

HEARINGS, MEETINGS, LICENSES

2-8-16

ATTENTION:

This public hearing will still be officially “opened” on the date and time below. The Board of Selectmen will **not be prepared to take any action on 2/8/16** as additional time is needed by the Town’s outside engineering peer review.

The Board will simply open the hearing followed by a vote to continue the hearing to **2/22/16 at 7:30 p.m.**

We wanted to notify all abutters out of consideration of your time.

If there are any questions, please feel free to contact Jackie in the Selectmen’s office at 508 946-2405.

Thank you



The Board of Selectmen will hold a public hearing in the Selectmen’s Meeting Room at the Town Hall, 10 Nickerson Avenue, Middleborough, MA on Monday, February 8, 2016 at 7:30 PM, for the purpose of discussing an application filed by Renewable Generation, LLC (MA) for a Special Permit under the Water Resource Protection District By-law to allow for restoration and re-planting within the 25ft buffer zone on the southeast side of the parcel based on recommendations by the Middleborough Conservation Commission. This property is shown as Assessors Map 65, Lot 3772, Zoning District – General Use, WRPD District Z4. Anyone wishing to be heard on this matter should appear at the time and place designated.

Allin Frawley
Leilani Dalpe
John M. Knowlton
Diane C. Stewart
Stephen J. McKinnon
BOARD OF SELECTMEN

Publish: January 21st **and** January 28, 2016

**CRANBERRY CAPITAL
OF THE WORLD**



Phone: 508-946-2405

Fax: 508-946-0058

Town of Middleborough

Massachusetts

Board of Selectmen

MEMORANDUM

TO: Rich Tabaczynski, Atlantic Design Engineers, Inc.
Ruth Geoffroy, Planning Director
Patricia Cassady, Conservation Commission Agent
Robert Whalen, Building Commissioner
Robert Buker, Health Officer
Chris Peck, DPW Director

FROM: Jackie Shanley
Executive Assistant to the Board of Selectmen

DATE: January 20, 2016

SUBJECT: **W.R.P.D. Application – filed by Renewable Generation, LLC
Assessor's Map 65, Lot 3772, Zoning District-Residential General Use,
WRPD District Z4.**

Attached is a W.R.P.D. application filed by Renewable Generation, LLC for a Special Permit under the Water Resource Protection District By-law.

This application will be heard by the Board of Selectmen at its meeting on **February 8, 2016 at 7:30 PM.**

Please provide **remarks or concerns** regarding the request to the Selectmen's Office **by, or before, Noon on Wednesday, February 3rd.**

Thank you.

Attachments



Town of Middleborough
20 Centre Street, Second Floor
Middleborough, Massachusetts 02346

Robert J. Whalen
Building Commissioner
Tel. 508-946-2426
Fax 508-946-2305

February 2, 2016

Middleborough Board of Selectmen
Middleborough Town Offices
10 Nickerson Ave
Middleborough, MA 02346

Subject: Jericho Christian Fellowship, 117 East Grove Street, Assessors Map: 065 Lot:
2916

Honorable Board,

I reviewed the application submitted by Renewable Generation LLC for a Special Permit to allow for restoration and replanting within the 25ft buffer zone.

I would suggest that the proposed remediation plan be submitted to the Board of Selectman's Engineer for review by a Landscape Architect. Because the Conservation Agent and Building Commissioner have already spent countless hours babysitting this project, I would like to suggest that the Boards' Engineer also be put in charge of overseeing this remediation project up to its completion.

Respectfully submitted,

Robert J. Whalen
Building Commissioner
Zoning Enforcement Officer

RJW/d



Town of Middleborough

CONSERVATION COMMISSION

20 CENTRE STREET
MIDDLEBOROUGH, MASSACHUSETTS 02346

PHONE: 1-508-946-2406
FAX: 1-508-946-2309

MEMORANDUM

TO: Board of Selectmen

FROM: Patricia J. Cassidy, Conservation Agent 

DATE: January 25, 2016

RE: Solar Project at 17 Jericho Road/117 East Grove Street (Map 65, Lot 2916) DEP
File # SE220-1245
Enforcement Order under WPA and Violation under WRPD

On behalf of the Middleborough Conservation Commission I am writing this memo to make sure we are on the same page regarding the subject solar project at 17 Jericho Road/117 East Grove Street.

The Commission would like to recommend a peer review consultant to the Board of Selectmen that has experience with Landscape Design and reviewing restoration plans. We currently have sent information to a Registered Landscape Architect to obtain a quote for the review.

Also, The Conservation Chairman, Steven Ventresca and I plan to attend the Board of Selectmen's meeting on Monday, February 8th, 2016 to discuss this situation and hopefully come up with a solution everyone can agree with.

Please let me know in the meantime if you have questions or comments regarding this matter. I can be reached at 508-946-2406 or pcssdy@middleborough.com

Thank you

pjc

Jacqueline Shanley

From: Lance Benjamino
Sent: Friday, January 29, 2016 4:53 PM
To: Jacqueline Shanley
Subject: Re: Bicycle Ride and Walk-Run fundraisers

No issues here, as long as any barriers used are readily moveable for emergency access.
FYI: the walk/run date is incorrect (2015)

Chief Lance Benjamino

On Jan 29, 2016, at 3:14 PM, Jacqueline Shanley <jshanley@middleborough.com> wrote:

Good Afternoon Chiefs,

The Board voted to approve both of these, subject to meeting any concerns or requirements by you. Would you kindly review and forward your comments to me?

Thank you.

Jackie

Jackie Shanley
Executive Assistant to Board of Selectmen
Town of Middleborough
10 Nickerson Ave.
Middleborough, MA 02346
508 946-2405 Tgl.
508 946-0058 Fax
jshanley@middleborough.com

<Colleen Celia 5K Walk-Run.pdf>

<Mattapoisett Land Trust Bicycle Ride.pdf>



December 17, 2015

Middleborough Board of Selectmen
10 Nickerson Ave
Middleborough, MA 02346

Dear Commissioners,

Renewable Generation, LLC (MA) is submitting a Special Permit application for the work to replant inside the 25ft buffer zone on its project site located at 117 East Grove St. Herein, please find the attached:

- (2) Special Permit Application
- (1) Fee Check
- (2) Project Narrative
- (2) Stormwater Report and Calculations prepared by Andrews Survey & Engineering
- (2) Existing Conditions and Proposed Site Plans prepared by Andrews Survey & Engineering, and Site Plans, Elevations and Details prepared by Canon Design, Landscape Architects
- (1) Abutters List
- A digital copy has been remitted as well to

We look forward to discussing this with you in 2016.

Sincerely,



Jacob Laskin,
President

77 Pond Ave, Suite 101, Brookline, MA 02445
Tel 617.942.2733 | Fax 617.440.7554



Project Narrative

Project Site: East Grove St, Middleborough MA

Parcel 65-2916

December 17, 2015

Renewable Generation, LLC (MA) is proposing to restore plantings in the 25ft buffer zone along the southeastern property line abutting William Logan's property. The proposed restoration plan includes re-planting native pine, cedar, arborvitae and blueberry species to create a thriving understory that will grow to resemble the old growth, as well as provide thick vegetative screening between the solar project and the abutters.

The Restoration Plan complies with the WRPD bylaws and regulations by providing new vegetative cover that preserves the natural environment. The site is within WRPD Z4, which is subject to MGL Chapter 131, Section 40 – regarding land disturbance within the 25ft buffer. Renewable Generation, LLC (MA) is requesting a Special Permit to install plantings specified in its remediation plan under this regulation.

Renewable Generation, LLC (MA) is working with the Middleborough Conservation Commission simultaneously to confirm the exact scope of work for remediation as appropriate in the wetlands buffer. The plans submitted herein are DRAFT plans as they have not been approved by the Conservation Commission as of the date of submission.

Affirmative Statements:

1. The project has been designed to minimize large-scale lot disturbances and has implemented methods to encourage infiltration of site runoff and preservation of groundcover.
2. There will be no removal of soil closer than four (4) feet to the groundwater table, as determined through Title 5 Evaluation methods.
3. There is to be no storage of hazardous waste.
4. The outside stored material will have no impact on groundwater, and will be permanently located outside of the 100ft buffer zone.

RECEIVED

23:37pm
DEC 18 2015

Allison J. Ferreira
TOWN CLERK

PETITION APPLICATION FOR A WRPD SPECIAL PERMIT

One (1) electronic copy of the petition & engineering plans must be filed with the Selectmen's office via email: jshanley@middleborough.com and Seven (7) complete paper sets of the petition application, including all required documents, such as engineering plans, must be filed with the Town Clerk at 20 Centre Street (former Eastern Bank building), 1st floor, Middleborough, MA. The Town Clerk's office will forward all petitions for a Special Permit to the Board of Selectmen's office.

I/We hereby petition your Board for a public hearing for a Special Permit, which is subject to Board of Selectmen approval under the Water Resource Protection District By-law.

A. Location of property in question:

Street address: 17 Jericho Road Map

Map & Lot 065, Lot 3772

Zoning District General Use

(General Use, Business, Industrial, Residence A, Residence B, or Residence Rural)

WRPD District Z4

(Z1, Z2, Z3, Z4)

B. To allow for:

To allow for restoration and re-planting within the 25ft buffer zone on the
southeast side of the parcel based on recommendations by Conservation
Commission.

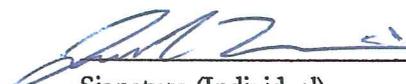
(As shown on the attached plan)

Example: To allow for an addition of 12' x 20' to the building at 1234 Nickerson Avenue, Map #, Zoning district, WRPD District (A or B), presently used as a residence for the purpose of a dental office by the owner occupant. There will be a maximum of three employees.

C. Submitted by:

Jacob Laskin

Printed full name (Individual)


Signature (Individual)

77 Pond Avenue, Suite 101

Address

(617) 942-2733

Daytime telephone

NextSun Energy, LLC

Printed company name/engineering firm

Signature (company/engineering rep.)

jake@nextsunenergy.com

Email address

CHECKLIST FOR SITE PLANS

(Applicant must initial each item or the application/petition will not be accepted.)

No.	Description	Initial	N/A
1.	One (1) electronic copy of the site plans must be filed with the Board of Selectmen's office via jshanley@middleborough.com .	<u>JL</u>	_____
2.	Seven (7) paper copies of the site plan must be filed with the Town Clerk's office, along with seven (7) paper sets of the petition application (see top of "Petition Application" form).	<u>JL</u>	_____
	a. Show locus to reasonable scale (use corner of the site plan page).	<u>JL</u>	_____
	b. Show existing and proposed street lines, number & name.	<u>JL</u>	_____
	c. Show existing and/or proposed building, including accessory buildings.	<u>JL</u>	_____
	d. Show driveway and driveway openings.	<u>JL</u>	_____
	e. Show natural waterways (if any).	<u>JL</u>	_____
	f. Show distance from structure to wetlands.	<u>JL</u>	_____
	g. Show the location of all wetlands, which must be determined by a wetland's specialist, i.e., flagged on site plans, the area which is within twenty-five (25) feet of the wetland, the total area and location of the portion of any lot within one hundred (100) feet of any wetland and the land disturbing activity or activities proposed within the one hundred (100) and twenty-five (25) foot zones.	<u>JL</u>	_____
	h. Show setback dimensions or distances from street and abutters.	<u>JL</u>	_____
	i. Show the footage for all lines of the property and the total area (either in square footage or acreage).	<u>JL</u>	_____
	j. Show topography, wetland delineations, local storm water discharge points, on site drainage systems and septic systems.	<u>JL</u>	_____
	k. Show details for work done or proposed for any component outlined in No. 1(j) (above).	<u>JL</u>	_____
	l. The plan is stamped by BOTH a registered Land Surveyor and a Civil Professional Engineer.	<u>JL</u>	_____

Note: If the site has no approval required other than a home lot, then a Land Surveyor stamp will be accepted.

CHECKLIST FOR PROJECT WRITTEN NARRATIVE

No.	Description	Initial	N/A
1.	Provide a written narrative explaining how you see the project complying with the WRPD bylaws and regulations.	<u>JL</u>	_____
2.	The submittal contains a Certified Abutter's list obtained from the Assessor's office, Town Hall, 10 Nickerson Ave.	<u>JL</u>	_____
3.	If your petition requests alterations or additions to a building, or structure, you should bring detailed plans which show the proposed alterations or additions.	<u>JL</u>	_____
4.	The submittal contains calculations for any proposed on-site stormwater retainage, storage tanks and spill containment, on site drainage and recharge.	<u>JL</u>	_____
5.	The submittal contains a statement that the project has been designed to minimize large scale lot disturbances and has implemented methods to encourage infiltration of site runoff and preservation of groundcover.	<u>JL</u>	_____
6.	The submittal contains a statement that there will be no removal of soil closer than four (4) feet to the groundwater table, as determined through Title 5 Soil Evaluation methods.	<u>JL</u>	_____
7.	The submittal contains a statement that if there is to be storage of hazardous wastes, sludges, deicing chemicals, fertilizers, or oil, that the appropriate methods have been provided to contain any spillage.	<u>JL</u>	_____
8.	The submittal contains a statement that outside stored material will have no impact to the groundwater.	<u>JL</u>	_____

Andrews Survey & Engineering, Inc.

Land Surveying • Civil Engineering • Site Planning

July 13, 2015

Middleborough Conservation Commission
20 Centre Street
Middleborough, MA 02346

**Re: *Stormwater Management Narrative
Renewable Generation (MA), LLC – 17 Jericho Road, Middleborough, MA
ASE Project #2015-060***

Dear Commission Members:

Renewable Generation (MA), LLC, intends to develop a portion of the property located at 17 Jericho Road. Included, is the construction of solar panels along with associated utilities, gravel access way, and minor earthwork.

The property is comprised of 7.60± acres of land situated on the west side of East Grove Street (Route 28) and is located in the General Use (GU) zoning district. The property contains the existing Lifehouse Church building with paved parking areas. The project area is comprised of gravel areas, sparse vegetation and mature forest along the eastern boundary. The vegetation throughout the project site can be classified as fair as it consists mostly of sparse vegetation with mature forest along the eastern and southern boundary. According to Natural Resources Conservation Service Soil Maps this site contains type A soils. The property lies outside the 100-year flood plain according to the current Middleborough Flood Insurance Rate Map (FIRM) Panel 25023C0319J and Panel 25023C0432, effective date July 17, 2012.

Upon completion of construction, any materially disturbed areas of the site will be seeded with a slow growing grass seed mixture. This finish surface will be a net improvement to the existing ground cover of the project area and therefore provide no measurable increase in storm water runoff. Therefore, no storm water management facilities are proposed.

The proposed project consists of minimal grading and site clearing to construct a ground mounted solar electric generation facility. Considering this, all of the runoff from the proposed project will be clean and does not need to be treated for total suspended solids. Furthermore, the project site discharges into a significant wetland system that will accept the clean runoff with insignificant, if any, increased chances of flooding or increases in runoff rates for downstream properties. In fact, the increase in clean runoff may help provide a source of clean water and, therefore positive effects in drier months while not having any negative effects during wetter months.

To convey the clean runoff, the project proposes to maintain existing drainage patterns as they currently exist in a sheet flow and shallow concentrated flow condition to the existing large wetland area.

104 Mendon Street, P.O. Box 312
Uxbridge, MA 01569
Phone (508) 278-3897
Fax (508) 278-2289

500 East Washington Street
North Attleboro, MA 02760
Phone (508) 316-0452
Fax (508) 316-0963

www.andrews-engineering.com

According to the 13th Edition of the Massachusetts Natural Heritage Atlas, Priority Habitat of Rare Species and Estimated Habitat of Rare Wetlands Wildlife is located on and bordering the property. No known Areas of Critical Environmental Concern (ACEC) are located on or bordering the property.

The proposed work to this site includes the construction of a negligible amount of impervious and minor changes to the ground cover, therefore Standard 2 of the MassDEP Stormwater Management Handbook. A SCS TR-20-based computer program, "HydroCAD," was used to calculate the pre- and post-construction curve numbers. The post construction curve numbers were lower than, or the same as, the existing curve numbers which means the rate of discharge would be lower in the post. The HydroCAD computations are attached, refer to the summary table below for the pre-construction versus post-construction curve numbers.

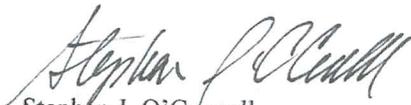
Curve Number	
Pre-	Post-
58	40

It is our belief that this information is sufficient to show that the proposed work will not have any negative effects on the drainage from the site and Standard 2 is met.

We hope this serves your needs at this time. Should you have any questions or require additional information, please contact this office.

Very truly yours,

ANDREWS SURVEY & ENGINEERING, INC.



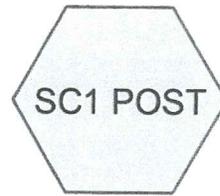
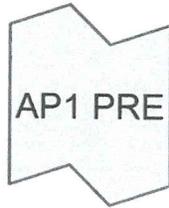
Stephen J. O'Connell
Partner / Senior Project Manager

Attachment(s)

C: Renewable Generation (MA), LLC

ASE

Renewable Generation (MA), LLC
17 Jericho Road, Middleborough, MA
Page 2 of 2



Routing Diagram for Jericho_Stormwater
Prepared by Andrews Survey & Engineering, Printed 7/13/2015
HydroCAD® 10.00-14 s/n 02271 © 2015 HydroCAD Software Solutions LLC

Jericho_Stormwater

Prepared by Andrews Survey & Engineering

HydroCAD® 10.00-14 s/n 02271 © 2015 HydroCAD Software Solutions LLC

17 Jericho Road
Type III 24-hr 2-Year Rainfall=3.20"

Printed 7/13/2015

Page 2

Summary for Subcatchment SC1 POST:

Runoff = 0.00 cfs @ 24.00 hrs, Volume= 49 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-Year Rainfall=3.20"

Area (sf)	CN	Description
197,347	39	>75% Grass cover, Good, HSG A
17,064	30	Woods, Good, HSG A
8,516	96	Gravel surface, HSG A
222,927	40	Weighted Average
222,927		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.2	50	0.0140	0.06		Sheet Flow, Segment A
					Woods: Light underbrush n= 0.400 P2= 3.20"
2.4	230	0.0100	1.61		Shallow Concentrated Flow, Segment B
					Unpaved Kv= 16.1 fps
0.1	42	0.2140	7.45		Shallow Concentrated Flow, Segment C
					Unpaved Kv= 16.1 fps
16.7	322	Total			

Summary for Subcatchment SC1 PRE:

Runoff = 0.80 cfs @ 12.41 hrs, Volume= 6,339 cf, Depth= 0.34"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-Year Rainfall=3.20"

Area (sf)	CN	Description
100,921	68	<50% Grass cover, Poor, HSG A
85,044	30	Woods, Good, HSG A
36,962	96	Gravel surface, HSG A
222,927	58	Weighted Average
222,927		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
15.1	50	0.0120	0.06		Sheet Flow, Segment A
					Woods: Light underbrush n= 0.400 P2= 3.20"
0.7	108	0.0240	2.49		Shallow Concentrated Flow, Segment B
					Unpaved Kv= 16.1 fps
0.0	22	0.3180	9.08		Shallow Concentrated Flow, Segment C
					Unpaved Kv= 16.1 fps
15.8	180	Total			

Jericho Stormwater

Prepared by Andrews Survey & Engineering

HydroCAD® 10.00-14 s/n 02271 © 2015 HydroCAD Software Solutions LLC

17 Jericho Road
Type III 24-hr 2-Year Rainfall=3.20"

Printed 7/13/2015

Page 3

Summary for Link AP1 POST:

Inflow Area = 222,927 sf, 0.00% Impervious, Inflow Depth = 0.00" for 2-Year event
Inflow = 0.00 cfs @ 24.00 hrs, Volume= 49 cf
Primary = 0.00 cfs @ 24.00 hrs, Volume= 49 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Summary for Link AP1 PRE:

Inflow Area = 222,927 sf, 0.00% Impervious, Inflow Depth = 0.34" for 2-Year event
Inflow = 0.80 cfs @ 12.41 hrs, Volume= 6,339 cf
Primary = 0.80 cfs @ 12.41 hrs, Volume= 6,339 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Jericho Stormwater

Prepared by Andrews Survey & Engineering

HydroCAD® 10.00-14 s/n 02271 © 2015 HydroCAD Software Solutions LLC

17 Jericho Road

Type III 24-hr 10-Year Rainfall=4.70"

Printed 7/13/2015

Page 4

Summary for Subcatchment SC1 POST:

Runoff = 0.13 cfs @ 13.76 hrs, Volume= 3,215 cf, Depth= 0.17"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-Year Rainfall=4.70"

Area (sf)	CN	Description
197,347	39	>75% Grass cover, Good, HSG A
17,064	30	Woods, Good, HSG A
8,516	96	Gravel surface, HSG A
222,927	40	Weighted Average
222,927		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.2	50	0.0140	0.06		Sheet Flow, Segment A
					Woods: Light underbrush n= 0.400 P2= 3.20"
2.4	230	0.0100	1.61		Shallow Concentrated Flow, Segment B
					Unpaved Kv= 16.1 fps
0.1	42	0.2140	7.45		Shallow Concentrated Flow, Segment C
					Unpaved Kv= 16.1 fps
16.7	322	Total			

Summary for Subcatchment SC1 PRE:

Runoff = 3.68 cfs @ 12.26 hrs, Volume= 18,720 cf, Depth= 1.01"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-Year Rainfall=4.70"

Area (sf)	CN	Description
100,921	68	<50% Grass cover, Poor, HSG A
85,044	30	Woods, Good, HSG A
36,962	96	Gravel surface, HSG A
222,927	58	Weighted Average
222,927		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
15.1	50	0.0120	0.06		Sheet Flow, Segment A
					Woods: Light underbrush n= 0.400 P2= 3.20"
0.7	108	0.0240	2.49		Shallow Concentrated Flow, Segment B
					Unpaved Kv= 16.1 fps
0.0	22	0.3180	9.08		Shallow Concentrated Flow, Segment C
					Unpaved Kv= 16.1 fps
15.8	180	Total			

Jericho_Stormwater

Prepared by Andrews Survey & Engineering

HydroCAD® 10.00-14 s/n 02271 © 2015 HydroCAD Software Solutions LLC

17 Jericho Road

Type III 24-hr 10-Year Rainfall=4.70"

Printed 7/13/2015

Page 5

Summary for Link AP1 POST:

Inflow Area = 222,927 sf, 0.00% Impervious, Inflow Depth = 0.17" for 10-Year event
Inflow = 0.13 cfs @ 13.76 hrs, Volume= 3,215 cf
Primary = 0.13 cfs @ 13.76 hrs, Volume= 3,215 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Summary for Link AP1 PRE:

Inflow Area = 222,927 sf, 0.00% Impervious, Inflow Depth = 1.01" for 10-Year event
Inflow = 3.68 cfs @ 12.26 hrs, Volume= 18,720 cf
Primary = 3.68 cfs @ 12.26 hrs, Volume= 18,720 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Jericho Stormwater

Prepared by Andrews Survey & Engineering

HydroCAD® 10.00-14 s/n 02271 © 2015 HydroCAD Software Solutions LLC

17 Jericho Road
Type III 24-hr 100-Year Rainfall=6.70"

Printed 7/13/2015

Page 6

Summary for Subcatchment SC1 POST:

Runoff = 1.73 cfs @ 12.42 hrs, Volume= 13,600 cf, Depth= 0.73"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-Year Rainfall=6.70"

Area (sf)	CN	Description
197,347	39	>75% Grass cover, Good, HSG A
17,064	30	Woods, Good, HSG A
8,516	96	Gravel surface, HSG A
222,927	40	Weighted Average
222,927		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.2	50	0.0140	0.06		Sheet Flow, Segment A
					Woods: Light underbrush n= 0.400 P2= 3.20"
2.4	230	0.0100	1.61		Shallow Concentrated Flow, Segment B
					Unpaved Kv= 16.1 fps
0.1	42	0.2140	7.45		Shallow Concentrated Flow, Segment C
					Unpaved Kv= 16.1 fps
16.7	322	Total			

Summary for Subcatchment SC1 PRE:

Runoff = 9.20 cfs @ 12.24 hrs, Volume= 41,012 cf, Depth= 2.21"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-Year Rainfall=6.70"

Area (sf)	CN	Description
100,921	68	<50% Grass cover, Poor, HSG A
85,044	30	Woods, Good, HSG A
36,962	96	Gravel surface, HSG A
222,927	58	Weighted Average
222,927		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
15.1	50	0.0120	0.06		Sheet Flow, Segment A
					Woods: Light underbrush n= 0.400 P2= 3.20"
0.7	108	0.0240	2.49		Shallow Concentrated Flow, Segment B
					Unpaved Kv= 16.1 fps
0.0	22	0.3180	9.08		Shallow Concentrated Flow, Segment C
					Unpaved Kv= 16.1 fps
15.8	180	Total			

Jericho_Stormwater

Prepared by Andrews Survey & Engineering

HydroCAD® 10.00-14 s/n 02271 © 2015 HydroCAD Software Solutions LLC

17 Jericho Road
Type III 24-hr 100-Year Rainfall=6.70"

Printed 7/13/2015

Page 7

Summary for Link AP1 POST:

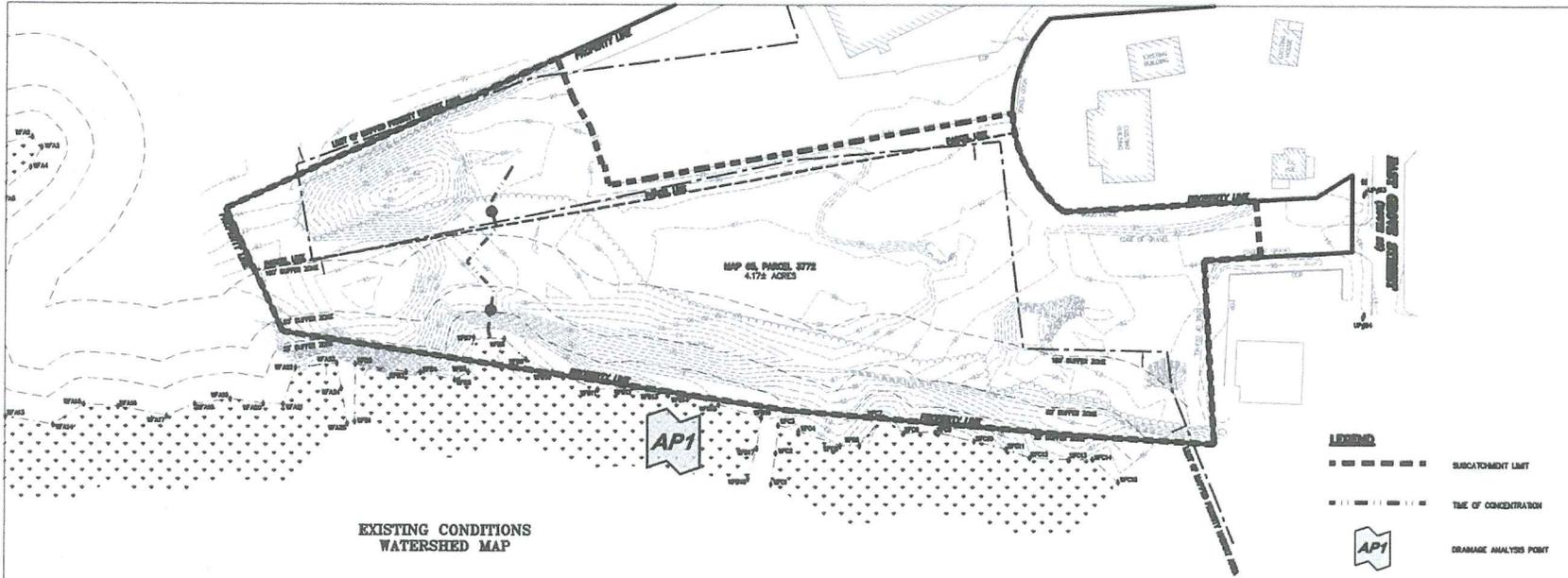
Inflow Area = 222,927 sf, 0.00% Impervious, Inflow Depth = 0.73" for 100-Year event
Inflow = 1.73 cfs @ 12.42 hrs, Volume= 13,600 cf
Primary = 1.73 cfs @ 12.42 hrs, Volume= 13,600 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

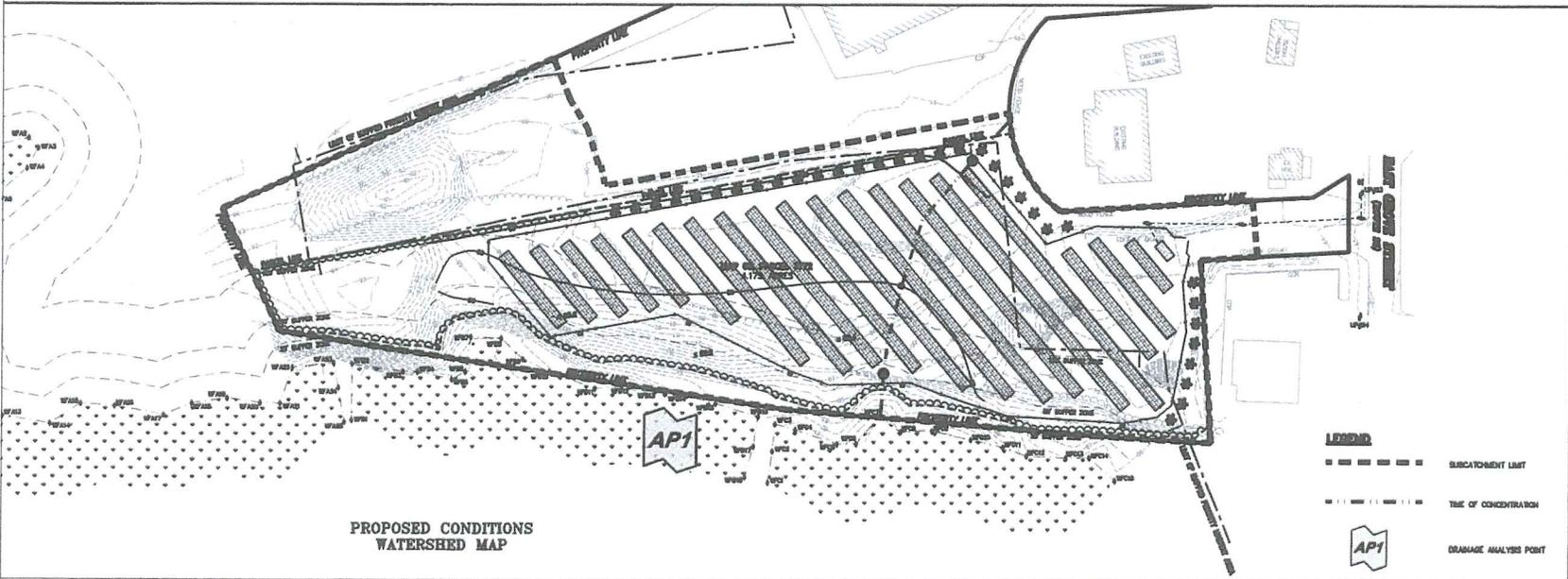
Summary for Link AP1 PRE:

Inflow Area = 222,927 sf, 0.00% Impervious, Inflow Depth = 2.21" for 100-Year event
Inflow = 9.20 cfs @ 12.24 hrs, Volume= 41,012 cf
Primary = 9.20 cfs @ 12.24 hrs, Volume= 41,012 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs



EXISTING CONDITIONS
WATERSHED MAP



PROPOSED CONDITIONS
WATERSHED MAP

LEGEND
 - - - - - SUBCATCHMENT LIMIT
 - · - · - · - · TIME OF CONCENTRATION
 AP1 DRAINAGE ANALYSIS POINT

LEGEND
 - - - - - SUBCATCHMENT LIMIT
 - · - · - · - · TIME OF CONCENTRATION
 AP1 DRAINAGE ANALYSIS POINT



Andrews Survey & Engineering, Inc.
 Land Surveying - Civil Engineering - Site Planning
 P.O. Box 312, 104 Meade Street
 Uxbridge, Massachusetts 01561-0312
 P: 508-778-3897 F: 508-778-2398

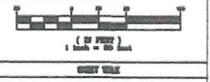
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PREPARED BY
 GROUND MOUNTED SOLAR ELECTRIC
 GENERATION FACILITY
 17 JERICHO ROAD
 MIDDLEBOROUGH, MA 02346

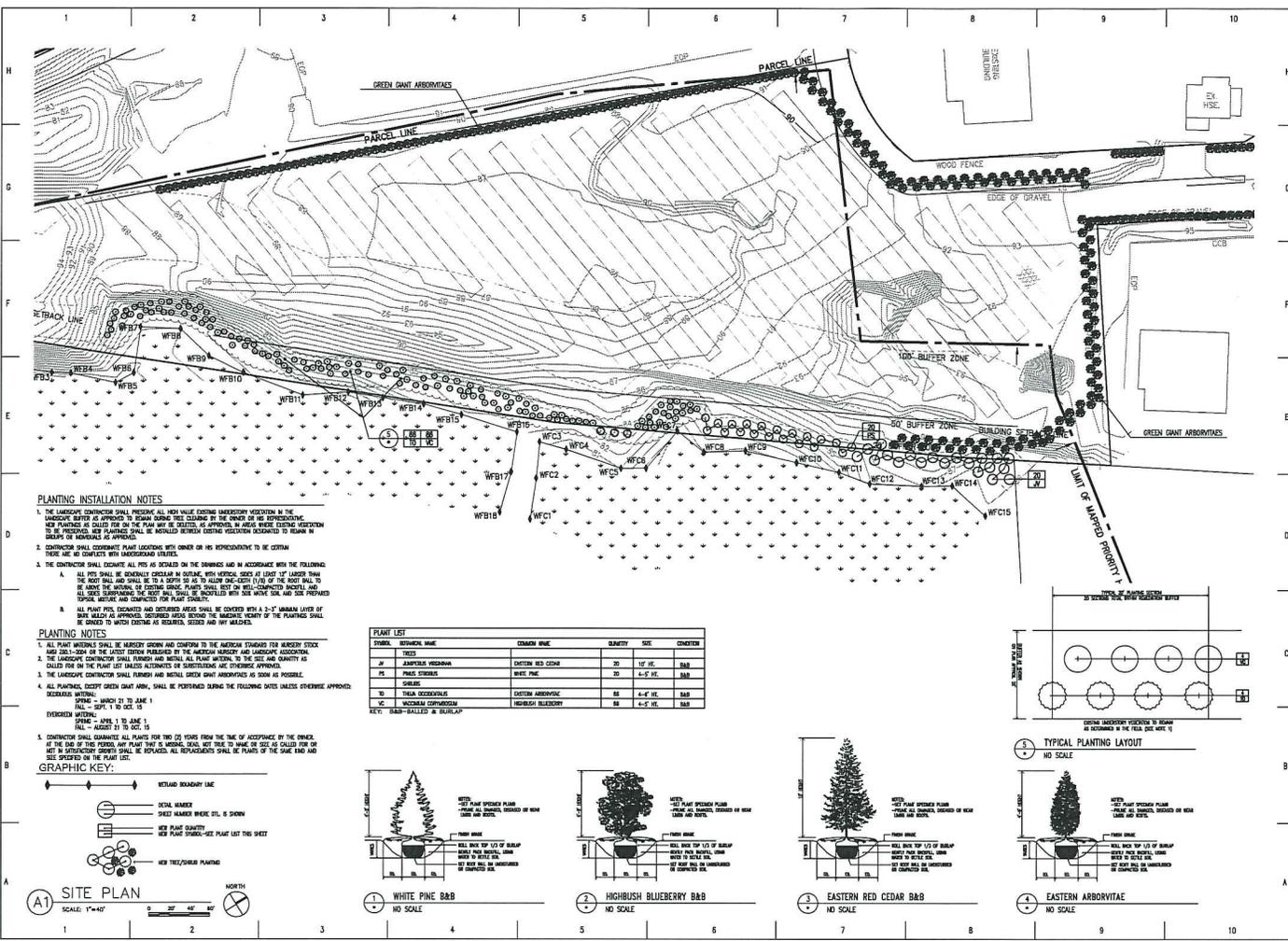
APPROVED BY
 RENEWABLE GENERATION (MA), LLC
 77 POND AVENUE, SUITE 101
 BROOKLINE, MA 02445

NO.	DATE	DESCRIPTION

CAD FILE - \\ms\j7\JERICHO RD.SP.DRAWING.dwg
 DRAWN BY TEB, SJD
 CHECKED BY BJA, PBN
 DATE JULY 13, 2015
 PROJECT NO. 2015-080

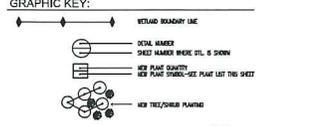


WATERSHED MAP



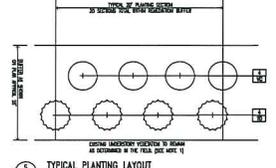
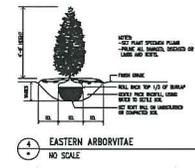
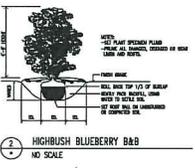
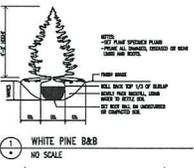
- PLANTING INSTALLATION NOTES**
- THE LANDSCAPE CONTRACTOR SHALL PRESERVE ALL HIGH VALUE EXISTING UNDERSTORY VEGETATION IN THE LANDSCAPE BUFFER AS APPROVED TO REMAIN DURING THE CONSTRUCTION OF THE BUFFER AS BE DETERMINED. NEW PLANTINGS AS CALLED FOR ON THE PLAN MAY BE LOCATED AS APPROVED IN AREAS WHERE EXISTING VEGETATION TO BE REMOVED AND PLANTINGS SHALL BE RELOCATED TO OTHER LOCATIONS DETERMINED TO REMAIN IN GROUPS OR INDIVIDUALS AS APPROVED.
 - CONTRACTOR SHALL COORDINATE PLANT LOCATIONS WITH OWNER OR HIS REPRESENTATIVE TO BE CERTAIN THERE ARE NO CONFLICTS WITH UNDERGROUND UTILITIES.
 - THE CONTRACTOR SHALL DOCUMENT ALL PROS AS DECIDED ON THE DRAWINGS AND IN ACCORDANCE WITH THE FOLLOWING:
 - ALL PROS SHALL BE GENERALLY ORIENTED IN ACCORDANCE WITH THE FOLLOWING: THE ROOT BALL SHALL BE TO A DEPTH AS TO ALLOW ONE-THIRD (1/3) OF THE ROOT BALL TO BE ABOVE THE SURFACE AND FORTY PERCENT (40%) OF THE ROOT BALL TO BE BELOW THE SURFACE. THE ROOT BALL SHALL BE INCLOSURED WITH SOFT WOVEN SOIL AND SOIL PREPARED SPECIAL MIXTURE AND PROTECTED FOR PLANT SURVIVAL.
 - ALL PLANT PROS, EXCEPT GREEN GAT ARBORVITAE, SHALL BE COVERED WITH A 2" MINIMUM LAYER OF DARK MULCH AS APPROVED. DISTURBED AREAS BEHIND THE BUFFERED PERIMETER OF THE PLANTING SHALL BE COVERED TO MATCH EXISTING AS REQUIRED, SEEDS AND SOFT MULCH.

- PLANTING NOTES**
- ALL PLANT MATERIALS SHALL BE HERBIVORE GREEN AND CONFORM TO THE AMERICAN STANDARD FOR HERBIVORE STOCK BARK DISEASE-2004 OR THE LATEST EDITION PUBLISHED BY THE AMERICAN ARBORVITAE AND LANDSCAPE ASSOCIATION.
 - THE LANDSCAPE CONTRACTOR SHALL PROVIDE AND INSTALL ALL PLANT MATERIALS TO THE SIZE AND QUANTITY AS CALLED FOR ON THE PLANT LIST UNLESS ALTERNATES OR SUBSTITUTIONS ARE OTHERWISE APPROVED.
 - THE LANDSCAPE CONTRACTOR SHALL FURNISH AND INSTALL GREEN GAT ARBORVITAE AS SOON AS POSSIBLE.
 - ALL PLANTINGS, EXCEPT GREEN GAT ARBORVITAE, SHALL BE PERFORMED DURING THE FOLLOWING DATES UNLESS OTHERWISE APPROVED:
 - SPRING - MARCH 21 TO JUNE 1
 - FALL - SEPTEMBER 1 TO OCTOBER 15
 - OVERSEED MATERIALS:
 - SPRING - APRIL 1 TO JUNE 1
 - FALL - AUGUST 21 TO OCTOBER 15
 - CONTRACTOR SHALL SUBMIT ALL PLANS FOR TWO (2) YEARS FROM THE DATE OF ACCEPTANCE BY THE OWNER. AT THE END OF THE PERIOD, ANY PLANT THAT IS UNWELL, DEAD, NOT TRUE TO NAME, OR USE AS CALLED FOR OR NOT IN APPROPRIATE DENSITY SHALL BE REPLACED. ALL REPLACEMENTS SHALL BE PLANTS OF THE SAME NAME AND SIZE SPECIFIED ON THE PLANT LIST.



SYMBOL	SYMBOL NAME	COMMON NAME	QUANTITY	SIZE	CONTAINER
TR	TRIFOLIUM	CRABAPPLE	20	12" HC	B&B
AR	ARBOREUS VIBURNUM	EASTERN RED CEDAR	20	12" HC	B&B
PS	PRUNUS SPINOSA	WAXY PINE	4	4" H	B&B
SH	SHRUBS		20	4" H	B&B
TO	TREE UNDESIGNATED	EASTERN ARBORVITAE	20	4" H	B&B
VC	VEGETATION CORPUSCULUM	HERDBUSH BLUEBERRY	20	4" H	B&B

KEY: B&B-BALLED & BURLAP



PROJECT NO. 15-1200
 CDD FILE
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 W. A. Canon
 Landscape Architect
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REMEDIAL PLAN

L-1.0

SHEET NO. 1 OF 2

WILLIAM A. CANON
 LANDSCAPE ARCHITECTURE
 ENVIRONMENTAL DESIGN
 COMMUNITY PLANNING

188 NORTHAMPTON STREET
 RICHMOND, VA 23227
 TEL: 813-357-6326
 FAX: 813-357-6329
 WWW.WACANON.COM

LANDSCAPE ARCHITECT
 REGISTERED PROFESSIONAL ENGINEER

CONSENTS

DATE: 11/20/13
 BY: [Signature]
 FOR: [Signature]

PROJECT NO. US1301
 JOB FILE

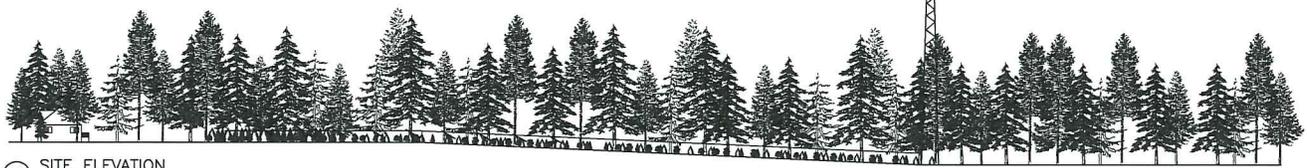
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SHEET TITLE

SITE ELEVATIONS
 L-1.1
 SHEET NO. 1 OF 2



LOCUS MAP



A1 SITE ELEVATION
 SCALE: 1"=30'



A2 SITE ELEVATION
 SCALE: 1"=30'

\$58.00 Balance



RECEIVED
DEC 14 2015
MIDDLEBORO BOARD OF ASSESSORS

RECEIVED
23:37 PM
DEC 18 2015
Allison J. Ferreira
TOWN CLERK

CERTIFIED ABUTTERS LIST REQUEST

Date: 12/11/15

LOCUS: Map 65 Lot 2916 Unit

Property Address: East Grove St

Board or Office For: BOS

Subdivision/Reason for Project: Remediation Plan

Owner's Name(s) & Address: Jericho Christian Fellowship, Inc. (Lifehouse Church)
17 Jericho Rd

Applicant Name & Address: Jacob Laskin, Renewable Generation
(if different from Owner)
77 Pond Ave Suite 101, Brookline MA 02445

CONTACT NAME & PHONE #: Jacob Laskin (617) 942-2733

*Selectman's Office, Zoning Board and Planning Board require a certified abutter's list of all abutters within 300' in all directions including across the street. If it is for a Liquor License, all schools and churches within 500' will be included on the list.

*Planning Board also requires a Form B to be included with the submission of the list.

*Road Completion will include every parcel that abuts the roadway (locus lots) and every direct abutter to those lots (non-locus lots). The locus and non-locus lots will be listed on separate pages.

FEES: The Abutters list fee is \$25.00 for the first page or the first 13 abutters and then \$2.00 for each additional abutter on the remaining pages. The first \$25.00 is due with the submission of the request.

NO REFUNDS: Once the abutter's list request is submitted and completed by this office, absolutely no refunds will be given.

THE CERTIFICATION MAY TAKE UP TO 10 WORKING DAYS: The Contact Person will be notified once the certified abutter's list is complete.