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ENVIRONMENTAL CONSULTANTS

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Special Permit/Site Plan Review for Ground Mounted Solar Array

Williamsburg East Street Solar, LLC

Prepared for

Dynamic Energy Solutions, LLC

Prepared by

SWCA Environmental Consultants

September 7, 2017

SWCA Project #43889



**SPECIAL PERMIT/SITE PLAN REVIEW FOR
GROUND MOUNTED SOLAR ARRAY**

Prepared for

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Marlborough, MA
01752

Prepared by

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September 7, 2017
SWCA Project # 43889

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Appendix B:	Protected Species Review Report, August 2017
Appendix C:	Historical and Cultural Resource Assessment, August 2017
Appendix D	Three-line Electrical Diagram
Appendix E:	Equipment Detail Sheets
Appendix F:	Notice of Lease
Appendix G:	Operation & Maintenance Plan
Appendix H:	Certificate of Liability Insurance, Interconnection Initial Review Memo and Decommissioning and Financial Surety Plan

Permitting Plans

Plan Set prepared by SWCA Environmental Consultants and Dynamic Energy Solutions, LLC, Trove Engineering, Berkshire Design Group. Williamsburg East Solar, LLC. Dated: September 7, 2017

Sheet 1.0	Cover Sheet
Sheet 2.0	Existing Conditions/Survey Plan
Sheet 3.0	Key Plan

Sheet 4.0 Proposed Array/Access Road
Sheet 4.1 Proposed Array
Sheet 4.2 Proposed Array

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1.0. INTRODUCTION

SWCA Environmental Consultants (SWCA), on behalf of Dynamic Energy Solutions, LLC. (Dynamic) has prepared this permit application for a 4.0 MW (AC) solar energy system identified as Williamsburg East Solar, LLC. The project is located on an approximately 370-acre parcel in Williamsburg identified by its deed reference as Parcel 9 of the Packard-Hanifin Lots in the 6092-126 deed to Hull Forestlands, LP, the owner. Parcel 9 covers Williamsburg assessors Map A Lots 2, 3, and 4. This project is located within Lot 4, on what is currently an approximately 30-acre active sand and gravel removal operation. The listed address for the full parcel is 103 Briar Hill Road, Williamsburg, MA, and is currently zoned as Rural Residential (RU) use. Access to this parcel is from an existing private gravel road located at 699 East Street in Goshen, MA. The solar energy system will be constructed on approximately 18.5 acres of this 370-acre parcel, which also includes the existing access road in Williamsburg. Figure 1, Figure 2, and Sheet 1.0 illustrate the parcel.

The applicant is requesting approval to install this solar energy system on a parcel zoned as RU. Therefore, a Special Permit application is being submitted in accordance with Section 5 of the Town's Zoning Bylaw, as well as an application for Site Plan Review (Section 6). This submittal has also been prepared in accordance with the Town's Ground-mounted Solar Photovoltaic (Section 9.301 of the Town's Zoning Bylaw). Property owners within 300 feet of the subject site will be notified as part of the permitting process. A copy of the abutters list obtained from the Williamsburg Assessors office and also the Goshen Assessors office is presented in Appendix A.

This project has been designed to add no new impervious surfaces beyond support pads for the electrical equipment. The existing road that extends from East Street in Goshen, to the sand and gravel operation, will be utilized to access the solar energy system. The project will utilize existing topography as much as possible, but grading within the current sand and gravel pit will be required. There will be no extensive tree clearing as the project will utilize the foot print of the existing open sand and gravel pit. Utility lines will be installed on poles that will be installed along the length of the access road to the intersection of East Street.

Pursuant to Section 9.30-3.1 of the solar zoning bylaw, the construction and operation of the solar array will be conducted in accordance with all applicable local, state and federal requirements. The applicant understands that if substantial use or construction has not commenced without good cause within two (2) years from the date of issuance of a Special Permit, including the time required to pursue or await the determination of an appeal, the Special Permit will lapse.

The applicant also understands that they must provide an annual reporting no later than June 30 of each year. The applicant will also implement measures to maintain the system in good condition throughout the life of this array as required by Section 9.30-11.1 of the solar bylaw, and has included an operation and maintenance plan in this submittal. Access to the property by local emergency services, including the Fire Department will be made available. Any future material modifications to the system made following issuance of the permit will only be made after approval by the Planning Board.

1.1. General Site Information

The site is currently utilized as a sand and gravel pit and is almost completely void of vegetation and is surrounded by forested land in all directions. There are no structures present at this site, and the closest residence is approximately 300-feet feet to the northeast. The solar energy system will not be visible from this residential property.

As part of the evaluation of this site for use in constructing the solar energy system, a wetland delineation and assessment was conducted by SWCA's Professional Wetland Scientist in the immediate area of the proposed work and access road. This included review of MassGIS data layers and FEMA Flood Insurance Rate Maps (FIRM) to evaluate the potential presence of wetlands and 100-year flood zones. The FIRM maps (Figure 3) indicate that there are no 100-year flood zones at this location.

The field delineation and assessment was conducted to determine the presence or absence of jurisdictional resources area as governed by state, local and Federal regulations. Locations of jurisdictional resource areas were located and included on the plan set developed for this project, and the location of the solar energy system has been designed to be outside any resource areas. These resource areas are illustrated on Sheet 2.0 and 2.1

Soils mapped the sand and gravel pit, is mapped as a gravel pit and Hinckley loamy sand, which is an excessively drained soil formed in an outwash plain. The land to the east is mapped as Woodbridge fine sandy loam. This is a very stony, moderately well-drained soil with 8-15 percent slopes. The land to the west of the proposed array is mapped as Pillsbury-Peacham-Wonsqueak association. This a poorly drained soil with 0 to 8 percent slopes. The southwest corner of the sand and gravel pit is mapped as Charlton-Rock outcrop/Hollis complex, which is bedrock parent material composed of granite and gneiss, and the southeast corner of the parcel is mapped as Paxton fine sandy loam, which is a very stony, well-drained soil with 8 to 15 percent slopes.

As part of evaluating the subject sites for use for a solar energy system, SWCA completed due diligence tasks that included a protected species review of state and Federally listed endangered species that could potentially be found on the parcels. SWCA also completed due diligence related to the potential for cultural resources to be found on the parcels where work is proposed.

SWCA reviewed the NHESP Priority Habitats of Rare Species¹ GIS datalayer to determine if project review by the Massachusetts Natural Heritage and Endangered Species Program (NHESP) is required for this project. Under the Massachusetts Endangered Species Act (MESA), project review is required when construction is planned to occur within mapped Priority Habitat.

No portion of the property contains Priority Habitat (Figure 4); therefore, no action is required under state regulations. SWCA submitted a MESA Request to the NHESP and received correspondence confirming the absence of regulated rare species habitat within the Project Area.

A Federal database search for all Federally-designated threatened or endangered species, candidate species, and otherwise protected species through the USFWS New England Office website². Following their consultation procedures, SWCA determined that Northern Long-eared Bat (*Myotis septentrionalis*) (NLEB), a Federally-Threatened species, has the potential to occur within both Project Areas. No other Threatened and Endangered Species are of concern in the Town of Williamsburg. SWCA also accessed the USFWS Information for Planning and Conservation (IPaC) website³, to search for Critical Habitat and migratory bird species of particular conservation concern that have the potential to occur on the subject parcel. The IPaC report listed 12 migratory bird species (Table 1 of the attached report-Appendix B). There are no Critical Habitats designated at these locations.

To evaluate potential cultural resources, SWCA's Registered Professional Archeologist reviewed the projects Limit of Development (LOD) to determine the likelihood of the project encountering historic or cultural resources. This evaluation identified one resource area in the project area, the Old Williamsburg Road Cemetery. Completely surrounded by the sand and gravel pit, the cemetery contains five headstones with dates that ranged from 1788 and 1826. It was unclear how many graves are present due to the poor preservation of the burial yard. The remote nature of the graveyard likely indicates that it was a family

plot as opposed to a community graveyard. The National Register of Historic Places status of the graveyard is undetermined. A copy of the CR letter of review is presented in Appendix C.

2.0. ZONING SPECIAL PERMITS (SECTION 5)

Special Permits are intended to provide detailed review of certain uses and structures, which may have substantial impact upon traffic, utility systems, and the environment, among other things. The Special Permit review process is intended to ensure a non-detrimental relationship between proposed development and its surroundings, and to ensure that the proposals are consistent with the purpose and intent of this Bylaw.

2.1. Actions by the Applicant (5.3)

2.1.1. Application (5.3.1 and 5.3.2)

The applicant has prepared a Special Permit Application, and has provided the filing fee of \$250.00. Six (6) copies of this permit application, supporting text, project plans and the Williamsburg and Goshen abutters lists have been filed with the Zoning Board of Appeals. One copy has been filed with the Town Clerk. In addition, copies of the Site Plan Review Application and supporting documents have been provided to the Planning Board with the filing fee of \$250.00.

2.1.2. Filing fee (5.33 and 5.34)

Filing fee to cover the expense of legal notices and administration costs have been submitted to the Zoning Board of Appeals. Property owners within 300 feet of the subject site will be notified as part of the permitting process. A copy of the abutters list obtained from the Williamsburg Assessors office and Goshen Assessors office is presented in Appendix A.

2.1.3. Signage (5.35)

There will be no signs associated with the construction of this project other than a signs mounted to the fence at the entrance to the solar energy system. This sign will provided the name, address, and telephone number of the responsible representative to be contacted if needed.

2.2. Actions by the Zoning Board of Appeals (5.4)

The applicant has reviewed Section 5.4 of the Special Permit Bylaw and understands the role of the Zoning Board of Appeals. It is understood that following receipt of this Application for a Special Permit, a public hearing will be scheduled and a notice of this hearing posted at least fourteen days prior to the hearing. The Notice of the Public Hearing shall include: (1) name of the applicant; (2) a description of the area or premises including a street address, if any; (3) the date, time and place of the public hearing; (4) the subject matter of the hearing; and (5) the nature of the action or relief requested.

The applicant also understands that the public hearing for this project will be opened no later than sixty-five (65) days after the date that the Special Permit application is filed with the Town Clerk and that the Board will take final action on the application within ninety (90) days of the close of the public hearing. It is also understood that the Board may conduct a site visit as part of the review process.

2.3. Special Permit Criteria (5.5)

The project has been designed to meet the criteria outlined in Section 5.5 of the Town's Zoning Bylaw. This includes the following:

- a) There will be no building structure at the site, only the equipment associated with the solar energy system. This includes the panels, which will be mounted on a rack system. Inverters will also be located at this site and connected to the energy system.
- b) When constructed, the solar energy system will not impact air or water, and will not increase noise levels.
- c) The project will comply with any additional Special Permit criteria or special use regulations, if requested of the applicant.
- d) The project will not adversely impact surface water or groundwater during or after construction. During construction erosion and sediment controls will be installed as shown on site plans provided. These controls will keep sediment within the work area so it does not make its way to a surface water. The project is also being designed with stormwater management practices that will maximize groundwater recharge.
- e) There will be no generation of sewage or waste as part of this project.
- f) The project is being constructed within the footprint of an existing sand and gravel pit, which is greater than 200-feet from the property boundaries of the overall parcel. The wooded areas surrounding the existing sand and gravel operation will remain. As such, the solar energy system will not be visible to residential properties.

2.4. Site Plan Requirements (5.6)

SWCA has prepared this supporting document and plan set in accordance with Section 5.6. The proposed location of the array and access roads are presented on Sheets 4.0, 4.1 and 4.2.

2.5. Conditions, Safeguards, Limitations (5.7)

The applicant understands that the Zoning Board of Appeals, in granting a Special Permit, may in accordance with MGL Chapter 40A, impose conditions, safeguards and limitations to be enforced in accordance with Section 7. These conditions would be imposed in writing and made part of the Special Permit. Conditions that could be enforce include:

Front, side and rear yards will be met as part of this project. It is understood that screening buffers or planting strips, fencing or walls may be conditioned by the Zoning Board of Appeals.

There will be no occupants at the site or permanent buildings.

There will be no driveways, traffic features or off street parking or loading associated with this project.

This project will not require additional screening as the nearest property boundary to the project is approximately 300 feet (northern boundary) and the solar energy system is surrounded by woods.

The project will not increase environmental pollution. There will be no impact to air, noise, surface water, groundwater, or other potential environmental conditions.

The Applicant understands that performance bonds or other security to ensure that the project meets the conditions specified in the Special Permits may be conditioned.

2.6. Lapse of Permit (5.9)

Pursuant to Section 9.30-3.1 of the solar zoning bylaw, the construction and operation of the solar array will be conducted in accordance with all applicable local, state and federal requirements. The applicant understands that if substantial use or construction has not commenced without good cause within two (2) years from the date of issuance of a Special Permit, including the time required to pursue or await the determination of an appeal, the Special Permit will lapse.

2.7. Change, Alteration, or Expansion (5.10)

The applicant understands that any substantial change, alteration, or expansion of a use allowed by Special Permit shall require a new special permit from the Zoning Board of Appeals.

3.0. SITE PLAN REVIEW (SECTION 6)

The applicant is submitting an application for Site Plan Review in association with a 4.0 MW AC solar energy system, as required by the Town of Williamsburg's Zoning Bylaw.

3.1. Purpose (6.1)

The applicant has prepared the required Site Plans, applications and supporting documentation to meet the purposes of the Bylaw. The solar energy system has been designed in a manner that protects visual and environmental qualities at this property and property values of the Town. Adequate and safe access to the site is available and will not alter current conditions in a manner that would make it unsafe to pedestrians. The project will not impact or increase air, noise, surface water, groundwater, or other potential environmental conditions.

3.2. Application (6.2)

3.2.1. Submission

The applicant, on behalf of the current owner of record is submitting six (6) copies of the Site Plan and one (1) electronic copy of the submission.

3.2.2. Fees

A fee of \$250 is provided with this submittal.

3.3. Required Site Plan Content and Procedures for Site Plan Review (6.3 & 6.2)

The supporting plan set developed for this project was prepared, and stamped by a Massachusetts Registered Engineer, Landscape Architect and Electrical Engineer. The plan set has been prepared in a manner to show all of the plan set requirements, as are applicable. These plans are provided on 24 X 36 – inch sheets. The Site Plan Review application and Special Permit application are being submitted simultaneously to the Town of Williamsburg, and the applicant understands the period of review for a Special Permit requiring Site Plan Review.

3.4. Site Plan Review Criteria (6.5)

The construction of the proposed solar energy system has been developed in accordance with the Site Plan Review Criteria. As outlined Section 6.5 the following applies:

- a) The development is utilizing the existing terrain and surrounding landscape of the sand and gravel pit at this site. The energy system is being constructed in the foot print of this current use and will not be seen by abutting properties.
 1. The project is designed to avoid wetlands and jurisdictional resource areas, and the site is not located within a floodplain as determined by the FIRM Maps (provided as Figure 3 in the Figure Section of this document). The proposed location of the solar energy system is relatively flat due to the current use as a sand and gravel pit, and limited grading will be required for the project.
 2. This project will not obstruction scenic view and is not visible to the public.
 3. The one historical feature at the site is the Old Willamsburg Road Cemetery. The sand and gravel operations have been conducted around this cemetery over the years. The installation of the solar energy system will not impact this cemetery.
 4. The project will not require significant tree cutting or vegetation removal. Some grading will be conducted so the system equipment can be installed.
 5. The construction of the solar energy system will be limited to the 18.5 acres of the 370-acre parcel.
 6. Screening will not be required.
- b) This project will not require town sewer, water or waste disposal systems.
- c) Access to the project will be from East Street in Goshen. This access is currently utilized as part of the sand and gravel operations. Construction vehicles will utilize this same access, in a similar frequency to that of the sand and gravel operation. Following construction site access will be limited to bi-monthly site visits by a technician. There will be no increase to average or daily peak-hour traffic and the project will not impact the safety of pedestrians.
- d) During the construction of the energy system a sediment and erosion control plan will be implemented so that sediment does not leave the site, or impact environmentally sensitive areas. A Storm Water Pollution Prevention Plan will also be developed and a Notice of Intent application filed with the U.S. Environmental Protection Agency. A Stormwater Report and

supporting calculations were also developed for this project, evaluating pre- and post-construction values.

A Stormwater Report has been prepared by a Professional Engineer to evaluate and compare stormwater run-off for pre- and post-construction conditions. The stormwater calculations were performed utilizing the Hydro CAD Stormwater Modeling System version 10.0. The analysis of hydrology showed that there is a significant reduction in runoff rates predicted by the modeling. Assuming the ground cover is converted from the present open sand condition to a vegetated array with a deep root system runoff is predicted to be eliminated for the 2 and 10-year events (i.e. all precipitation infiltrates on site). Flows for the 100-year event were predicted to occur but are only a few percent of the existing values.

This is described in detail within the Stormwater Management Report provided as a separate document.

- e) The electrical utilities associated with this project will be installed on poles that extend along the access road from the solar energy system to East Street.
- f) There will be a construction laydown area utilized at the time of construction. This area will be within the area of the current sand and gravel pit. This area will not be visible to adjacent parcels. There will be no buildings associated with the system, and the panels and inverters will not be visible to adjacent parcels.
- g) There will be no outdoor lighting associated with this system once constructed.
- h) Noise will not be generated by the solar panels/inverters at a level that will extend beyond the property line.
- i) The Site Plans prepared comply with all applicable sections of the Williamsburg Bylaw.

4.0. GROUND-MOUNTED SOLAR PHOTOVOLTAIC INSTALLATION REQUIREMENTS (SECTION 9.3)

4.1. Purpose (9.30.1)

The applicant is requesting approval to install this solar energy system on the subject site, which will require a Special Permit from the Williamsburg Zoning Board of Appeals per Section 9.30. In addition, an application is being submitted in accordance Site Plan Review (Section 6).

4.2. Applicability (9.30.2)

The subject project is proposed for construction in an area zoned RU and the project will be between 1.25 and 20 acres. Therefore, a Special Permit is required.

4.3. General Requirements for All Solar Power General Installations (9.30.3)

The following requirements are common to all ground-mounted solar photovoltaic installations propose to be sited in designated locations.

4.3.1. Compliance with Laws, Ordinances and Regulations (9.30.3.1)

The construction and operation of the proposed solar energy system will meet all local, state and federal requirements, including but not limited to all applicable safety, construction, electrical, and communications requirements.

4.3.2. Building Permit (9.30.3.2)

A building permit will be obtained from the Building Inspector prior to construction.

4.3.3. Site Plan Review (9.30.3.4)

The proposed solar energy system will be larger than 1.25 acres and the applicant understands a Site Plan Review application is required. All documents for this project have been developed to meet the requirements of Section 6 of the Williamsburg Zoning Bylaw.

4.3.4. General Site Plan Review Requirements (9.30.4.1)

The project plans and documents have been prepared and stamped by a Professional Engineer licensed to practice in Massachusetts, and Electrical Engineer, and a Landscape Architect.

4.3.5. Required Documents (9.30.4.2)

The site plans have been prepared to illustrate the following:

- a) A site plan showing:
 - i. All property lines and physical features, including roads for the project site, wetlands, wildlife corridors and other relevant features are illustrated on the plan set.
 - ii. Tree cover at the site is not applicable as the proposed work area is in an existing sand and gravel pit and has previously had extensive alteration and previous tree removal. Trees will surround the energy system on all sides, but these trees will not shade the array and tree cutting will not be required. Some tree limbs along the access route will be trimmed during pole installation.
 - iii. Proposed changes to the landscape of the site are shown on the plan set, including roads, grading, and work areas. There will be no vegetation clearing, parking areas or exterior lighting. Vegetation screening will not be required as the site is located approximately greater than 300-feet from the nearest property boundary.
 - iv. Project plans, showing the solar photovoltaic installation, have been prepared by Professional Engineer, Ecological Landscape Designer and Electrical Engineers. Plans are stamped and signed as required.

- v. A three-line electrical diagram detailing the solar photovoltaic installation, associated components, and electrical interconnection methods, with all National Electrical Code compliant disconnects and overcurrent devices is provided and stamped by an Electrical Engineer. This is presented in Appendix D.
- vi. The solar energy collection systems will be constructed using photovoltaic solar panels. The panels will be installed on a pile driven mounting system, and string inverters will be utilized for each system. Examples of typical major system components that could be used are provided in Appendix E.
- vii. The name, address, and phone number of the proposed system installer is:
 - Dynamic Energy Solutions, LLC
 - 550 Liberty Ridge Drive, Suite 310
 - Wayne, PA 19087
 - 484-323-1156
 - Greg Boyer, VP Operations
 - gboyer@dynamicenergyusa.com
 - www.dynamicenergyusa.com
- viii. Name, address, and contact information for the project proponent is:
 - Dynamic Energy Solutions, LLC
 - 1550 Liberty Ridge Drive, Suite 310
 - Wayne, PA 19087
 - 484-323-1156
 - Greg Boyer, VP Operations
 - gboyer@dynamicenergyusa.com
 - www.dynamicenergyusa.com
- ix. The name, contact information and signature of any agents representing the project proponent is:
 - SWCA Environmental Consultants
 - 15 Research Drive
 - Amherst, MA 01002
 - Direct: 413.658.2062 | Fax: 413.256.0202
 - Valerie Miller
 - Vmiller@swca.com
- b) The project site is owned by Hull Forestlands, LP. A Notice of Lease to Dynamic is provided in Appendix F.
- c) An operation and maintenance plan is provided in Appendix G.
- d) Zoning district designation for the parcel(s) of land comprising the project site are illustrated on Sheet 1, the Cover Sheet.
- e) Proof of liability insurance is presented in Appendix H.
- f) The Applicant will provide a financial security, either in form of bond, letter of credit, or otherwise, prior to the issuance of a building permit, to cover the cost of removal of the system in the event the Town must remove it and remediate the landscape.
- g) The submittal of a pre- and post-construction color photorealistic visualization is not applicable as the proposed solar energy system will not be visible from any adjacent parcel or street. This is based on the following:
 - While the project is in a rural residential district, the nearest current house is 850 feet away.

- The nearest possible future residential development to the west, per the set-back regulations for residentially zoned parcels would be greater than 400-feet from the west side of the subject parcel. The project would not be visible to any future home.
- To the south where residential properties exist on Route 9, these residential homes are lower in elevation than the area where the energy system will be installed. These residents will not see the system due to this elevation change. In addition, the construction of the solar energy system will be on a smaller portion of the existing sand and gravel pit footprint. Specifically, to the south, vegetation will be allowed to grow and will likely provide additional screening to the south where residential homes are currently located.
- The proposed array will not be visible from any property boundary and it will be surrounded by trees. Developing 4 visual perspectives will only show trees for pre- and post- construction conditions.

4.4. Site Control (9.30.5)

The project site is owned by Hull Forestlands, LP. A Notice of Lease to Dynamic is provided in Appendix H.

4.5. Operation and Maintenance Plan (9.30.6)

An operation and maintenance plan for this project is presented in Appendix G.

4.6. Utility Notification (9.30.7)

Dynamic has submitted an application to National Grid for interconnecting the proposed system. A copy of the Initial Review Memo, which is provided by National Grid after acceptance and review of an applicant's Interconnection Application is provided in Appendix H.

4.7. Dimension and Density Requirements (9.30.8)

4.7.1. Setback and Height Requirements (9.30.8.1)

In accordance with Section 9 - District Locations and Area Provisions, no building or structures can be constructed within 40-feet of a property line along a public way or within 15-feet of a side lot or rear lot line. The solar energy system is not located within 40-feet of a public way, and it will not be constructed within 15-feet of a property boundary. The solar energy system is approximately 400 feet from the western boundary, 650-feet from the southern boundary, and approximately 300-feet from the north/northeast property boundary. Equipment will not exceed a maximum height of 30-feet.

4.7.2. Lot Coverage (9.30.8.2)

The lot coverage requirements of Section 9.3 of the Williamsburg Zoning Bylaw do not apply to ground-mounted solar photovoltaic installations.

4.7.3. *Appurtenant Structures (9.30.8.3)*

All appurtenant structures to the proposed system will comply with the requirements of Section 9.2 Accessory Structures of the Williamsburg Zoning Bylaw.

4.8. *Design Standards (9.30.9)*

4.8.1. *Lighting (9.30.9.1)*

There is no lighting associated with the subject project.

4.8.2. *Signage (9.30.9.2)*

There is no proposed signage, with the exception of a sign on the entrance gate that will provide emergency contact information.

4.8.3. *Utility Connections (9.30.9.3)*

The utility connection between the project and National Grid will require the installation of overhead poles along an existing private gravel access road between the project and the point of interconnection with National Grid, at 699 East Street in Goshen. Approximately 900 feet of this overhead electrical line is within Williamsburg, while the remaining distance is through Goshen. The topography, existing conditions, and distance between the project and the point of interconnection make overhead poles the most feasible and appropriate manner of electrical connection.

4.8.4. *Landscaping (9.30.9.4)*

This project has been developed to maintain on-site infiltration of stormwater, and areas beneath the arrays will be re-vegetated with a seed mix with native species. The seed mix does not include species found in Massachusetts Prohibited Plant List” maintained by the Massachusetts Department of Agricultural Resources. Application of any herbicides at the site, if needed, will be applied by Massachusetts licensed applicators. The vegetation at the site will be maintained in accordance with the Operation and Maintenance Plan developed for this project.

4.8.5. *Parking and Access (9.30.9.5)*

There will be no parking areas associated with this project.

4.8.6. *Visual Impact Mitigation (9.30.9.6)*

Visual impact mitigation will not be required as the project is proposed for an existing sand and gravel pit that is not visible from any of the parcels property boundaries. In addition, trees/woods surround the foot print of the sand and gravel pit and will remain following installation of the solar energy system.

4.9. Safety and Environmental Standards (9.30.10)

4.9.1. Emergency Services (9.30.10.1)

The Applicant will provide this application, the electrical diagram, and project plans to the Williamsburg Fire Chief. Upon request. The applicant will also work with the local emergency services in developing an emergency response plan, if they request one. Owner and operation information is provided in this application and will be provided in any future emergency plans requested of the Applicant.

4.9.2. Land Clearing, Soil Erosion and Habitat Impacts (9.30.10.2)

There will be no tree or vegetation clearing as the proposed energy system is will be within the footprint of the existing sand and gravel pit that is already void of vegetation.

4.9.3. Preservation of Trees (9.30.10.3)

There will be no tree clearing proposed with this solar project.

4.9.4. Wildlife Corridors (9.30.10.4)

As part of the construction of the solar energy system a seven-foot high chain link fence will be installed around the system components. The fence will be installed six-inches off the ground so it will not impede the movement of small ground animals.

4.9.5. Sound Levels (9.30.10.5)

The project system will not create sound levels that would be detectable beyond the parcel boundaries.

4.9.6. Hazardous Materials (9.30.10.6)

Hazardous materials will not be stored, used, or generated as part of this project.

4.10. Monitoring and Maintenance (9.30.11)

4.10.1. Solar Photovoltaic Installation Conditions (9.30.11.1)

The Applicant will maintain the facility in good condition and has provided an Operation and Maintenance Plan with this document. Access to the system will be provided to a level acceptable to the Williamsburg Fire Chief, Building Inspector and Electrical Inspector.

4.10.2. Modifications (9.30.11.2)

The applicant understands that any material modifications to a solar photovoltaic installation made after issuance of the required building permit shall require approval by the Planning Board.

4.10.3. Annual Reporting (9.30.11.3)

The applicant, owner or operator of the installation shall submit an Annual Report which certifies compliance with the requirements of this bylaw and the approved site plan. The Annual Report shall also provide information on the quantity of electricity generated, the percentage of generated electricity that was used off site, and maintenance completed during the course of the year. The Annual Report shall include a reasonable photo survey of the installation. The report shall be submitted to the Select Board and the Planning Board no later than June 30 of each year. The owner or operator shall allow and make arrangements for an authorized agent of the Town of Williamsburg to enter the property to verify the contents of the Annual Report following its submittal if requested.

4.11. Removal Requirements and Abandonment (9.30.12)

4.11.1. Abandonment (9.3.12.1)

The applicant understands that without notice of a proposed date of decommissioning, the filing of an annual report as required in 9.30-11.3, or written notice to the Planning Board of extenuating circumstances, the solar photovoltaic installation shall be considered abandoned when it fails to operate for more than one year without a written waiver of consent of the Planning Board. If the owner or operator of the large-scale ground-mounted solar photovoltaic installation 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 or its agents may enter the property and physically remove the installation, the full cost of which shall be the responsibility of the owner or operator.

4.11.2. Removal Requirements (9.30.12.2)

The applicant has provided a decommissioning plan and cost (found in Appendix H). The proposed decommissioning provides:

- a) A plan to physically remove all ground-mounted solar photovoltaic installations, structures, equipment, security barriers and electrical lines from the site;
- b) A plan to dispose of all solid and hazardous waste in accordance with local, state, and federal waste disposal regulations;
- c) A plan that provides stabilization and site restoration to original conditions, and the reapplication of top-soil, if removed, which none is expected to be at this site given that it is an active sand and gravel pit. The Applicant understands the Planning Board may allow the owner or operator to leave landscaping or designated below-grade foundations to minimize erosion and disruption to vegetation.

4.12. Financial Surety (9.3.13)

The Applicant will provide a financial security, either in form of bond, letter of credit, or otherwise, prior to the issuance of a building permit, to cover the cost of removal of the system in the event the Town must remove it and remediate the landscape. The amount of the security is included in Appendix H.

4.13. Independent Engineer (9.30.14)

The applicant understands that upon request of the Planning Board, the proponent shall pay for a licensed third-party Independent Engineer selected by the permitting authority to review submittals on their behalf.

5.0. SUMMARY

The proposed work is to construct a Ground-mounted Solar Photovoltaic Installation that will generate approximately 4.0 (AC) of energy. The applicant is requesting approval to install this solar energy system on a parcel zoned as RU in accordance with the Special Permit Zoning Bylaw, Site Plan Review, and the Town's Ground-mounted Solar Photovoltaic Zoning Bylaw. Property owners within 300-feet of the subject site will be notified as part of the permitting process. The project is located on an approximately 370-acre parcel in Williamsburg identified by its deed reference as Parcel 9 of the Packard-Hanifin Lots in the 6092-126 deed to Hull Forestlands, LP, the owner. Parcel 9 covers Williamsburg assessors Map A Lots 2, 3, and 4. This project is located within Lot 4, on what is currently an approximately 30 acre active sand and gravel removal operation. The listed address for the full parcel is 103 Briar Hill Road, Williamsburg, MA, and is currently zoned as Rural Residential (RU) use. Access to this parcel is from an existing private gravel road located at 699 East Street in Goshen, MA. The project design includes a pile-driven mounting system that will have a footprint of approximately 18.5 acres, including the access road, on this 370-acre parcel.