Theodora K. Eaton, MMC
Town Clerk

TOWN OF NEEDHAM

Office of the Town Clerk

1471 Highland Avenue, Needham, MA 02492-0909
Telephone (781) 455-7500 x216
Fax (781) 449-1246
Email: teaton@town.needham.ma.us

AT THE SPECIAL TOWN MEETING

HELD ON MONDAY, NOVEMBER 4, 2013

UNDER ARTICLE 6

It was

VOTED: That the Town vote to amend the Needham Zoning By-Law as follows:

(a) In Section 2.1, Classes of Districts, by adding a new Overlay District designation category as follows:

"LGSPI- Large-Scale Ground-Mounted Solar Photovoltaic Installation Overlay District"

(b) In Section 3, Use Regulations, by inserting a new Subsection 3.13, Large-Scale Ground-Mounted Solar Photovoltaic Installation Overlay District, to read as follows:

"3.13 Large-Scale Ground-Mounted Solar Photovoltaic Installation Overlay District

3.13.1 Purpose of District

The purpose of this by-law is to regulate Large-Scale Ground-Mounted Solar Photovoltaic Installations in an established district(s) where they are allowed. The by-law provides standards for the placement, design, construction, operation, monitoring, modification and removal of such installations. The standards aim to address public safety, minimize impacts on scenic, natural and historic resources and to provide financial assurance for the eventual decommissioning of such installations. The provisions set forth in this section shall apply to the construction, operation, maintenance and/or repair, and or modification and/or removal of Large-Scale Ground-Mounted Solar Photovoltaic Installations.

3.1.3.2 Scope of Authority

The Large-Scale Ground-Mounted Solar Photovoltaic Installation Overlay District shall be considered as overlying other use districts established by this By-Law. Within the Large-Scale Ground-Mounted Solar Photovoltaic Installation Overlay District, the requirements of the underlying district continue to apply except as may be specifically superseded herein. The scope of authority of this Section 3.13 applies to Large-Scale Ground-Mounted Solar Photovoltaic Installations proposed to be constructed after the effective date of this section. This section also applies to physical modifications that materially alter the type, configuration, or size of these installations or related equipment.

3.13.3 Definitions

Designated Location: The locations permitted shall be within the Large-Scale Ground-Mounted Solar Photovoltaic Overlay District, hereinafter referred to as "the Overlay".

Large-Scale Ground-Mounted Solar Photovoltaic Installation: A solar photovoltaic system, including ancillary structures, that is structurally mounted on the ground and is not roof-mounted and has a minimum nameplate capacity of 250kW DC.

Rated Nameplate Capacity: The maximum rated output of electric power production of the Photovoltaic system in Direct Current (DC).

3.13.4 Allowed Uses

The following uses are allowed by right:

(a) All uses permissible and as regulated within the underlying district.
(b) A Large-Scale Ground-Mounted Solar Photovoltaic Installation.

3.13.5 Special Permit Uses

All uses permitted by special permit in the underlying district at that location may be allowed upon the issuance of a special permit by the designated Special Permit Granting Authority under such conditions as the Board may require.

3.13.6 General Requirements

The following requirements are common to all solar photovoltaic installations to be sited in the Overlay.

3.13.6.1 Compliance with Laws, Ordinances and Regulations: The construction and operation of all Large-Scale Ground-Mounted Solar Photovoltaic Installations shall be in compliance with all applicable local, state and federal requirements, including but not limited to all applicable safety, construction, electrical, and communications requirements. All buildings, structures and fixtures forming part of a Large-Scale Ground-Mounted Solar Photovoltaic Installation shall be constructed in accordance with the State Building Code.

3.13.6.2 Building Permit and Building Inspection: No Large-Scale Ground-Mounted Solar Photovoltaic Installation shall be constructed, installed or modified as provided in this section without first obtaining a building permit.

3.13.6.3 Site Plan Review: Large-Scale Ground-Mounted Solar Photovoltaic Installations shall undergo Major Project Site Plan Review by the Planning Board as described in Section 7.4 of the By-Law prior to construction, installation or modification as provided in this section. Application requirements for Site Plan Review shall be as provided below:

(a) General: All plans and maps shall be prepared, stamped and signed by a Professional Engineer or Professional Land Surveyor licensed to practice in Massachusetts.

(b) Required Documents: Pursuant to the Site Plan Review process, the project proponent shall provide the following documents in addition to those required under Section 7.4 of the By-Law.

1) A site plan showing:

I. Property lines and physical features, including roads, for the project site;
II. Proposed changes to the landscape of the site, grading, vegetation clearing and planting, exterior lighting, screening of vegetation or structures;
III. Blueprints or drawings of the solar photovoltaic system signed by a Professional Engineer licensed to practice in the Commonwealth of Massachusetts showing the proposed layout of the system and any potential shading from nearby structures.
IV. One or three line electrical diagram detailing the solar photovoltaic installation, associated components, nd electrical interconnection methods, with all National electrical Code compliant disconnects and overcurrent devices;
V. Documentation of the major system components to be used, including the PV panels, mounting system, inverter, and associated electrical components. The site plan shall include containment fencing line, power lines and poles, and site access routes.

VI. Name, address and contact information for proposed system installer;
VII. vii Name, address, phone number and signature of the project proponent, as well as all co-proponents or property owners, if any.
VIII. The name, contact information and signature of any agents representing the project proponent.

2) Documentation of actual or prospective control of the project site and access thereto (see also Section 3.13.6.4);
3) An operation and maintenance plan (see also Section 3.13.6.5);
4) Zoning district designation for the parcel(s) comprising the site;
5) Proof of liability insurance;
6) Description of financial surety that satisfies Section 3.13.6.13.

The Planning Board may waive documentary requirements as it deems appropriate.

3.13.6.4 Site Control: The project proponent shall submit documentation of actual or prospective control of the project site and access thereto sufficient to allow for construction and operation of the proposed solar photovoltaic installation.

3.13.6.5 Operation & Maintenance Plan: The project proponent shall submit a plan for the operation and maintenance of the Large-Scale Ground-Mounted Solar Photovoltaic Installation, which shall include measures for maintaining safe access to the installation, storm water controls, as well as general procedures for operational maintenance of the installation.

3.13.6.6 Utility Notification: No Large-Scale Ground-Mounted Solar Photovoltaic Installation shall be constructed until evidence has been given to the Planning Board that the utility company that operates the electrical grid where the installation is to be located has been informed of the solar photovoltaic installation owner's or operator's intent to install an interconnected generator and an interconnection agreement and power purchase agreement (where appropriate) has been signed by the utility. Off-grid systems shall be exempt from this requirement.

3.13.6.7 Dimension, Density and Parking Requirements

For Large-Scale Ground-Mounted Solar Photovoltaic Installations, front, side and rear setbacks shall be as follows:

(a) Minimum Lot Area: 20 acres;
(b) Minimum Front Setback: 50 feet;
(c) Minimum Side Setback: 50 feet from the property line of residentially used property;
(d) Minimum Rear Setback: 50 feet;
(e) Maximum Lot Coverage: 50%;
(f) Separation Distance: No separation distance is required between structures for ground mounted solar photovoltaic panels;
(g) Height: Height shall be determined by each individual panel measured to the grade level beneath that panel and shall not exceed 25 feet;
(h) Transition Areas: As long as the setbacks noted above are respected no further "Transition Area" (per Section 4.2.8) is required. No planting is required within the transition area if the abutting property is controlled by the Town of Needham and/ or plantings are constrained by capped landfill requirements;
(i) Parking Requirement: No additional parking is required for this use as long as there is no full-time on-site system operator required following installation of the Large-Scale Ground-Mounted Solar Photovoltaic Installation.

3.13.6.8 Design Standards

(a) Lighting. Lighting shall be limited to that required for safety and operational purposes, and shall be reasonably shielded from abutting properties. Where feasible, lighting of the Large-Scale Ground-Mounted Solar Photovoltaic Installation shall be directed downward and shall incorporate full cut-off fixtures to reduce light pollution.

(b) Signage. A sign for the Large-Scale Ground-Mounted Solar Photovoltaic Installation consistent with the Town's sign by-law shall be required to identify the owner and provide the business name for the company (ies) that own and operate the installation, their business address, the name of a contact person, and a 24-hour emergency contact phone number.

(c) Utility Connections. Reasonable efforts, as determined by the Planning Board, shall be made to place cabling and utility connections from the Large-Scale Ground-Mounted Solar Photovoltaic Installation underground, depending on appropriate soil conditions, shape, ledge, wetland resources, and topography of the site and any requirements of the utility provider.

(d) Conditions. All appurtenant structures, including but not limited to, equipment shelters, storage facilities, transformers, and substations, shall be architecturally compatible with each other. Whenever reasonable, structures shall be screened from view by vegetation and/or joined and clustered to avoid adverse visual impacts. Methods such as the use of landscaping, natural features and fencing may be utilized.

(e) Fencing. A security fence shall be installed along or proximate to the perimeter of the system and shall be maintained for the lifetime of the system.

3.13.6.9 Safety and Environmental Standards

(a) Emergency Services. The Large-Scale Ground-Mounted Solar Photovoltaic Installation owner or operator shall provide a copy of the project summary, electrical schematic, and site plan to the Needham Fire Chief. The owner or operator shall cooperate with local emergency services in developing an emergency response plan. The plan shall assure adequate access and staging for emergency services. All means of shutting down the Large-Scale Ground-Mounted Solar Photovoltaic Installation shall be clearly marked. The owner or operator shall identify a responsible person for public inquiries throughout the life of the installation.

(b) Land Clearing, Soil Erosion and Habitat Impacts. Clearing of natural vegetation shall be limited to what is necessary for the construction, operation and maintenance of the Large-Scale Ground-Mounted Solar Photovoltaic Installation and in accordance with applicable laws, regulations, and by-laws.

3.13.6.10 Maintenance: The Large-Scale Ground-Mounted Solar Photovoltaic Installation owner or operator shall maintain the facility in good condition. Maintenance shall include, but not be limited to, painting, structural repairs, and integrity of security and safety measures. Site access for the Large-Scale Ground-Mounted Solar Photovoltaic Installation shall be maintained to a level acceptable to the Needham Fire Chief and Emergency Medical Services. The owner or operator shall be responsible for the cost of maintaining the solar photovoltaic installation and any access road(s), unless accepted as a public way.

3.13.6.11 Modifications: All material modifications to a Large-Scale Ground-Mounted Solar Photovoltaic Installation made after issuance of the required building permit shall require approval by the Planning Board.

3.13.6.12 Abandonment or Decommissioning

(a) Removal Requirements. Any Large-Scale Ground-Mounted Solar Photovoltaic Installation which has reached the end of its useful life or has been abandoned consistent with Section 3.13.6.12 (b) of this by-law shall be removed. The owner or operator shall physically remove the installation no more than 150 days after the date of discontinued operations. The owner or operator shall notify the Planning Board by certified mail of the proposed date of discontinued operations and plans for removal. Decommissioning shall consist of:

I. Physical removal of all solar photovoltaic installations, structures, equipment, security barriers and transmission lines from the site.
II. Disposal of all solid and hazardous waste shall be in accordance with local, state, and federal regulations.
III. Stabilization or re-vegetation of the site as necessary to minimize erosion. The Planning Board may allow the owner or operator to leave existing vegetation or designated below-grade foundations in place in order to minimize erosion and disruption to vegetation.

(b) Abandonment: Absent notice to the Planning Board as provided above of a proposed date of decommissioning or written notice requesting an extension due to extenuating circumstances, the Large-Scale Ground-Mounted Solar Photovoltaic Installation shall be considered abandoned when it fails to operate or its operations are discontinued for more than one year without the written consent of the Planning Board; or if the Building Inspector has determined that the installation is a hazard to public safety and the conditions have not been corrected within six (6) months.

The Town retains the right, after the receipt of an appropriate court order to enter and remove an abandoned or hazardous Large-Scale Ground-Mounted Solar Photovoltaic Installation that is not removed by the property owner within six (6) months from the date of abandonment, as described above, or the proposed date of decommissioning. As a condition of approval, an applicant shall agree to allow entry to remove an abandoned installation.

3.13.6.13 Financial Surety: Proponents of Large-Scale Ground-Mounted Solar Photovoltaic projects shall provide a form of surety, either through escrow account, bond or otherwise, to cover the cost of removal in the event the town

must remove the installation and remediate the landscape, in an amount and form determined to be reasonable by the Planning Board. Such surety will not be required for municipally-or state owned systems, but may be required for privately-owned systems even if located upon municipally-owned land. The project proponent shall submit a fully inclusive estimate of costs associated with removal, prepared by a qualified engineer. The amount shall include a mechanism for calculating increased removal costs due to inflation."

UNANIMOUS VOTE

A true copy
ATTEST: Theodora K. Eaton

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AT THE SPECIAL TOWN MEETING

HELD ON MONDAY, NOVEMBER 4, 2013

UNDER ARTICLE 7

It was

VOTED: That the Town vote to amend the Needham Zoning By-Law by amending the Zoning Map as follows:

(a) Place in the Large-Scale Ground-Mounted Solar Photovoltaic Installation Overlay District all that land now zoned Single Residence A and commonly known as the Town of Needham landfill and lying in the area bounded and described as follows:

"Beginning at a point on the northerly sideline of Central Avenue, thence running N55°-25'-16"W a distance of 59.67 feet to a point, thence running N55°-42'- 46"W a distance of 71.12 feet to a point, thence N58°-27'-06"W a distance of 112.06 feet to a point, thence N56°-16'-06"W a distance of 296.96 feet to a point, thence S00°-21'-59"W a distance of 42.02 feet to a point, thence S49°-16'-14"W a distance of 279.44 feet to a point, thence S75°-42'-34"W a distance of 187.24 feet to a point, thence S56°-16'-24"W a distance of 46.41 feet to a point, thence S41°-45'-34"W a distance of 50.01 feet to a point, thence S46°-22'-54"W a distance of 131.13 feet to a point, thence N82°-50'-34"W a distance of 228.42 feet to a point, thence N29°-35'-24"E a distance of 866.68 feet to a point, thence N14°-53'-20"W a distance of 1216.6± feet to a point in the centerline of Fuller Brook, thence by the said centerline of Fuller Brook northeasterly to a point (a tie of N62°-30'-33"E a distance of 1009.94 feet), thence S37°-39'-21"E a distance of 719.43 feet to a point, thence S36°-38'-47" E a distance of 88.71 feet to a point, thence S38°-48'-02"E a distance of 115.27 feet to a point, thence S38°-59'-47"E a distance of 152.44 feet to a point, thence S30°-32'-19" E a distance of 290.44 feet to a point, thence S24°-48'-14"E a distance of 24.80 feet to a point, thence S09°-13'-39"E a distance of 34.19 feet to a point, thence S63°-32'-06"E a distance of 97.36 feet to a point, thence S36°-34'-38"E a distance of 234.40 feet to a point, thence S50°-42'-20"E a distance of 77.07 feet to a point, thence N54°-20'-46"E a distance of 19.05 feet to a point, thence N82°-49'-47"E a distance of 11.46 feet to a point, thence S76°-10'-08"E a distance of 31.72 feet to a point, thence S57°-15'-20"E a distance of 35.66 feet to a point, thence S53°-33'-52"E a distance of 15.31 feet to a point, thence S57°-38'-03"E a distance of 36.67 feet to a point, thence S58°-29'-44"E a distance of 181.83 feet to a point, thence S28°-44'-00"W a distance of 310.59 feet to a point, thence S59°-05'-55"E a distance of 275.42 feet to a point on the northerly sideline of Central Avenue, thence by said sideline and a curve to the right , with a radius of 500.00 feet, an length of 419.84 feet to a point, thence N88°-49'-18"W a distance of 233.98 feet to a point, thence by a curve to the left, with a radius of 804.73 feet, a length of 238.48 feet to a point, thence S74°-11'-57"W a distance of 348.85 feet to a point, thence by a curve with a radius of 894.54 feet, a length of 84.00 feet to the point of beginning."

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