

Introduction

Millbury Landfill Solar LLC (the Applicant) proposes construction of a ground mounted solar photovoltaic (PV) and battery storage project on the Town's closed landfill encompassing approximately 4.7 acres of the approximately 20 acre site located on Town of Millbury Property (the project). The project site is situated on the north side of Riverlin Street within the I1 industrial zone. The landfill cap is vegetated with grassed berms and swales channeling runoff to a basin at the south of the landfill. The site has an existing paved road off Riverlin Street which connects to a paved area that operates as a transfer station for the Town of Millbury.

The following narrative and documentation are hereby submitted to the Planning Board in accordance with Section 51, and Section 12.4 of the Town of Millbury Zoning Bylaws last revised May 10, 2021 (the "Zoning Bylaw"). The project is designed for use for a minimum of 20 years and has an estimated useful life of 30+ years. At the conclusion of project operation, the system owner will be responsible for decommissioning and removal of the equipment from the property per section 51.8 of the Zoning Bylaw.

Proposed Project

The proposed PV site and associated improvements are located on the capped landfill adjacent to the transfer station at 207 Riverlin Street, Millbury (Parcel ID:24/19). The parcel is 19.99 acres and includes the town of Millbury's closed municipal landfill and active transfer station. As currently designed, the system to be installed has a DC capacity of 1,280 kW and is composed of solar panel support racks connected to ballast block racking system within the landfill parcel limit of waste. A 500 kW battery energy storage system (BESS) will also be installed as part of the project. The system is to be surrounded by chain link fence with an 18 foot (ft) wide access gate. One gravel access road is to be installed on the west side of the landfill up to the equipment pad, which will be installed near the top of the cap. The power generated by the system will be exported to the electric grid in accordance with the local utility's interconnection standards and regulations.

The name of the Project Applicant is:

Millbury Landfill Solar LLC
111 Speen Street, Suite 410
Framingham, MA 01701
Contact: Steve McDonough
Phone: (866) 263-7372
Email: smcdonough@ameresco.com

The name and contact information of the Engineer authorized to represent the Project Applicant:

Weston & Sampson Engineers, Inc.
55 Walkers Brook Drive
Reading, MA 01867
Contact: Rob Bukowski, P.E.
Phone: (978) 532-1900
e-mail: bukowski.rob@wseinc.com

Compliance with Zoning Bylaw

On behalf of the Applicant, Weston & Sampson has developed a set of plans (Appendix C) that are intended to meet requirements set forth in the Zoning Bylaw for the Industrial I-1 zoning district in which the project is proposed.

Provisions of the Zoning Bylaw relative to the project, followed by an analysis of the project's compliance with the applicable provisions (in underlined font), are listed below. The outlined regulations represent an analysis applicable to Section 51.5 of the Zoning Bylaw, and Section 12.45 of the Zoning Bylaw. As referenced in this section, this project qualifies for Site Plan Review by the Planning Board (SPB).

SECTION 51 – Large-Scale Ground-Mounted Solar Photovoltaic Installations

51.5 Application Procedure Applicants are required to submit an application conforming to the requirements of this Bylaw. The application shall include a site plan and associated documents specified under Section 12.4 Site Plan Review, as well as the following additional information:

1. Blueprints or drawings of the solar photovoltaic 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.

Project Drawings are included in Appendix C.

2. One or three-line electrical diagram detailing the solar photovoltaic installation, associated components, and electrical interconnection methods, with all National Electrical Code and National Electrical Safety Code compliant disconnects and over current devices.

Electrical diagram(s) are included in Appendix D.

3. Manufacturers' specifications and installation manuals (if available) of the major system components to be used, including, but not limited to, the PV modules, mounting system, combiner box, disconnects, inverter(s).

General specifications and components are included in Attachment D. System components are subject to change based on supply availability during construction.

4. Operation and Maintenance Plan which shall include measures for maintaining safe access to the installation, storm water controls, as well as general procedures for periodic inspections and operational maintenance of the installation.

An Operation and Maintenance (O&M) Plan for the project is included in Appendix E. Existing stormwater features at the site will be maintained by the Town of Millbury.

5. Emergency shutdown procedures for the solar photovoltaic installation.

Upon issuance of the interconnection agreement with National Grid, the Applicant will coordinate with the local Police Chief, Fire Chief, Building Inspector, and other local safety officials, as necessary, during and following construction to provide an overview and training of the system's operation and emergency disconnect procedures. It generally involves a gang operated air brake (GOAB) switch on one of the installed poles to allow the system to be shutdown. A 24-hour contact number will be posted to the perimeter fence. This number can be called for general information or emergencies related to the system.

6. Evidence that the utility company that operates the electrical grid where the installation is to be located has been informed of the Applicant's intent to install an interconnected customer-owned generator. Off-grid systems shall be exempt from this requirement.

The interconnection agreement with National Grid is being finalized and will be submitted to the Planning Board prior to construction and issuance of a Building Permit.

7. Proof of liability insurance.

A copy of the liability insurance is included in Appendix F.

51.6 Design Standards and Siting Requirements

1. Dimensional Requirements: No part of the large-scale ground-mounted solar photovoltaic installation, including appurtenant structures, shall be located closer to a property line than seventy-five (75) feet. The installation shall be located at least one hundred (100) feet from existing residences. Maximum lot coverage requirements shall be consistent for the district within which the installation is located.

Acknowledged. The proposed project has been designed to meet these setback requirements.

2. Height Requirements: Freestanding solar panels located on the ground or attached to a framework located on the ground shall not exceed twelve (12) feet in height above finished grade.

Acknowledged. The solar panel height from finished grade will not exceed twelve feet.

3. Appurtenant Structures: All appurtenant structures to large-scale ground-mounted solar photovoltaic installations, including but not limited to, equipment shelters, storage facilities, transformers, and substations, shall be architecturally compatible with each other. Whenever reasonable, structures should be shielded from view by existing vegetation or plantings and/or joined or clustered to avoid adverse visual impacts.

Acknowledged. The appurtenant structures for the project are located on the existing landfill cap at the gravel access drive.

4. Fencing: An 8-foot tall, mini-mesh security fence shall be installed around the entire perimeter of the large-scale ground-mounted solar photovoltaic installation.

The Applicant is requesting a waiver from this requirement. There is an existing chain link fence around the perimeter of the Site that is proposed to be modified by adding a security extension up to 7ft in height to comply with the requirements of the NFPA 70, National Electric Code (NEC) for electrical enclosures. New chain link fence required for the project along the bottom of the western slope is also proposed at 7ft to provide a cohesive look when tying into existing fence locations.

We are also requesting a waiver from "mini-mesh" material to standard 1-3/4 inch to 2-inch mesh material.

5. Land Clearing: Clearing of natural vegetation shall be limited to what is necessary for the construction, operation and maintenance of the solar photovoltaic installation or otherwise prescribed by applicable laws, regulations and bylaws.

Acknowledged, there is no tree clearing proposed for the Project. Depending on the final interconnection design by National Grid, minimal tree trimming may be required.

6. Screening: Landscaping shall be required to screen the solar photovoltaic installation and accessory structures from roadways and neighboring residences. The width of the landscaped buffer shall be a minimum of twenty-five (25) feet. The Planning Board may waive this requirement if it determines that there is no public benefit from such screening.

Acknowledged, there is an existing vegetative buffer between Riverlin Street and the existing landfill cap.

7. Lighting: Lighting shall be limited to that required for safety and operational purposes and shall be reasonably shielded from abutting properties. Where feasible, lighting of the solar photovoltaic installation shall be directed downward and shall incorporate full cut-off fixtures to reduce light pollution.

Not Applicable, lighting is not proposed for the Project.

8. Glare: No solar photovoltaic installation shall produce glare that would constitute a nuisance to occupants of neighboring properties or persons traveling neighboring roads.

Acknowledged, A glare study was performed for the project and is included in Appendix G. Although the results show glare along Riverlin Street for a limited number of hours per year, the analysis does not factor in screening from existing vegetation. As such, we do not believe that Riverlin Street will be affected by the glare since it will be blocked by existing vegetation.

9. Signs: No signs shall be erected on the solar photovoltaic installation except signs identifying the owner, the operator, the manufacturer, an emergency telephone number, safety signage, and warning signage. Special placards and signs shall be installed on all combiner boxes, inverters, transformers, disconnects, and panel feed breakers. This shall include the following placards:

WARNING – SOLAR INVERTER OUTPUT DISCONNECT
DO NOT RELOCATE
THIS DEVICE

AC Disconnects located at: (i.e., Rear of maintenance shed)

A permanent sign shall be installed that shows the peak power, current, and voltages of each inverter, in lettering that is legible from a distance of three (3) feet.

All signs shall comply with local utility requirements and Section 34 herein.

Acknowledged, signage will be installed as outlined in this subsection.

10. Network Interconnections and Power Lines: To the extent feasible, all network interconnections and power lines, to and from the facility, shall be located underground. Electrical transformers for utility interconnections may be above ground if required by the utility provider.

The project is located on a closed landfill cap. To protect the integrity of the cap, electric lines for the solar array on the cap will be run above ground in cable trays or conduit runs to the equipment pad. From the equipment pad, electric lines will be run above ground in cable trays or conduit runs to approximately six (6) new utility poles that will be used to reach the point of interconnection along Riverlin Street.

51.7 Maintenance Requirements and Emergency Shutdown Procedures.

1. At all times the solar photovoltaic installation shall be maintained in good working condition and regular maintenance shall be performed in accordance with the approved maintenance schedule. A record shall be kept of all maintenance performed and said maintenance record shall be provided to Town officials whenever requested to verify maintenance or status.

Acknowledged, maintenance will be performed and documented in accordance with the Applicant's Operation and Maintenance Manual included in Appendix E.

2. The owner or operator shall provide a copy of the site plan and emergency shutdown procedures to the Emergency Management Director, Police Chief and Fire Chief prior to issuance of an occupancy permit. The owner or operator shall cooperate with local emergency services in developing an emergency response plan.

Acknowledged, a final site plan and emergency shutdown procedures will be submitted to the necessary

departments prior to issuance of the occupancy permit.

Upon issuance of the interconnection agreement with National Grid, the Applicant will coordinate with the local Police Chief, Fire Chief, Building Inspector, and other local safety officials, as necessary, during and following construction to provide an overview and training of the system's operation and emergency disconnect procedures. It generally involves a gang operated air brake (GOAB) switch on one of the installed poles to allow the system to be shutdown. A 24-hour contact number will be posted to the perimeter fence. This number can be called for general information or emergencies related to the system.

3. The owner or operator shall provide the Building Inspector with the contact information for a person responsible for responding to public inquiries and complaints throughout the life of the project and post this information in a visible location at the installation. This contact information shall be updated as necessary.

Acknowledged, prior to construction, the Applicant will submit contact information for a person responsible for the Project.

51.8 Removal Requirements.

1. At least thirty (30) days prior to the date of discontinued operations, the owner of the solar photovoltaic installation shall notify the Building Inspector by certified mail of any proposed date of discontinued operations and plans for removal of the solar photovoltaic installation.
2. A solar photovoltaic installation that is not used for twelve (12) successive months, or that has reached the end of its useful life, shall be deemed discontinued, and shall be removed by the owner. Upon issuance of a Notice of Discontinuance by the Building Inspector, the owner shall have thirty (30) days to provide sufficient evidence that the system has not been discontinued. Failure to provide such evidence to the Building Inspector within the time allowed shall be conclusive evidence that the solar photovoltaic installation has been discontinued.
3. The owner shall dismantle and physically remove the solar photovoltaic installation within ninety (90) days from the date of discontinued operations. Removal of the system shall include:
 - a. Physical removal of all large-scale ground-mounted solar photovoltaic installation, 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 maintain landscaping or designated below-grade foundations in order to minimize erosion and disruption to vegetation.

Acknowledged, the Project will be removed in accordance with the decommissioning requirements as outlined. The Applicant is requesting a waiver to extend the removal timeline from 90 days to 180 days.

51.9 Performance Guarantee. The Planning Board shall require surety, either in the form of a bond or other security, in an amount sufficient to assure satisfactory removal of the system. The cost estimate for removal and re-vegetation shall be prepared by the Planning Board's technical consultant and shall include a twenty-five percent (25%) contingency fee. The Planning Board shall review the amount of the surety at five year intervals to ensure that it is sufficient to guarantee satisfactory removal and re-vegetation. The Planning Board shall have the right, upon determination of discontinuance and failure to remove the installation within the ninety (90) day period identified in Section 51.8(3), but not the obligation, to claim the financial surety, and to the extent duly authorized by law enter the site and remove the facility in accordance with the requirements of this section.

Acknowledged, as outlined above the Applicant will comply with the Performance Guarantee requirements, however, they are requesting a waiver to extend the removal timeline from 90 days to 180 days.

51.10 Waiver Provision. The Planning Board may waive strict compliance with any provision of this bylaw if it deems it in the public interest and determines that the intent of the bylaw has been maintained.

A waiver request letter is included in Appendix H with a short list of waivers requested for the Project.

51.11 Modification. All material modifications to a large-scale solar photovoltaic installation made after issuance of the site plan approval shall require submission of a modified site plan, applied for in accordance with all regulations applicable at the time such application is properly made.

General specifications and components for the project are included in Attachment D. System components are subject to change based on supply availability during construction.

SECTION 12 – Administration

12.44 Contents and Scope of Application. An application for site plan review and approval under this section must be prepared by qualified professionals, including a registered professional engineer and, where required by state law, a registered architect, and/or registered landscape architect, and shall include the following items and information:

- (a) A site plan review at a scale of one inch equals twenty feet (1" = 20'), or such other scales as may be approved by the Planning Board. The site plan shall contain the following items and information:
- Names, addresses, and telephone numbers of the owner, applicant, and person(s) or firm(s) preparing the plan. If the applicant is not the owner, a notarized statement authorizing the applicant to act on the owner's behalf and disclosing his interest shall be submitted
 - Name of project, property address, assessor's map and lot number, the date, north arrow, datum (NAD 83 and NAVD 88) names of abutters, and scale.
 - Natural features including watercourses, water bodies, wetlands, soil properties, and any other environmental features of the landscape that are important to the site design process.
 - Location of all existing and proposed easements, rights-of-way and other encumbrances.
 - All floodplain information, including the contours of the one-hundred (100) year flood elevation based upon the most recent Flood Insurance Rate Map for Millbury, or as calculated by a professional land surveyor for unmapped areas.
 - Location, width, curbing, and paving of all existing and proposed streets, rights-of-way, easements, alleys, driveways, sidewalks, and other public ways.
 - Location of all pavement markings.
 - Location of all existing and proposed on-site snow storage areas.
 - The location and name of all streets and indicate whether the street is a public and private way.

- Lot Lines with dimensions.
- Zoning district lines.
- Five (5) signature lines for the Planning Board approval.
- Existing and proposed topography contour lines at one (1) foot intervals.
- Information on the location, size, type and number of existing and proposed landscaping features.
- Information on the location, size and capacity of existing and proposed on- site and abutting utilities (water, sewer, drainage, electrical, cable, etc.)
- The location, type, style of fixture, and intensity of lighting; the location, structural design and dimensions of all signage and any site amenities; the location and screening of refuse containers
- The location and dimensions of all existing and proposed building and uses on-site and on abutting properties.
- Elevation and facade treatment plans of all proposed buildings.
- Information on the location, size, and type of parking, loading, storage and service areas.
- Zoning and other applicable setback distances; and zoning parking calculations.
- At least three property boundary markers, remotely separated, shall be indicated with Massachusetts Grid Plane Coordinates. The plan shall identify the elevation and coordinates of these boundary markers.

A Site Plan set with the requirements outlined in Section 12.44 (a) is included in Appendix C.

- (b) A landscape plan at the same scale as the site plan, showing the limits of work, existing tree lines, and all proposed landscape features and improvements including planting areas with size and type of stock for each shrub or tree.

Landscaping features (existing vegetation) is included in the Site Plan drawings in Appendix C.

- (c) An isometric line drawing (projection) at the same scale as the site plan, showing the entire project and its relation to existing areas, building and roads for a distance of one hundred feet from the project boundaries.

Not applicable. As this project is not a building, an isometric line drawing is not included with this application.

- (d) A locus plan at a scale of one inch equals 100 feet (1" = 100') showing the entire project and its relation to existing areas, buildings and roads for a distance of one hundred (100) feet from the project boundary, or such other distances as may be approved or required by the Planning Board.

The locus plan is included on the Site Plan Drawings in Appendix C.

- (e) Building elevation plans at a scale of one-quarter inch equals one foot (1/4" = 1') or one-half inch equals one foot (1/2" = 1'), showing all elevations of all proposed buildings and structures and indicating the type and color of materials to be used on all facades.

Not applicable. There are no proposed buildings for the project.

- (f) Development impact statements which shall describe potential impacts on the proposed development, compare them to the impacts of uses which are or can be made of the site without a requirement of site plan review, identify all significant positive or adverse impacts, and propose an acceptable program to prevent or mitigate adverse impacts.

The Development impact statement shall consist of the following four elements:

.....

1. Traffic Impact Assessment:
2. Environmental Impact Assessment:
3. Fiscal impact assessment:
4. Historic Impact:

A Development Impact Statement for the elements listed above is included in Appendix I.

- (g) The Planning Board may waive any of the above listed requirements if it believes that said requirement is not necessary based on the size and scope of the project. The applicant may petition the Planning Board prior to making a formal application to request notification as to which section(s) of the site plan review by-law requirements are necessary. The Planning Board will then notify the applicant within thirty (30) days as to which sections relate to the proposed project based on the size and scope of the project.

A waiver request letter is included in Appendix H.

12.43 Design Standards

All site plan review applicants shall adhere to the following general principles when designing a site plan for land within the Town of Millbury.

- (a) Preservation of Landscape: The landscape shall be preserved in its natural state, insofar as practicable by minimizing tree and soil removal, and any grade changes shall be in keeping with the general appearance of the neighboring developed areas. Where tree coverage does not exist or has been removed, new planting may be required. Finished site contours shall depart only minimally from the character of the natural site and the surrounding properties.

Acknowledged. No substantial changes are to be made to landscaping or grading. Trees or similar vegetation cannot be installed due to the underlying landfill.

- (b) Relation of Building to Environment: Proposed development shall be related harmoniously to the terrain and to use, scale and siting of existing buildings in the vicinity that have functional or visual relationship to the proposed buildings. All building and other structures shall be sited to minimize disruption of the topography. Strict attention shall be given to proper functional, visual and spatial relationship of all structures, landscaped elements and paved areas.

There are no buildings proposed as part of this project. Panel layout is designed to follow existing site topography.

- (c) Open Space: All open space (landscaped and usable) shall be so designed as to add to the visual amenities of the vicinity by maximizing its visibility to persons passing the site or overlooking it from nearby properties.

The project is at the closed municipal landfill, no landscaped open space is included as part of this project.

- (d) Surface Water Drainage: There shall be no net increase in the volume of stormwater runoff across the boundaries of the site unless provisions have been made to tie into the public storm drains, where available, with the approval of the appropriate parties or authorities or, the Planning Board has determined that all reasonable provisions have been made to minimize any changes in stormwater runoff at the site. There shall be no adverse impacts to abutting properties from any increase in volume of stormwater runoff including erosion, silting, flooding, sedimentation or impacts to wetlands, ground water levels or wells.

Existing stormwater infrastructure to be used to manage runoff. Runoff from site expected to be de minimis. A stormwater analysis is included Appendix J.

- (e) Insofar as possible, low impact development best management practices shall be utilized such that the site's natural features and environmentally sensitive areas, such as wetlands, native vegetation, mature trees, slopes, natural drainage courses, permeable soils, floodplains, woodlands and soils are preserved. Use of stormwater management components that provide filtration, treatment and infiltration such as vegetated areas that slow down runoff, maximize infiltration and reduce contact with paved surfaces are strongly encouraged.

The proposed Project is a redevelopment project at the existing landfill. Low impact development principles have been followed in the development of the design to the maximum extent practicable.

- (f) Where the site is not proposed to be covered with gravel, hardscape, or a building or structure, a planting plan to ensure permanent re-vegetation of the site shall be submitted. Areas to be planted shall be loamed with not less than six inches (6") compacted depth of good quality loam and seeded with turf grass seed or other appropriate ground cover in accordance with good planting practice.

The proposed Project will be installed on the existing vegetation of the landfill cover system. Gravel will be added to the site for the proposed access road. All disturbed areas of the project will be reseeded with a low grow solar seed mix following installation of the PV array.

- (g) Ground Water Recharge and Quality Preservation: Ground Water Recharge shall be maximized and ground water quality shall be protected. Various techniques may be required to maximize recharge, and create a hydrologically functional lot or site, including the following: vegetated open channel systems along roads, rain gardens, buffer strips, use of amended soils that will store, filter and infiltrate runoff, bioretention areas, use of permeable pavement. In addition, reduction of impervious surfaces where possible, reduction of heat island effects, and use of water quality units such as grease traps or gas/oil separators will be encouraged.

Not Applicable. Groundwater recharge is not applicable at closed landfill sites.

- (h) Where ground water elevation is close to the surface, extra site grading precautions may be required to maintain the protective function of the over burden.

Acknowledged. There is no proposed grading for the project, the array and gravel access road will be installed following existing topography.

- (i) Utilities: The placement of electric, telephone, or other utility lines and equipment, such as water or sewer shall be underground and so located as to provide no adverse impact on the ground water levels, and to be coordinated with other utilities. The proposed method of sanitary sewage disposal and solid waste disposal from all buildings shall be indicated precisely on the plans.

Electrical connection coming from the equipment pad will be low profile racking running alongside the access road and six utility poles. No other utilities are proposed for the Project.

- (j) Advertising: All signs and outdoor advertising features shall be reviewed as an integral element in the design and planning of all development on the site. At a minimum, all signs and advertising devices shall be in conformance with Section 34. Signs.

Required signage will be posted on the perimeter fence. Refer to the detail sheet in the drawing included in Appendix C. This signage will not be for advertisement

- (k) Landscaping Within the Setbacks: Site plan applicants are required to landscape the setbacks as part of the site plan approval process. Site plan applicants are expected to maintain the landscaping approved for the site and replace any landscaping that has not fully established itself within two (2) growing seasons, after which all failed landscaping shall be replaced. Front yard setback landscaping shall consist of street trees and low-level plantings.

In accordance with Section 35.7, walls or hedges within any required front yard area or within twenty feet (20') of the street, whichever is less, shall not exceed six feet (6') in height and fences shall not exceed thirty inches (30") in height except that the special permit granting authority may grant a Special Permit for higher fences where such will not endanger health or safety, or unreasonably impair vision or circulation of air. Landscaping within twenty (20') feet of a driveway shall consist solely of low-level plantings such that vehicular and pedestrian sight lines are not restricted.

The project does not propose landscaping within the setbacks of the property line. There is no proposed clearing associated with the Project, and there is a natural existing buffer at the perimeter of the Site.

As mentioned above, the site will be surrounded by a 7 ft tall chain link fence.

- (l) Circulation: With respect to vehicular and pedestrian circulation, including entrances, ramps, walkways, drives and parking, special attention shall be given to location and number of access points to the public streets (especially in relation to existing traffic controls), width of interior drives, and access points, general interior circulation, separation of pedestrian and vehicular traffic, access to community facilities and arrangement of parking areas that are safe and convenient and, insofar as practicable, do not detract from the use and enjoyment of proposed buildings and structures and the neighboring properties. Insofar as practicable, parking should be located on the side or the rear of buildings.

Not applicable. Access to site is controlled and access controls are to be installed per section 51 of the Zoning Bylaws.

- (m) To minimize turning movements onto adjacent public ways, developers are encouraged to provide internal circulation systems (service roads) that connect to adjacent development (parking area to parking area). Site plans that propose service roads and /or connection of parking areas shall show on the plan how the connection of parking areas will be achieved.

The Project will use internal temporary access roads at the landfill for construction vehicles and deliveries. The Applicant will work with the Town to find temporary parking, as/if needed, during construction.

- (n) All parking and loading areas shall be striped and marked on the ground as a condition of site plan approval. All off-street parking and loading spaces shall be provided with safe and convenient access and shall not be located within a public right-of-way or within required setbacks. Access locations shall be designed to encourage unimpeded traffic flow with controlled turning movements and minimum hazards to vehicular and pedestrian traffic. Parking and loading shall be in conformance with Section 33. Parking and Loading Requirements.

Parking areas are not proposed or needed for long term operation or maintenance of the project.

- (o) Curbing: Concrete curbs and gutters shall be installed around the perimeter of all driveways and parking

areas. Granite curbs shall be installed in front of sidewalks abutting buildings.

Not applicable. The gravel access drive is proposed to follow existing topography, and there are no parking areas proposed for the project.

- (p) Shared Parking: The Planning Board may allow a reduction of the required number of spaces by up to twenty-five percent (25%) if it can be demonstrated that two (2) or more uses within a single development can share parking areas due to different hours of normal activity. When two (2) or more adjacent property owners agree in writing to share parking, the required number of parking spaces may be reduced by as much as twenty-five percent (25%) for each business.

Not applicable. No parking areas required or to be installed for operation of the project.

- (q) Parking Area Landscaping: Site plans involving more than nineteen (19) parking spaces shall provide interior landscaping covering not less than five percent (5%) of the total area of the parking lot. In total, there shall be provided one (1) shade tree placed within the parking lot for every five (5) spaces and complemented by shrubs and other planting material. Such trees shall be at least two (2 1/2) inches in trunk diameter at the time of planting, and shall be located in planting beds at least six feet (6') in width or diameter. Snow removal activities should be considered when planning for parking area landscaping. In case it can be shown to the Planning board that the planting of trees is impractical, the Planning Board may authorize plantings and shrubbery instead of trees.

Not applicable. No parking areas required or to be installed for operation of the project.

- (r) Interior Walkways and Pedestrian Paths: Site plans involving more than thirty (30) parking spaces shall provide walkways and pedestrian paths that safely connect the parking areas to the principal uses they will serve. Such walkways shall be constructed with brick, decorative pavers, or other materials, and may be bordered with fencing or shrubbery to clearly separate pedestrians from automobile traffic. Facilities and access routes for deliveries, service and maintenance shall be separated, where practical, from public access routes and parking areas. Car stops shall be provided to prevent parked cars from damaging trees, shrubs and curbing, and shall not disrupt pedestrian walkways.

Not applicable. The site is not open to the public and does not have pedestrian traffic.

- (s) Stormwater Management (Grading and Drainage): All site plan applicants must submit drainage calculations to show compliance with all applicable federal, state and local regulations and guidelines, including but not limited to the Massachusetts Department of Environmental Protection (DEP) Stormwater Management Handbook, as it may be amended.

A stormwater analysis has been performed and is included in Appendix J.

- (t) Outdoor Lighting: All exterior lights shall be designed and installed in such a manner as to prevent objectionable light at (and glare across) the property lines. Externally lit signs, display, building and aesthetic lighting must be lit from the top and shine downward. Each outdoor luminaire shall be a full cutoff luminaire, and the use of decorative luminaires with full cutoff optics is desired. A full cutoff luminaire is an outdoor light fixture shielded in such a manner that all light emitted by the fixture, either directly from the lamp or indirectly from the fixture is projected below the horizontal plane. Developments shall eliminate glare onto adjacent properties through the use of lighting shields, earthen berms, or retention of existing natural vegetation. All outdoor lighting fixtures, including display lighting, shall be turned off within one hour after close-of –business, unless needed for safety or security, in which case the lighting shall be reduced to the minimum level necessary.

There is no outdoor lighting included in this project.

- (u) Other Site Features: Exposed storage areas, exposed machinery installations, service areas, truck loading areas, utility buildings and structures, and similar accessory areas and structures shall be designed with such setbacks, screen plantings, or other screening methods to prevent their being a hazard or being incongruous with the existing or contemplated environment and the surrounding properties. With respect to personal safety, all open and enclosed spaces shall be designed to facilitate building evacuation and to maximize accessibility by fire, police and other emergency personnel and equipment.

Site support features for this project include a perimeter fence and equipment pad with a transformer and BESS. The perimeter fence will be installed as noted in site plan. The equipment pad will be installed on the top of the landfill as shown in the Project Plans in Appendix C.

- (v) Additional Design Standards for Bramanville Village District.

Not Applicable. This project is outside of the Bramanville Village District.