



December 1, 2022

Ref: 15225.01

Wareham Planning Board  
Memorial Town Hall  
54 Marion Road  
Wareham, MA 02571

Re: Proposed Large-Scale Ground-Mounted Solar Photovoltaic Installation, 0 Route 25, Wareham, MA  
Response to Charles L Rowley Consulting Engineer Comments

Members of the Board:

On behalf of our Client, Wareham PV I, LLC, VHB has prepared this letter in response to the comment letter provided by Charles L. Rowley on November 3, 2021, regarding the project mentioned above.

In this response, for clarity, Mr. Rowley's comments have been provided in regular text, and VHB's responses are *italicized*.

#### General

1. The Abutter Notice list appears to be incomplete and should be checked. There are six lots that may have been left out of the notice list for abutters and abutters to abutters within 300 feet of locus.

*The abutter notifications were sent based on the certified abutters list from the assessors office provided to VHB and the Client on June 24, 2021. The certified abutters list, as well a copy of the current assessors' tax map for the properties, is attached.*

*As you can see on the tax map, Parcels 113\_7-9 and 113\_7-10 are divided by a dotted line to indicate that they are separate tax parcels but are part of the same lot. This also applies to Parcels 113\_7-11 and 113\_7-12. This may have been the cause of confusion as the map provided with the certified abutters list appears to show these tax parcels lots as separate lots (divided by a solid line). However, the certified abutters list notes that the list presents "certified abutters as they appear on our tax rolls as of 5/15/2021." Sure-Cran Services LLC owns multiple lots within the radius of the parcel (115-1007, 115-1006, 113-1028, 113-1012) and appears in the certified list only once to avoid duplicates.*

*It is VHB's understanding that the assessors office provided a complete abutters list and the appropriate owners were notified as part of the original filing.*

2. This review is conducted with reference to the current Wareham Zoning By-Law including the change to the By-Law approved by Town Meeting vote in June, 2021.

With the exception of two provisions of the By-Law change which reduce the maximum site area to 10 acres and requiring land used for large ground mounted solar projects to have been previously cleared, all other



provisions of the 2019 By-Law appear to apply. The Narrative supplied refers to the 2018 Zoning By-Law which has been superseded.

*Acknowledged that the October 2019 version of the Zoning By-Laws applies, although there do not appear to be any more stringent provisions in the October 9, 2019 version applicable to the proposed project as compared with the provisions of the October 2018 version of the Zoning By-Laws. As the Board is aware, the Attorney General has since disapproved the June 2021 amendments to the Zoning By-Laws.*

3. The project narrative interprets Sections 594.1.3 and 594.1.4 as only requiring 10-foot-wide buffers around the perimeter of the site claiming that the project does not "abut" a residential zoning district and is not across the street from a residential district or development.

This interpretation of these sections has never been at issue in all of the previous ground mounted solar projects that are located in residentially zoned areas. In each and every case, the minimum 50-foot-wide buffer has been used and, in some cases, extended significantly.

The following comments are based on a minimum 50-foot-wide buffer as previously accepted by both the Planning Board and a number of different applicants in a variety of similar solar projects that were ultimately approved.

*While the Client continues to believe that the 50' setback requirement is not applicable in this instance, we are aware that the Board has a different view and on October 12, 2022, the Zoning Board of Appeals denied the Client's application for a variance from the setback requirement. We have adjusted the proposed site plans accordingly. As shown on the revised site plans dated November 16, 2022, there is a 50-foot-wide setback proposed along all property lines.*

## Plans

### Sheet C-2.00

1. The plans do not conform to the minimum setback requirements as defined in Sections 594.1.3 and 594.1.4.

*The revised site plans dated November 16, 2022, reflect a 50-foot wide setback proposed along all property lines.*

2. No portion of the buffer that is required can be used for fencing, drainage facilities or other openings except as required to gain access to the property. Reference is made to Section 594.3.7 of the Zoning By-Law.

*The revised site plans dated November 16, 2022, reflect a 50-foot-wide setback proposed along all property lines. No fencing, drainage facilities, or structures are proposed within this setback with the exception of the existing access road within the 20' wide easement on site.*

3. The Zoning Summary Chart, Note 5 states that the property does not abut a residential district and is eligible for 10-foot wide buffers.

*The revised site plans dated November 16, 2022, reflect a 50-foot wide setback proposed along all property lines. This note has been removed.*



4. Not only does the property abut the remainder of the R-130 Residential Zoning District that surrounds it, it is located in it. The minimum 50-foot-wide buffer should apply. Further comments regarding this will follow.

*The revised site plans dated November 16, 2022, reflect a 50-foot wide setback proposed along all property lines.*

#### Sheet C-2.01

1. The plan shows two proposed infiltration areas that would intercept and collect stormwater runoff from the site. Each infiltration area is fed by swales that are several hundred feet long beside site access roads that will not be paved. The site access roads are graded all toward each swale that could collect and carry sediment to the infiltration areas rendering each one ineffective. Sediment forebays need to be established prior to allowing runoff to enter each infiltration basin.

*Sediment forebays have been added to the design of each of the two proposed infiltration basins.*

#### Sheet C-2.02

1. Placing the underground electric connection (UGE) down the centerline of the 20-foot-wide access easement from Charge Pond Road renders the easement unusable for an unspecified time by others who have rights of access to their properties. Is there an alternate route available?

*The conduit is shown as being installed under the existing access roadway 8' from the edge of the roadway to ensure that the proposed work is completed within the existing easement. We do not believe that an alternative route is available. We have previously submitted a memorandum, dated as of July 11, 2022, from Betsy Mason, Klavens Law Group, P.C., explaining that easements created in 1966 benefit the project site and provide the right to use the easement area for vehicular access and utility lines between the project site and Charge Pond Road. We note that the easements created in 1966 expressly allow for the construction and maintenance of necessary utilities and do not restrict such utilities to underground or aboveground utilities. The exercise of the easement rights benefitting the project site will not have any permanent material adverse effect on any other property owner along the access roadway, and the roadway will be repaired to match existing conditions following installation of the underground lines.*

*While the exercise of the right to install utilities necessarily can involve some temporary disruption, the installation of the underground lines will be installed without blocking access. This roadway is the primary access for construction of the project itself, as well as shared users, and as such construction methods would be employed to maintain access throughout construction. Typically, utility line installation on small roadways such as these includes limiting to one-lane closure (during business hours), closure of all open excavations each day, construction signage and barricades and locating the line as laterally as possible within the easement. There is no expectation to close the entire roadway or to leave hazardous conditions for shared users. In addition, the Client plans to provide advance notice to other uses of the affected portion of the roadway regarding the nature and schedule for the work and will exercise commercially reasonable efforts to minimize disruption.*



2. Certain critical pieces of information should be made part of the record for the project:
  - a. That the project proponent has the right to lay electric lines over and under land that is not theirs (owned by the Town of Wareham) and that they have the right to do so by the taking of the access easement in behalf of property owners by the Commonwealth of Massachusetts and
  - b. That property owners who also have rights of access to their property have been given notice that their access may be blocked by construction activity within the easement. This may be very critical to these other owners who rely on this access for their cranberry operations and to other solar project operators that lie to the east of the current project.

*Please see the reply to item 1 above.*

3. The plan shows that a thin buffer zone would be established against the sideline of the Route 25 layout. The grade of Route 25 in this area varies from being nearly level with the project area at the southeast corner to as much as 20 feet below the project site along the sideline.

In a previous solar project to the east of the subject property, a 50-foot-wide buffer was required along the sideline of Route 25 and no trees lower than 40 feet in height were allowed to be cut within this buffer. The reasoning was twofold:

- a. There is no guarantee that the vegetation that exists as a buffer within the Route 25 layout would remain but could be cleared by the Mass. DOT at any time and
- b. It was determined that trees over 40 feet in height could be cut to reduce shadows over the solar field but that the stumps would have to remain so as not to disturb the undergrowth vegetation. Trees to be cut were marked by the project contractor and were approved for cutting by the approving authority.

Since this project has much the same visibility issue along Route 25, it is recommended that these provisions be incorporated into any decision the Board may make regarding the Site Plan Special Permit, notwithstanding the right of the Board to increase the buffer to something greater than 50 feet if it determines further buffering is necessary.

*The revised site plans dated November 16, 2022, reflect a 50-foot-wide setback proposed along all property lines, including the property line abutting Route 25.*

#### Sheet C-2.03

1. Assuming the project site layout remains as shown on the plans, certain portions of the activity including the location of chain link fences and access roads lie within the 100-foot Wetlands buffer zone. This will require approval from the Wareham Conservation Commission either in the form of a Negative Determination of Applicability or an Order of Conditions that would allow the work to proceed.

*The revised site plans dated November 16, 2022, do not propose any work within the 100-foot wetlands buffer zone. A Negative Determination of Applicability, dated as of October 27, 2022, has been issued by the Conservation Commission and provided to the Planning Board.*



#### Sheet C-3.01

1. Concrete Pad Detail: Identify the gravel material by specification  
*The gravel material has been added to this detail.*
2. Flared End Detail: Identify the size of stone for pipe ends. The depth should be at least twice the maximum stone size. Show the stone as extending 2 feet under the flared end section to prevent scouring.  
*The stone at each flared end section has been extended a minimum of 2' to prevent scouring.*
3. Gravel Access Road Detail: This detail applies only to the internal access roads around the site. A separate detail should be added for the road within the 20-foot wide access easement that shows the width, depth of materials and shape that is commensurate with the previous approval for its use as a solar project access.  
*A note has been provided stating that the gravel roadway will be reconstructed to be restored after installation of the conduit.*
4. Outlet Control Structure Detail: Show the structure resting on a base of 6 inches of crushed stone.  
*A base of 6-inches of crushed stone has been added to the detail.*
5. Grass Swale Detail: Add dimensions to the cross section for each one.  
*A dimension noting the width of each grass swale has been provided on the revised site plans.*
6. Add a Sediment Forebay Detail for each infiltration basin.  
*A sediment forebay berm detail has been provided.*

#### Sheet C-3.02

1. Relocate the single Evergreen Tree Detail to available space on Sheet C-3.01 or other detail sheet that is convenient.  
*Acknowledged. Evergreen tree detail has been moved to the detail sheets.*

#### Sheet Sv-1

1. Other than it being used as a key sheet for the plans that follow, this sheet does not depict any of the details that are referenced in the General Notes. Lot boundaries and the 20-foot right of way limits should be shown. If the details are available on another existing plan it could be incorporated into the plan set. Other details should be labeled for identification.  
*Sheet Sv-1 is intended to be used only as a key sheet. The items noted above are shown on the subsequent Sheets Sv-2 through Sv-6.*

#### Sheet Sv-2

1. The existing conditions plan shows that much of the solar array behind the Municipal Maintenance facility will be highly visible. The single line of evergreens is insufficient to effectively block the solar array from view. Consideration should be given to creating a wider buffer and by increasing the number of plantings



in a second staggered row. As these evergreens grow there will be a tendency for lower branches to die off leaving gaps in the buffer. The staggered rows will help to minimize that possibility. Spacing should be determined and marked on the plans.

*The revised site plans dated November 16, 2022 reflect proposed plantings along a portion of the property lot adjacent to the Municipal Maintenance facility to provide screening where vegetation does not currently exist.*

#### Stormwater Calculations

1. The calculations have been reviewed and are found to be in compliance with accepted practice for the soil types, ground slope and vegetation. However, the sub-catchment areas contributing to each infiltration area should be delineated on one of the 40 scale plans for clarity and ease in interpreting direction of runoff.

*Acknowledged. The drainage areas are reflected on Figure 3: Proposed Drainage Conditions within the stormwater report, and are color coded for clarity.*

2. Based on the calculation results and the highest storm elevations within the infiltration areas for the 100-year storm, there does not seem to be a need for an elaborate outfall. Runoff does not reach the opening grate even for the 100-year event. Further explanation would clarify the requirement for the overflow design.

*The infiltration basins have been revised such that the outlet control structures are utilized in the 100-year storm. All other storms evaluated as part of the stormwater management report infiltration directly into the soils.*

Sincerely,

VHB

A handwritten signature in black ink, appearing to read "Sarah Ebaugh".

Sarah Ebaugh, PE  
Senior Project Engineer

cc:

Attachments: Certified Abutters List  
Tax Map 113

300'

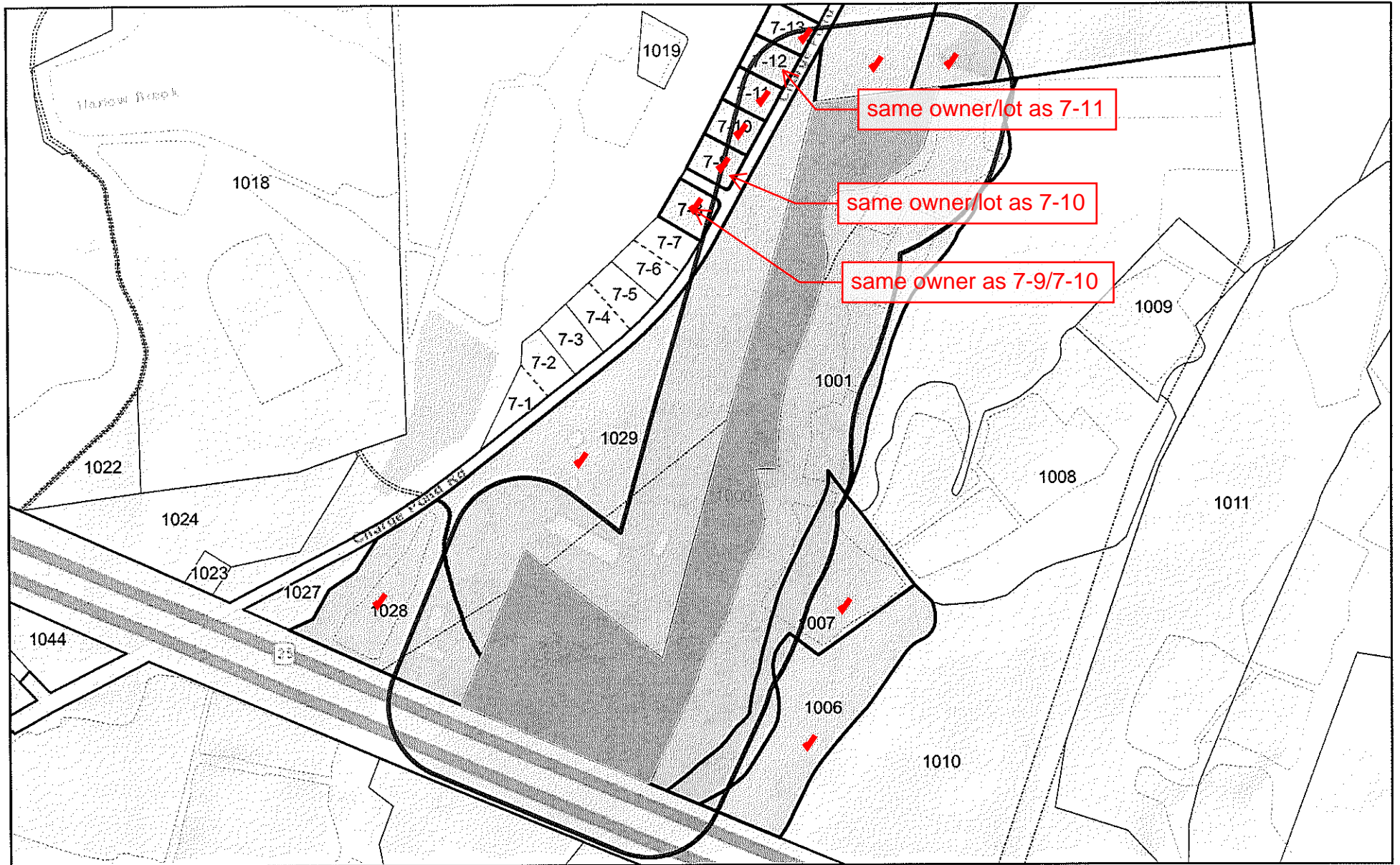
TOWN OF WAREHAM ABUTTERS				
MAP 115 LOT 1000				
OWNER DAVID FLETCHER				
MAP & LOT	OWNERS	STREET ADDRESS	TOWN & STATE	ZIP CODE
113-1011	✓ CAPE SOLAR LLC,	PO BOX 1300,	ONSET, MA	02558
113-1029	TOWN OF WAREHAM,	54 MARION RD,	WAREHAM, MA	02571
113-7-10	✓ CHARGE POND LLC,	172 CHARGE POND RD,	WAREHAM, MA	02571
113-7-11	✓ BAZINET DANIEL A, BAZINET PATRICIA A TRUSTEES	122 CHARGE POND RD,	WAREHAM, MA	02571
113-7-13	✓ STJACQUES DAVID A,	124 CHARGE POND RD,	WAREHAM, MA	02571
115-1007	✓ SURE-CRAN SERVICES INC,	PO BOX 448,	WAREHAM, MA	02571
115-1000	✓ FLETCHER DAVID,	58 COLLEGE POND RD,	PLYMOUTH, MA	02360
CERTIFIED ABUTTERS AS THEY APPEAR ON OUR TAX ROLLS AS OF 5/15/2021				
<i>Y. Ronel Atkins</i>				
ASSESSORS OFFICE				
REQUESTED BY				
JOCELYN GAMBONE PE				
JGAMBONE@VHB.COM				
617 607-6178				

Sure-Cran is owner of:  
 115-1007  
 115-1006  
 113-1028  
 113-1012

Charge Pond LLC is owner of:  
 113-7-10  
 113-7-9  
 113-7-8

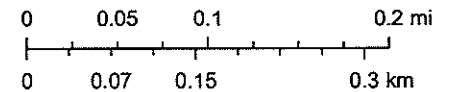
Bazinet Daniel A, Bazinet Patricia A Trustees is owner of:  
 113-7-11  
 113-7-12

# ArcGIS Web Map



6/23/2021, 2:38:31 PM

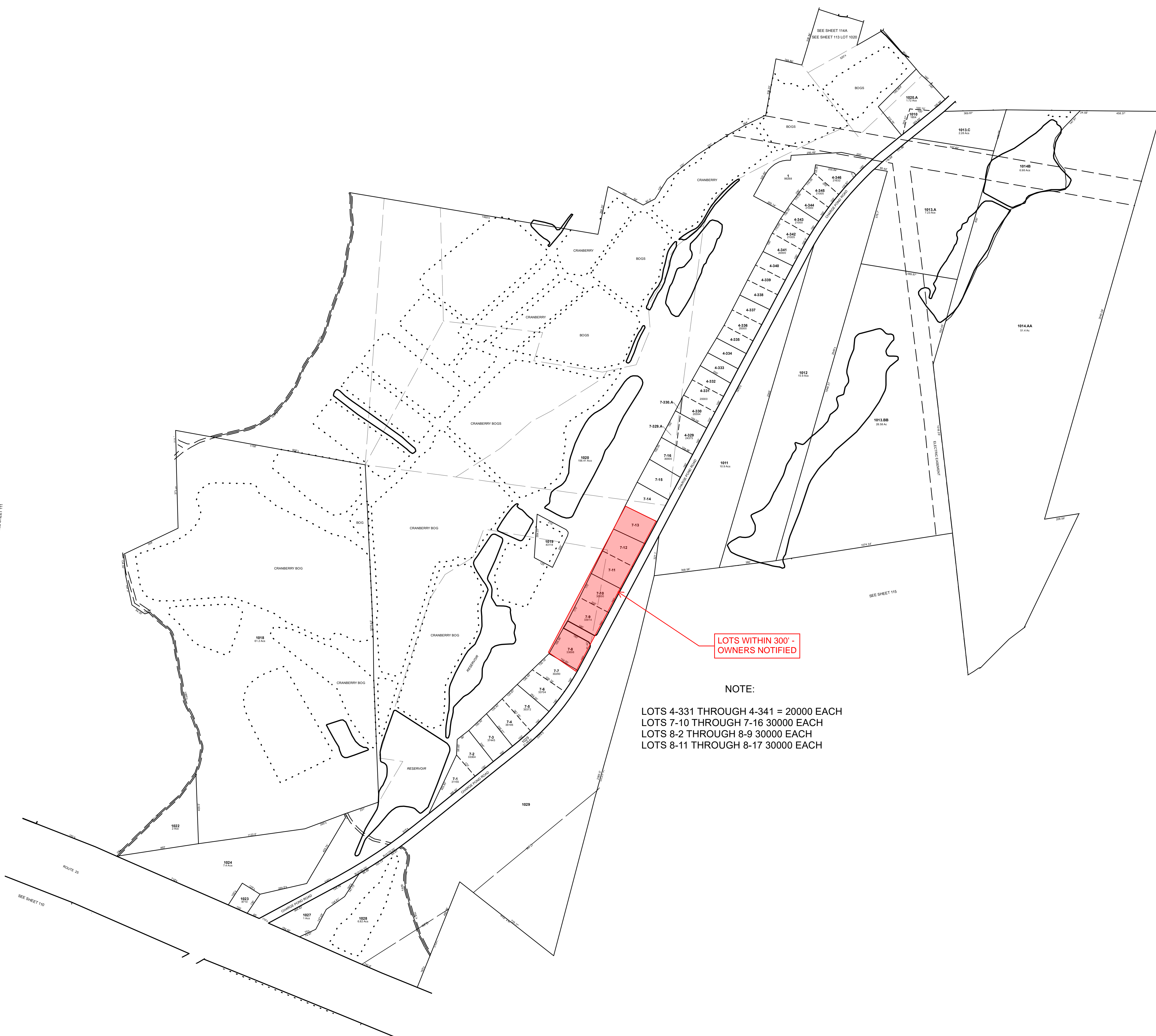
1:9,028



- |                        |               |                  |                     |
|------------------------|---------------|------------------|---------------------|
| Parcels with CAMA Data | Property Line | MiscPolys        | Miscellaneous Lines |
| Parcel Lines           | Public Road   | Private Road ROW | Utility             |
| Common Line            |               | Right of Way     | Wetland             |

Esri, HERE, Garmin, INCREMENT P, Intermap, NGA, USGS





LOTS WITHIN 300' - OWNERS NOTIFIED

NOTE:

LOTS 4-331 THROUGH 4-341 = 20000 EACH  
 LOTS 7-10 THROUGH 7-16 30000 EACH  
 LOTS 8-2 THROUGH 8-9 30000 EACH  
 LOTS 8-11 THROUGH 8-17 30000 EACH

THIS MAP IS FOR ASSESSMENT PURPOSES. IT IS NOT VALID FOR LEGAL DESCRIPTION OR CONVEYANCE.  
 THE HORIZONTAL DATUM IS THE MASSACHUSETTS STATE PLANE COORDINATE SYSTEM, NAD 83.  
 ORIGINAL MAPS PREPARED WALTER E. ROWLEY, TOWN ENGINEER. MODIFIED BY FULL CIRCLE TECHNOLOGIES IN 2013.

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**LEGEND**

RECORD DIMENSION ..... 100'  
 SCALED DIMENSION ..... 100'S  
 WATER .....

COMMON OWNERSHIP .....   
 WETLANDS .....

SCALE: 1" = 300'

FEET 300 150 0 300 600  
 METERS 75 37.5 0 75 150 225

REVISED TO: JANUARY 1, 2020

PROPERTY MAPS  
**WAREHAM**  
 MASSACHUSETTS

**INDEX DIAGRAM**

MAP NO.  
**113**