

That the following paragraphs be added to SECTION 3. DEFINITIONS of the Leyden Zoning Bylaw:

BioMap: The BioMap, which is updated periodically by the Massachusetts Division of Fisheries and Wildlife's Natural Heritage and Endangered Species Program, is designed to guide strategic biodiversity conservation in Massachusetts by focusing land protection and stewardship on the areas that are most critical for ensuring the long-term persistence of rare and other native species and their habitats, exemplary natural communities, and a diversity of ecosystems and include:

- Core Habitat: identifies key areas to ensure the long-term persistence of species of conservation concern, exemplary natural communities, and intact ecosystems across the Commonwealth.
- Critical Natural Landscape: identifies larger landscape areas that are better able to support ecological processes, disturbances, and wide-ranging species.

Farmland of Statewide Importance: land, in addition to prime and unique farmlands, that is of statewide importance for the production of food, feed, fiber, forage, and oil seed crops, as determined by the appropriate state agency or agencies. Generally, these include lands that are nearly prime farmland and that economically produce high yields of crops when treated and managed according to acceptable farming methods.

Federally Recognized Tribe's Cultural Authority (FRTCA): shall mean, for the purposes of this bylaw, a Tribal Historic Preservation Officer/Office (THPO); or a federally recognized Tribe's formally designated Cultural Authority

Indigenous Ceremonial Stone Landscapes (CSLs): indigenous stone features on the land of sacred cultural significance that have been identified by a Tribal Historic Preservation Officer or a federally recognized Tribe's formally designated cultural authority. Ceremonial Stone Landscape Sites in the Northeast are locations of ceremonial activity that are characterized by stone assemblages of many types, some earthworks, and usually incorporate a number of natural landscape features into their design. (For further information, reference USET Resolution #2007:037)

Indigenous Cultural Resources: shall include cultural resource(s) that have been identified by a Tribal Historic Preservation Officer (THPO) or a federally recognized Tribe's formally designated cultural authority, as possessing religious and cultural significance to tribes. Said cultural resources may include but are not limited to sites, features, places, cultural landscapes, sacred places, and objects; and shall also include Indigenous Ceremonial Stone Landscapes (CSLs) (reference USET Resolution #2007:037).

Low Impact Development (LID): an environmentally friendly approach to land use development. It includes landscaping and design techniques that attempt to maintain the natural, pre-developed ability of a site to manage rainfall. LID techniques capture water on site, filter it through vegetation, and let it soak into the ground.

Natural Heritage & Endangered Species Program (NHESP): NHESP, which is a program of the Massachusetts Division of Fisheries and -Wildlife, is responsible for the conservation and protection of

hundreds of species that are not hunted, fished, trapped, or commercially harvested in the state, as well as the protection of the natural communities that make up their habitats.

Prime Agricultural Farmland: land that has the best combination of physical and chemical characteristics for economically producing sustained high yields of food, feed, forage, fiber, and oilseed crops, when treated and managed according to acceptable farming methods.

Priority Habitat: Priority Habitat areas are based on the known geographical extent of habitat for all state-listed rare species, both plants and animals, as codified under the Massachusetts Endangered Species Act (MESA). Habitat alteration within Priority Habitats may result in a 'take' of a state-listed species, and is subject to regulatory review by the Natural Heritage & Endangered Species Program.

And that the following paragraphs be added to SECTION 4. USE REGULATIONS of the Leyden Zoning Bylaw:

In **Section 4.1. Permitted Uses.** Add: **A.4.f.** Building-mounted and residential ground-mounted solar photovoltaic installations; and add: **A.5.** Small scale ground-mounted solar photovoltaic installations, with site plan review by Planning Board.

In **Section 4.2. Uses Requiring a Special Permit.** Add **A.3.** Large scale ground-mounted solar photovoltaic installations up to 5 acres, with site plan review and special permit.

In **Section 4.3. Prohibited Uses.** Add: **J.** Large scale ground-mounted solar photovoltaic installations over 5 acres.

And that the following section be added to the Leyden Zoning Bylaw:

SECTION 5.12 SOLAR PHOTOVOLTAIC INSTALLATIONS (SPVI)

A. PURPOSE

The purpose of this section is to promote the creation of new Solar Photovoltaic Installations (SPVI) by providing standards for the placement, design, construction, operation, monitoring, modifications and removal of such installations that address public safety, minimize impacts on scenic, natural and historic resources and to provide adequate financial assurance for the eventual decommissioning of such installations.

In view of the ongoing threats of climate change and biodiversity loss, Leyden recognizes the critical need to move away from fossil fuels and embrace renewable energy. The town also recognizes that our critical habitats including wetlands, prime and statewide important agricultural farmland, and forests, are essential allies in minimizing threats from climate change. This bylaw establishes a procedure to find

a balance between renewable energy generation and natural and cultural resource protection that serves both our social and environmental responsibilities and protects public health and safety.

B. DEFINITIONS

1. ***As-of-Right Siting***: *As-of-Right Siting* shall mean that development may proceed without the need for a special permit, variance, amendment, waiver, or other discretionary approval. As-of-right development may be subject to site plan review to determine conformance with local zoning ordinances or bylaws. Projects cannot be prohibited, but can be reasonably regulated by the inspector of buildings or the Site Plan Review Authority, the Leyden Planning Board.
2. ***Battery Energy Storage Facility***: a system of mechanical, electrical, chemical or electrochemical devices that charges or collects energy from the local electric grid or an electric generating facility and then discharges that energy at a later time to provide electricity to the grid or homes and businesses.
3. ***Building Mounted SPVI***: A solar energy installation that is permanently affixed to a building, as defined by the State Building Code. This definition is inclusive of canopy structures.
4. ***Dual-use solar and agriculture***: agricultural production and electricity production from solar photovoltaic (PV) panels occurring together on the same piece of land. These facilities may also be referred to as agrivoltaic systems, agrisolar, or co-location of solar and agriculture.
5. ***Large-Scale Ground Mounted SPVI***: A solar photovoltaic system that is structurally mounted on the ground and is not roof-mounted, and covers at least one acre but not more than five (5) acres of land.
6. ***On-Site Solar Photovoltaic Installation***: A solar photovoltaic installation that is constructed at a location where other uses of the underlying property occur.
7. ***Rated Nameplate Capacity***: The maximum rated output of electric power production of the Photovoltaic system in Direct Current (DC).
8. ***Residential ground-mounted SPVI***: an on-site SPVI as an accessory use to the residential structure on the property.
9. ***Small-scale ground-mounted SPVI***: SPVI on up to one acre of land.

C. APPLICABILITY

The provisions set forth in this Section shall apply to the construction, operation and/or repair of SPVIs 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.

Whether an SPVI is allowed-by-right, requires a Site Plan Review or a Special Permit is described in the chart below:

Type of SPVI	Allowed As-of-right	Site Plan Review	Special permit
Building-mounted	Y	N	N
Residential Ground-Mounted	Y	N	N
Small Scale Ground-Mounted	Y	Y	N
Large- Scale Ground-Mounted 1+ to no more than 5 acres	N	Y	Y
Large-Scale Ground-Mounted 5+ acres Not permitted		

Battery Energy Storage Facility

1. A *Battery Energy Storage Facility* that is accessory to a building mounted or *Residential ground-mounted SPVI* and is utilized in connection with a primary permitted use is allowed by right with a building permit.
2. Standalone Commercial or Industrial scale *Battery Energy Storage Facility*(ies) are not allowed.
3. An accessory *Battery Energy Storage Facility* for a *Small-scale ground-mounted SPVI* is subject to site plan review and shall be sized to accommodate only the electricity generated on the site.
4. An accessory *Battery Energy Storage Facility* for a *Large-scale Ground Mounted SPVI* is subject to site plan review, shall be subject to the special permit review for the site, and shall be sized to accommodate only the electricity generated on-site.

D. GENERAL REQUIREMENTS

- a. **Compliance with Laws, Bylaws and Regulations** - The construction and operation of all *SPVIs* shall be consistent with all applicable local, state and federal requirements, including but not limited to all applicable safety, construction, electrical, and communications requirements. All buildings and fixtures forming part of a solar electric installation shall be constructed in accordance with the Massachusetts State Building Code.
- b. **Building Permit and Building Inspection** - No *SPVIs* shall be constructed, installed or modified as provided in this section without first obtaining a building permit and paying any required fees.
- c. **Special Permit** – An applicant for a proposed *SPVI*, that requires a special permit (see Section C. Applicability), must seek a Special Permit from the Special Permit Granting Authority (SPGA) as described in Section 4.2. For the purposes of this bylaw, the Planning Board shall serve as the SPGA.
- d. **Waiver** – Planning Board can consider a request for a waiver of a requirement or standard if it permits the project to better meet the goals of this bylaw.

- e. **Pre-Application Conference** – For all *SPVIs* that require a site plan review, the applicant is strongly encouraged to meet with the Leyden Planning Board to conduct a pre-application conference to discuss the project, process, waivers, and submittal requirements and proposed management practices for siting, construction, screening, reducing the visual contrast, operation, and maintenance of that type of commercial *SPVI*.
- f. **Utility Notification** – No small-scale or *Large-Scale Ground Mounted SPVI* intended to be connected to the grid, shall be installed until evidence has been given to the Leyden Planning Board that the utility company that operates the electrical grid where the installation is to be located has been informed of the solar electric installation owner or operator’s intent to install an interconnected facility, and the applicant has provided a signed copy of the interconnection agreement with the utility company to the Leyden Planning Board.
- g. **Proof of Liability Insurance** – The applicant for a Building Permit for a Small-scale or *Large-Scale Ground Mounted SPVI* shall be required to provide evidence of liability insurance to the Building Inspector in an amount and for duration sufficient to cover loss or damage to persons and structures occasioned by the failure of the facility until the system is dismantled. A Certificate of Insurance shall be provided annually to the Building Inspector.
- h. **Site Control** – At the time of its application for a Building Permit, the applicant shall submit documentation of actual or prospective control of the project site sufficient to allow for installation and use of the proposed facility. Documentation shall also include proof of control over setback areas and access roads, if required. Control shall mean the legal authority to prevent the use or construction of any structures for human habitation within the setback areas.
- i. **Independent Consultants** - Upon submission of an application for Site Plan Review and/or a Special Permit, the Site Plan Review Authority and/or the Special Permit Granting Authority are authorized to engage outside consultants and legal counsel to peer review the application and to provide expert advice on topics including but not limited to stormwater management, fire suppression, hazard mitigation, decommissioning, and financial surety measures, pursuant to G.L. c. 44, § 53G, whose services shall be paid for by the applicant.

E. GENERAL SITING STANDARDS

1. **Setbacks**—For Small-scale and *Large-Scale Ground Mounted SPVIs*’ front, side and rear setbacks from property lines shall be as follows:
 - a. Front yard: the front yard depth shall not be less than 100 feet.
 - b. Side yard: each side yard shall have a depth of at least 100 feet.
 - c. Rear yard: the rear yard depth shall not be less than 100 feet.
2. **Appurtenant Structures** - All appurtenant structures to *SPVIs* shall be subject to regulations concerning the bulk and height of structures, lot area and setbacks as specified in Section 5.12.E.1, open space, parking and building coverage requirements. All such appurtenant structures, including but not limited to, equipment shelters, storage facilities, transformers, and substations, shall be architecturally compatible with each other and the rural character of other structures in the area.

Structures shall be screened from view by vegetation and/or joined or clustered to avoid adverse visual impacts.

3. **Height of Structures** - The height of any structure associated with a *SPVI* shall not exceed 20 feet.

F. DESIGN AND PERFORMANCE STANDARDS

- a. **Lighting** - Lighting of solar electric installations shall be consistent with local, state and federal law. Lighting of other parts of the installation, such as appurtenant structures, shall be limited to that required for safety and operational purposes, and shall be reasonably shielded from abutting properties. Lighting of the solar electric installation shall be directed downward and shall incorporate full cut-off fixtures to reduce light pollution. In addition, such fixtures shall be “dark sky” compliant and meet International Dark Sky FSA certification requirements. The owner/operator shall be responsible for maintenance of lighting systems.
- b. **Signage** - Signs on *SPVIs* shall comply with Leyden’s sign regulations, Section 5.3. One (1) sign shall be required to identify the owner and provide a 24-hour emergency contact phone number. Solar electric installations shall not be used for displaying any advertising except for reasonable identification of the manufacturer or operator of the solar electric installation.
- c. **Utility Connections** - Reasonable efforts, as determined by the Planning Board shall be made to place all utility connections from the solar electric installation underground, depending on appropriate soil conditions, shape, and topography of the site and any requirements of the utility provider. Electrical transformers for utility interconnections may be above ground if required by the utility provider.
- d. **Roads** - Access roads shall be constructed to minimize grading, stormwater/run-off, removal of stone walls or trees and impacts to environmental, wetlands, or historic resources. (See Scenic Road restrictions – M.G.L. Chapter 40 Section 15C).
- e. **Control of Vegetation** – Except in the case of invasive plants listed by the Massachusetts Invasive Plant Advisory Group, herbicides may not be used to control vegetation at the *SPVI*. Mowing, grazing, or the use of pervious pavers or geotextile materials underneath the solar array, are possible alternatives. Aforementioned invasive plant species must be controlled using best management practices and effective methods least detrimental to the environment. Should herbicides be required by best management practices, only federally approved, state-registered herbicides may be applied by a state-licensed applicator in a carefully prescribed and targeted way specifically to control invasive vegetation. Property abutters and the Leyden Board of Health shall be provided in writing with the treatment plan at least 60 days before any planned application.
- f. **Hazardous Materials** - Hazardous materials stored, used, or generated on site shall not exceed the amount for a Very Small Quantity Generator of Hazardous Waste as defined by the Massachusetts Department of Environmental Protection (DEP) pursuant to DEP regulations 310 CMR 30.000 and shall meet all requirements of the DEP including storage of hazardous materials in a building with an impervious floor that is not adjacent to any floor drains to prevent discharge to the outdoor environment. If hazardous materials are utilized within the solar electric equipment, then impervious containment areas capable of controlling any release to the environment and to prevent

potential contamination of groundwater are required. A list of any hazardous materials located on the site and a plan to prevent their release shall be provided to the Fire Chief at the time of application and on an annual basis.

- g. **Visual Impacts** – The SPVI shall be designed to minimize visual impacts including preserving natural vegetation to the maximum extent practicable, using deer-resistant evergreen vegetative buffers (not fences) to provide an effective visual barrier from any public roads within ½ mile and to visually screen abutting residential properties, whether developed or not. Landscaping shall be maintained by the owner/operator of the SPVI. Siting shall be such that the view of the SPVI from other areas of Town shall be as minimal as possible.
- h. **Noise** - Noise generated by *SPVIs* and associated equipment and machinery shall conform at a minimum to applicable state and local noise regulations, including the DEP’s Division of Air Quality noise regulations, 310 CMR 7.10. In addition, for the purposes of this bylaw, a source of sound will be considered in violation of this bylaw if the source:
1. increases the broadband sound level by more than 5 db(A) above the pre-construction ambient noise level;
 2. produces a “pure tone” condition, when an octave band center frequency sound pressure level exceeds the two (2) adjacent center frequency sound pressure levels by three (3) decibels or more; or
 3. results in sound or noise levels greater than 33 dBA.

Said criteria are measured both at the property line and at the nearest inhabited residence. In addition, the said criteria shall be measured at any property line that is subject to sound elevations higher than ambient sound as a result of higher or lower topography in the opinion of the acoustical engineer paid for by the applicant and approved by the SPGA. “Ambient” is defined as the background A-weighted sound level that is exceeded 90% of the time measured during the quietest part of the day or night. All testing required by this bylaw shall be done by a licensed professional acoustical engineer chosen by the SPGA and paid for by the applicant. All testing shall be done in accordance with the professional standards of the appropriate accrediting agencies.

G. SAFETY AND ENVIRONMENTAL STANDARDS

1. **Emergency Services** - The *SPVIs* owner or operator shall provide a copy of the project summary, electrical schematic, and site plan to the Leyden Fire Chief and Police Chief. The owner or operator shall cooperate with local emergency services to develop an emergency response plan. All means of shutting down the solar electric installation shall be clearly marked. The owner or operator shall identify a responsible person for public inquiries throughout the life of the installation.
2. **Land Clearing** – Forest removal shall be limited to a maximum cumulative total of 3 acres to prevent erosion, protect water and air quality and to provide climate benefits to protect public health and welfare. Installations shall be constructed in a way to minimize impervious surfaces and disruptions to trees, soil and land. Establish ground cover using native plant species to minimize soil erosion and stormwater runoff in order to prevent adverse impacts to water quality. Forest removal

completed in the two years preceding the site plan review will be counted as part of the 3 acres maximum permitted.

3. **Soil Erosion and Farmland Impacts** – To the maximum extent feasible, the facility should be located to minimize impacts to agricultural land and should be compatible with continued agricultural use. The facility shall be designed to minimize impacts to environmentally sensitive land. Clearing of natural vegetation shall be limited to what is necessary for the construction, operation and maintenance of the *SPVI* or otherwise prescribed by applicable laws, regulations, and bylaws. The design shall minimize the use of concrete and other impervious materials to the maximum extent possible. Locating *SPVIs* on grades in excess of 10% should be avoided to the maximum extent feasible. On parcels with soils classified as prime agricultural soils, as identified by the state’s MASS GIS system, the applicant will prepare a dual use solar and agriculture plan. Information on dual use is available through UMass Clean Energy Extension Program. In no case shall any amount of soil be removed from the site off the property. Any material stripped for structural construction shall remain within and utilized elsewhere on the property.
4. **Habitat Impacts** – To the maximum extent feasible, *SPVIs* shall not be located on Priority Habitat and BioMap 2 Critical Natural Landscape Core Habitat mapped by the Natural Heritage and Endangered Species Program (NHESP) and “Important Wildlife Habitat” mapped by the DEP.
5. **Wetlands Impacts** - The facilities, including the *SPVI* and access roads, shall meet the wetland buffer and river protection standards set forth by the Massachusetts Wetland Protection Act Regulations (310 CMR 10.0), and any additional local wetlands protection bylaws.
6. **Cultural Landscape Impacts.** Protect locations of Indigenous Cultural Resources including sites of Ceremonial Stone Landscapes 1 . Such locations shall be identified based on responses to written inquiries, with a requirement to respond within 60 days, to the following parties: all federally or state recognized Tribal Historic Preservation Offices (THPO) or their designated agents (FRTCAs); the Massachusetts State Historical Preservation Officer (SHPO); tribes or associations of tribes not recognized by the federal or state government but with cultural or land affiliation to Leyden; and the Leyden Historical Commission.

Such written inquiries shall be sent to the parties identified above and shall contain a site plan of the project including identification of the location of the project and all proposed facilities, and a statement that permitting for the project has been applied for. Such written inquiries, accompanied by the site plan, shall request responses from the parties to identify and describe any known locations and characteristics, including photographs, of any Indigenous Cultural Resources sites that may be impacted by the facility. The applicant should allow the THPO and/or their designated agents’ access to the site upon their written request. Site visits should occur as soon as practicable after the application has been submitted.

To protect the cultural resources, only the permitting authorities and project applicant shall have access to the report submitted by the THPO or their or appointed cultural authority. If the THPO or appointed cultural authority identifies one or more Indigenous Cultural Resources or Ceremonial Stone Landscapes, a meeting will be held with the applicant, the THPO or their appointed cultural

authority, and Town and/or federal officials to review policies and procedures, the process of mapping the cultural resources, and possible deed restrictions. A 50-foot boundary shall be established around any identified Indigenous Cultural Resources and/or Ceremonial Stone Landscapes inside of which no work or other disturbance shall take place. A deed restriction may be requested by the Leyden Planning Board to protect the cultural resources identified by the THPO or SHPO. A failure of parties to respond within 60 days shall be deemed non-opposition to the application.

H. MONITORING, MAINTENANCE AND REPORTING

1. **Solar Electric Generating Installation Conditions** - The SPVI owner or operator shall maintain the facility in good condition. Maintenance shall include, but not be limited to, painting, structural repairs, neat landscaping maintenance, and integrity of security measures. Site access shall be maintained to a level acceptable to the local Fire Chief and Emergency Management Director. The owner or operator shall be responsible for the cost of maintaining the SPVI and any access road(s).
2. **Modifications** – All modifications (excluding routine repairs and maintenance) to an installation after issuance of Building Permit and Special Permit, shall require approval by the Building Inspector and SPGA.
3. **Annual Reporting** - The owner or operator of the SPVI shall submit an Annual Report that certifies continued compliance with the requirements of the special permit and report the amount of electricity generated by the facility. The Annual Report shall be submitted to the Selectboard and Planning Board no later than 90 days after the end of the calendar year.

I. ABANDONMENT, DECOMMISSIONING, FINANCIAL SURETY & INDEMNIFICATION

1. **Removal Requirements** - Any SPVI which has reached the end of its useful life or has been abandoned consistent with Section 5.12. 1.3. of this bylaw, 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.
2. **Decommissioning** - Decommissioning shall consist of:
 - a. Physical removal of all SPVIs, structures, equipment, security barriers and transmission lines from the site.
 - b. Disposal of all solid and hazardous waste in accordance with local, state, and federal waste disposal regulations.
 - c. Stabilization or re-vegetation of the site as necessary to minimize erosion. The Planning Board may allow the owner or operator to leave landscaping or designated below-grade foundations in order to minimize erosion and disruption to vegetation.
3. **Abandonment** - Absent notice of a proposed date of decommissioning or written notice of extenuating circumstances, the SPVI shall be considered abandoned when it fails to operate for more than one year without the written consent of the Planning Board. If the owner or operator of the SPVI fails to remove the installation in accordance with the requirements of this section within

150 days of abandonment or the proposed date of decommissioning, the Town retains the right, after the receipt of an appropriate court order, to enter and remove an abandoned, hazardous or decommissioned SPVI. As a condition of Site Plan Review and/or Special Permit approval, the applicant and landowner shall agree to allow entry to remove an abandoned or decommissioned installation. The Town's cost for the removal will be charged to the property owner in accordance with the provisions of M.G.L. 139, Section 3A as a tax lien on the property.

4. **Financial Surety** - Proponents of SPVIs shall provide a form of surety, either through an escrow account, bond or other form of surety approved by the Planning Board to cover the cost of removal in the event the town must remove the installation and stabilization or re-vegetation of the landscape, in an amount and form determined to be reasonable by the Planning Board, but in no event to exceed more than 125 percent of the cost of removal and compliance with the additional requirements set forth herein. Such surety will not be required for municipal or state-owned facilities. The project proponent shall submit a fully inclusive estimate of the costs associated with removal, stabilization, and re-vegetation, prepared by a qualified engineer. The amount shall include a mechanism for calculating increased removal costs due to inflation.
5. **Indemnification** - The owner/operator shall indemnify and hold harmless the Town of Leyden and/or any of its citizens from any and all liabilities, losses and/or damages, including reasonable attorney fees, resulting from the failure of the owner/operator to comply with the terms of this by-law and/or negligence in the operations and maintenance of any structures built in accordance with it. Any surety provided for in this by-law shall be available for the aforementioned indemnification. The current owner is obligated to maintain the surety in its original amount. The developer and/or any subsequent owner shall adhere to the reporting requirements for the indemnification funds as stipulated by the Planning Board at the time of the application for a Site Plan Review and/or Special Permit. Reporting requirements shall include, but are not limited to, an annual reporting of fund balances and compliance with the type of investments allowed by the Planning Board.

J. SPVI SITE PLAN REVIEW

Site Plan Review is conducted by the Site Plan Review Authority (SPRA) to determine conformance with local zoning ordinances or bylaws. For the purposes of this bylaw, the SPRA is the Leyden Planning Board. Site Plan Review acts as a method for regulating as-of-right uses rather than prohibiting them. When evaluating the Site Plan Applications, the Planning Board may not unconditionally deny the Site Plan Applications that meet the requirements of these bylaws, but rather, it may impose reasonable conditions upon them.

Application Requirements - Each application for a Site Plan Review shall be filed by the applicant with the Leyden Planning Board, see Section 5.6. All plans and maps shall be prepared, stamped and signed by a Professional Engineer licensed to practice in Massachusetts. Any application for a commercial SPVI shall contain the following:

1. **Completed Application Form**
2. **Required Documents** - The project proponent shall provide the following documents in addition to or in coordination with those required Special Permit Review under Section 6 of this bylaw.

- a. Architectural, Engineering, and Site Plans showing:
- b. A title sheet with the following:
- c. A title labeling the company, type of proposal and location.
- d. A locus map showing all major roadways within 2000' feet
- e. A map showing other existing or proposed SPVIs within 1,000 feet.
- f. A sheet index describing all parties involved in the project.
- g. A project summary block labeling the applicant, facility address, owner, deed reference, facility parcel number, and current zoning district.
- h. Property lines, map and lot from the Assessor's records, and physical features, including roads and topography, for the project site;
- i. Proposed changes to the landscape of the site, grading, vegetation clearing and planting, exterior lighting, screening, vegetation or structures including their height;
- j. Locations of wetlands as delineated by a wetlands scientist and approved by the Conservation Commission;
- k. Locations of Priority Habitat Areas and Biomap 2 Critical Natural Core Habitat defined by the Natural Heritage & Endangered Species Program (NHESP), "Important Habitat Areas" defined by the DEP, and Permanently Protected Open Space, on or within 100 feet of the property boundary.
- l. Locations of floodplains or inundation areas for moderate or high hazard dams;
- m. Fire protection measures.
- n. Stormwater drainage, including ways that the stormwater will be managed and retained on site using Low Impact Development techniques, and calculations and engineering plans to show how stormwater runoff from the property will not be increased during or after construction or during operation of the installation. The stormwater management plan shall be consistent with the requirements of the Wetlands Protection Act and the stormwater management requirements of Leyden's Subdivision Regulations and employ measures to minimize impervious surfaces at the site.
- o. Existing trees of 10" caliper or better and existing tree/shrub masses; proposed tree removal, planting, landscaping, and screening. Each individual tree does not need to be described; an area that is forested with a continuous canopy greater than 10,000 square feet should be indicated.
- p. A list of any hazardous materials proposed to be located on the site in excess of household quantities and a plan to prevent their release to the environment as appropriate;
- q. Blueprints or drawings of the solar electric installation 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;
- r. One- or three-line electrical diagrams detailing the solar electric installation, associated components, and electrical interconnection methods, with all National Electrical Code compliant disconnects and overcurrent devices;
- s. Documentation of the major system components to be used, including the electric generating components, transmission systems, mounting system, inverter, etc.;
- t. Name, address, and contact information for proposed system installer;
- u. Name, address, phone number and signature of the project proponent, as well as all co-proponents or property owners, if any;
- v. The name, contact information and signature of any agents representing the project proponent;

- w. Documentation of actual or prospective access and control of the project site;
 - x. Provision fire suppression system needed for fire protection;
 - y. A signed Interconnection Service Agreement for the proposed Solar Electric Generating Installation from the applicable utility.
 - z. A report and analysis on any glare that will be produced by the solar panels and proposed mitigation, by a qualified engineer.
 - aa. Proposed installation of native plants that provide habitat underneath and around the perimeter of the Ground-Mounted Solar Electric Generating Installation and measures to prevent the introduction of invasive species.
3. **Operation and Maintenance Plan** - The project proponent shall submit a plan for the operation and maintenance of the Small-scale or large-scale ground mounted *SPVI*, which shall include measures for maintaining safe access to the installation, storm water and vegetation controls, as well as general procedures for operational maintenance of the installation.
 4. **Landscape Plan** - The project proponent shall submit a Landscape Plan detailing all proposed changes to the landscape of the site including vegetation removal and screening of structures. The Landscape Plan shall show the type and location of vegetation to be removed and vegetation proposed to screen the installation including appurtenant structures from public ways and adjacent properties as deemed appropriate by the SPGA (See Section F.g). The Landscape Plan shall identify all portions of the property that contain prime agricultural soils.
 5. **Grading Plan** The project proponent shall submit a Grading Plan detailing all proposed grading, soil erosion and run-off control, and temporary or permanent access roads.
 6. **Proof of liability insurance** (See Section 5.12.D.g);
 7. **Description of financial surety** (see Section 5.12.I.4);
 8. **Sight line representation.** A sight line representation shall be drawn from that portion of any public road within one (1) mile that would have the clearest view of the proposed facility, and the closest facade of each residential building (viewpoint) within one (1) mile of the highest point (visible point) of the solar electric generating installation. Each sight line shall be depicted in profile, drawn at a scale appropriate to represent the sightline. The profiles shall show all intervening trees and buildings;
 9. **Photographs** - existing (before condition) and proposed (after condition) photographs. Each sight line shall be illustrated by one four-inch by six-inch color photograph of what can currently be seen from any public road within one (1) mile. Each of the existing condition photographs shall have the proposed solar electric generating installation superimposed on it to show what will be seen from public roads if the solar electric generating installation is built; and
 10. **Noise documentation** provided by a licensed professional acoustical engineer, approved by the Leyden Planning Board and paid for by the applicant, of projected noise levels to be generated by the SPVI. – See Section 5.12.F.h
 11. **Pesticide Use/Plan** – see Section 5.12.F.e

12. **Dual Use Solar and Agriculture**– If the landscape plan identifies prime agricultural soils on-site, a plan for dual use solar and agriculture shall be submitted.
13. **Additional materials** -- any other drawings, photographs or materials deemed necessary by the Planning Board at a strongly encouraged pre-application meeting to discuss the project, process, waivers, and submittal requirements.
14. **Waivers**-- the Planning Board may waive documentary requirements as it deems appropriate (See Section 5.12.O) .
15. **Procedures** – upon receipt of a complete application for a Site Plan Review, the Planning Board shall review and take action upon the application in compliance with M.G.L. Chapter 40A and Section 5.6 of this bylaw.

K. SPVI SPECIAL PERMIT PROCESS, REQUIREMENTS & ENFORCEMENT

1. **Procedure:** Upon receipt of a complete application for a Special Permit for a *Large-Scale Ground Mounted SPVI*, the Planning Board shall review and take action upon the application in compliance with M.G.L. Chapter 40A. The application should include the full Site Plan Review application, see Section 5.12.J.
2. **Special Permit Approval Criteria** – After notice and public hearing and after due consideration of the evidence submitted, the Leyden Planning Board may grant a Special Permit provided that it finds that:
 - a. The proposed *SPVI* complies with the purposes and intent of this Section 5.12 and the Zoning Bylaw.
 - b. The application information submitted is sufficient for the Planning Board to consider approval of the Special Permit request.
 - c. Documentation regarding potential environmental, scenic, community, and public safety impacts provide sufficient assurance that the project will not result in substantial adverse effects.
3. **Independent Consultants** – Upon submission of an application for a special permit, the Planning Board will be authorized to hire outside consultants at the expense of the applicant, pursuant to section 53G of Chapter 44 of the Massachusetts General Laws.
4. **Expiration** – A permit issued pursuant to this bylaw shall expire if:
 - a. The *SPVI* is not installed and functioning within 24-months from the date the permit is issued; the SPGA can extend the permit based upon evidence of progress and due diligence, or
 - b. The *SPVI* is abandoned.

L. VIOLATIONS

It is unlawful for any person to construct, install, or operate a *SPVI* that is not in compliance with this bylaw or with any condition contained in a Site Plan Review, Building Permit, or Special Permit issued pursuant to this bylaw. Such systems installed prior to the adoption of this bylaw are exempt.

M. ADMINISTRATION AND ENFORCEMENT

This bylaw shall be administered and enforced by the Building Inspector or other official as designated. The Building Inspector may enter any property for which a building permit and special permit has been issued under this bylaw to conduct an inspection to determine whether the conditions stated in the permit have been met. If the permit holder is found not to be in compliance, the Building Inspector may require the applicant to implement all reasonable measures to mitigate unforeseen adverse impacts of the *SPVI* should they occur. The Building Inspector may request submittal of a mitigation plan outlining measures to address unforeseen adverse impacts. The *SPVI* shall cease to operate if found to not be in compliance with the requirements of the special permit, until such time as the Building Inspector has determined compliance.

N. PENALTIES

Any person who fails to comply with any provision of this bylaw or a permit issued pursuant to this bylaw shall be subject to enforcement and penalties as allowed by applicable law.

O. WAIVER OF COMPLIANCE

The Planning Board may waive strict compliance with the requirements set forth in this Section of the Bylaw when in its judgment the application for said waiver meets all of the following criteria 1) in the public interest, 2) not inconsistent with the intent of Section 8 of the Zoning Bylaw, and 3) is justified due to unusual circumstances relating to the lot, land, or the *SPVI*. Any waiver request must be made in writing at the time of application with supporting documentation.

P. SEVERABILITY

The provisions of this bylaw are severable, and the invalidity of any section, subdivision, paragraph, or other part of this ordinance shall not affect the validity or effectiveness of the remainder of the bylaw.
