Klavens Law Group

Jonathan S. Klavens
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November 6, 2023

Via Email to: kbuckland@wareham.ma.us

Members of the Wareham Planning Board
c/o Kenneth Buckland
Director of Planning and Community Development
Memorial Town Hall
54 Marion Road
Wareham, MA 02571

Re: Site Plan Review Special Permit Application, 0 Rt. 25, Parcel ID 115-1000

Dear Members of the Wareham Planning Board:

I am writing on behalf of the applicant, Wareham PV I, LLC, an affiliate of Longroad Development Company, LLC ("Longroad"), to provide additional information in response to comments made by Board members during the October 16, 2023 public hearing session.

Soil Report

At the October 16, 2023 public hearing session, it was mentioned that the last page of the soil report previously submitted to the Board had been cut off. Attached is a corrected copy of the soil report with the full last page.

Construction Schedule

At the October 16, 2023 public hearing session, it was mentioned that the estimated construction schedule previously submitted with the solar-only permit application filed on June 29, 2023 still contemplated a battery energy storage component. Attached is a corrected copy of the schedule with the reference to battery energy storage removed.

Fire Truck Access

At the October 16, 2023 public hearing session, the Board asked for confirmation that the access road turnarounds assumed use of the Wareham Fire Department's Ladder 1 vehicle (WFD's largest vehicle). That was indeed the case. For good measure, attached is a fire truck access plan reflecting that explicitly.

75′ Setback

M.G.L. c. 40A, § 6 ANR Plan Freeze - Virtual Prohibition of Large Ground-Mounted Solar Energy Use

As we explained in our October 5, 2023 letter to the Board, under M.G.L. c. 40A, § 6, as interpreted by settled Massachusetts law, the ANR plan freeze applicable to the 0 Route 25 site (the "Site") protects against a change in use regulation that expressly prohibits large ground-mounted solar energy use as well as a change in dimensional regulation that has the practical effect of prohibiting such use.

During the October 16, 2023 public hearing session, Longroad's Chief Development Officer, Matt Kearns, as well as Sarah Ebaugh from VHB, noted that the practical effect of imposing a 75′ setback on a solar energy project at the Site would be to virtually prohibit a solar energy project at the Site. Following that meeting, Director of Planning and Community Development Ken Buckland asked that we provide some additional information to help the Board understand why that's the case and also why this is materially different at this point than imposition of a 50′ setback. We are submitting a letter, dated today, from Longroad that aims to do just that.

Preemption Under M.G.L. c. 40A, § 3

We remind the Board that, as we explained in our October 5, 2023 letter to the Board, as applied to this proposed project at this Site, a 75′ setback should be considered preempted under M.G.L. c. 40A, § 3. Such preemption does <u>not</u> require any determination that a 75′ setback would amount to a virtual prohibition of solar energy use at the Site. Instead, preemption is required here because it is quite clear that, in the unique circumstances of this proposed project at this Site, a setback greater than 50′ is not, in the language of the statute, "necessary to protect the public health, safety or welfare." The Board has not only the authority but the obligation under state law to make that determination.

No Requirement for Waiver or Variance

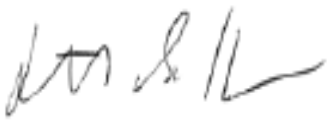
During the October 16, 2023 public hearing session, certain Board members suggested that they might be inclined to grant a waiver from the 75′ setback if the Wareham Zoning By-Laws provided that authority. We understand that the Zoning By-Laws do not provide the Board with authority to grant waivers, but we are not seeking a waiver, nor is a waiver required here in order for the Board to recognize that state law provides relief from a 75′ setback. The Board must follow the Zoning By-Laws, but where superseding state law dictates a different result, the Board must abide by state law. We simply ask that the Board recognize that, by the force of superseding state law, a 75′ setback is not enforceable in this instance.

During the October 16, 2023 public hearing session, certain Board members also suggested that Longroad seek a variance from the Zoning Board of Appeals. As we explained in our October

5, 2023 letter, it is neither legally necessary nor appropriate to require that Longroad seek a variance in order to obtain the protections already provided by state law.

Thank you for your consideration.

Sincerely,



Jonathan S. Klavens

cc: Richard P. Bowen, Esq., Law Office of Richard P. Bowen
David Fletcher
Robert W. Galvin, Esq., Galvin & Galvin, PC
Matt Kearns, Longroad Energy
Cliff Sher, Longroad Energy
Lucy Fowler, Longroad Energy
Lindsey Kester, Longroad Energy
Vanessa Kwong, Esq., Longroad Energy
Sarah Ebaugh, VHB

Enclosures:

Custom Soil Resource Report
Wareham Solar – Construction Schedule
Fire Truck Access Plan
Letter, dated November 6, 2023, from Longroad

United States Department of Agriculture

NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Plymouth County, Massachusetts

June 18, 2021

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or a part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require

alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD). To file a complaint of discrimination, write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410 or call (800) 795-3272 (voice) or (202) 720-6382 (TDD). USDA is an equal opportunity provider and employer.

Contents

How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

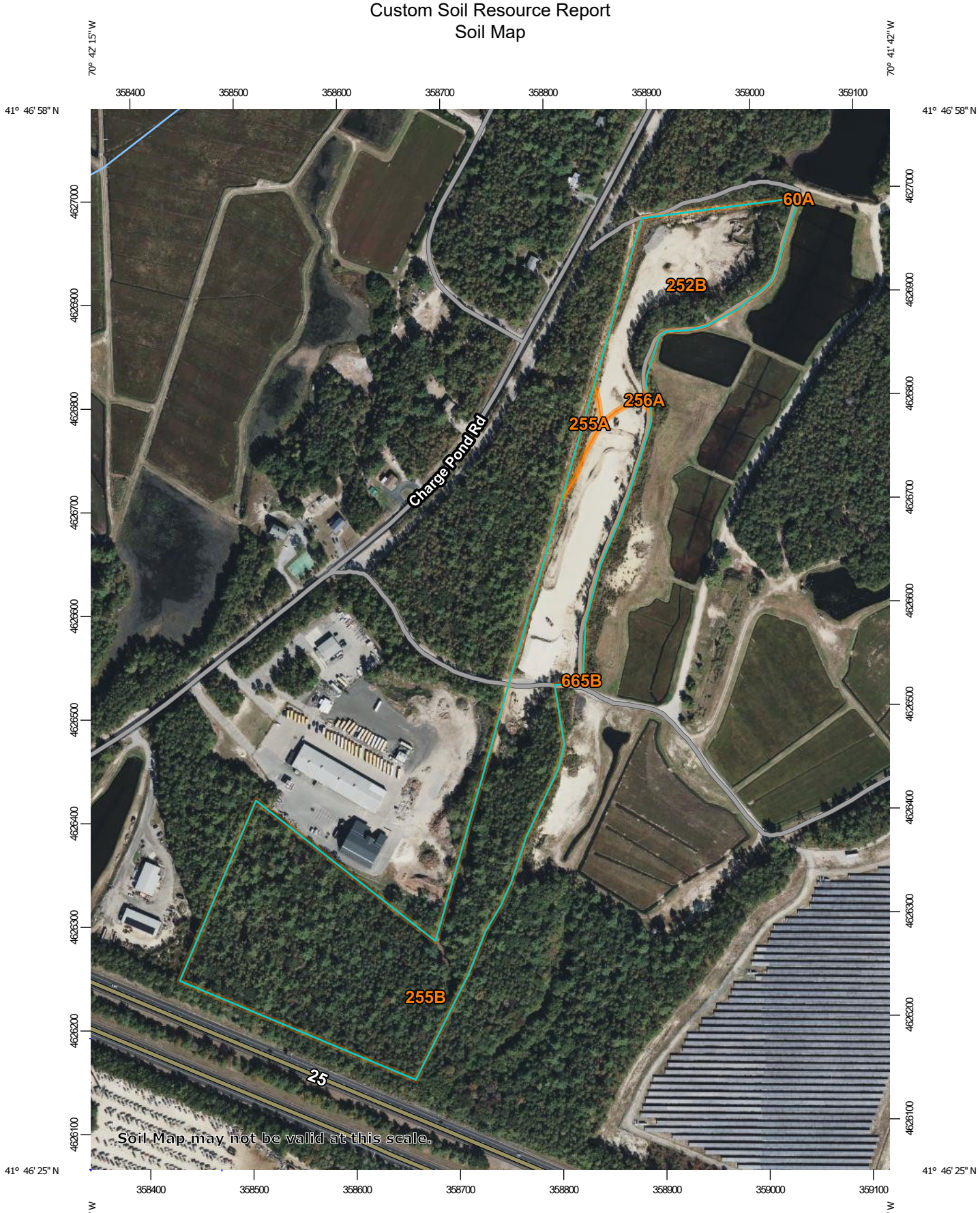
After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report
Soil Map



Map Scale: 1:4,990 if printed on A portrait (8.5" x 11") sheet.

N

Meters
0 50 100 200 300

Feet
0 200 400 800 1200

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 19N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:12,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Plymouth County, Massachusetts
Survey Area Data: Version 13, Jun 9, 2020

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Sep 25, 2020—Oct 9, 2020

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
60A	Swansea coarse sand, 0 to 2 percent slopes	0.0	0.0%
252B	Carver coarse sand, 3 to 8 percent slopes	4.8	21.6%
255A	Windsor loamy sand, 0 to 3 percent slopes	0.3	1.2%
255B	Windsor loamy sand, 3 to 8 percent slopes	17.3	77.1%
256A	Deerfield loamy fine sand, 0 to 3 percent slopes	0.0	0.1%
665B	Udipsamments, 0 to 8 percent slopes	0.0	0.0%
Totals for Area of Interest		**22.4**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it

was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

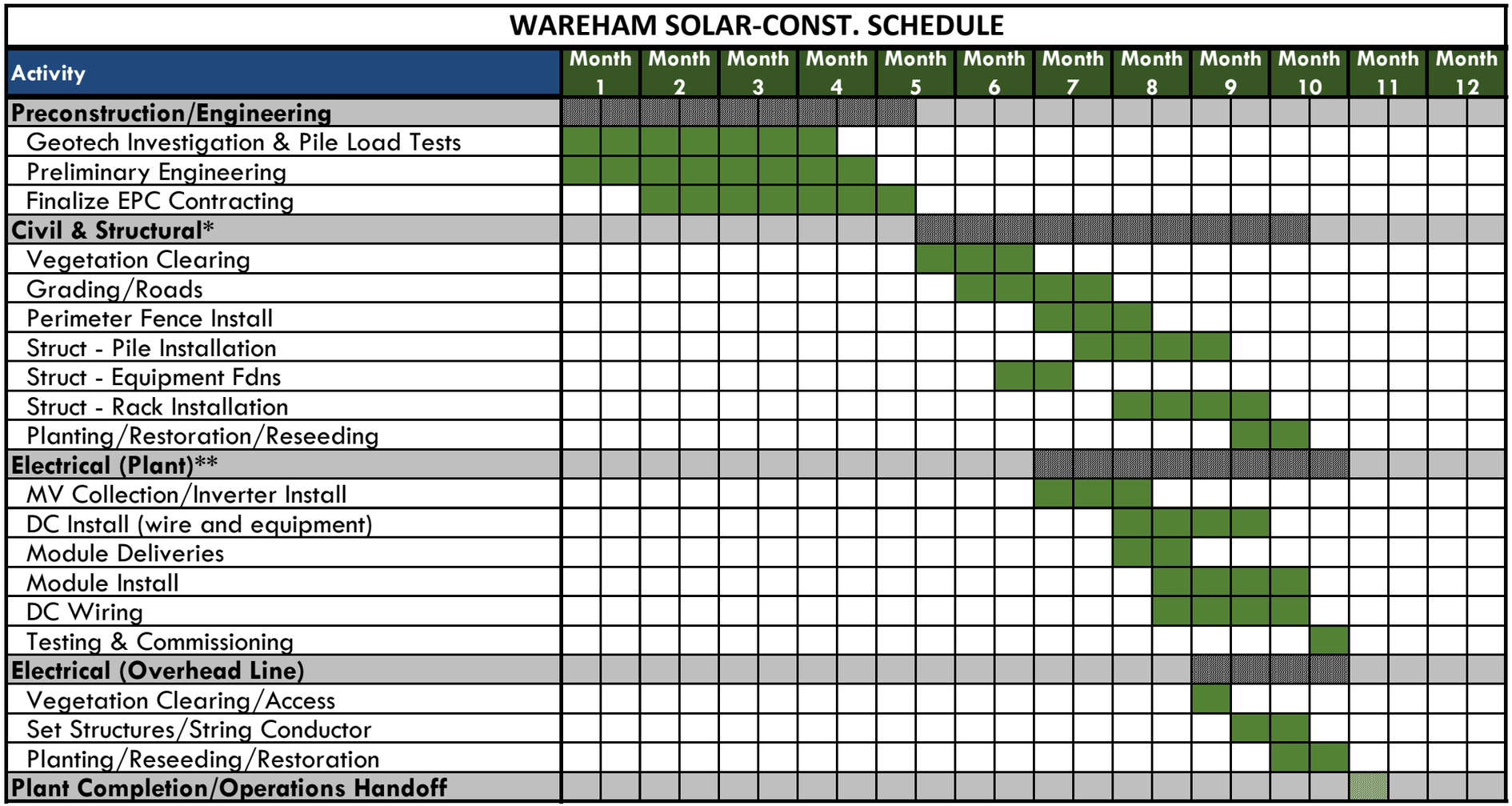
A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

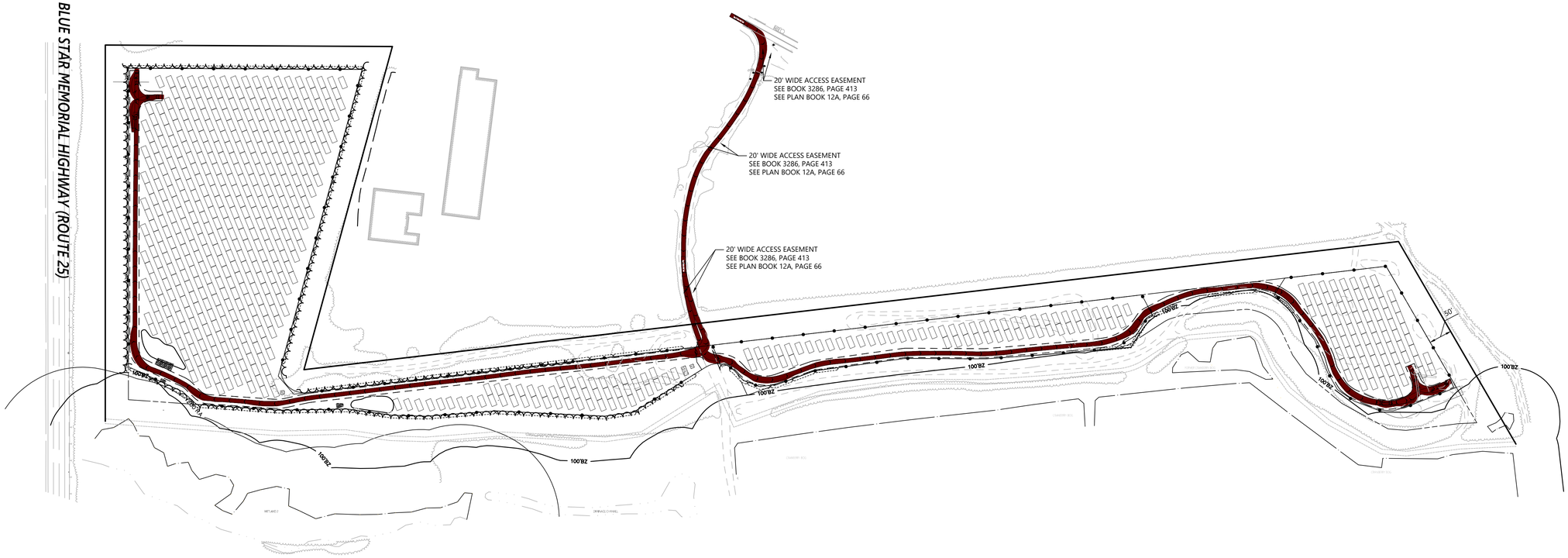
An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

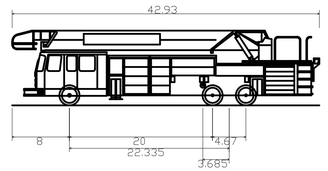
An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

WAREHAM SOLAR-CONST. SCHEDULE







Copy of Boston Aerial Tower	
Overall Length	42.930ft
Overall Width	8.330ft
Overall Body Height	10.432ft
Min Body Ground Clearance	0.862ft
Track Width	8.000ft
Lock-to-lock time	6.00s
Max Steering Angle (Virtual)	42.00°

vhb.com

vhb

101 Walnut Street
PO Box 9151
Watertown, MA 02471
617.924.1770

0 60 120 240Feet

Proposed Large-Scale Ground-Mounted Solar Photovoltaic Installation

0 Route 25
Wareham, MA

No.	Revision	Date	Appvd.

Designed by LMT | Checked by SKE

Issued for: Local Approvals

Date: June 26, 2023

Drawing Title: Fire Truck Access Plan

Drawing Number: F1.00

Sheet 1 of 1

Project Number: 15225.01

November 6, 2023

Via Email to: kbuckland@wareham.ma.us

Members of the Wareham Planning Board
c/o Kenneth Buckland
Director of Planning and Community Development
Memorial Town Hall
54 Marion Road
Wareham, MA 02571

Re: Site Plan Review Special Permit Application, 0 Rt. 25, Parcel ID 115-1000

Dear Members of the Wareham Planning Board:

I am writing to you on behalf of Wareham PV I, LLC, an affiliate of Longroad Development Company, LLC ("Longroad"), to provide additional information in response to comments made by Board members during the October 16, 2023, public hearing session.

We noted at the October 16 public hearing session that the practical effect of imposing a 75' setback on a solar energy project at the 0 Rt. 25 site would be to virtually prohibit a solar energy project at the site. We'd like to help the Board understand why that's the case and also why this is materially different at this point than imposition of a 50' setback.

A solar energy project is not viable unless, at a minimum, it can create enough revenue to recover the upfront capital costs associated with construction of the project.

The biggest driver of revenue is the size of the project. Attached is a figure showing the maximum size solar project design that the site can reasonably accommodate using three different zoning setbacks: the 10' R130 district setback we originally assumed; the 50' setback used in the current design; and a 75' setback. In each case, the design maximizes project size with consideration to regulatory constraints, such as zoning setbacks and wetlands setbacks, and technical constraints driven by topography and good solar industry practices such as adequate spacing between rows to avoid shading impacts, spacing between fencing and solar modules for access considerations, and location of an access road for ongoing maintenance access. Our original project design was 4.8MWdc (3.5 MW ac). With a 50' setback, the project was reduced roughly 30% to 3.47 MW dc (3.5MWac). At a 75' setback, the project would be reduced an additional 40% to 2.09 MW dc (1.7 MW ac).

Our experienced project finance team has analyzed the economic feasibility of this project in these different scenarios.

Throughout these analyses, a major driver of economic feasibility for a solar energy project at the site is the Capital Investment Project ("CIP") fees in the amount of $1.5mm, which are assigned by ISO-NE and Eversource and cannot be reduced even if the solar project size is reduced.

In late 2020, when Longroad assumed development of the project, our team determined that the original 4.8MWdc (3.5 MW ac) project would be likely to generate revenue greater than its capital costs, including the CIP fees, making the project financially worthwhile to pursue.

In 2022, after the Board determined that a 50' setback was applicable to a solar project at the site, our team reevaluated the project on a technical and economic basis and determined that the site could not fit a project sufficient in size to generate revenue greater than its capital costs. A key factor in that determination was that the long, thin Northern portion of the site could not accommodate both the 20' access road required by the Wareham Fire Department and any appreciable number of solar panels. With a 20' access road, the 50' setback closely resembled the 75' setback scenario we are looking at today and would not be viable. It was on this basis that Longroad sought a variance from the Zoning Board of Appeals.

In late 2022, after the ZBA had denied the variance, we learned that the Wareham Fire Department would agree to allow for the access road to be narrower than 20' at a choke point. With that allowance from the Fire Department, we were able to redesign the project to achieve a generating capacity of 3.47MWdc (3.5 MW ac). Our team's analysis was that, with the significant reduction in revenue and fixed CIP fees, the project would have greater economic risk but could still generate a marginal return. Longroad determined that, given its investment to date in the project and recognizing that a marginal return is better than a zero or "less than zero" return, Longroad would continue development of the project.

Following the Attorney General's approval in September 2023 of the April 2022 solar bylaw amendments increasing the setback to 75', the team evaluated the technical and financial feasibility of the project yet again. Imposition of the 75' setback greatly reduces the areas adequate for solar panels and creates limitations in regard to connecting the solar panel areas. The technical and economic feasibility of installing collection lines from each solar panel area is dependent on the energy generation from those panel areas. As shown on the attached figure, the 75' setback and design considerations previously mentioned results in a limit of feasible solar panel areas to a small block in the North and a block in the South. Given the limited areas adequate for solar panels, the project would be able to have a generating capacity of only 2.09 MW dc (1.7 MW ac) compared to the 3.47 MW dc noted above. Therefore, the project experiences another reduction in energy generation, thus another reduction in revenue. Meanwhile, the CIP fees remain fixed. It is at this point that the economic analysis presents a negative (or "less than zero") return on the capital investment in the project. Table 1 provided below demonstrates the economic analysis further. Our conclusion is that neither we nor any other developer would continue development and investment on a project that is going to generate a "less than zero" return.

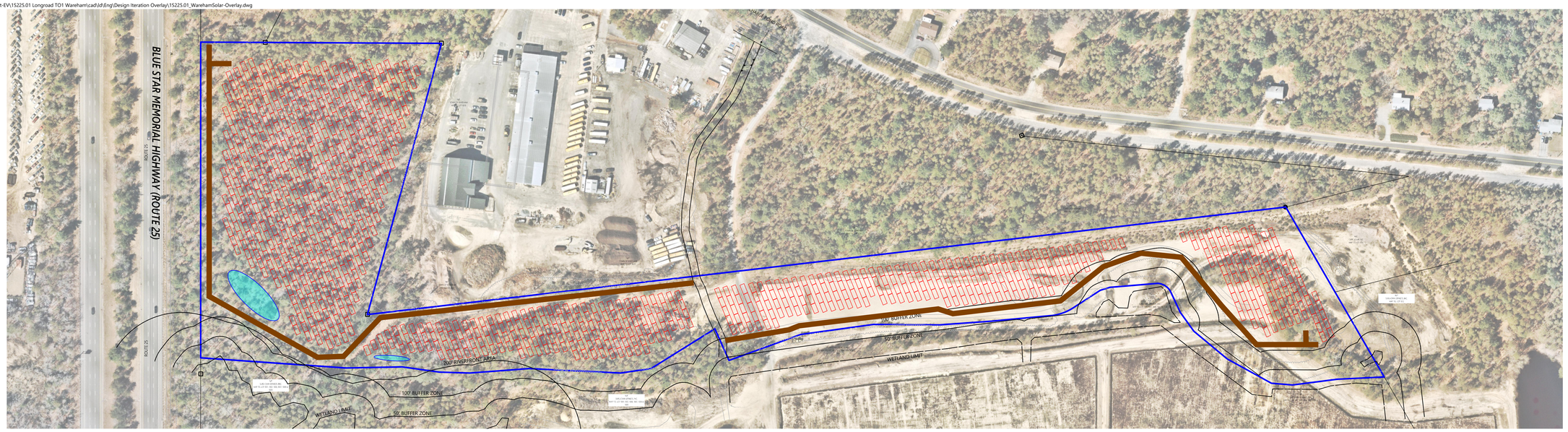
Table 1.

Setback Imposed (ft)	Project Capacity (MWdc)	Capital Investment Project (CIP) Fees (Fixed) ($000s)	CIP Fee ($/kW)	Return
10	4.8	1,500	312	Positive
50	3.47	1,500	432	Marginal
75	2.09	1,500	718	Negative

Thank you,

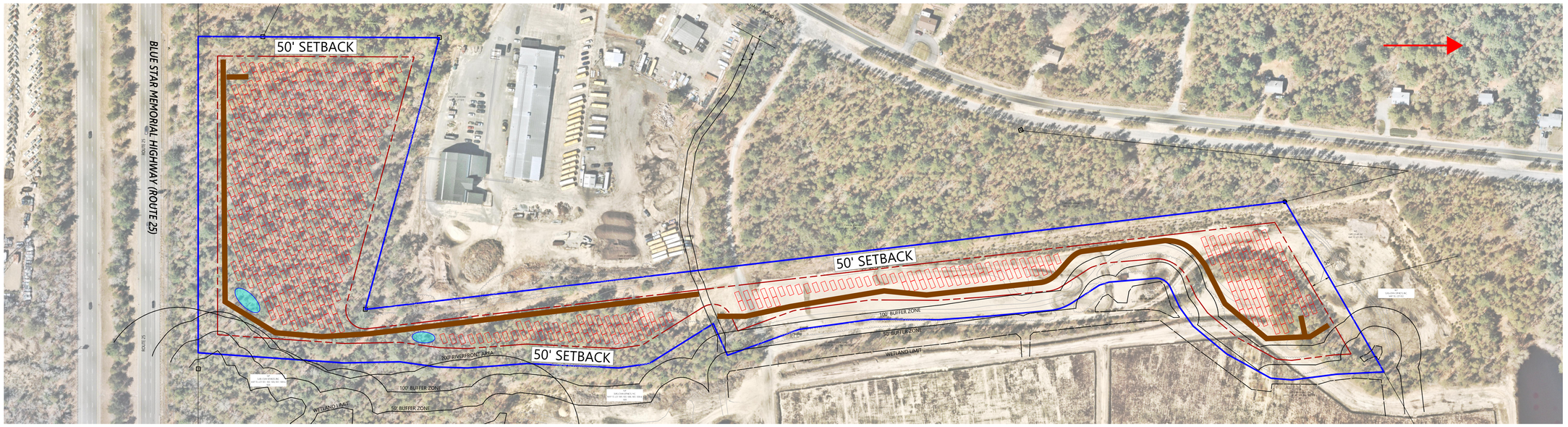
Sincerely,

Matt Kearns, Chief Development Officer, Longroad Energy
Lucy Fowler, Development Manager, Longroad Energy
Charlie Marr, Project Finance Associate, Longroad Energy
Tom Mulcahy, Director, Resource and Design, Longroad Energy



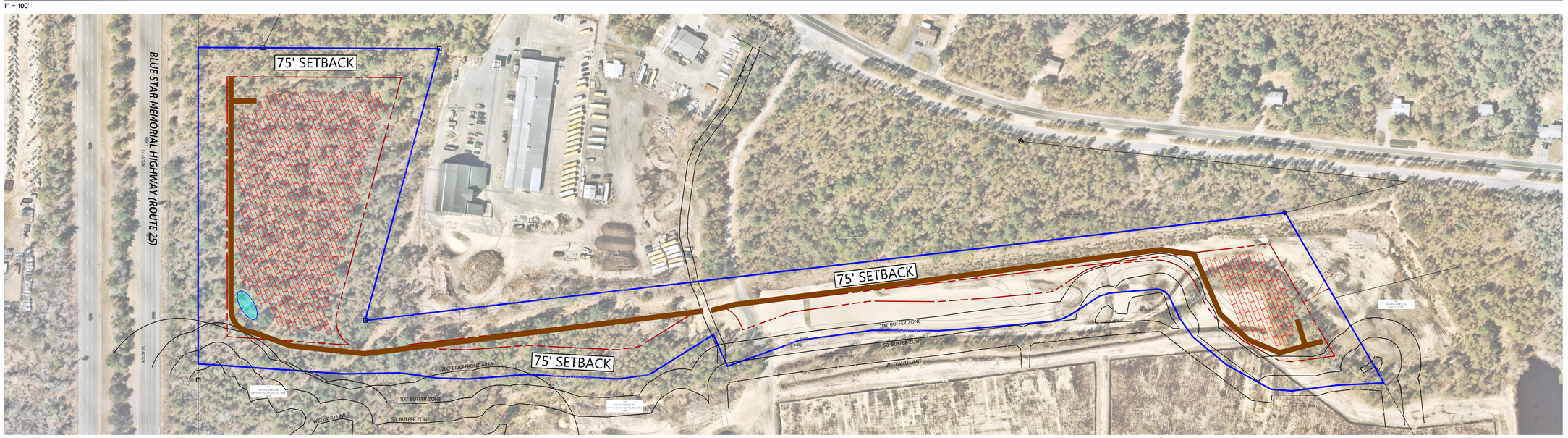
Original Layout - 0' Setback

1" = 100'



Current Layout - 50' Setback

1" = 100'



Potential Layout - 75' Setback

1" = 100'

vhb.com
vhb
101 Walnut Street
PO Box 9151
Watertown, MA 02471
617.924.1770

Legend

- PROPERTY LINE
- 50' SETBACK LINE
- 75' SETBACK LINE
- WETLAND LIMIT
- 200' RIVER FRONT
- 100' WETLAND BUFFER
- GRAVEL DRIVEWAY

Proposed Wareham Solar

Wareham, Massachusetts

No.	Revision	Date	Apprvd

Designed by: WGM | Checked by: SKE

Issued for: Client Review | Date: November 2, 2023

Not Approved For Construction

Drawing Title: Solar Panels Design Iterations

Drawing Number: C-1.00

Sheet 1 of 1

Project Number: 15225.01