



TOWN OF CARVER ZONING BYLAW

ARTICLE I. PURPOSE

These by-laws are enacted to promote the general welfare of the Town of Carver; to regulate the use of land throughout the town to protect the health and safety of its inhabitants; to lessen congestion in the streets; to provide adequate light and air; to prevent overcrowding of land; to encourage housing for persons of all income levels; to facilitate the adequate provision of transportation, water, water supply, drainage, sewerage, schools, parks, open space, and other public requirements; to conserve the value of land and buildings, including the conservation of natural resources and the prevention of blight and pollution of the environment; to preserve the cultural, historical and agricultural heritage of the community; and to reduce the hazard from fire by regulating the location and use of buildings and the area of open space around them, all as authorized by the provisions of the Zoning Act, G.L. c. 40A, as amended, and by Article 89 of the Amendments to the Constitution of the Commonwealth of Massachusetts.

ARTICLE II. USE, DIMENSIONAL, AND TIMING REGULATIONS

2100. DISTRICTS

2110. Establishment. For the purposes of this By-Law, the Town of Carver is hereby divided into the following districts:

RESIDENTIAL-AGRICULTURAL	RA
GENERAL BUSINESS	GB
VILLAGE BUSINESS	VB
GREEN BUSINESS PARK	GBP
HIGHWAY COMMERCIAL.	HC
VILLAGE	V
INDUSTRIAL "A"	IA
INDUSTRIAL "B"	IB
INDUSTRIAL "C"	IC
AIRPORT	AP
SPRING STREET INNOVATION DISTRICT	SSID

"Overlay" districts are also hereby created:

- (1) WATER RESOURCE PROTECTION DISTRICT (see Section 4300)
- (2) WETLAND DISTRICT (see Section 4400)
- (3) PLANNED TOURIST COMMERCIAL DISTRICT (PTCD) (see Section 4500)
- (4) WIRELESS COMMUNICATION FACILITIES DISTRICT(WCF) (see Section 4600)
- (5) PLANNED NEIGHBORHOOD DEVELOPMENT (PND) OVERLAY DISTRICT (see Section 2800)
- (6) LANDFILL OVERLAY DISTRICT (see Section 4680)

PART A AMEND 2230

2200. USE REGULATIONS

2210. General. No structure shall be erected or used or land used except as set forth in Section 2230, "Use Regulation Schedule", or in Section 2240, "Accessory Buildings and Uses", unless exempted by Section 2250, or by statute. Uses not expressly provided for herein are prohibited.

Symbols employed below shall mean the following:

- Y A permitted use.
- N An excluded or prohibited use.
- SP A use authorized under special permit from the Board of Appeals as provided under Section 5300.
- SP* A use authorized under special permit from the Planning Board as provided under Section 5300.
- SP# A use authorized under special permit from the Board of Selectmen as provided under Section 5300.

2220. Applicability. When an activity might be classified under more than one of the following uses, the more specific classification shall govern; if equally specific, the more restrictive shall govern.

2230. Use Regulation Schedule

USE REGULATION SCHEDULE											
Principal Use											
<u>C. INDUSTRIAL</u>	RA	HC	GB	VB	V	GBP	IA	IB	IC	AP	SSID
Large-scale ground mounted solar photovoltaic installations	SP*	N	N	N	N	SP*++	SP*	SP*	SP*	SP*++	N
Battery Storage	SP*Y	SP*Y	SP*Y	SP*Y	SP*Y	SP*Y	SP*Y	SP*Y	SP*Y	SP*Y	SP*Y

+ Allowed by right with approval by the Earth Removal Committee under the General Bylaws.

++ Denotes Large Scale Ground Mounted Solar Photovoltaic limited to 15% maximum area within the underlying zoning district

+++ See Section 4950

¹ Outdoor displays and sales of flowers and plants are allowed by special permit in the Village District.

² The raising, breeding, and training of dogs that qualifies as agricultural use under G.L.c. 40A Section 3 shall be allowed on parcels of more than 5 acres in any district. See Section 6.1 of the General By-laws

³ Minimum sites of 5 acres in RA district

⁴ Minimum sites of 5 acres in RA District

⁵ Does not include package treatment plants as accessory uses to subdivision, commercial or industrial development **which are allowed as an accessory use and structure subject to Planning Board Site Plan Review.**

3580.00. LARGE-SCALE GROUND MOUNTED SOLAR PHOTOVOLTAIC INSTALLATIONS

3580.10. Purpose. The purpose of this bylaw is to promote the creation of new large-scale ground-mounted solar photovoltaic installations (LSGMSPI) defined as those with a minimum nameplate capacity of 250 kW or greater or covering 1 acre or more of land, by providing standards for the placement, design, construction, operation, monitoring, modification 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.

The provisions set forth in this section shall apply to the construction, operation, and/or repair of LSGMSPI proposed to be constructed or materially altered after the effective date of this section. To the extent that any particular provision of this bylaw is determined to be invalid, such invalidation shall not affect the validity of any other provision.

Smaller scale ground or building-mounted solar electric installations which are an accessory structure to an existing residential or non-residential use do not need to comply with this Section, but must comply with the other provisions of Carver's Zoning Bylaws as applicable.

3580.15 Exemptions. Notwithstanding any other Zoning Bylaw provisions to the contrary, the following types of solar uses and structures are exempt from the provisions of Section 3580 and are considered as allowed uses and structures and customarily accessory and incidental to permitted principal uses, subject to Planning Board Site Plan Review:

a. Roof-mounted solar electric installations on a new non-residential building within the GBP District; provided, however, that such uses and structures above shall comply with the other provisions of the Carver Zoning Bylaws as applicable, and with health and safety requirements of the Building Inspector and Fire Chief, and/or his/her designee.

3580.20. General Requirements for all Large-Scale Solar Power Generation Installations. The following requirements are common to all LSGMSPI to be sited in designated locations:

3580.21. Site Plan Review. All LSGMSPI shall undergo site plan review prior to construction or modification by the Planning Board, prior to issuance of a building permit to ensure conformity with all applicable bylaws.

3580.21.1. General. All plans and maps shall be prepared, stamped and signed by a Professional Engineer and Professional Land Surveyor licensed to practice in Massachusetts.

3580.21.2. Required Documents. Pursuant to the site plan review process, the project proponent shall provide a site plan showing:

- A) Property lines and physical features, including roads, for the project site;
- B) Proposed changes to the landscape of the site, grading, vegetation clearing and planting, exterior lighting, screening vegetation or structures;
- C) Blueprints or drawings of the solar photovoltaic installation, and one or three line electrical diagrams detailing the solar photovoltaic installation, associated components, and electrical interconnection methods, with all National Electrical Code compliant disconnects and over

current devices signed by a Professional Engineer licensed to practice in the Commonwealth of Massachusetts showing the proposed layout of the system

D) Documentation of the major system components to be used, including makes and models of the PV panels, transformer, inverter, mounting system, and chemicals for cleaning and maintenance of equipment;

E) Name, address, and contact information for proposed system installer, the project proponent (s), and property owners if different;

F) The name, contact information, signature of any agents representing the project proponent; and

i) Documentation of actual or prospective access and control of the project site (see also Section 3580.22);

ii) An operation and maintenance plan (see also Section 3580.23);

iii) District designation for the parcel(s) of land comprising the project site (submission of a copy of a zoning map with the parcel(s) identified is suitable for this purpose);

iv Proof of liability insurance; and

v) Description of financial surety that satisfies Section 3580.53.

The Planning Board may require additional information, data or evidence as it deems necessary pursuant to the site plan review process.

3580.22. Site Control. The project proponent shall submit documentation of prospective access and control of the project site sufficient to allow for construction and operation of the proposed LSGMSPI.

3580.23. Operation & Maintenance Plan. The project proponent shall submit a plan for the operation and maintenance of the LSGMSPI, 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. A ground fuels maintenance plan shall be submitted during the site plan review process and be approved by the Fire Chief. The approved plan shall become a condition of the general site maintenance requirements outlined in section 3580.40.

3580.24. Utility Notification. No proposed LSGMSPI shall be submitted for review until evidence has been given to the Planning Board that the utility company that operates the electrical grid to which the installation is to be connected has been informed of the LSGMSPI owner or operator's intent to install an interconnected customer-owned generator, and that the electrical grid can safely transmit the proposed power output of the installation.

3580.25. Dimension and Density Requirements.

3580.25.1. Setbacks. For LSGMSPI, front, side, and rear setbacks shall be at least 50 feet on the applicant's property; provided, however, that where the lot is located in a Residential-Agricultural district, the setbacks shall not be less than 200 feet on the applicant's property. LSGMSPI shall be provided with 200 foot setbacks on all lot lines abutting the Residential-Agricultural district, regardless of the zoning designated for the proposed site. Vegetated screening shall be provided for a minimum of 50% of the specified setback.

Every abutting property shall be visually and acoustically screened from the installation through either existing vegetation or new plantings of not less than 8 feet in height at the time of planting staggered at a spacing of no more than 8 feet apart throughout the required setback dimensions. All required plantings shall be maintained throughout the project's life, and replaced as necessary. As an alternate to providing the required screening through vegetation, it is acceptable to increase the setback to 600 feet on the applicant's property while providing an acceptable alternate screening such as a stockade fence and single row of vegetation in close proximity to the project.

The provided screening shall obscure from view on all sides at least 50% or 100% if the project is located in the Residential-Agricultural zoning district, of the project from adjacent properties, including upper levels of existing structures at the time of construction, within three years of the start of construction or earthwork activities. Security fences, roadways, and equipment shall not be placed within the required setback, except for that which is required to access the site from an adjacent roadway, or to transmit the generated power to the grid. Access roads and transmission lines shall be placed in such a manner as to not create an unobstructed view of the project from adjacent property lines.

1a) Amend Section 3580.25.1 to allow reduced setbacks for large-scale ground –mounted solar photovoltaic installations (“LSGMSPI”) to a minimum of 50 feet, provided standard setbacks and screening requirements are waived in writing by all direct abutters in a Residential-Agricultural (RA) zoning district. An affidavit signed by all owners of record of all direct abutters within a Residential –Agricultural (RA) zoning district must be on file with the Planning Board and referenced in the Special Permit Decision.

1b) Amend Section 3580.25.1 to allow setbacks to be reduced to a minimum of 12.5 feet by right where abutting arrays are proposed in mutual partnership/ownership or common ownership that transcend existing lot lines.

3580.25.2. Maximum Site Density. For projects with 10-20 acres within the security fence or the inner limits of screening if no security fence, no more than 50% of the receiving lot may be developed. For projects greater than 20 acres, up to 66% of the receiving lot may be developed. The developed area shall include the area of the project within the security fence of inner limits of screening if no security fence, plus all other existing and proposed structures throughout the site.

1c) Amend Section 3580.25.2 to provide that when one project is proposed on multiple contiguous parcels, only one single application is required.

3580.25.3. Appurtenant Structures. All appurtenant structures to LSGMSPI shall be subject to regulations concerning the bulk and height of structures, lot area, setbacks, open space, parking and building coverage requirements contained elsewhere within the zoning bylaws. All such appurtenant structures shall be architecturally compatible with each other and be shaded from view by vegetation and/or joined or clustered to avoid adverse visual impacts. The project shall be designed so that the transformer (s) and inverter (s) are sited in the most remote location practical.

3580.26. Design Standards

3580.26.1. Lighting. Lighting of LSGMSPI 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, shall be shielded to eliminate glare from abutting properties, shall be directed downward, and shall incorporate cut-off fixtures to reduce light pollution.

3580.26.2. Signage. Signs on LSGMSPI shall comply with the Town of Carver's sign bylaw, Section 3500. Signage at all site entrances shall be required to identify the owner and provide a 24-hour emergency contact phone number. LSGMSPI shall not be used for the display of any advertising.

3580.26.3. Utility Connections. All utility connections from the LSGMSPI shall be placed underground, unless soil conditions, shape, or topography of the site and any requirements of the utility provider dictate above ground installation. Electrical transformers for utility interconnections may be above ground if required by the utility provider.

3580.26.4. 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 DEP pursuant to Mass 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 LSGMSPI, including the photovoltaic panels or transformer (s), then impervious containment areas capable of controlling any release to the environment and to prevent potential contamination of groundwater are required.

3580.30. Safety and Environmental Standards.

3580.31. Emergency Services. The LSGMSPI owner or operator shall provide a copy of the project summary, electrical schematic, as built plans, and site plan to the Fire Chief and Emergency Management Director. Upon request, the owner or operator shall cooperate with local emergency services in developing an emergency response plan. All means of shutting down the LSGMSPI shall be clearly marked, and training required to allow emergency response personnel to safely shut down the LSGMSPI in event of an emergency provided at no cost to the Town as requested by the Town. The owner or operator shall identify a responsible person for public inquiries throughout the life of the installation, all changes shall immediately be brought to the attention of the Town. Site access to LSGMSPI shall be conducive to emergency vehicle travel to allow for unimpeded access around the site at all times. Access requirements, not limited to gating, road widths and surfaces, etc. will be reviewed during the site plan review process, with approval being at the discretion of the Fire Chief.

3580.32. Land Clearing, Soil Erosion and Habitat Impacts. Prior to any site disturbance and construction, the limits of the approved buffer zones and any other approved site disturbances, shall be surveyed and clearly marked by a Professional Land Surveyor. Upon completion of the survey, the Professional Land Surveyor shall verify to the Planning Board, in writing, that the limit of work, as shown on the approved site plans, has been established on site. Clearing of natural vegetation shall be limited to what is necessary for the construction, operation and maintenance of the LSGMSPI or otherwise prescribed by applicable laws, regulations, and bylaws.

3580.33. Control of Vegetation. Mowing or the use of pervious pavers or geo-textile materials underneath the LSGMSPI is the preferred method of vegetation control. Herbicides may only be used where it can be demonstrated that no danger is posed to groundwater supplies, or to local agricultural activities. The Agricultural Commission and Board of Health are to approve all proposed herbicides.

3580.34. Panel Maintenance. Any and all materials used for maintenance of the LSGMSPI or other structures shall be properly disposed of and no harmful chemicals shall be used.

3580.40. Monitoring and Maintenance.

3580.41. Large-Scale Solar Photovoltaic Installation Conditions. The LSGMSPI owner or operator shall maintain the facility in good condition, including but not be limited to, snow removal, painting, structural repairs, maintenance of landscaping and required screening, and integrity of security measures. Site access shall be maintained to a level acceptable to the local Fire Chief and Emergency Medical Services. The owner or operator shall be responsible for all maintenance.

3580.42. Modifications. All material modifications to a LSGMSPI made after issuance of the required building permit shall require site plan review and approval by the Planning Board for continued compliance of all applicable bylaws.

3580.43. Annual Reporting. The owner or operator of the LSGMSPI shall submit an Annual Report demonstrating and certifying compliance with the Operation and Maintenance Plan and the requirements of this bylaw and their approved site plan including control of vegetation, maintenance of screening, adequacy of road access, information on the maintenance completed during the course of the year, and the amount of electricity generated by the facility. 6 copies of the report shall be submitted to the Board of Selectmen no later than 45 days after the end of the calendar year.

3580.50. Abandonment or Decommissioning

3580.51. Removal Requirements. Any LSGMSPI which has reached the end of its useful life, or has been abandoned consistent with Section 3580.52 of this bylaw, shall be removed no more than 120 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:

3580.51.1. Physical removal of all LSGMSPI, structures, equipment, security barriers, and transmission lines from the site.

3580.51.2. Disposal of all solid and hazardous waste in accordance with local, state, and federal waste disposal regulations.

3580.51.3. Stabilization or re-vegetation of the site as necessary to minimize erosion and runoff.

3580.52. Abandonment. Absent notice of a proposed date of decommissioning or written notice of extenuating circumstances, the LSGMSPI shall be considered abandoned when it fails to operate for more than sixty days without the written consent of the Board of Selectmen. As a condition of approval, if the owner or operator of the LSGMSPI fails to remove the installation in accordance with the requirements of this section within 120 days of abandonment or the proposed date of decommissioning, the Town may enter the property and physically remove the installation. The costs for the removal may be charged to the property owner.

3580.53. Financial Surety. Proponents of LSGMSPI shall provide a form of surety through an escrow account to cover the cost of removal in the event the Town must remove the installation and remediate the landscape, in an amount determined to be reasonable by the Planning Board and form determined to be reasonable by the Treasurer, but in no event to be less than 75 percent nor 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 municipally or state-owned facilities. The project proponent shall submit a fully inclusive estimate of the costs associated with removal, prepared by a qualified expert, which shall include a mechanism for calculating increased removal costs due to inflation.

The financial surety may also be used to replace and maintain all required landscaping and vegetative screening when in the opinion of the Planning Board the owner/operator has failed to do so. All costs incurred by the Town for maintenance activities shall be paid by the property owner within 90 days, or the maintenance costs may be charged to the property owner.

3580.60. Special Permit for LSGMPI. In the event that a Special Permit is required for a LSGMPI, the planning board may grant a Special Permit if the following conditions are met:

1. Such use will not nullify or substantially derogate from the intent or purpose of this bylaw;
2. Such use will not constitute a nuisance;
3. Such use will not adversely affect the neighborhood in which it is sited;
4. Such use complies with the standards for site plan review as spelled out in this bylaw;
5. The Planning Board may also provide for other conditions that it deems necessary.

**3580.70. Dual Use Large Scale Ground-Mounted Solar Photovoltaic Installations
("LSGMPI")**

2a) To add a new Section addressing required setbacks and screening for SMART/Dual Use Arrays as described below:

	SMART/Dual Use Array			
	Array Height	Setback	% Screening in Setback	Abutters Notification
Residential - Agricultural	8'+	200*	100**	300'
	* Planning Board may reduce setbacks, but in no instance shall setbacks be less than 25' when abutting a Residential/Agricultural district.			
	** 100% screening shall be attained from the greater of abutting street grade or yard grade. Topographical situations may require flexibility in either setback or screening decisions.			

2b) To allow setbacks of a minimum of 12.5 feet if arrays are abutting a bog or other agricultural use as defined in G.L. c. 128, § 1A provided standard setbacks and screening requirements are waived in writing by all direct abutters in a Residential-Agricultural (RA) zoning district.

2c) To allow setbacks of a minimum 25 feet provided standard setbacks and screening requirements are waived in writing by all direct abutters in a Residential-Agricultural (RA) zoning district.