

February 16, 2024

Mr. Gregory Rondeau, Chairman
Ms. Amy Love, Town Planner
Franklin Planning Board
355 East Central Street
Franklin, MA 02038
c/o Amy Love

**Re: Maplegate South Solar Array
160 Maple Street
Site Plan Peer Review Response**

Dear Mr. Rondeau:

Bohler is in receipt of a comment letter from BETA dated September 21, 2023. On behalf of Applicant Maple Street Solar, LLC., Bohler offers the following responses. For clarity, the original comments are in *italics*, while our responses are directly below in **bold** type.

Enclosed please find the following documents for your reference:

- Five (5) full size signed and sealed copies of the *Proposed Site Plan Documents* for Maple Street Solar, LLC prepared by our office, last revised 2/16/2024;
- Five (5) 11"x17" copies of the *Proposed Site Plan Documents* for Maple Street Solar, LLC prepared by our office, last revised 2/16/2024;
- Five (5) full size signed and sealed copies of the *Fire Truck Exhibit* for Maple Street Solar, LLC prepared by our office, last revised 2/16/2024;
- Five (5) 11"x17" copies of the *Fire Truck Exhibit* for Maple Street Solar, LLC prepared by our office, last revised 2/16/2024;
- Five (5) copies of this response letter and affiliated attachments.

BETA REVIEW LETTER DATED 9/21/2023

GENERAL

Comment G1. There is a note on the demolition plans that indicates that the fairways will be removed. An explanation should be provided which indicates what is being removed.

Response: Callouts indicating "fairways to be removed" have been clarified to state that the fairway groundcover to be overseeded with the "New England conservation/wildlife seed mix". Landscaped areas shall be mowed twice per year as noted on the Soil Erosion and Landscape Plans.

Comment G2. The proposed grading at the wetland crossing does not agree with the detail provided and should be corrected.

Response: Acknowledged, the grading has been modified to ensure the plans match the detail provided. The headwalls that extend from the culvert have been elongated to connect to the existing slope adjacent to the stream crossing.

ZONING

Parking, Loading and Driveway Requirements (§185-21)

Comment P1. BETA defers to the Town regarding the extent of the proposed access road. BETA recommends the Applicant consult with the Town of Franklin Fire Department to determine required driveway widths and the potential need for driveways around the array perimeter.

Response: The layout has been shared with the Town of Franklin Fire Department and the layout depicts their suggestions for turnaround areas and access points to the equipment pads.

Comment P2. The detail for the access gravel road on sheet C-901 indicates that for the width see plans. There are no dimensions on the plan which identify the proposed gravel roadway width. These dimensions should be provided.

Response: Dimensions have been added to the proposed gravel roadway on the Site Layout Plans. The gravel road will have a minimum width of 20' with 2' wide shoulders on either side with gravel subbase beneath the proposed topsoil/grass cover.

Comment P3. There is a proposed easement identified on the plans for access through the New England Power Company to access the existing paved driveway. BETA recommends a copy of the easement be provided to the Board

Response: This easement has been removed from the plan. Early on in the project we were proposing a connection through the easement that was then rejected by New England Power for use.

Comment P4. Additional details should be provided to document that the existing cart paths to the isolated panel array system in the middle of the development will be adequate.

Response: The existing paved cart path located northwest of the isolated panel array system is proposed to remain and be replaced with gravel. Smaller construction and maintenance equipment are expected to be used to access the isolated area. Vehicle access has not been provided as there are no mechanical equipment pads located in this portion of the site.

Earth Removal Regulations (§185-23)

Comment E1. Indicate approximate earth removal volume to determine compliance with this section.

Response: There is no export proposed for the project. The plans have been revised to note that no earth removal shall occur except for unsuitable construction and demolition debris, and the Contractor shall retain and stockpile existing topsoil and shall screen and reuse the material throughout the site.

STORMWATER MANAGEMENT

Stormwater Management Regulations (Chapter 153)

Comment SW1. BETA recommends that the area of cart paths which will remain be shaded to identify their location and determine their runoff characteristics.

Response: The cart paths intended to remain have been shaded on the revised plans. All cart paths within the limit of work and outside wetland areas are proposed to be removed. Apart from the proposed gravel road/culvert crossing, existing cart paths to remain will maintain existing drainage patterns and flow overland to adjacent wetland resource areas.

Comment SW2. Although there is a reduction in the impervious surfaces on site, compliance with the by laws regarding redevelopment should be documented.

Response: Refer to response to comment SW10.

Post-Development Peak Discharge Rates (Standard Number 2)

Comment SW3. Depict existing treeline to remain and proposed limits of clearing on the post-development watershed plan.

Response: Acknowledged. The existing treeline to remain and proposed limit of clearing have been added to the revised post-development watershed plan.

Comment SW4. Revise the Tc calculations in both existing and proposed conditions. The flow path shown on the watershed plans is incorrect and should not be limited to the intermittent stream alone.

Response: The time of concentration (Tc) as calculated in the existing and proposed conditions is not limited to the intermittent stream and has been determined to be the longest path of flow in the watershed. The flow path begins at the northern edge of a bordering vegetated wetland (BVW) with 50' of sheet flow and continues for approximately 630' of shallow concentrated flow through the BVW to the south. The flow path then continues for approximately 576' of shallow concentrated flow through an intermittent stream, which beings downstream of the existing culvert crossing (widened gravel road/culvert crossing in the proposed condition).

Comment SW5. Revise cover type for gravel driveways to be "Gravel Surface" with CN 96. The "Gravel Roads" cover type assumes a grassed shoulder is included in the contributing area.

Response: Acknowledged. The existing and proposed HydroCAD models have been revised accordingly. The existing and proposed runoff rates remain the same for the Project. Refer to Tables 1 and 2 below and the revised HydroCAD reports included with this letter.

Table 1: Design Point Peak Runoff Rate Summary

Point of Analysis	2-Year Storm			10-Year Storm			25-Year Storm			100-Year Storm		
	Pre	Post	Δ	Pre	Post	Δ	Pre	Post	Δ	Pre	Post	Δ
DP1	36.58	36.58	0.00	94.47	94.47	0.00	135.09	135.09	0.00	201.40	201.40	0.00

**Flows are represented in cubic feet per second (cfs)*

Table 2: Design Point Volume Summary

Point of Analysis	2-Year Storm			10-Year Storm			25-Year Storm			100-Year Storm		
	Pre	Post	Δ	Pre	Post	Δ	Pre	Post	Δ	Pre	Post	Δ
DP1	5.46	5.46	0.0	13.07	13.07	0.0	18.47	18.47	0.0	27.41	27.41	0.0

**Volumes are represented in acre feet (af)*

Comment SW6.

The flow to the vernal pools should each be analyzed separately for both existing and proposed conditions.

Response:

A HydroCAD analysis has been completed for each of the four (4) existing vernal pools (VP1-4) to determine the pre- and post-development conditions for the 2-, 10-, 25- and 100-year storm events. Refer to the HydroCAD reports included with this letter as well as Tables 3 and 4 below for a summary of pre- and post-development peak rates and volumes.

There are no changes in flow and volume characteristics to VP2. Both VP3 and VP4 experience a slight decrease in runoff rates and volumes in all storm events in the post-development condition, which is largely due to the replacement of gravel/paved cart paths with natural vegetated materials. VP1 experiences an increase in runoff rates and volumes in the post-development condition. LEC Environmental Consultants, Inc. is in support of the introduction of more water to VP1 given that the resource area is a standing water body with considerable vernal pool activity that is benefitting from a longer permanent pool duration.

Table 3: Vernal Pool Design Point Peak Runoff Rate Summary

Point of Analysis	2-Year Storm			10-Year Storm			25-Year Storm			100-Year Storm		
	Pre	Post	Δ	Pre	Post	Δ	Pre	Post	Δ	Pre	Post	Δ
VP1	4.38	5.62	1.24	10.24	12.30	2.06	14.21	16.71	2.50	20.56	23.68	3.12
VP2	1.59	1.59	0	3.53	3.53	0	4.83	4.83	0	6.88	6.88	0
VP3	3.19	2.96	-0.23	8.29	7.94	-0.35	11.85	11.46	-0.39	17.66	17.22	-0.44
VP4	0.91	0.84	-0.07	3.02	2.94	-0.08	4.57	4.49	-0.08	7.18	7.11	-0.07

**Flows are represented in cubic feet per second (cfs)*

Table 4: Vernal Pool Design Point Volume Summary

Point of Analysis	2-Year Storm			10-Year Storm			25-Year Storm			100-Year Storm		
	Pre	Post	Δ	Pre	Post	Δ	Pre	Post	Δ	Pre	Post	Δ
VP1	0.481	0.558	0.077	1.072	1.184	0.112	1.479	1.608	0.129	2.144	2.292	0.148
VP2	0.126	0.126	0	0.272	0.272	0	0.371	0.371	0	0.532	0.532	0
VP3	0.316	0.298	-0.018	0.756	0.728	-0.028	1.068	1.035	-0.033	1.585	1.546	-0.039
VP4	0.086	0.080	-0.006	0.235	0.225	-0.010	0.345	0.333	-0.012	0.533	0.518	-0.015

**Volumes are represented in acre feet (af)*

Comment SW9. Compliance with the bylaw for 0.8" of infiltration is required for redevelopment and needs to be documented.

Response: Refer to response to comment SW10, below.

Comment SW10. For a redevelopment Site, meet one of the following criteria (§153-16.B(2))

- a. Retain the volume of runoff equivalent to, or greater than, 0.8 inch multiplied by the total post-construction impervious surface area on the Site; and/or
- b. Remove 80% of the average annual post-construction load of TSS and 50% of the average annual load of total phosphorus.

Response: The Project results in a reduction of over 2 acres of impervious area from the pre- to post-development condition. A total of approximately 0.11 acres of impervious area remains consisting of existing paved cart paths within wetland resource areas, a widened culvert crossing associated with the emergency access road, and concrete pads associated with proposed mechanical equipment.

A series of 2' wide by 26" deep crushed stone trenches are proposed down gradient of the mechanical equipment pads to promote infiltration of 1" over the total impervious area in the post-development condition. The trenches have been sized to accommodate the 0.8" recharge volume required per the Town of Franklin Bylaw and 1" water quality volume required for discharges within a Zone II. Refer to calculations below and a crushed stone trench detail provided on Sheet C-901.

Trench Area Calculations:

0.11ac impervious x 1" water quality vol. = 400cf vol. required
 26" deep x 2' wide x (32' + 90' + 112' = 234') long x 40% voids = 406cf vol. provided

Existing cart paths to remain are anticipated to maintain existing drainage patterns via overland flow to wetland resource areas. Runoff associated with the emergency access culvert is anticipated to mimic existing drainage patterns via overland flow to wetland resource areas. Rip rap is proposed along the southern edge of the modified crossing to prevent scour and erosion and provide TSS removal prior to discharge.

Redevelopment (Standard Number 7)

Comment SW11. BETA recommends the Applicant complete the redevelopment checklist found in Volume 3 of the MA Stormwater Handbook to document which standards are being met only to the maximum extent practicable.

Response: A redevelopment checklist has been completed for this Project and is included with this letter.

Erosion and Sediment Controls (Standard Number 8)

Comment SW12. Provide expected date clearing will begin and estimate duration of exposure of cleared areas (§153-12.M).

Response: Construction is anticipated to begin May 2024 and continue through the summer. Ground stabilization is expected to occur during the planting season in the fall through approximately November 2024.

Comment SW13. The grading at the proposed wetland crossing is shown outside the limit of work on the plans. Either correct the grading or move the proposed erosion control to include all disturbed areas.

Response: Acknowledged. The limit of work line and proposed erosion control barrier have been revised to encompass the full limit of work proposed at the emergency access road/culvert crossing.

Comment SW14. Recommend including a note or callout prohibiting the placement of stockpiles within wetland buffer zones.

Response: A note has been added to the Erosion & Sediment Control Plans of the revised plan set.

Comment SW15. The applicant is reminded that a Stormwater permit from the Franklin DPW is required based upon the size of the disturbance.

Response: Acknowledged. Upon approval with the Planning Board a Stormwater Permit will be filed with the Franklin DPW prior to construction.

Operations/Maintenance Plan (Standard Number 9)

Comment SW20. Provide location map of culverts to be maintained.

Response: Acknowledged. A Wetland Crossing Exhibit has been prepared and is included with this letter.

DEPARTMENT OF PUBLIC WORKS REVIEW LETTER DATED 9/21/2023

Comment 1. Permit applications that may need to be filed with the Franklin Department of Public Works include (but are not necessarily limited to) a Soil Erosion and Sediment Control Plan Certification Permit and a Trench Permit.

Response: Acknowledged, these permits will be requested upon approval by the Planning Board and prior to construction.

Comment 2. This project application is for Maplegate Solar Project South and the plans reference the North Solar Project as well. For Clarity, we recommend distinguishing the two sets of pans by incorporating North or South into the Title on the respective cover sheets.

Response: Acknowledged, we have depicted the North improvements for reference as it was requested by other agencies reviewing the plans to depict the North project for clarity. They will remain as two separate projects and separate applications.

Comment 3. Also, will construction of these two projects be concurrent or phased? Please provide a sequencing schedule relative to the two projects as access to the South project will be through the North project.

Response: The project construction schedules has not been determined to date. It is anticipated that the North would proceed with the South. The South access for construction would need to occur through the North parcel. We will prepare a detailed sequence of construction with the contractor and be able to provide same to the Department of Public works prior to construction when we file for the soil erosion and trench permits as noted above.

Comment 4. There is currently access to the site via an easement through the existing solar farm now or formerly owned by LMP Properties, LLC. Although this access will connect directly to the North Solar project, it also provides potential access to the South project and Parcel 2. Is access through easement being proposed for either the North or South projects, or access to Parcel 2? If not will it be fenced off?

Response: That access will no longer be in service for the maintenance facility to the golf course. All proposed access for the North and South will use the entrance at 160 Maple Street. It is our understanding that Bellingham is requesting a new gate to be placed on the LMP entrance going forward.

Comment 5. Sheet C-305 shows a proposed 30 foot wide access easement from New England Power Company. If this will be a means of access for the project, the Applicant should provide a copy of the executed easement to the Board prior to approval.

Response: That initially proposed easement that has been rejected by New England Power, is no longer depicted on the plan.

Comment 6. The stormwater report should indicate how the project will meet the requirements of the Town's Stormwater Bylaw 153-16

Response: Additional stormwater comments have been responded to in the letter above. As the project is proposing a significant reduction in impervious coverage there is limited additional stormwater measures proposed. To mitigate the new impervious from the equipment pads, new stormwater infiltration trenches are proposed.



We trust the above as well as the attached information are sufficient for your continued review of the project. Should you have any questions or require additional information, please do not hesitate to contact me at (508) 480-9900.

Sincerely,

Bohler

A handwritten signature in black ink, appearing to read "Greg DiBona".

Greg DiBona

CC with Enclosures:

Gary D. James, P.E., BETA Group, Inc.

CC.

Daniel Serber, NextGrid

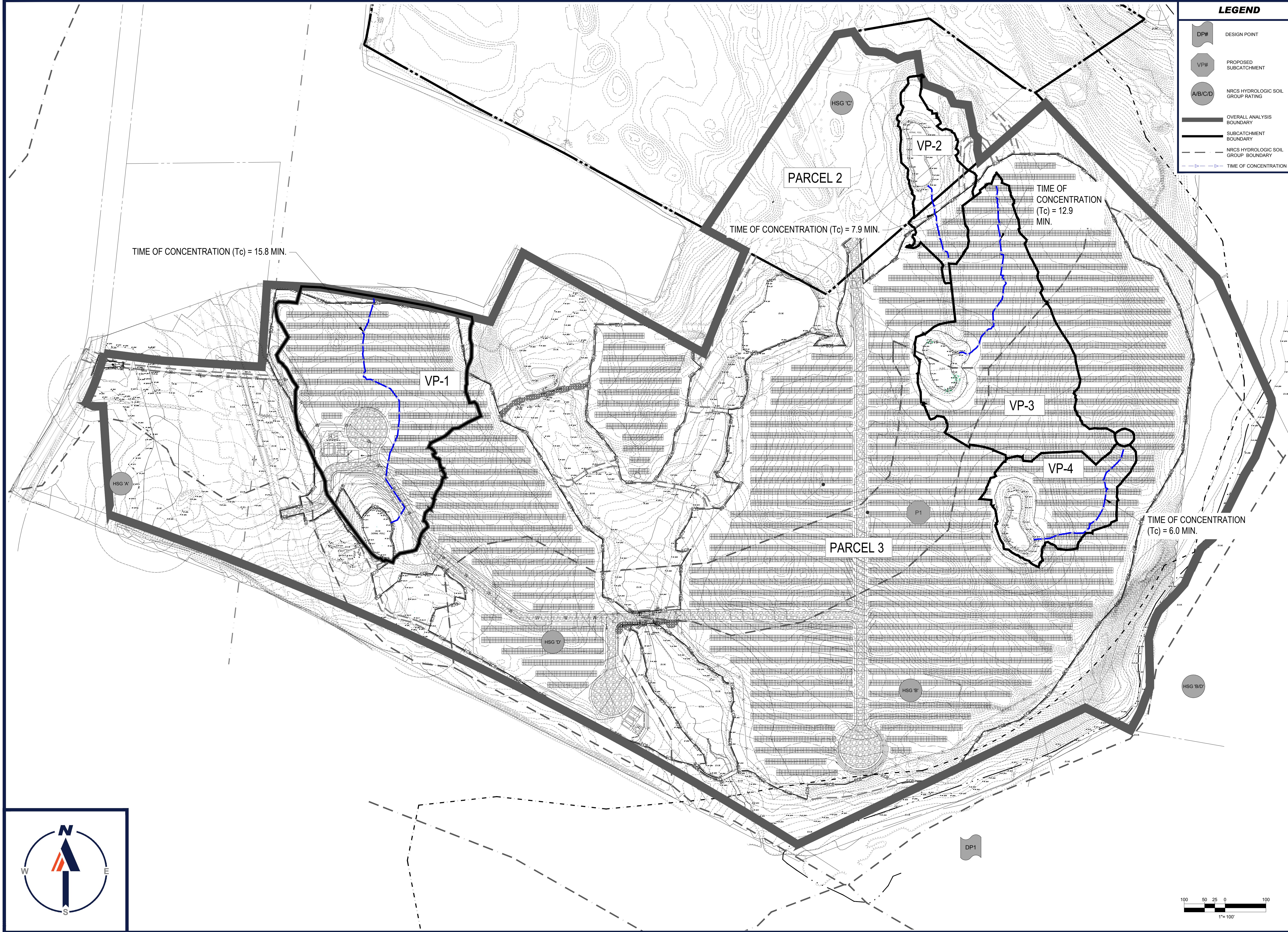
Aaron Culig, NextGrid

John Kucich, Bohler

Peter Brown, Brown Legal PLLC

Allison Finnell, Brown Legal PLLC

Amy Love, Town of Franklin



LEGEND

- DP# DESIGN POINT
- VP# PROPOSED SUBCATCHMENT
- A/B/C/D NRCS HYDROLOGIC SOIL GROUP RATING
- OVERALL ANALYSIS BOUNDARY
- SUBCATCHMENT BOUNDARY
- NRCS HYDROLOGIC SOIL GROUP BOUNDARY
- TIME OF CONCENTRATION

BOHLER
 SITE CIVIL AND CONSULTING ENGINEERING
 PROGRAM MANAGEMENT
 LANDSCAPE ARCHITECTURE
 SUSTAINABLE DESIGN
 PERMITTING SERVICES
 TRANSPORTATION SERVICES

REVISIONS

REV	DATE	COMMENT	DRAWN BY	CHECKED BY

811
 Know what's below.
 Call before you dig.
 ALWAYS CALL 811
 It's fast. It's free. It's the law.

ISSUED FOR MUNICIPAL & AGENCY REVIEW & APPROVAL

THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGENCY REVIEW AND APPROVAL. IT IS NOT INTENDED AS A CONSTRUCTION DOCUMENT UNLESS INDICATED OTHERWISE.

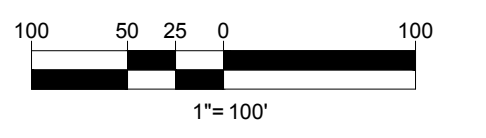
PROJECT No.: W201257
 DRAWN BY: CMC / OCR
 CHECKED BY: GD
 DATE: 07/20/2023
 CAD ID: W201257_PR-SOUTH-VERNAL

PROPOSED SITE PLAN DOCUMENTS
 FOR
MAPLE STREET SOLAR LLC
 PROPOSED SOLAR FARM - SOUTH
 LOTS INCLUDED (PARCEL #): 255-001, 254-001, 239-010 A, 239-010 B, 239-010 C, PORTION OF D 239-010, & 32-0009
 160 MAPLE STREET,
 TOWN OF BELLINGHAM & FRANKLIN,
 NORFOLK COUNTY, MASSACHUSETTS

BOHLER
 352 TURNPIKE ROAD
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 CONNECTICUT LICENSE No. 26177
 PHOENIX LICENSE No. 9616
 MAINE LICENSE No. 12553

SHEET TITLE: **PROPOSED CONDITIONS DRAINAGE AREA MAP (C)**
 SHEET NUMBER: **PRDAM-C**
 ORG. DATE - 02/16/2024



I:\BOHLER\NET\SHARES\MA-PROJECTS\2023\2321\TECHNICAL\STORMWATER\SOUTH SITE - NEXT TO RD\2023\42-16 BEVY DRAIN REPORT\W201257_PR-SOUTH-VERNAL-LAYOUT.PRDAM-C PROP. WATERSHED-23038

Town of Franklin

355 East Central Street
Franklin, Massachusetts 02038-1352



Phone: (508) 520-4907
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DEPARTMENT OF PLANNING AND COMMUNITY DEVELOPMENT

DATE: February 21, 2024
TO: Franklin Planning Board
FROM: Department of Planning and Community Development
RE: Maplegate Solar South
Site Plan

The DPCD has reviewed the above referenced Site Plan Modification application for the Monday, February 26, 2024 Planning Board meeting and offers the following commentary:

General:

1. The site is accessed through Bellingham at 160 Maple St, and located in the Industrial Zoning District.
2. The proposed project includes the construction solar panels, along with drainage.
3. The Applicant has filed a NOI with the Conservation Commission.
4. DPCD refers to BETA and Town Engineer for stormwater management comments.

Special Conditions:

1. Applicant shall enter into a monetary agreement (PILOT) at the sole discretion of Administration and the Town of Franklin prior to commencement of construction.
2. A Surety bond in the amount of \$46,768.00 shall be issued by a surety company acceptable to the Town of Franklin prior to commencement of construction. Bond must include tree replanting plan.