



Crawford & Associates Engineering & Land Surveying, PC

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October 25, 2024

Town of Marlborough
Planning Board
21 Milton Turnpike, Suite 200
Milton, NY 12547

Attn: Chris Brand, Planning Board Chair

**RE: ELP MARLBOROUGH SOLAR
335 BINGHAM ROAD, TOWN OF MARLBOROUGH, NEW YORK
TAX MAP ID: 108.3-3-21
TECHNICAL REVIEW COMMENTS – RESPONSE LETTER #4
C&A # 4996.26**

Dear Chair Brand:

Thank you for your time and attention at the October 7, 2024 Planning Board meeting in relation to the Site Plan Review Application that was submitted for ELP Marlborough Solar, located at 335 Bingham Road. Crawford & Associates Engineering (C&A) is in receipt of a comment letter dated October 7, 2024 from the Town's consultant, Patrick J. Hines, MHE Engineering, D.P.C. We have reviewed the comments from MHE and offer responses herein for the Board's consideration. Please see original comments from MHE below in **bold**, C&A responses in *italics*.

- 1. Additional coordination with the Fire Department should be undertaken. The Fire Department has requested a dry hydrant be incorporated at the project site. The location of the dry hydrant should be resolved during the planning process such that it can be depicted on the plan sheets.**

Our office has been in contact with Chief Mike Troncillito to discuss the fire department's feedback on the project. The location of the proposed dry hydrant, as requested by and coordinated with Chief Troncillito, has been added to the proposed site plans.

- 2. The applicant's representative is requested to address the 18 August 2024 letter submitted on behalf of the residents at 324 Bingham Road. The Planning Board should evaluate the view shed analysis. Line-of-sight drawings are provided.**

The referenced letter dated August 18, 2024 was previously reviewed. Responses to comments received both in this letter and at the Public Hearing were provided in the Public Comment Response Letter by C&A dated and submitted September 6, 2024.

- 3. The applicants' representatives have provided flow path analysis for solar array areas with steep slopes. The velocity analysis provided is for vegetative channels. Vegetative channels do not exist within the solar farm area. Specific vegetation are included in the velocity design charts. This analysis is not applicable to the solar project.**

The analysis provided identifies sheet flow followed by shallow concentrated flow through the panel area. Shallow concentrated flow is the flow that occurs when minor rivulets form downstream from the overland flow. Although vegetative channels do not exist within the panel array, this was a modeling approximation and it is the position of this office that the information provided supports a conservative position in relation to anticipated velocities and associated vegetative cover. The proposed vegetation as identified on the "Seeding Plan" on sheet C-501, Ernst Solar Farm Seed Mix, consists of a mix of Fescue and Kentucky Blue Grass, similar to that listed within the vegetation as identified within Appendix G: Non-Erosive Velocities of Vegetated Channels. We believe the analysis supports the position that the anticipated post-construction runoff flows will be non-erosive.

Regardless, to be even more conservative, the Applicant has considered the Town's comments and has revised the plans to incorporate level spreaders. The proposed level spreaders, provided at 100' max. spacing, shall promote sheet flow and provide further assurance of non-erosive velocities throughout the panel area.

- 4. The planting list on the landscaping plan show the number of each species to be planted.**

The landscaping plan by Hubbard Land Design, last revised October 22, 2024, identifies each proposed landscaping feature within the plant list and total number of species to be planted in the respective callout on the plan.

- 5. The landscape plan has a note that states "allows buffer to naturally revegetate no mowing". The orchard trees to remain in the buffer zone will become unsightly without proper agricultural management of the orchard trees. In addition, orchard trees to remain without agricultural management practices can be host for pests and diseases associated with orchard crops.**

Orchard trees used for screening purposes will be maintained by the owner of the project and will be kept pruned and disease free as necessary to maintain the health of the trees, per the O&M plan. Orchard trees outside the project lease area are not under the control of the applicant.

- 6. Dimension the distance between the proposed solar rows.**

A dimension between the proposed panel rows has been added to the plan. See drawings C-103 – C-105.

- 7. The majority of the solar arrays on slopes that range between 5 and 10 %. There are areas within the solar arrays is greater than 10%. Compliance with the guidelines of the State of Maryland Environmental Stormwater Design Guidance for Solar Installations must be documented. Level spreaders and another stormwater management practices spaced**

appropriately within the solar arrays should be incorporated into the plans.

As described above, the site plans have been revised to incorporate level spreaders. Level spreaders have been provided within the area of the proposed panels at 100' max. spacing to support sheet flow of stormwater runoff.

Compliance with the NYSDEC memo dated April 5, 2018 and associated Maryland Guidance has been documented throughout the application process, including general conformance to "Scenario 1" as identified by NYSDEC. The SWPPP and associated hydrology analysis as submitted details that construction of the solar panels will not alter hydrology from pre to post development conditions, as required.

- 8. Areas where slopes are greater than 10% and where panels are not parallel to the contours should be treated as impervious areas in the model. Provide water quality volumes and runoff reduction volumes for these areas considered impervious.**

The array has been designed to avoid steep slopes to the maximum extent possible and generally parallel to the contours. Areas over 15% have been avoided completely, while areas between 10 and 15% are used sparingly. Our experience has shown that development of dense vegetation in combination with adequate erosion and sediment controls shall provide adequate mitigation in this situation.

It is our understanding that NYSDEC and the associated stormwater regulations, and/or the Town of Marlborough Zoning Code, does not require that the panel areas within slopes greater than 10% and where panels are not parallel to the contours be treated as impervious area. The Applicant has provided a SWPPP and associated hydrology analysis detailing that the construction of the solar panels will not alter hydrology from pre to post development conditions, as required, and has committed to further improvements by providing level spreaders as previously mentioned.

It is requested that the Board consider all information submitted to date and provide further clarification on the Town's position, including a regulation and/or code citation noting a requirement to treat the above-described panel areas as impervious in relation to stormwater modeling.

- 9. The applicants have identified that noise will be generated by inverters transformers and BESS units. The amount of noise generated should be identified from the source and at the adjoining properties. Noise levels at the nearest residential property line should be identified for the Planning Board to evaluated issues regarding impacts with noise.**

Please see enclosed Noise Assessment for the Board's consideration.

If you have any questions regarding the information above, please feel free to contact me at (518) 828-2700 x1138.

Sincerely,
Crawford & Associates
Engineering & Land Surveying, P.C.



Christopher J. Knox, PE
Project Manager II

Cc: Chris Brand, Planning Board Chair (cbrand@marlboroughny.us)
Jen Flynn, Planning Board Secretary (marlboroughplanning@marlboroughny.us)