
Newton Free Library is the busiest library in the Commonwealth

24 to 36 spaces to be added will be significant



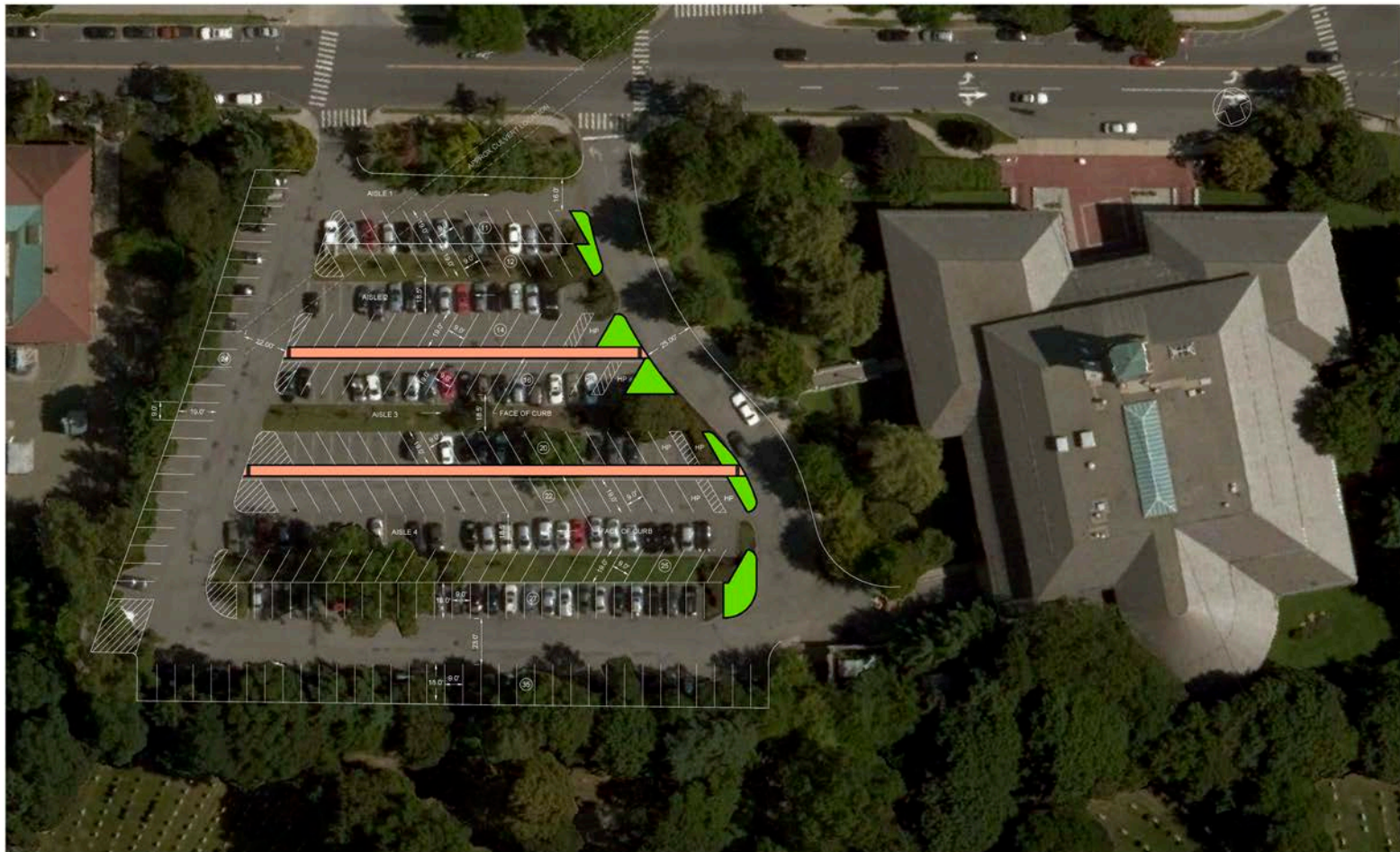
The Library Board of Trustees voted to support this project in December and parking space expansion is a Top Priority

LIBRARY WITH NO WALKWAYS +36 SPACES

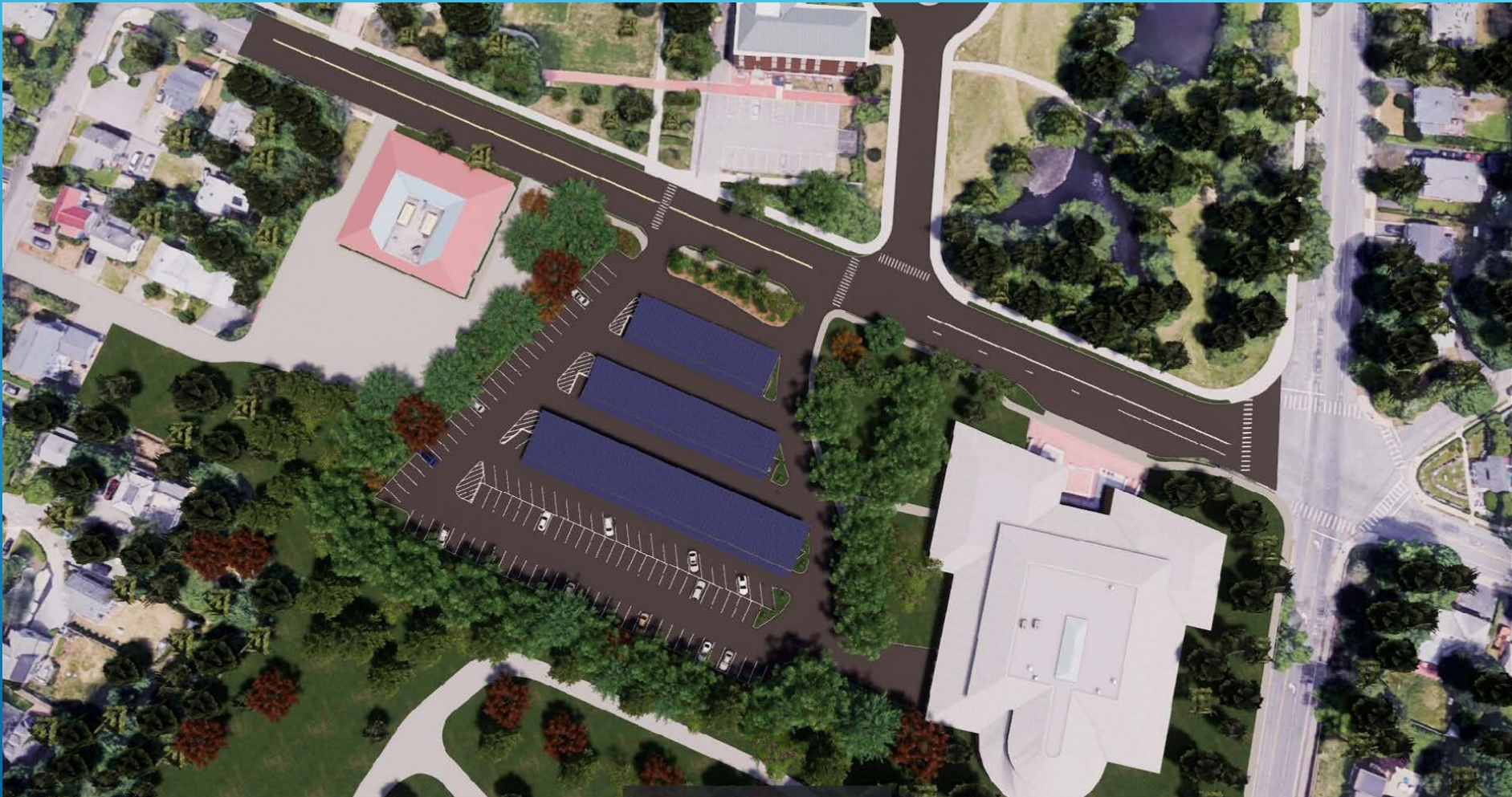


0 20 50 100
SCALE: 1" = 20'

LIBRARY WITH 2 WALKWAYS + 24 SPACES



LIBRARY CANOPIES









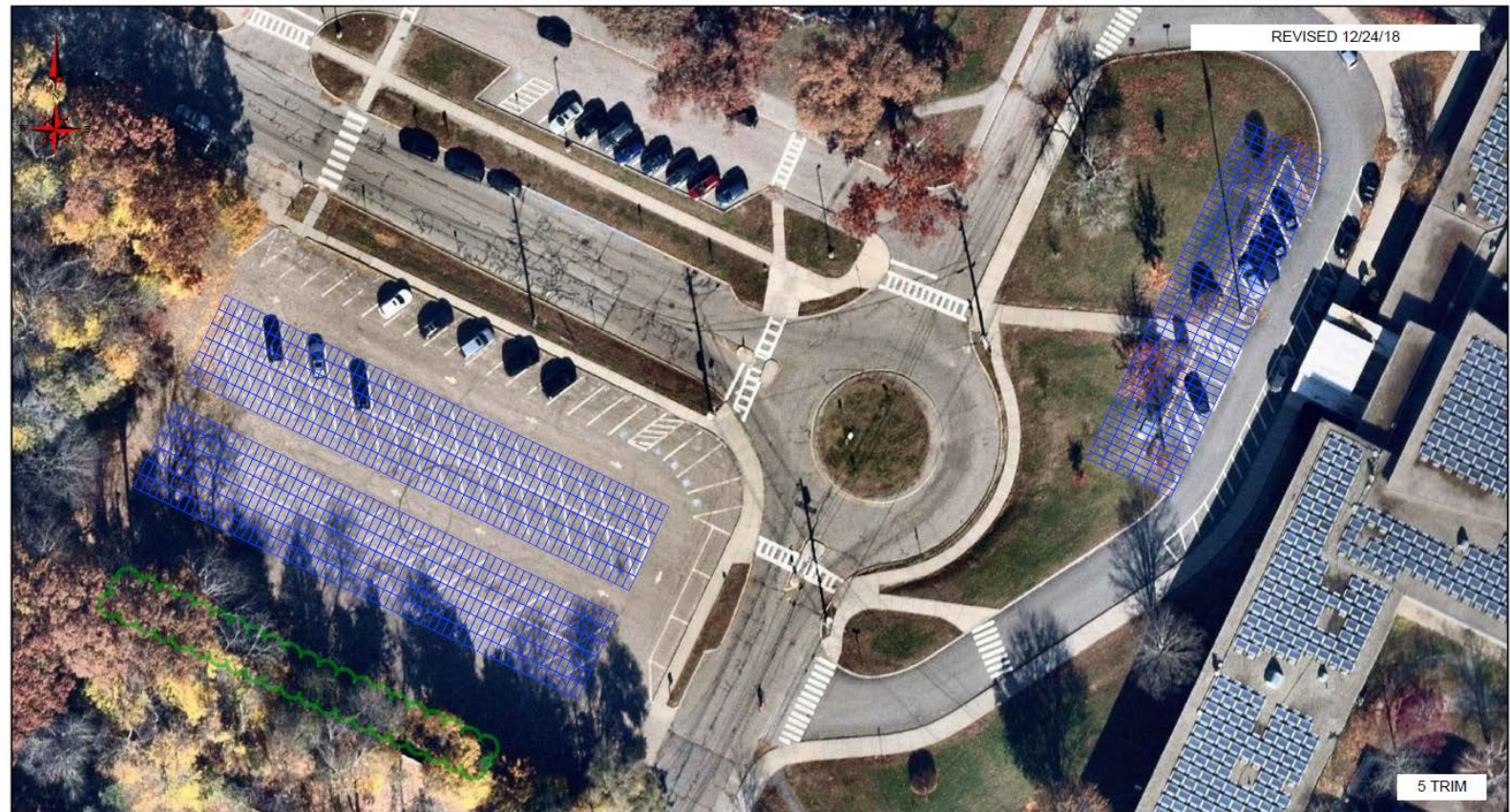





Brown Middle School Parking Lot (Before)

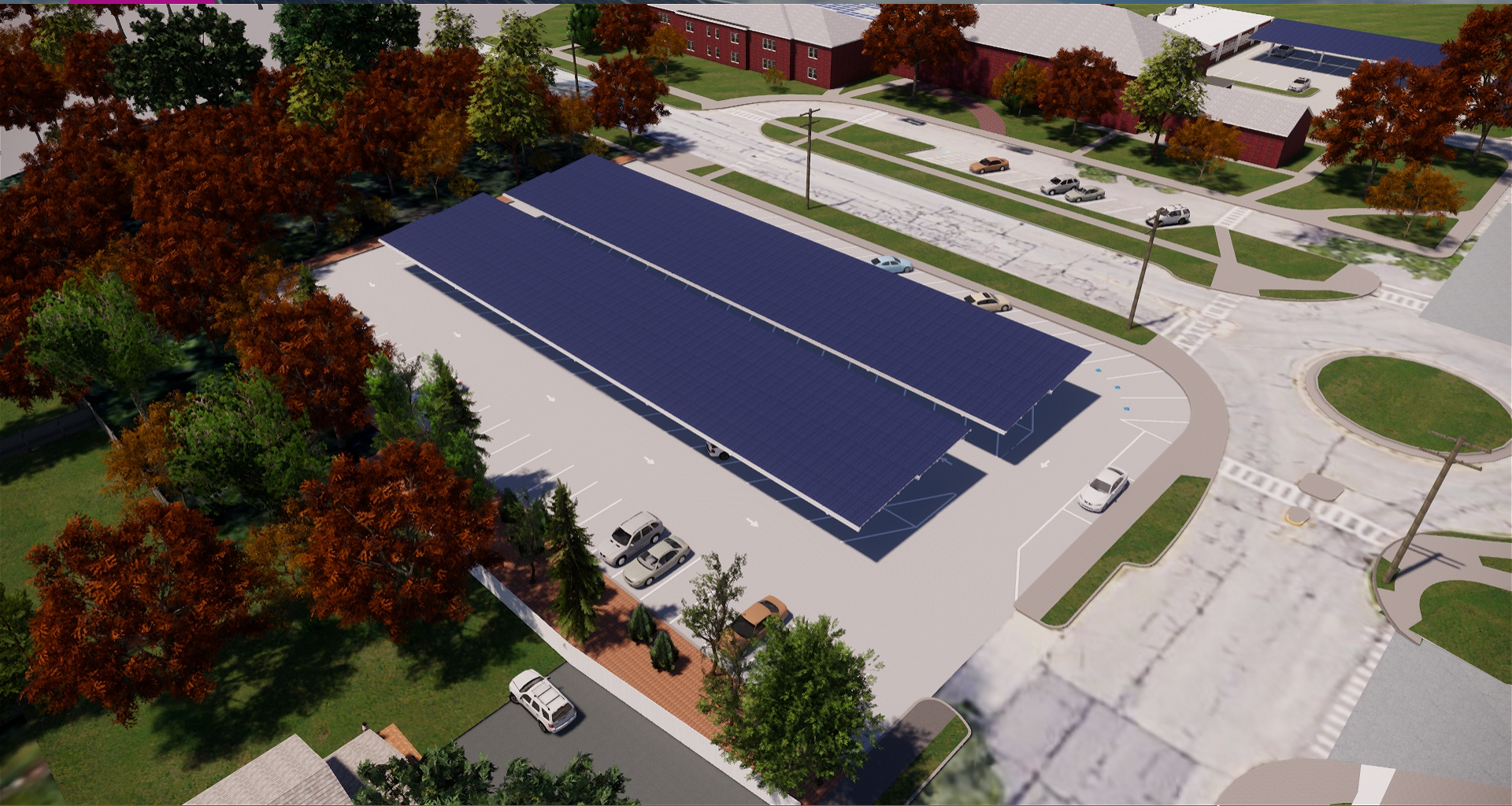


Brown Middle School Parking Lot (After)

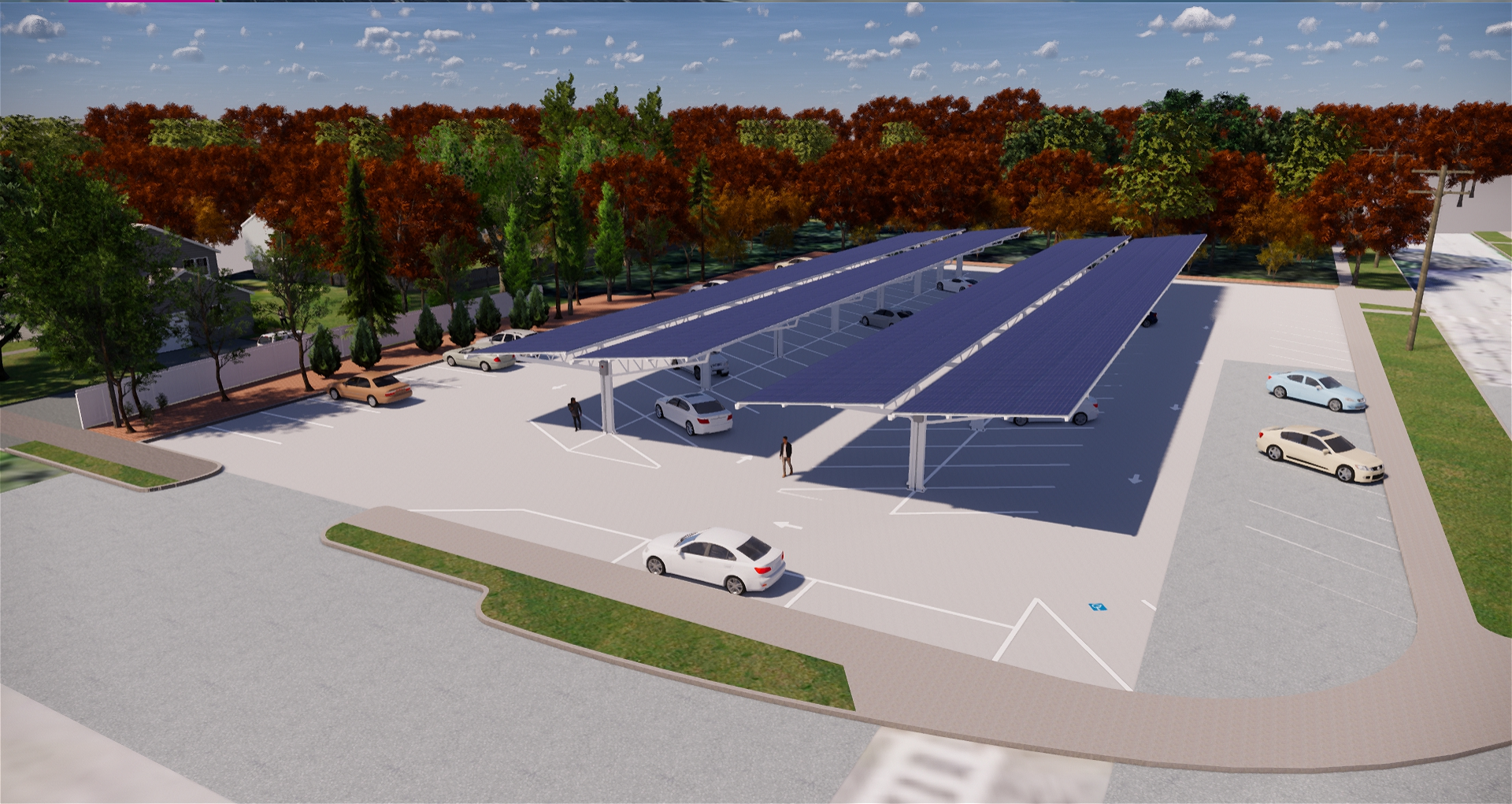


| | | | | | | | | |
|--|----------------|----------------------------|----------------------|--|--------------------|----------------------------------|-----------|----------|
|  (c) HESP SOLAR, LLC AND ITS AFFILIATES, ALL RIGHTS RESERVED | PROJECT DETAIL | | SYSTEM DESCRIPTION | | | SHEET INFORMATION | | |
| | PROJECT #: | MA-18-116 | MODULE TYPE: | TRINA SOLAR, TSM-DE14(I) PERC MONO 370 | TILT ANGLE: | 7 | DATE: | 12.24.18 |
| | PROJECT NAME: | BROWN MIDDLE SCHOOL | MODULE QUANTITY: | 1,026 | RACKING STRUCTURE: | CANOPY MOUNTED T-FRAME STRUCTURE | DESIGNER: | DG |
| | SITE ADDRESS: | WHEELER ROAD NEWTON, MA | SYSTEM SIZE KW (DC): | 379.62 | INVERTER: | SOLECTRIA PVI 60 & 50TL | SHEET NO: | PV 0 |
| | CLIENT NAME: | THE CITY OF NEWTON | SYSTEM SIZE KW (AC): | 320 | | | SCALE: | NTS |
| THIS DRAWING IS THE PROPERTY OF HESP SOLAR, LLC. THIS INFORMATION IS CONFIDENTIAL AND IS TO BE USED ONLY IN CONNECTION WITH WORK DESCRIBED BY HESP SOLAR, LLC. NO PART IS TO BE DISCLOSED TO OTHERS WITHOUT WRITTEN PERMISSION FROM HESP SOLAR, LLC. PRELIMINARY DESIGN NOT FOR CONSTRUCTION | | | | | | | | |

Brown Middle School



Brown Middle School



Brown Middle School



**Property Information**

Property ID 81006 0003
Location 118 MEADOWBROOK RD
Owner SOLOWSKY NANCY H



**MAP FOR REFERENCE ONLY
NOT A LEGAL DOCUMENT**

City of Newton, MA makes no claims and no warranties, expressed or implied, concerning the validity or accuracy of

Brown Middle School



Brown Middle School



Brown Middle School



Brown Middle School



Brown Middle School

