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February 8, 2016

Mr. Nathaniel Strosberg, Town Planner  
101 Main Street  
Town of Ashland  
Ashland, MA 01721

RE: Ashland Landfill 907 kW Solar PV Development  
102 Howe Street

Dear Mr. Strosberg:

GCG Associates, Inc. has reviewed the following information for Ashland Landfill 907 kW Solar PV Development located at 102 Howe Street in Ashland, MA.

Documents: Application for Site Plan Review and Special Permit package, Form-SP, Prepared by: AMEC Massachusetts, Inc., Dated January 4, 2016, Applicant: Ameresco, Inc. (D/B/A Ashland Howe Street Solar LLC [Ameresco])

Plan References: "Ashland Landfill 907 kW Solar PV Development, Ashland, Massachusetts," Prepared by: AMEC Massachusetts, Inc., Dated: 01/04/16. Sheet index as follows:

Sheet No.

- |    |   |
|----|---|
| -- | Cover Sheet   |
| 1  | Construction, Erosion, Sedimentation Control Notes, and Legend (Drawing number G-001) |
| 2  | Existing Conditions Plan (Drawing number V-101)                                       |
| 3  | Proposed Site Plan (Drawing number C-101)   |
| 4  | Details (Drawing number C-501)  |
| 5  | Landscape Plan (Drawing number L-101)   |
| 6  | Landscape Details (Drawing number L-501)  |

The subject purpose for this Planning Board Application is a Site Plan Review as required by Ashland Zoning under Chapter 282-9.4, and Special Permit under Chapter 9.3. The application and plans are prepared and submitted by AMEC Massachusetts, Inc. on behalf of Ameresco, Inc.

The applicant, Ameresco LLC, seeks to install a ground mounted 907 kW photovoltaic array consisting of approximately 2,964 solar modules and associated utility infrastructure to be located at the Ashland Landfill, 102 Howe Street (Tax Map 12/ Lot 0223) in Ashland, MA. This

lot is owned by the Town of Ashland. The subject property is approximately 9.2\*\* AC (per report) with frontage on the south side of Howe Street. The subject property is located in the Residential "A" District (RA) and Photovoltaic Installation Overlay District (PIOD). The perimeter of the proposed solar installation area is surrounded by bordering vegetative wetlands on the southwest and south, Indian Brook and associated wetland on the southeast, and a residential dwelling on the northeast. The proposed installation area is on top of the landfill capped area. The southeast portion of the property is located within the 200 feet Riverfront Protection Area. The site development requires a Stormwater Management Permit and NPDES General Permit for Stormwater Discharges from Construction Activity and SWPPP.

Based upon our review of the above information, we offer the following comments with respect to compliance with Town of Ashland Zoning Bylaws. The numerical section of the regulations is referenced at the beginning of each comment unless it is a general comment.

\*\* Property deed refers to 7.06 AC, Lot area should be verified.

### **GENERAL COMMENTS:**

#### Plan

#### Plan Sheet 1 of 6 - Construction, Erosion, Sedimentation Control Notes, and Legend (Drawing No. G-001)

1. The General Erosion and Sedimentation Construction Detail note #4 refers to "See Detail 7 on C-502" for the Erosion Control Blanket detail. However, the plan sheet and detail drawing are not included in the plan set.
2. Minimum landfill cap thickness should be specified on the plan to minimize disturbance to the cap and protect the system.

#### Plan Sheet 3 of 6 - Proposed Site Plan (Drawing No. C-101)

1. The solar panel system footprint is essentially 3.7± acres with maximum dimensions approximately 540'± x 300'±. Two permanent gravel access roads are proposed at the two corners of the Howe Street frontage. Maintenance and emergency access should be considered for the entire grid. Emergency vehicles (fire trucks) may not be able to maneuver in the site.
2. Proposed lighting should be considered for site access and maintenance purposes.
3. Dimensioning should be shown for the proposed gravel access drives. Information shall be provided to the Planning Board which demonstrates sufficient dimensions of turnaround area for access of emergency and maintenance vehicles. Westerly entrance provides a proposed hammerhead turnaround, while easterly entrance dead ends.
4. Inverts information for the proposed 6" DI culvert should be specified on the plan.
5. Proposed grading for the two gravel access roads should be included on the plan. Grading should also demonstrate sufficient pipe cover over the proposed culvert.

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6. Check exist shade areas on Howe Street at Pinecrest Lane.
7. Chain link fence gate location(s), dimensions, specification and detail should be provided on the plan.

Plan Sheet 4 of 6 - Details (Drawing No. C-501)

1. Detail 2, Ballast Installation – the drawing labels 6” maximum dense graded crushed stone base, and Note #4 calls for minimum 6” of crushed stone, the thickness of the stone base needs clarification; Note #2 should specify the maximum depth of vegetation to be stripped to protect the cap; Note #6 shall further clarify that the 6” maximum excavation shall consist of top soil only.
2. Detail 5, Sediment Barrier (Compost Sock) - The detail notes should specify that support post/stake are prohibited to use for secure sediment barrier over the capped area. Sand bags should be used for secure Compost Sock in place, locations, maximum offset distance and minimum quantities should be specified.
3. Detail 7, Inlet and Outlet Protection – this detail should match with the MassDOT Stone Pipe Ends (E 206.7.0) or provide calculations to support the proposed stone pad dimensions.
4. Detail 8, Chain Link Fence – Precast concrete ballast block dimensions should be specified and sized to support the fence and fence post system. The dashed line through the ballast block and the ground surface should be clarified and dimensions should be labeled to assure no penetration through the landfill cap. Gate width should be specified.

Plan Sheet 6 of 6 – Landscape Details (Drawing No. L-501)

1. Typical Berm Section would require erosion control blanket protection over the 2 horizontal to 1 vertical slope face of the berm. The blanket detail was mentioned on plan sheet 1, but not included on the plan set.
2. Seed mix should be specified to assure growth in shaded area and drought tolerant.

**CHAPTER 282 – ZONING**

Note: Zoning is reviewed with respect to sections 8.3 and 9.4.

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| 282-8.3.5.3     | Building permit fee is required.   |
| 282-8.3.6.2 (f) | Financial Surety that satisfy Section 8.3.11.3, see section 8.3.11.3.  |
| 282-8.3.6.2 (c) | Operations and maintenance plan is required, see section 8.3.6.4 and 8.3.10.1.   |
| 282-8.3.6.4     | Operation and Maintenance Plan – The Operations and maintenance (O&M) plan should include site erosion inspection to check for rilling and gullying, repair eroded areas and revegetation. Stormwater controls and |

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general operations and maintenance procedures for system. Snow removal and general maintenance of the two access roads should be included to assure emergency and maintenance vehicle safe access.

- 282-8.3.8 1 Lighting - No proposed lighting is currently shown on plan. If lighting is proposed as part of this system for access and maintenance purposes, this shall be shown or specified on plans. Where feasible lighting shall be directed downward using full cut-off fixtures.
- 282-8.3.10.1 Condition of the Installation – The facility shall be maintained in good condition and an operations and maintenance plan shall be submitted. Per this section the facility monitoring and maintenance shall include painting, structural repairs and integration of security measures. The party responsible for the cost of maintaining the system shall be specifically stated.
- 282-8.3.11.3 Financial Surety – The Applicant has proposed an annual renewing bond in the amount of \$75,000 as the financial surety for decommissioning of solar panels/system. Since the bond estimate is based on the 20 years lease, GCG recommends the bond amount to be reviewed once every 5 years and an escrow account (amount to be determined by the Board) should be held by the Planning Board to assure annual bond renewal.
- 282-9.4.6.8 Utilities shall be underground except in cases of extreme physical and environmental constraints. The applicant has proposed above ground utility due to the landfill cap. The proponent should request a wavier for section 282-9.4.6.8. The request should be considered to protect the landfill cap system.
- 282-9.4.6.10 The parking area requirements for the proposed use is considered as “Others” in the Schedule of Parking Area Requirements (Section 5.1.2). “Individually determined by the Building Inspector upon advisory report of the Planning Board where required in compliance with Section 9.4, Site Plan Review.” The traffic generated from the proposed use would be maintenance and emergency vehicles only and the two proposed access roads should be sufficient for the parking and loading purposes.
- 282-9.4.9 The cover letter stated that a Stormwater Management Permit application is being filed concurrently with the Conservation Commission. Stormwater management is not included in this application package.
- 282-9.4.10 The Landscape Screening Management Plan (Appendix ‘C’) stated periodic watering as required to ensure initial establishment of vegetation. There is no water utility proposed for this development. The applicant should arrange water supply for the landscape features.

If you have any questions regarding this matter, please contact our office.

Respectfully Submitted,  
GCG Associates

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*Michael J. Carter*

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Project Manager

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