TOWN OF PUTNAM

TOWN HALL
200 SCHOOL STREET
PUTNAM, CONNECTICUT 06260

Inland Wetland Commission Meeting
June 8, 2022 7:00 P.M.
Municipal Complex Room 201 Second Floor

Join Zoom Meeting
https://us06web.zoom.us/j/81506309647?pwd=LzRNSXE1dEFUSTl0SjF5eUlFdTgwZz09

Meeting ID: 815 0630 9647
Computer Passcode: eE43v9
One tap mobile
+19292056099,,81506309647#,,,,*574994# US (New York)

Dial by your location
+1 929 205 6099 US (New York)
Meeting ID: 815 0630 9647
Phone Passcode: 574994

Agent to assign a Temporary Chairperson:

Pledge of Allegiance:

Roll Call:

Agenda:

Review minutes of the March 9, 2022 meeting. VOTE REQUIRED

Correspondence:

Public Participation:

Agent Report:

51 Providence Pike, Burger King
21 Providence Pike, Dunkin Donuts
644 School St., Mobil Station
481 River Road, Daniel Leveque & Melissa Fitzpatrick
122 David Circle, Reynolds

New Business: POSSIBLE VOTE REQUIRED

Election of Officers- Discussion

Other Business: POSSIBLE VOTE REQUIRED

Accepting of New Applications if applicable for the July 13, 2022 meeting.

532 Liberty Highway, Residential Site
4 Kennedy Dr, Solar Site
83 Park Rd, Solar Site

Adjournment.

TOWN OF PUTNAM

MUNICIPAL COMPLEX
TOWN HALL
200 SCHOOL STREET
PUTNAM, CONNECTICUT

Inland Wetlands and Watercourses Commission Minutes
March 9, 2022 7:00 P.M.
Conference Room # 201/Available via Zoom
Second Floor

Pledge of Allegiance:

Present: David Pomes, Chairman, Robert Greene, Walter Irwin, Adam Paquin
Absent: Shannon O'Shea, Christine Main, Alternate

Agenda:

Review minutes of the February 9, 2022 meeting.

Motion by Walter Irwin to approve the minutes, second by Adam Paquin. ALL WERE IN FAVOR

Review minutes of the February 15, 2022 Show Cause Hearing.

Motion by Robert Greene to approve the minutes, second by Adam Paquin. All WERE IN FAVOR

Correspondence: None

Public Participation: None

Agent Report/Bruce Fitzback

532 Liberty Highway, Hyatt – Silt fence installed.
51 Providence Pike, Burger King – Remediation Plan cost of $35,000.
644 School St., Mobil Station - Waiting on a letter from the engineer regarding sediment design.

New Business:

481 River Road, Daniel Levesque & Melissa Fitzpatrick - Wetlands Violation

Both Daniel Levesque & Melissa Fitzpatrick were present. Daniel Levesque explained how they have jeeps riding through their property. Charity events have been held.

Bruce Fitzback explained that he had visited the area in there is activity taking place in the upland review area. The top area is wet for 3 months and is to be considered as a vernal pool. A property survey, site plan and soil scientist report will be required.

Other Business:

Accepting of New Applications if applicable for the April 13, 2022 meeting. None

Motion by Walter Irwin to adjourn at 7:15 P.M., second by Adam Paquin. ALL WERE IN FAVOR.

Respectfully submitted by Brenda Roy.

Please note these minutes have not been accepted by the Commission and will be placed on their next meeting agenda.

INLAND WETLAND COMMISSION

APPENDIX A

APPLICATION FOR PERMIT

This application is for the use of inland wetlands and water courses.

The meetings are held on the second Wednesday of every month at 7:00pm in the Town Hall. If an on-site inspection is canceled due to inclement weather, the applicant is asked to call the office at 963-6803 30 minutes before the scheduled inspection to see if or when the inspection will be held.

Name of Applicant: Michael Hyatt

Applicant's Address: 532 Liberty Highway

Phone #: 401 651 8722

Owner of Land: Michael Hyatt & Jessica Bron

Owner's Address: 532 Liberty Highway

Location and description of proposed activity: Front yard, side yard, Back yard excavate front yard flat, Fill and level Rear & side yards, Dig pond to creat a cut FM Flood zone so Fill can Beadded FM other areas of Flood zone to square off yard and create addition Rec area and agricultural area for livestock.

Activity & Purpose Code

Please **CHECK** one in each column that best describes the activity proposed.

Code	Activity Type
☐	1 Filling
☑	2 Excavation
☐	3 Land Clearing
☐	4 Stream Channel
☐	5 Stream Stabilization
☐	6 Stream Clearance
☐	7 Culverting
☐	8 Und. Grd. Util.
☐	9 Roadway Construction
☐	10 Drainage Improvements
☐	11 Pond Dredge/Dam Construction
☐	12 Activity Buffer/Set Back Area
☑	13 Other: Please describe: pond Construction

Code	Activity Purpose
☐	A Residential Improvement by homeowner
☐	B New residential development - single family
☐	C New residential development - multi- family/condo
☐	D Commercial/Industrial Uses
☐	E Municipal Improvements
☑	F Utility Company Improvements
☑	G Agriculture, Forestry or Conservation
☐	H Wetland Creation/Restoration
☐	I Storm Water/Flood Control
☑	J Erosion/Sediment Control
☐	K Recreation/Boating/Navigation
☐	L Routine Maintenance

INLAND WETLAND COMMISSION

APPENDIX A *Continued*

Project Name (if applicable) Home Improvement

Estimate of Linear Footage affecting Wetlands 100 liner feet

Affected number of acres in which Wetlands are part of the impacted area for Multi-Family, Condos and Commercial Development

M.O. PAID $40.00

TO BE COMPLETED BY THE COMMISSION

Application Number _____ Date of Receipt 6/26/2022

PAID JUN 2 2022 60 00 By Paid in full Signature Balance

Application Approved (date) _____

Conditions of approval if applicable _____

Application Denied (date) _____

Reason(s) for Denial _____

Signature of Chairman or Secretary of Commission

Date



THIS DOCUMENT CONTAINS A TRUE WATERMARK - HOLD UP TO LIGHT TO VIEW

WesternUnion WU

WESTERN UNION FINANCIAL SERVICES INC. - ISSUER - Denver, Colorado

Payable at Wells Fargo Bank Grand Junction - Downtown, N.A., Grand Junction, Colorado

MONEY ORDER

Walmart

22-001797043

A 134423 D 053122
T 1334 196
220017970435 L 001980

$60.00

PAY EXACTLY SIXTY DOLLARS AND NO CENTS

PAY TO THE ORDER OF Inland Wetland.

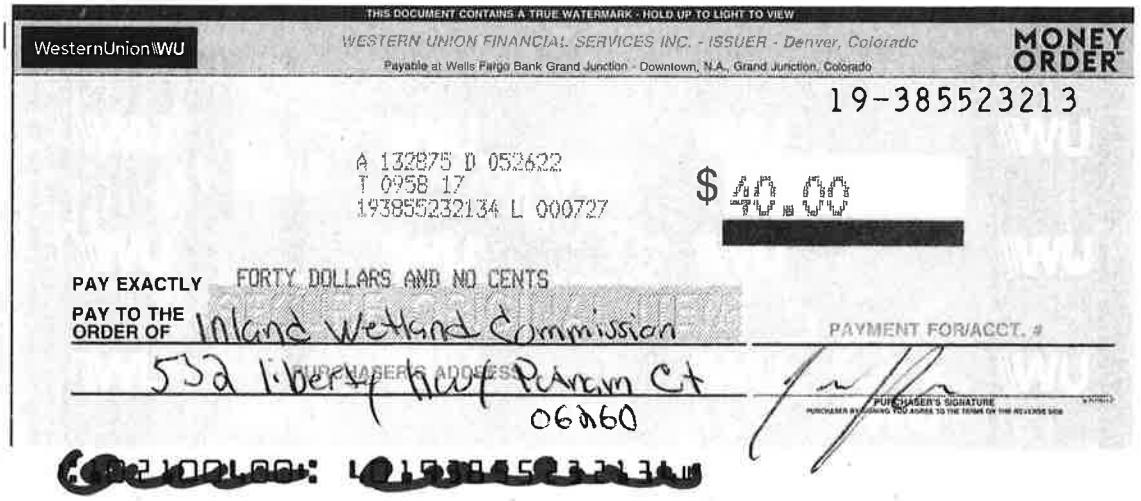
PURCHASER'S ADDRESS

532 Liberty Hwy
Putnam CT 06260

PAYMENT FOR/ACCT. #

PURCHASER'S SIGNATURE

PURCHASER BY SIGNING YOU AGREE TO THE TERMS ON THE REVERSE SIDE



THIS DOCUMENT CONTAINS A TRUE WATERMARK - HOLD UP TO LIGHT TO VIEW

WesternUnion WU

WESTERN UNION FINANCIAL SERVICES INC. - ISSUER - Denver, Colorado

Payable at Wells Fargo Bank Grand Junction - Downtown, N.A., Grand Junction, Colorado

MONEY ORDER

19-385523213

A 132875 D 052622
T 0958 17
193855232134 L 000727

$40.00

PAY EXACTLY FORTY DOLLARS AND NO CENTS

PAY TO THE ORDER OF Inland Wetland Commission

PURCHASER'S ADDRESS

532 Liberty Hwy Putnam CT
06260

PAYMENT FOR/ACCT. #

PURCHASER'S SIGNATURE

PURCHASER BY SIGNING YOU AGREE TO THE TERMS ON THE REVERSE SIDE

NORTHEAST DISTRICT DEPARTMENT OF HEALTH
69 SOUTH MAIN STREET, UNIT 4, BROOKLYN, CT 06234
860-774-7350/FAX 860-774-1308 WWW.NDDH.ORG

May 12, 2022

Michael Hyatt & Jessica Biron
532 Liberty Highway
Putnam, CT 06260

B100/APPLICATION
SUBJECT: FILE #22000298 -- LIBERTY HGWY #532, MAP #26, LOT #69, PUTNAM, CT

Dear Michael Hyatt & Jessica Biron:

On May 09, 2022 this department received an application proposing the addition of a 15' above ground pool and roof drain leaders to your property.

Based on the information provided and paperwork in our files this request has been approved under the following conditions:

1. Maintain a minimum of 10 feet from the existing septic tank and leach field with the proposed above ground pool.
2. Septic system to be taped off during construction to ensure proper separating distance is maintained and to protect from heavy traffic or storage of building materials in this area.

Approval is being granted under Section 19-13-B100a of the CT Public Health Code. This approval is given with the understanding that you will provide proper care and maintenance of the existing system (the septic tank is to be pumped every 3 years).

THE OWNER IS RESPONSIBLE TO SEEK PROPER AUTHORIZATION FROM ALL TOWN AGENCIES PRIOR TO START OF CONSTRUCTION.

Should you have any questions, please do not hesitate to contact this office.

Sincerely,

Maureen Marcoux, RS
Senior Sanitarian-NDDH

cc: Putnam Building Official

GENERAL CONSTRUCTION NOTES:

1. LOCATIONS OF UNDERGROUND UTILITIES HAVE BEEN DETERMINED FROM THE BEST INFORMATION AVAILABLE AND ARE GIVEN FOR THE CONVENIENCE OF THE CONTRACTOR. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THEIR ACCURACY. THE CONTRACTOR SHALL NOTIFY CALL BEFORE YOU DIG AND FIELD VERIFY THE LOCATION, DEPTH AND ALIGNMENT OF ALL EXISTING PIPES, CABLES, ETC.
2. CONSTRUCTION SHALL BE IN CONFORMANCE WITH CONNDOT FORM 818 UNLESS OTHERWISE NOTED ON THE PLANS. UTILITY INSTALLATION SHALL BE IN CONFORMANCE WITH THE APPROPRIATE UTILITY COMPANY.
3. THE CONTRACTOR IS RESPONSIBLE FOR ALL COORDINATION WITH EACH UTILITY AND ALL COSTS ASSOCIATED WITH THE PROTECTION OF EXISTING FACILITIES. IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN IN SERVICE ALL EXISTING PIPING UNLESS OTHERWISE INDICATED ON THE DRAWINGS.
4. TYPICAL DETAILS SHOWN ARE TO ILLUSTRATE THE ENGINEER'S INTENT AND ARE NOT PRESENTED AS A SOLUTION TO ALL CONSTRUCTION PROBLEMS ENCOUNTERED IN THE FIELD. THE CONTRACTOR MAY SUBMIT PROPOSALS FOR ALTERNATE METHODS TO SUIT FIELD CONDITIONS.

FLOOD ZONE NOTES

1. PORTIONS OF THIS PROPERTY ARE WITHIN A 100 YEAR FLOOD ZONE, PER FIRM 090154-0010-B, DATED OCTOBER 15, 1986.
2. THE FIRM SHOWS THE 100 YEAR FLOOD ZONE FOR THIS AREA AT ELEVATION 385 - 390, USING THE NGVD 29 DATUM
3. CONVERTED TO THE CURRENT NAVD 88 DATUM, THE FLOOD ZONE IS APPROXIMATELY EQUAL TO ELEVATION 384 - 386

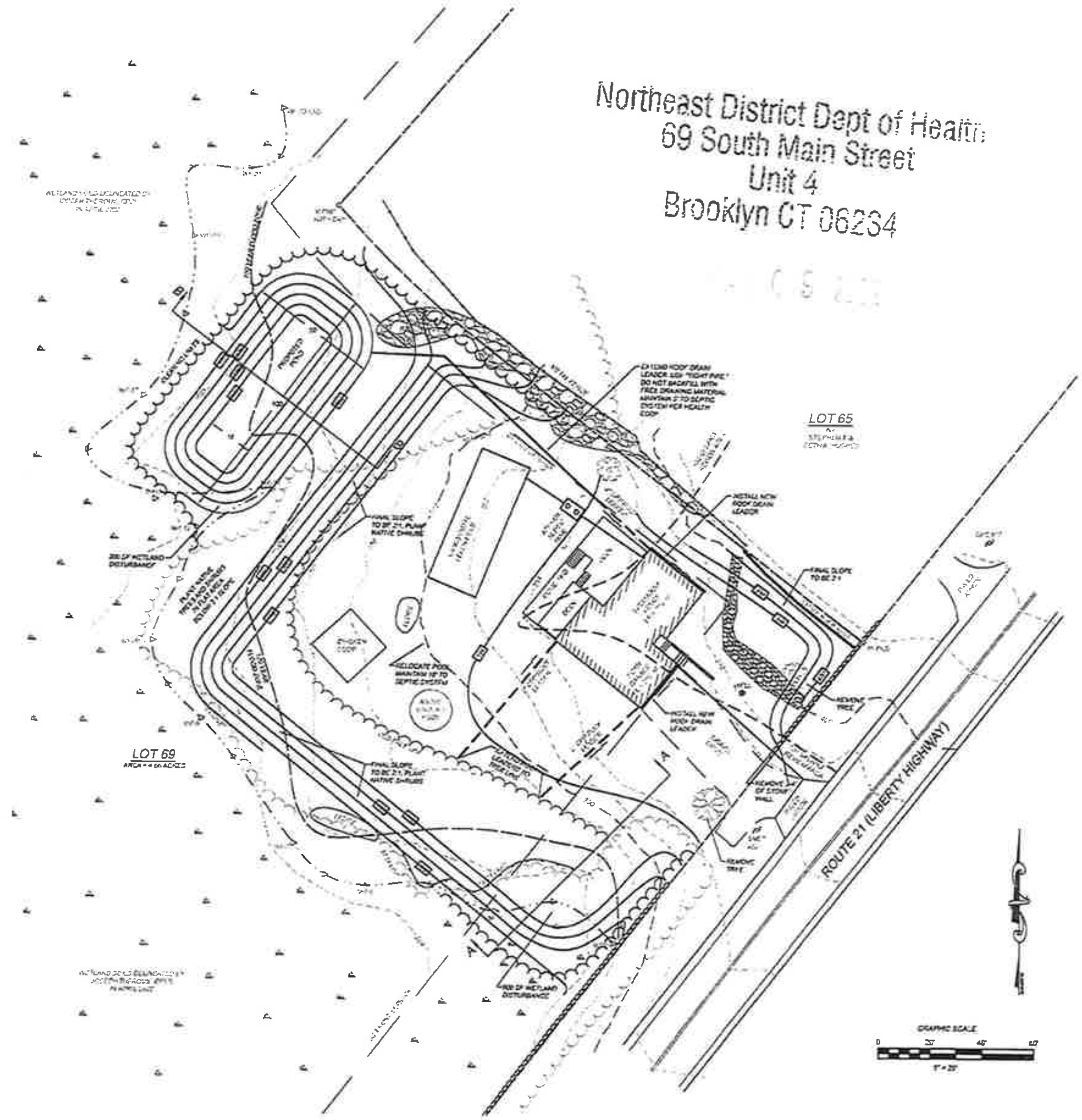
PROPERTY OWNER
MICHAEL HYATT &
JESSICA BIRON

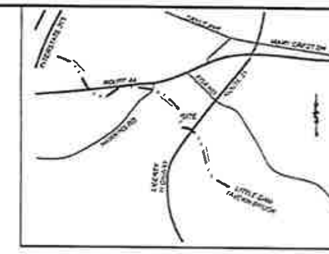
REFERENCE DEED
PUTNAM LAND RECORDS
VOL. 824 PG. 853

ASSESSORS REFERENCE
MAP 26 LOT 69

ZONING INFORMATION
ZONE: R-40
MINIMUM LOT AREA: 40,000 S.F.
MINIMUM FRONTAGE: 200'
MINIMUM FRONT YARD: 50'
MINIMUM SIDE YARD: 20'
MINIMUM REAR YARD: 40'

Northeast District Dept of Health
69 South Main Street
Unit 4
Brooklyn CT 06234





LOCATION MAP
1" = 1000'

SURVEY NOTES

1. THIS MAP HAS BEEN PREPARED PURSUANT TO THE REGULATIONS OF CONNECTICUT STATE AGENCIES SECTIONS 20-300b-1 THROUGH 20-300b-20 AND THE "STANDARD FOR SURVEYS AND MAPS IN THE STATE OF CONNECTICUT" AS ADOPTED BY THE CONNECTICUT ASSOCIATION OF LAND SURVEYORS, INC. ON SEPTEMBER 26, 1996.

SURVEY TYPE: GENERAL LOCATION AND TOPOGRAPHIC

BOUNDARY DETERMINATION CATEGORY: N/A

HORIZONTAL ACCURACY: CLASS B
VERTICAL ACCURACY: CLASS T2

DATUM: NAD83, NAVD88 OBTAINED WITH LEICA GS-16 GNSS

PURPOSE: TO OBTAIN A WETLAND PERMIT FOR EARTHWORK WITHIN THE UPLAND REVIEW AREA

2. REFERENCE PLAN: "PLOT PLAN TO CORRECT AN ILLEGAL SUBDIVISION REMAINING LAND OF EDWIN R. AND RACHEL E. ROLLER, CONN. ROUTE 21 A.K.A CONVERSE ROAD, PUTNAM, CONN." DATED AUGUST 1987, SCALE 1" = 40', PREPARED BY MESSIER AND ASSOCIATES. ON FILE WITH THE TOWN CLERK'S OFFICE AS MAP NUMBER 884.

TO MY KNOWLEDGE AND BELIEF, THIS MAP IS SUBSTANTIALLY CORRECT AS NOTED HEREON

DENNIS R BLANCHETTE	DATE	17197 LICENSE #

THIS MAP IS NOT VALID WITHOUT A LIVE SIGNATURE
© 2022 J&D CIVIL ENGINEERS, LLC

LEGEND

- ANGLE POINT
- EXISTING IRON ROD DRILL HOLE
- EXISTING PROPERTY LINE
- BUILDING SETBACK
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- PROPOSED CONTOUR LINE
- STONE WALL
- TREELINE
- FENCE
- EDGE OF WETLANDS
- UPLAND REVIEW AREA
- 100 YEAR FLOOD ZONE
- EROSION CONTROL DEVICES

APPROVED
INLAND WETLANDS COMMISSION

CHAIRMAN	DATE

SITE DEVELOPMENT PLAN
PREPARED FOR
MICHAEL HYATT
532 LIBERTY HIGHWAY, PUTNAM, CT
MAP 26 LOT 69

J&D CIVIL ENGINEERS, LLC
491 RAVENELLE ROAD
N. GROSVENORDALE, CT 06255
860-923-2920

DESIGNED: DDB CHECKED: JAB	REVISIONS:
JOB NO: 22116	DATE: MAY 3, 2022
SCALE: 1" = 20'	SHEET: 1 OF 2

Town of Putnam, Connecticut
Web GIS Maps and Online Property Information
by MainStreetGIS, LLC Town Website
User Guide Feedback Disclaimer

Base Map: Town Base Map

532 LIBERTY HGWY

Parcel ID Owner Google

GIS Map

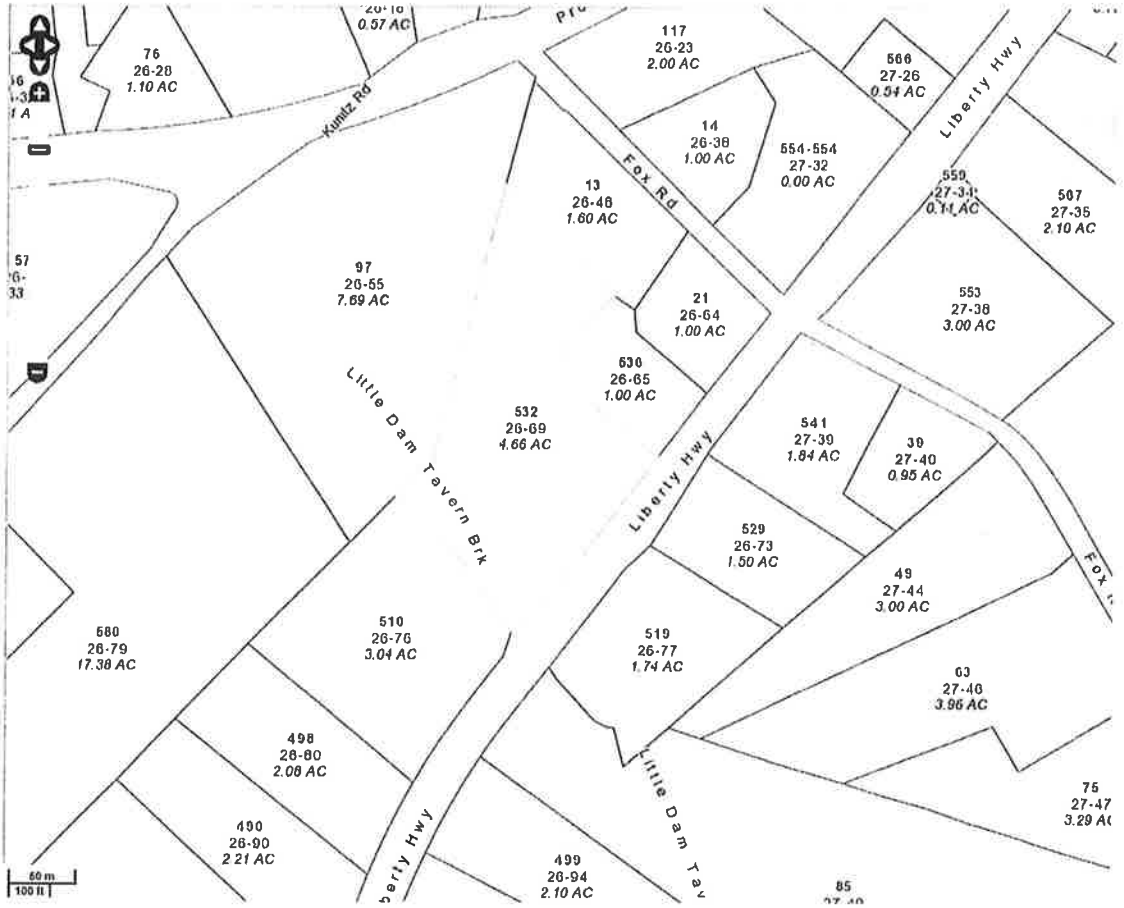
MainStreetMaps

1 : 2500

Property

532 LIBERTY HGWY
026-069



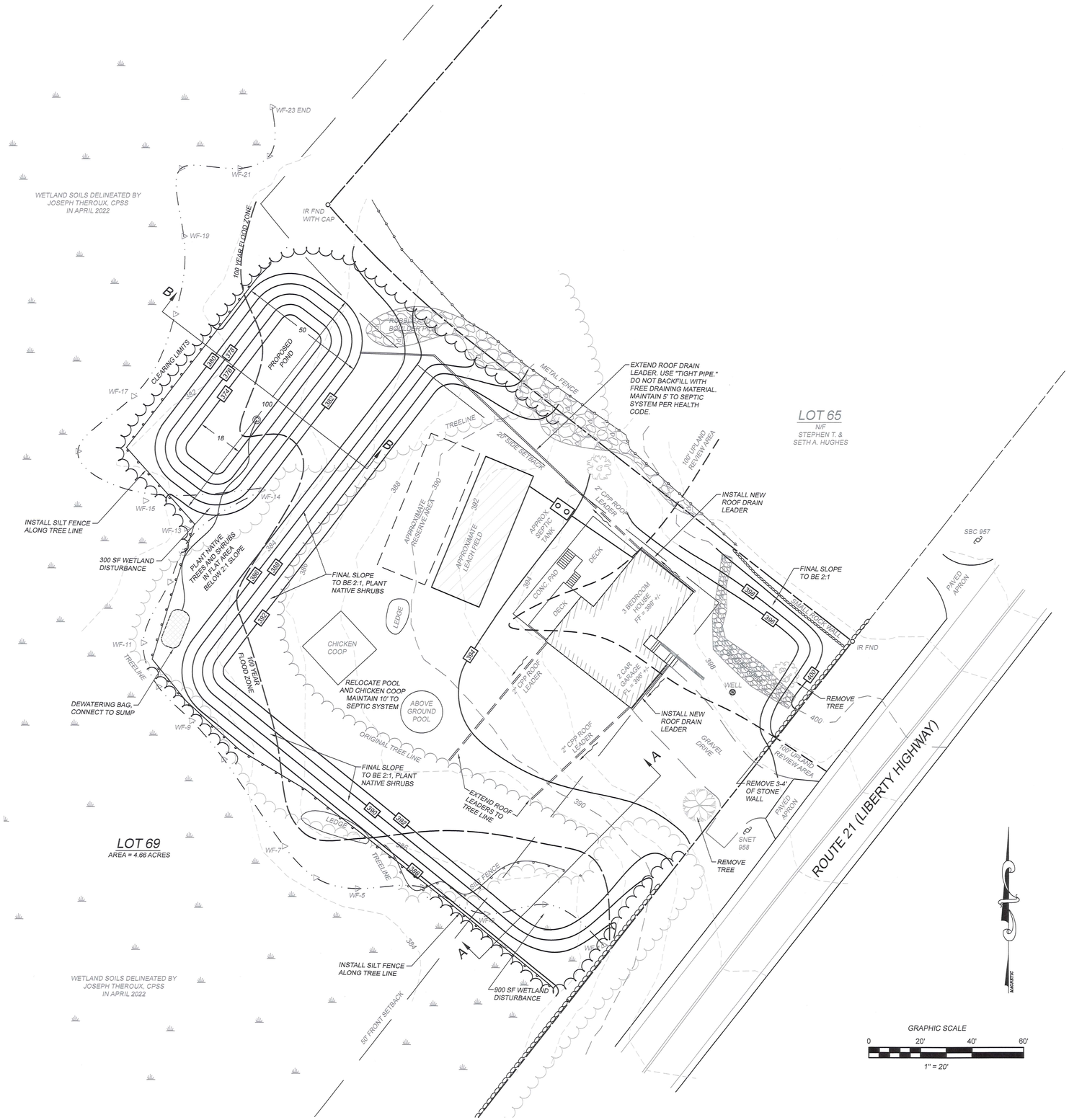


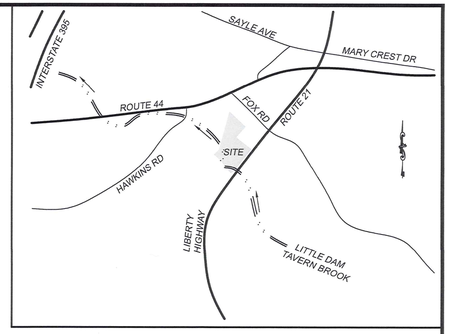
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2. THE FIRM SHOWS THE 100 YEAR FLOOD ZONE FOR THIS AREA AT ELEVATION 385 - 389, USING THE NGVD 29 DATUM.
3. CONVERTED TO THE CURRENT NAVD 88 DATUM, THE FLOOD ZONE IS APPROXIMATELY EQUAL TO ELEVATION 384 - 388.
4. THE TOTAL AMOUNT OF FILL WITHIN THE FLOOD ZONE IS ESTIMATED AT 250 CUBIC YARDS. THE TOTAL AMOUNT OF CUT WITHIN THE FLOOD ZONE IS ESTIMATED AT 425 CUBIC YARDS. THE CUT VOLUME IS 70% GREATER THAN THE FILL VOLUME. THEREFORE THIS PROJECT WILL RESULT IN A NET INCREASE OF FLOOD WATER STORAGE.





LOCATION MAP

1" = 1000'

SURVEY NOTES

1. THIS MAP HAS BEEN PREPARED PURSUANT TO THE REGULATIONS OF CONNECTICUT STATE AGENCIES SECTIONS 20-300b-1 THROUGH 20-300b-20 AND THE "STANDARD FOR SURVEYS AND MAPS IN THE STATE OF CONNECTICUT " AS ADOPTED BY THE CONNECTICUT ASSOCIATION OF LAND SURVEYORS, INC. ON SEPTEMBER 26, 1996.

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DENNIS R BLANCHETTE DATE 12107 LICENSE #

THIS MAP IS NOT VALID WITHOUT A LIVE SIGNATURE
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LEGEND

- ANGLE POINT
- EXISTING IRON ROD DRILL HOLE
- EXISTING PROPERTY LINE
- BUILDING SETBACK
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- PROPOSED CONTOUR LINE
- STONE WALL
- TREELINE
- FENCE
- EDGE OF WETLANDS
- UPLAND REVIEW AREA
- 100 YEAR FLOOD ZONE
- EROSION CONTROL DEVICES

PROPERTY OWNER
MICHAEL HYATT &
JESSICA BIRON

REFERENCE DEED
PUTNAM LAND RECORDS
VOL. 824 PG. 823

ASSESSORS REFERENCE
MAP 26 LOT 69

ZONING INFORMATION:
ZONE: R-40
MINIMUM LOT AREA: 40,000 S.F.
MINIMUM FRONTAGE: 200'
MINIMUM FRONT YARD: 50'
MINIMUM SIDE YARD: 20'
MINIMUM REAR YARD: 40'

APPROVED
INLAND WETLANDS COMMISSION

CHAIRMAN DATE

SITE DEVELOPMENT PLAN
PREPARED FOR
MICHAEL HYATT
532 LIBERTY HIGHWAY, PUTNAM, CT
MAP 26 LOT 69

J&D CIVIL ENGINEERS, LLC
401 RAVENELLE ROAD
N. GROSVENORDALE, CT 06255
860-923-2920

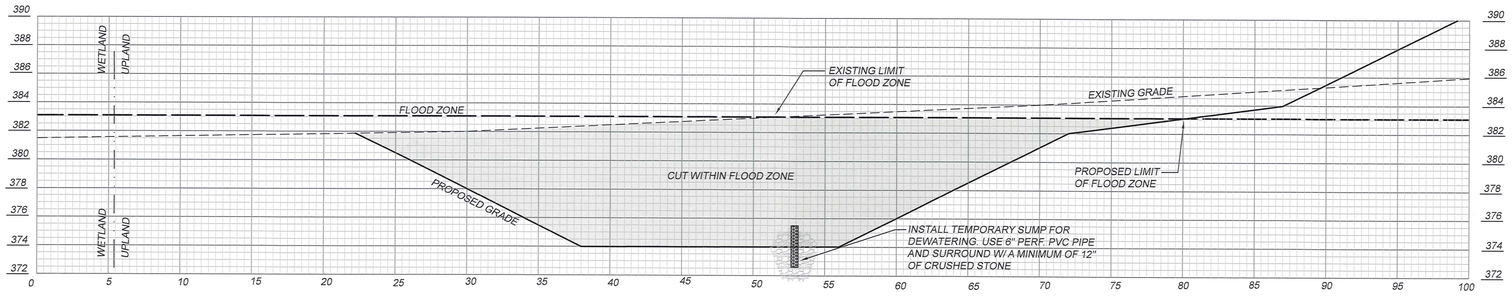
STATE OF CONNECTICUT DANIEL D. BLANCHETTE 31338 LICENSED PROFESSIONAL ENGINEER

DESIGNED: DDB
CHECKED: JAB

REVISIONS:

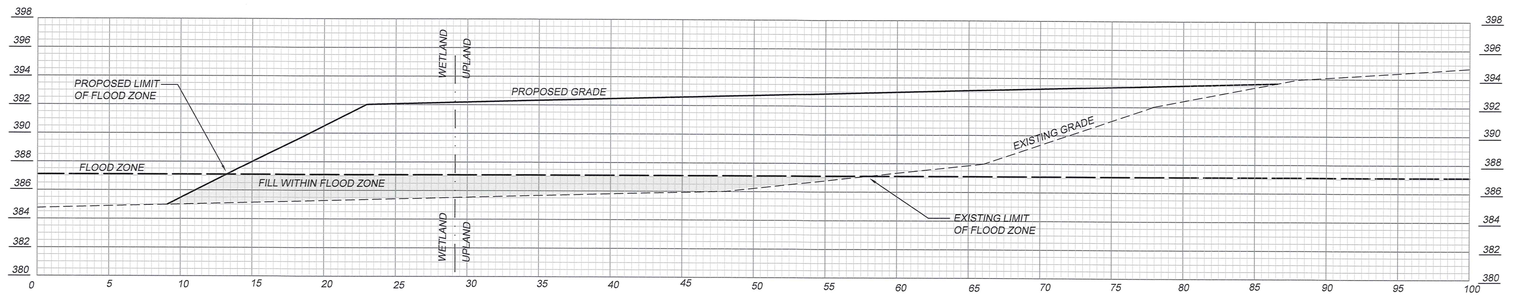
JOB NO: 22116
SCALE: 1" = 20'

DATE: MAY 3, 2022
SHEET: 1 OF 2



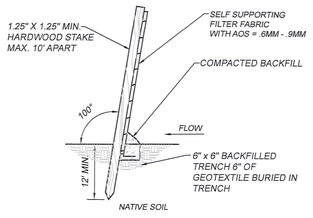
POND CROSS SECTION B-B

1" = 5'



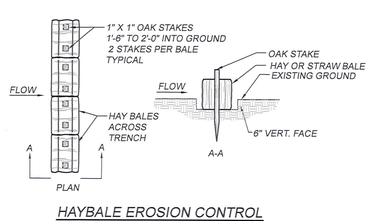
GRADING CROSS SECTION A-A

1" = 5'



SILT FENCE INSTALLATION

NOT TO SCALE



HAYBALE EROSION CONTROL

NOT TO SCALE

CONSTRUCTION SCHEDULE

CONSTRUCTION WILL COMMENCE IMMEDIATELY FOLLOWING THE ISSUANCE OF THE WETLAND PERMIT.

THE PROJECT WILL TAKE APPROXIMATELY 1.5 YEARS TO COMPLETE. THE OWNER INTENDS TO PERFORM THE WORK HIMSELF DURING NIGHTS AND WEEKENDS.

THE FIRST HALF OF THE POND WILL BE EXCAVATED DURING THE SUMMER OF 2022, THE SECOND HALF OF THE POND WILL BE EXCAVATED DURING THE SUMMER OF 2023.

THE POND WILL NOT SUPPLY ENOUGH FILL TO ACHIEVE THE FINAL GRADES SHOWN ON THE SITE PLAN, AND ADDITIONAL CLEAN FILL WILL NEED TO BE IMPORTED. CLEAN FILL CAN BE PLACED AND COMPACTED AT ANY TIME.

FILL WILL BE PLACED IN QUADRANTS, AND ONE QUADRANT WILL BE FULLY COMPLETED, INCLUDING LOAMING, SEEDING, AND PLANTING BEFORE MOVING ON TO THE NEXT QUADRANT.

ALL EARTHWORK SHALL BE COMPLETED BY SEPTEMBER 30, 2023 TO ALLOW TIME FOR TURF TO BECOME ESTABLISHED ON THE FINAL QUADRANT.

CONSTRUCTION SEQUENCE

1. A LICENSED SURVEYOR SHALL STAKE THE LIMITS OF EXCAVATION IN THE FIELD.
2. INSTALL EROSION CONTROL DEVICES AS SHOWN ON THE SITE PLAN.
3. CUT ADDITIONAL TREES AS SHOWN ON THE SITE PLAN.
4. REMOVE STUMPS AND SHRED OR DISPOSE OF OFF SITE. NO STUMPS SHALL BE BURIED ON SITE.
5. STRIP TOPSOIL FROM FIRST QUADRANT AND STOCKPILE.
6. PERFORM ROUGH CUTS AND FILLS ACROSS FIRST QUADRANT. ALL FILL SHALL BE PLACED IN 6 INCH LIFTS AND THOROUGHLY COMPACTED TO PREVENT SETTLING OR EROSION. ANY SATURATED SOILS SHALL BE ALLOWED TO DRAIN ON SITE BEFORE BEING PLACED AND COMPACTED.
7. INSTALL PIPES FOR GUTTER DOWNSPOUTS AS NEEDED.
8. PERFORM FINE GRADING FOR THE FIRST QUADRANT, AS SHOWN ON THE SITE PLAN. ALL PROPOSED CONTOURS ARE INTENDED TO REPRESENT FINAL GRADES.
9. SPREAD TOPSOIL ON FIRST QUADRANT, WITH A MINIMUM THICKNESS OF 4 INCHES, AND HYDROSEEDT.
10. PLANT NATIVE SHRUBS (SWEET PEPPER BUSH, BLUEBERRY, WINTERBERRY, SERVICEBERRY, ARROWWOOD VIBURNUM, MOUNTAIN LAUREL, WITCH HAZEL, ETC.) IN THE FIRST QUADRANT, AS SHOWN ON THE SITE PLAN.
11. REPEAT FOR NEXT THREE QUADRANTS.
12. ONCE TURF IS ESTABLISHED, REMOVE EROSION CONTROL DEVICES.

EROSION AND SEDIMENT CONTROL NOTES

1. ALL EROSION AND SEDIMENT CONTROL SHALL BE IN ACCORDANCE WITH THE "CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL 2002."
2. THE OWNER IS RESPONSIBLE FOR COMPLIANCE WITH THIS EROSION CONTROL PLAN.
3. THE GOAL OF EROSION CONTROL ON THIS PROJECT SHALL BE ENSURING THAT NO ERODED SEDIMENT TRAVELS BEYOND THE PROPERTY BOUNDARIES, OR INTO THE ADJACENT RIVER OR WETLANDS.
4. IF CONDITIONS WARRANT IT, THE OWNER SHALL INSTALL ADDITIONAL EROSION CONTROL DEVICES BEYOND WHAT IS INDICATED ON THE PLAN TO MEET THE GOALS OF EROSION CONTROL.
5. THE OWNER SHALL INSTALL EROSION CONTROL MEASURES CONSISTING OF SILT FENCE, SILT SOCK, HAY BALES, OR WOOD CHIPS WHERE INDICATED ON THE PLANS PRIOR TO THE START OF EXCAVATION.
6. THE EXCAVATOR SHALL CONTACT THE TOWN OF PUTNAM FOR INSPECTION OF EROSION CONTROL DEVICES PRIOR TO EXCAVATION. EROSION CONTROL DEVICES SHALL BE INSPECTED WEEKLY AND AFTER EVERY RAINFALL GREATER THAN 1" AND REPLACED PROMPTLY IF NEEDED.
7. EROSION CONTROL DEVICES WILL REMAIN IN PLACE UNTIL PERMANENT VEGETATION IS ESTABLISHED.
8. DISTURBED AREAS SHALL BE KEPT TO A MINIMUM, AND SEEDED OR STABILIZED WITH TEMPORARY MULCH AS SOON AS POSSIBLE.
9. ALL PROPOSED EXCAVATION SHALL BE PERFORMED DURING THE DRY SEASON (JULY THROUGH NOVEMBER) AND/OR WHEN THE GROUND WATER ELEVATION IS LOW.
10. THE DEWATERING BAG SHALL BE PLACED IN THE UPLANDS, IN THE LAWN. FOLLOW ALL MANUFACTURER'S INSTRUCTIONS REGARDING THE DEWATERING BAG, AND REPLACE AS NECESSARY.

CROSS SECTIONS AND NOTES

PREPARED FOR

MICHAEL HYATT

532 LIBERTY HIGHWAY, PUTNAM, CT

MAP 26 LOT 69

J&D CIVIL ENGINEERS, LLC

401 RAVENELLE ROAD
N. GROSVENORDALE, CT 06255
860-923-2920

STATE OF CONNECTICUT · DANIEL D. BLANCHETTE JR. · 31308 · LICENSED PROFESSIONAL ENGINEER

DESIGNED: DDB CHECKED: JAB	REVISIONS:
JOB NO: 22116	DATE: MAY 3, 2022
SCALE: 1" = 20'	SHEET: 2 OF 2

24941 Dana Point Harbor Drive, Suite C220
Dana Point, CA 92629

Mr. Bruce Fitzback
Land Use Agent
Town of Putnam
200 School Street
Putnam, CT 06260

RE: Inland Wetland Commission Application for Permit – 4 Kennedy Drive Solar Facility

Dear Mr. Fitzback:

Please find enclosed three (3) copies of an Inland Wetland application and supporting materials for the construction of a solar array at 4 Kennedy Drive. Also enclosed is a check in the amount of $160.00 for the application fees.

I am requesting that this application be placed on the 6/8 Commission meeting agenda. Please let me know if you will require additional information.

Sincerely,

Colleen Debenedetto
Development Project Manager
Valta Energy, LLC
colleen@valtaenergy.com
508.463.5303

INLAND WETLAND COMMISSION

APPENDIX A

APPLICATION FOR PERMIT

This application is for the use of inland wetlands and water courses.

The meetings are held on the second Wednesday of every month at 7:00pm in the Town Hall. If an on-site inspection is canceled due to inclement weather, the applicant is asked to call the office at 963-6803 30 minutes before the scheduled inspection to see if or when the inspection will be held.

Name of Applicant: Valta Energy

Applicant's Address: 24941 Dana Point Harbor Drive, Suite C, Dana Point, CA 92629

Phone #: 508.463.5303

Owner of Land: Town of Putnam

Owner's Address: 200 School Street, Putnam, CT 06260

Location and description of proposed activity: Valta Energy is proposing to construct an array of photovolataic cells in the center of the Town of Putnam sewage treatment plant property located a 4 Kennedy Drive, Putnam, CT. Installation will include PV cell array, footings and a fence surrounding the array. Racks will be installed on a driven pile system, with grass beneath the array. Staw wattles will be placed around the fenced area. Trenched underground electric connection. There are no wetlands within the proposed activities.

Activity & Purpose Code

Please **CHECK** one in each column that best describes the activity proposed.

Code	Activity Type	Code	Activity Purpose
☐	**1** Filling	☐	**A** Residential Improvement by homeowner
☐	**2** Excavation	☐	**B** New residential development - single family
☐	**3** Land Clearing	☐	**C** New residential development - multi- family/condo
☐	**4** Stream Channel	☐	**D** Commercial/Industrial Uses
☐	**5** Stream Stabilization	☑	**E** Municipal Improvements
☐	**6** Stream Clearance	☐	**F** Utility Company Improvements
☐	**7** Culverting	☐	**G** Agriculture, Forestry or Conservation
☐	**8** Und. Grd. Util.	☐	**H** Wetland Creation/Restoration
☐	**9** Roadway Construction	☐	**I** Storm Water/Flood Control
☐	**10** Drainage Improvements	☐	**J** Erosion/Sediment Control
☐	**11** Pond Dredge/Dam Construction	☐	**K** Recreation/Boating/Navigation
☐	**12** Activity Buffer/Set Back Area	☐	**L** Routine Maintenance
☑	**13** Other: Please describe: Installation of photovoltaic cell array.		

INLAND WETLAND COMMISSION

APPENDIX A *Continued*

Project Name (if applicable) 4 Kennedy Drive

Estimate of Linear Footage affecting Wetlands 0 feet - no wetlands within proposed activities.

Affected number of acres in which Wetlands are part of the impacted area for Multi-Family, Condos and Commercial Development N/A

TO BE COMPLETED BY THE COMMISSION

Application Number _____ Date of Receipt _____

Application Approved (date) _____

Conditions of approval if applicable _____

Application Denied (date) _____

Reason(s) for Denial _____

_____ _____

Signature of Chairman or Secretary of Commission Date

INLAND WETLAND COMMISSION

APPENDIX A ***Continued***

Application Procedure

1. Applicant will have a map showing the property boundaries, any wetlands on the property, proposed buildings, septic area, drainage if applicable and the dimension between these areas in scale 1" - 200' or less

2. Applicant must provide an approximate estimate of the linear footage of the wetlands that are affected by said proposal. This is for multi-family, condominiums or commercial development. Contact with the Zoning Official may clarify the nature of your project

3. Applicant must provide an approximate estimate of the number of acres that are affected by said proposal dealing with multi-family, condominiums and commercial development in which wetlands are part of that impacted area within the watershed.

4. Applicant will supply a copy of the soil scientist report with the application to the Wetlands Commission to be reviewed at the meeting by the Commission.

5. Applicant will have the soil scientist number the wetland flags and record the numbers of the flags on the site plan according to their location in the field. The location on the site map must match the field location.

6. If the applicant's estimates are not accurate, payment of the correct amount must be made before the Wetlands final approval of the application.

7. And any other information deemed necessary by the Commission.

Fee Schedule

1.	Permitted and non-regulated	$40.00
2.	One lot regulated	$40.00
3.	Regulated Area	
	Two (2) - Ten (10) lots	$100.00
	Ten (10) - Twenty (20) lots	$200.00
	Over Twenty (20+) lots	$300.00
4.	Multi-Family/Condominium Regulated area	
	Zero (0) to Five (5) Acres	$50.00
	Per linear foot of wetlands additional	$0.35
	Over Five (5) acres	$100.00
	Per linear foot of wetlands additional	$0.35
5.	Commercial	
	Zero (0) to Five (5) Acres	$100.00
	Per linear foot of wetlands additional	$0.50
	Over Five (5) acres	$300.00
	Per linear foot of wetlands additional	$0.50

All applications must be submitted one week prior to the regularly scheduled monthly meeting.

Inland Water Resources Division
Department of Environmental Protection
79 Elm Street, 3rd Floor
Hartford, CT 06106-5127
www.ct.gov/dep

GIS CODE #: ___ ___ ___ ___ ___ ___ ___ ___ ___
For DEP Use Only

Statewide Inland Wetlands & Watercourses Activity Reporting Form

*Complete, print, **sign,** and mail this form in accordance with the instructions on pages 2 and 3.*

PART I: To Be Completed By The Municipal Inland Wetlands Agency *Only*

1. DATE ACTION WAS TAKEN (use drop-down box): Year Month

2. ACTION TAKEN (use drop-down box):

3. WAS A PUBLIC HEARING HELD? (select one only) ☐ Yes ☐ No

4. NAME OF AGENCY OFFICIAL VERIFYING AND COMPLETING THIS FORM:

(print): (signature) _____

PART II: To Be Completed By The Municipal Inland Wetlands Agency Or The Applicant

5. TOWN IN WHICH THE ACTION IS OCCURRING: Putnam

Does this project cross municipal boundaries? (select one only) ☐ Yes ☒ No

If Yes, list the other town(s) in which the action is occurring:

6. LOCATION: USGS Quad Map Name (see hyperlink): Putnam

Quad Number (see hyperlink): 28

Subregional Drainage Basin Number (see hyperlink): 3700

7. NAME OF APPLICANT, VIOLATOR OR PETITIONER: Valta Energy

8. NAME & ADDRESS/LOCATION OF PROJECT SITE: Waste Water Treatment Facility, 4 Kennedy Dr.

Briefly describe the action/project/activity: ☐ Temporary ☒ Permanent

Installation of solar array

9. ACTIVITY *PURPOSE* CODE (Use drop-down box): P

10. ACTIVITY *TYPE* CODE(S) (Use drop-down box) 1, 2, 14

11. WETLAND / WATERCOURSE AREA ALTERED [must be provided in acres or linear feet as indicated]:

Wetlands: 0 acres Open Water Body: 0 acres Stream: 0 linear feet

12. UPLAND REVIEW AREA ALTERED [must be provided in acres]: .81 acres

13. AREA OF WETLANDS AND / OR WATERCOURSES RESTORED, ENHANCED OR CREATED: 0 acres
[must be provided in acres]

PART III: To Be Completed By The DEP

DATE RECEIVED: DATE RETURNED TO DEP:

FORM COMPLETED: ☐ YES ☐ NO FORM CORRECTED / COMPLETED: ☐ YES ☐ NO

JMM WETLAND CONSULTING SERVICES, LLC

23 Horseshoe Ridge Road
Newtown, CT 06482

Phone: 203-364-0345
Mobile: 203-994-3428
james@jmmwetland.com
jmmwetland.com

September 15, 2021

Mr. Dean Martin
Martin Surveying Associates, LLC
201 Christian Lane, Suite D
Berlin, CT 06037

RE: ***Site Investigation***
4 Kennedy Drive, Putnam, Connecticut
Proposed Solar Array

JMM Job # 21-2879-PUT-1

Dear Mr. Martin:

Per your request, Mr. James McManus of JMM Wetland Consulting Services, LLC (JMM) conducted a site visit at the above-referenced site on August 18th, 2021. The purpose of the investigation was to verify the absence or the presence of regulated wetland areas in accordance with the State of Connecticut Statutes. Specifically, JMM reviewed an area within the southwestern portion of the City of Putnam Water Pollution Control Facility (WPCA), in Putnam, CT (i.e., JMM Study Area). Currently, the study area is undeveloped and mix of maintained lawn and meadow areas with scattered sapling sized trees and shrubs (see photos 1-4).

The soil types within the study area were found to be disturbed throughout. The disturbed upland soils would be mapped as the Udorthents-Urban Land (306) mapping unit.

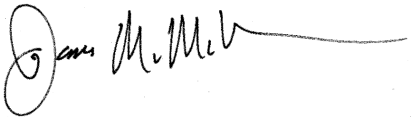
Udorthents-Urban Land (306). This soil mapping unit consists of well drained to moderately well drained soils that have been altered by cutting, filling, or grading. The areas either have had two feet or more of the upper part of the original soil removed or have more than two feet of fill material on top of the original soil. *Udorthents-Urban Land* or Made Land soils can be found on any soil parent material but are typically fluvial on glacial till plains and outwash plains and stream terraces.

JMM carefully reviewed the study area with the use of a mini-excavator and with a hand-held soil auger and spade to a minimum depth of 4-feet. It was determined that no poorly or very poorly drained soils or regulated watercourses were identified within these very disturbed soils.

Please call us if you have any questions on the above or need further assistance.

Respectfully submitted,

JMM WETLAND CONSULTING SERVICES, LLC



James M. McManus, MS, CPSS
Certified Professional Soil Scientist (No. 15226)

Attachments: Photos 1-4, NRCS Web Soil Survey

FIGURE 1: 4 Kennedy Drive, Putnam, CT

Aerial Photo Showing the Site and Approximate Location of JMM Study Area (in pink)





Legend

- Town
- Buildings 2012
- Parcels

Notes

Enter Map Description

0.1 0 0.07 0.1 Miles

WGS_1984_Web_Mercator_Auxiliary_Sphere

© Latitude Geographics Group Ltd.

This map is a user generated static output from an Internet mapping site and is for reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable.

THIS MAP IS NOT TO BE USED FOR NAVIGATION



Photo 1: View of proposed solar array area (JMM photo taken 8/18/2021); facing southeasterly



Photo 2: View of proposed solar array area (JMM photo taken 8/18/2021); facing northwesterly

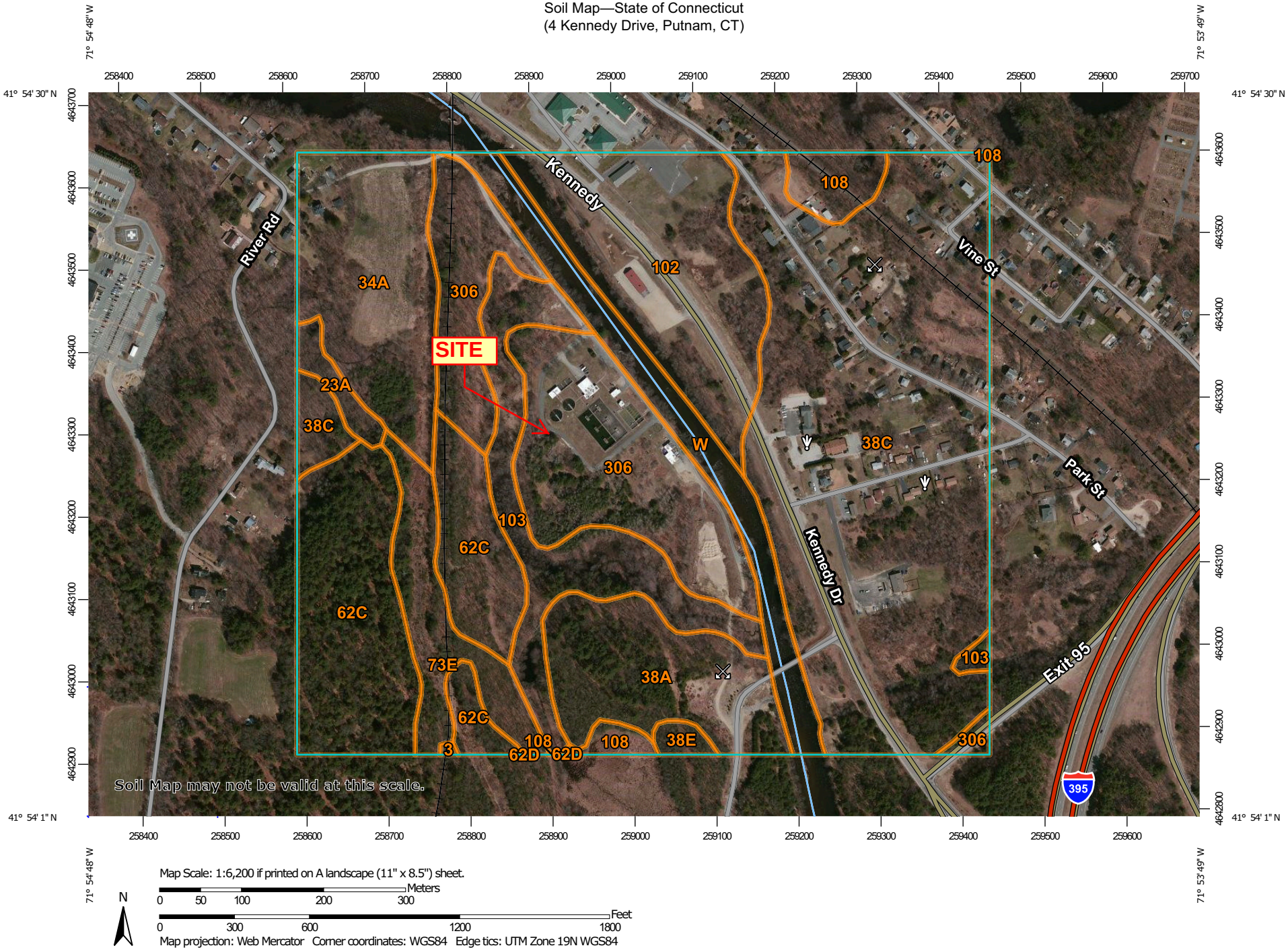


Photo 3: View of proposed solar array area (JMM photo taken 8/18/2021); facing southeasterly



Photo 4: View of soil pit showing the disturbed nature of the soil within the study area (JMM photo taken 8/18/2021)

Soil Map—State of Connecticut
(4 Kennedy Drive, Putnam, CT)



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: State of Connecticut
Survey Area Data: Version 20, Jun 9, 2020

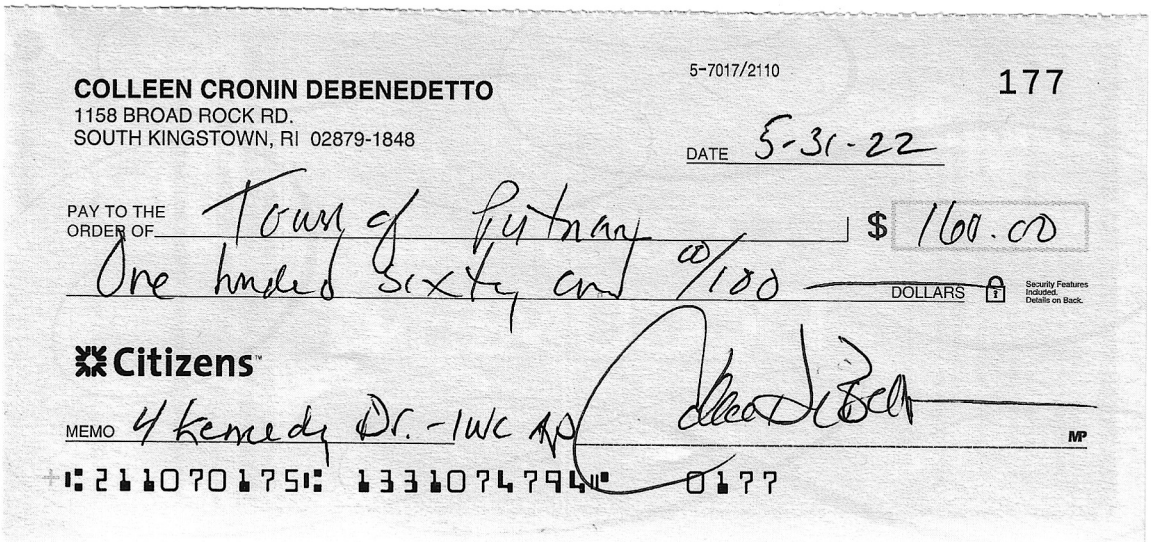
Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Apr 8, 2011—Apr 9, 2011

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
3	Ridgebury, Leicester, and Whitman soils, 0 to 8 percent slopes, extremely stony	0.1	0.0%
23A	Sudbury sandy loam, 0 to 5 percent slopes	1.3	0.8%
34A	Merrimac fine sandy loam, 0 to 3 percent slopes	12.5	8.2%
38A	Hinckley loamy sand, 0 to 3 percent slopes	9.9	6.5%
38C	Hinckley loamy sand, 3 to 15 percent slopes	47.7	31.1%
38E	Hinckley loamy sand, 15 to 45 percent slopes	0.6	0.4%
62C	Canton and Charlton fine sandy loams, 3 to 15 percent slopes, extremely stony	18.4	12.0%
62D	Canton and Charlton fine sandy loams, 15 to 35 percent slopes, extremely stony	0.0	0.0%
73E	Charlton-Chatfield complex, 15 to 45 percent slopes, very rocky	6.0	3.9%
102	Pootatuck fine sandy loam	15.5	10.1%
103	Rippowam fine sandy loam	10.6	6.9%
108	Saco silt loam	2.8	1.8%
306	Udorthents-Urban land complex	20.1	13.1%
W	Water	7.7	5.0%
Totals for Area of Interest		**153.2**	**100.0%**



COLLEEN CRONIN DEBENEDETTO
1158 BROAD ROCK RD.
SOUTH KINGSTOWN, RI 02879-1848

5-7017/2110

177

DATE 5-31-22

PAY TO THE ORDER OF Town of Putnam $ 160.00

One hunded Sixty and 00/100 DOLLARS

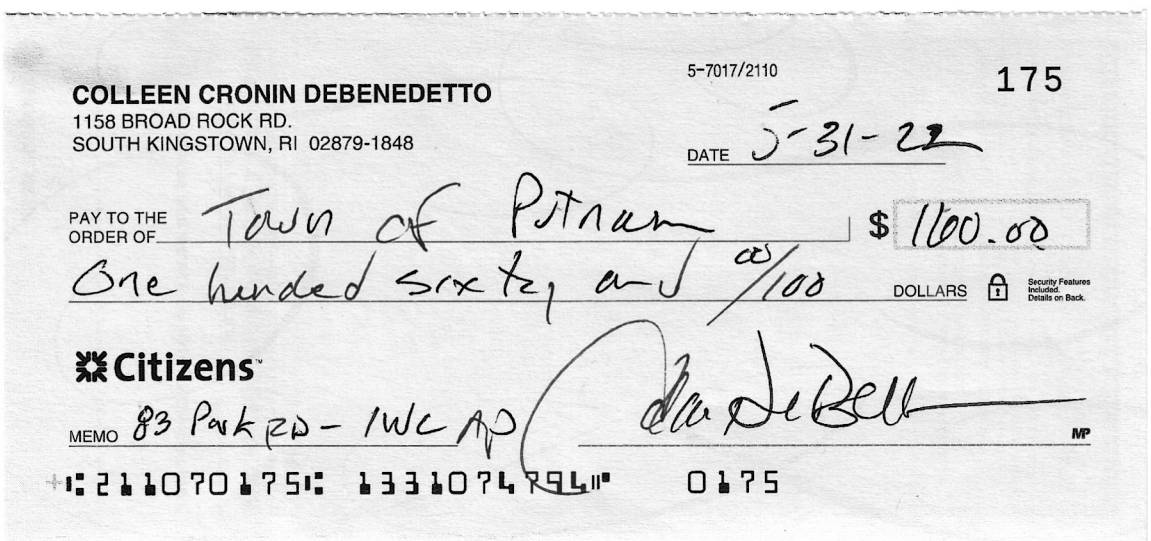
Security Features Included. Details on Back.

Citizens

MEMO 4 Kennedy Dr. - IWC AP

MP

⑆211070175⑆ 1331074794⑈ 0177



COLLEEN CRONIN DEBENEDETTO
1158 BROAD ROCK RD.
SOUTH KINGSTOWN, RI 02879-1848

5-7017/2110

175

DATE 5-31-22

PAY TO THE ORDER OF Town of Putnam $ 160.00

One hunded sixty and 00/100 DOLLARS

Security Features Included. Details on Back.

Citizens

MEMO 83 Park RD - IWC AP

MP

⑆211070175⑆ 1331074794⑈ 0175

Parcel ID: 019-055-000
SYLVIA HANKIN REVOCABLE
INTERVIVOS TRUST
SYLVIA HANKIN TRUSTEE
27 WEATHERWOOD RD
AMHERST MA 01002

Parcel ID: 037-007-000
PUTNAM TOWN OF
FARMERS MARKET & DOG PARK
200 SCHOOL ST
PUTNAM CT 06260

Parcel ID: 037-038-000
SYLVIA HANKIN REVOCABLE
INTERVIVOS TRUST
SYLVIA HANKIN TRUSTEE
27 WEATHERWOOD RD
AMHERST MA 01002

Parcel ID: 037-039-000
SYLVIA HANKIN REVOCABLE
INTERVIVOS TRUST
SYLVIA HANKIN
27 WEATHERWOOD RD
AMHERST MA 01002

Parcel ID: 037-044-000
PUTNAM TOWN OF
200 SCHOOL ST
PUTNAM CT 06260

Parcel ID: 037-081-000
PUTNAM TOWN OF
WASTE WATER TREATMENT PLA
WPCA
200 SCHOOL ST
PUTNAM CT 06260

Parcel ID: 037-084-000
YMCA
50 STATEHOUSE SQUARE 2ND FLOOR
HARTFORD CT 06103

Parcel ID: 037-088-000
PUTNAM TOWN OF
200 SCHOOL ST
PUTNAM CT 06260

Parcel ID: 037-089-000
STATE OF CONN
DEP
79 ELM ST
HARTFORD CT 06106

SYSTEM SPECS & INFORMATION

Project Info	
PV Module	(700) JINKO JKM395M-72HL-TV
Inverter #1	(1) SOLAREDGE SE100KUS
Inverter #2	(1) SOLAREDGE SE66.6KUS
Inverter #3	(2) SOLAREDGE SE40KUS
Racking	RBI SOLAR
DC WATTS	276.5kW
AC WATTS	246.6kW
CEC-AC	267.5kW
Azimuth	139
Tilt	15
Min. Temp.	-19°C
ASHRAE 2% AVG. TEMP	32°C
Utility	National Grid

SITE LOCATION

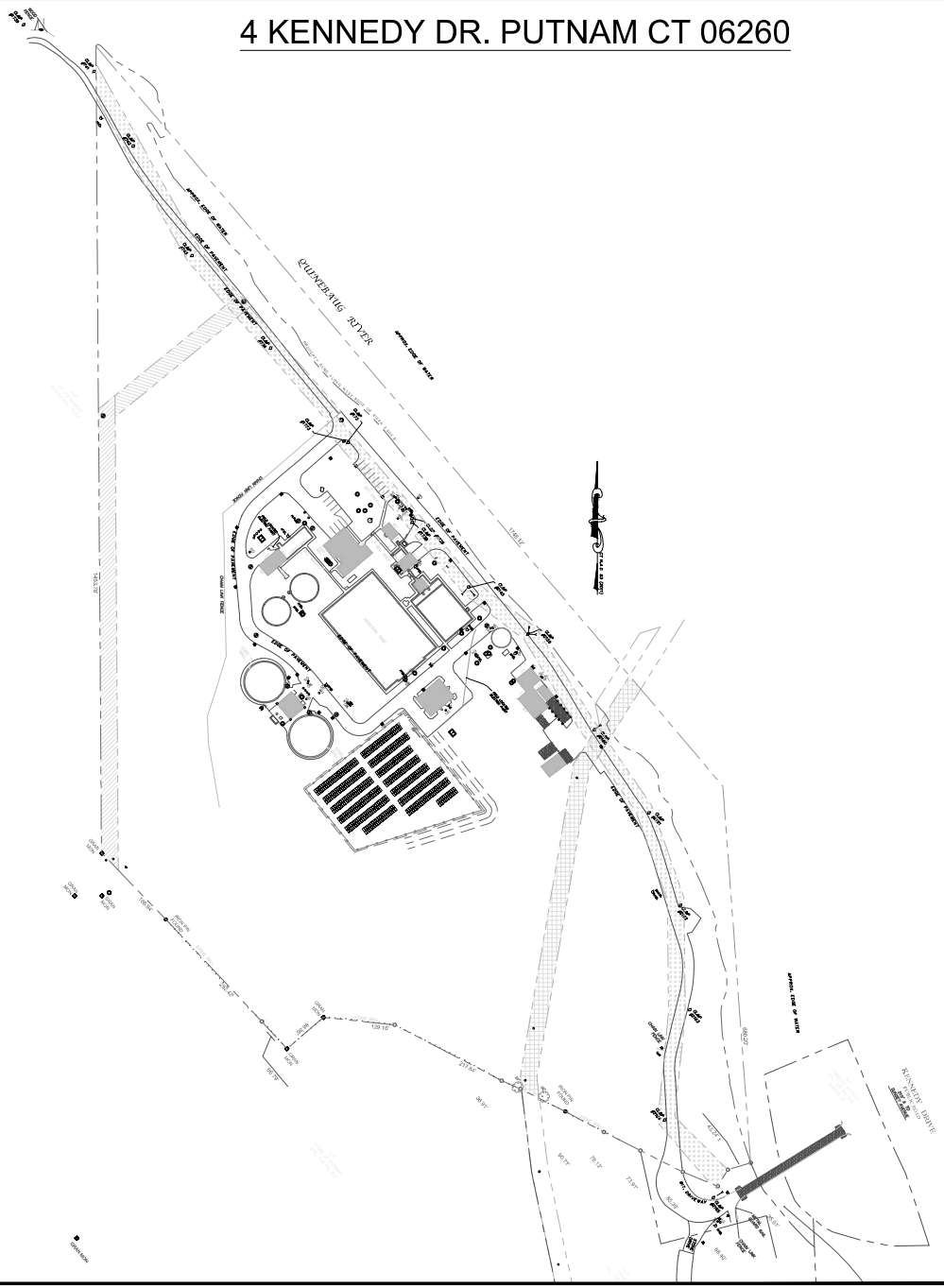


VICINITY MAP



SHEET INDEX	
E-1	TITLE SHEET
E-1.1	GENERAL NOTES
E-2.1	SITE PLAN DETAIL
E-2.2	SITE PLAN DETAIL
E-3.1	DC STRING DETAILS
E-4.1	SINGLE LINE
E-4.2	ELECTRICAL CALCS
E-5.1	LABELING
E-5.2	LABELING
E-5.3	SPEC SHEETS
E-5.4	SPEC SHEETS

4 KENNEDY DR. PUTNAM CT 06260



① SITE PLAN
SCALE= 1"=100'-0"

CPM
CLEAN POWER MANAGEMENT

CLEAN POWER MANAGEMENT
24941 DANA POINT HARBOR DR
SUITE C220
DANA POINT, CA 92629
469-735-2234

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SEAL:

SAVANT Engineering, LLC
5064 Roswell Road, Suite D-301
Sandy Springs GA 30342 770.319.7400
Project 16037 ©2016

PROJECT:

4 KENNEDY DR.
4 KENNEDY DR. PUTNAM CT 06260

APN: 037-081

OWNER:

-

24941 DANA POINT HARBOR DRIVE, C220 DANA POINT, CA 92629

Revisions:

1	05/16/22	Added limit of disturbance and straw wattle to site plan

Drawn By: ADRIAN CISNEROS
Checked By:
Date: 11/16/21
Job No.
Sheet Title:

TITLE SHEET

Sheet No.:

E-1

ELECTRICAL NOTES:

1. IN EVERY PULL BOX, TERMINAL BOX AND AT ALL PLACES WHERE WIRES MAY NOT BE READILY IDENTIFIED BY NAMEPLATE MARKINGS ON THE EQUIPMENT TO WHICH THEY CONNECT, IDENTIFY EACH CIRCUIT WITH A PLASTIC LABEL OR TAG FOR NUMBER, POLARITY OF PHASE.
2. THE LAYOUT OF CONDUIT SHOWN IN THESE PLANS IS INDICATIVE ONLY. THE CONTRACTOR SHALL ROUTE AND LOCATE THE CONDUITS TO SUIT SITE CONDITIONS BUT SHALL NOT EXCEED THE MAXIMUM CONDUCTOR LENGTHS IDENTIFIED ON WIRE SCHEDULE. CONTRACTOR WILL COORDINATE ALL CHANGES IN WIRING AND CONDUIT WITH ENGINEER.
3. BENDS SHALL NOT DAMAGE THE RACEWAY OR SIGNIFICANTLY CHANGE THE INTERNAL DIAMETER OF RACEWAYS (NO KINKS).
4. SUPPORT CONDUCTORS IN VERTICAL CONDUITS IN ACCORDANCE WITH REQUIREMENTS IN NEC 300.19
5. INSTALL AL WIRING MATERIALS IN A NEAT WORKMANLIKE MANNER, USE GOOD TRADE PRACTICE, AS REQUIRED BY CHAPTER 3 OF THE NEC AND ANSI/NECA 1-2000 'STANDARD PRACTICES FOR GOOD WORKMANSHIP IN ELECTRICAL CONTRACTING'.
6. INSTALL CONDUIT TO MAINTAIN PROPER CLEARANCES AND IN A NEAT INCONSPICUOUS MANNER. RUN PARALLEL AND AT RIGHT ANGLES TO STRUCTURAL MEMBERS OR OTHER CONDUITS. PROVIDE BOXES, FITTINGS AND BENDS FOR CHANGES IN DIRECTION. FASTEN CONDUIT SECURELY IN PLACE. CONDUCTORS' INSULATION IT IS BEING USED WITH.
7. SUPPORT CONDUIT USING STEEL PIPE STRAPS OAE, LAY-IN ADJUSTABLE HANGERS,M CLEVIS HANGERS OR SPLIT HANGERS. HANGER SPACING SHALL BE INSTALLED PER NEC REQUIREMENTS FOR THE TYPE OF CONDUIT BEING INSTALLED. USE APPROVED BEAM CLAMPS FOR CONNECTION TO STRUCTURAL MEMBERS.
8. PROVIDE PULL, JUNCTION OR CHRISTY BOXES WHERE REQUIRED TO FACILITATE THE INSTALLATION OF WIRING IN ADDITION TO THOSE ON THE DRAWINGS, BENDS IN CONDUITS BETWEEN PULL BOXES SHALL NOT EXCEED THE EQUIVALENT OF FOUR 90 DEGREE BENDS.
9. WHEN FIELD CUTTING IS REQUIRED THE CONDUIT SHALL BE CUT SQUARE AND DEBURRED.
10. CONDUIT SIZES NOT SPECIFIED SHOULD CONFORM TO NEC SPECIFICATIONS, TO INCLUDE FILL FACTOR AND DERATING FOR NUMBER OF CONDUCTORS WITH A MINIMUM CONDUIT SIZE BEING ¾".
11. THE WIRING MINIMUM SIZE SHALL BE #12 AWG.
12. SAFETY REGULATION (LOCK OUT - TAG OUT, ETC) IS THE FULL RESPONSIBILITY OF THE CONTRACTOR DURING CONSTRUCTION.
13. THE WIRING SIZE IS BASED ON THE ESTIMATED CONDUIT ROUTING SHOWN IN THIS DRAWING PACKAGE. SHOULD THE CONDUITS LENGTH INCREASE DUE TO LOCATION OF SOURCE AND/OR ROUTING THE CONDUITS AND THE CONDUCTORS MAY NEED BE RESIZED. PLEASE CONTACT THE ENGINEER PRIOR TO MAKING ANY FIELD CHANGES
14. ALL WIRING IN CONDUIT SHALL BE THWN-2 FOR 90 DEGREE CELSIUS APPLICATIONS. USE BARE COPPER FOR GROUND FOR AL EXTERNAL GROUNDING, USE2/RHW2/PV WIRE OR APPROVED EQUIVALENT SHALL BE USED FOR ALL EXPOSED OR HOMERUN WIRING
15. FOR INTER CONNECTION VIA BUS TAP:
    - OVERCURRENT PROTECTION (SWITCHING DEVICE AND MEANS OF DISCONNECT) MUST BE LOCATED PER NEC 240.21
    A. THE CONDUCTORS SHALL BE CRIMPED WITH A CRIMP-ON TERMINAL LUG, MANUFACTURED BY ILSCO, BURNDY, OAE, THE TERMINAL LUG SHALL HAVE IDENTIFICATION OR COLOR CODING TO MATCH THE CONDUCTOR SIZE. TERMINAL LUGS SHALL HAVE LONG BARRELS TO PROVIDE 2 CRIMPS PER TERMINAL LUG PER CONDUCTOR.
    B. CRIMPED TERMINAL LUGS SHALL BE CONSTRUCTED OF PURE COPPER AND TIN PLATED FOR HIGH CONDUCTIVITY AND RATED FOR 600V AT 90 DEGREES CELSIUS
    C. THE CRIMP MUST BE MADE WITH THE MANUFACTURER'S APPROVED TOOL DEVICE TO ACHIEVE THE PROPER CRIMP CONNECTION.
    D. USE STAINLESS STEEL HARDWARE WITH THE FASTENER TORQUED TO MANUFACTURERS RECOMMENDATIONS ON ALL THREE PHASES TO COMPLY WITH ARTICLE 110.14 OF THE 2020 NEC.
    E. MINIMUM BEND RADIUS SHALL BE OBSERVED TO MAINTAIN GOOD CONDUCTOR QUALITY AND WIRE MANAGEMENT IN THE LOAD CENTER OR TRANSFORMER. IF THIS BEND RADIUS IS TOO CONSTRICTING, USE A 90 DEGREE CRIMP-ON LUG MANUFACTURED BY ILSCO, BURNDY, OAE. 90 DEGREE CRIMP-ON LUG MUST BE INSTALLED WITH RATED INSULATION THAT MEETS OR EXCEEDS THE CONDUCTORS' INSULATION IT IS BEING USED WITH. IT IS RECOMMENDED THAT ACCEPTABLE CLEARANCES ARE MAINTAINED WIT THIS BUS TAP FOR SAFE, CONTINUOUS OPERATION.
    F. FOLLOW MANUFACTURERS GUIDELINES OR THE APPLICABLE AHJ, FOR MODIFICATION OF BUS BAR(S)
16. ALL CONDUITS SHALL BE FREE OF ANY OBSTRUCTIONS AND PROPERLY SECURED BEFORE WIRE IS PULLED.
17. ELECTRICAL CONTRACTOR TO PROVIDE SIGNAGE TO ALL ELECTRIC BOXES, JUNCTION BOXES, PULL BOXES, DC DISCONNECTS, CONDUIT RUNS, AC DISCONNECTS, SUB PANELS, AND MAIN SERVICES PER NEC ARTICLE 690.
18. MEGGER TESTING: MEGGER (INSULATION) TEST ALL CONDUCTORS AT 1000V TO 5 MEGAOHMS BETWEEN THE CONDUCTOR UNDER TEST AND GROUND WIRE. CONDUCT TEST AFTER WIRE IS PULLED THROUGH THE CONDUIT BUT BEFORE TERMINATING TO THE MODULES, COMBINERS, DISCONNECTS OR INVERTERS. **DO NOT MEGGER THE SOLAR MODULES AS THIS WILL LIKELY DAMAGE THEIR INTERNAL DIODES MEGGERING IS INTENDED FOR ALL CONDUCTORS INSTALLED BY THE ELECTRICAL CONTRACTOR.**
19. ALL UNDERGROUND ELECTRICAL WORK SHALL BE DONE WITH CARE. LOCATE EXISTING UTILITIES, IRRIGATION LINES AND OTHERS BEFORE COMMENCING UNDERGROUND WORK. CONTACT UNDERGROUND SERVICE ALERT "USA(WITHIN 48 HOURS OF ANY UNDERGROUND WORK. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL UNDERGROUND WORK PERFORMED.

MODULE INSTALLATION NOTES:

1. REFER TO THE MODULE MANUAL FOR MORE DETAILS ON RIGGING, UNPACKING HANDLING, PLANNING AND INSTALLATION.
2. THE MODULES MAY BE SHIPPED WITH SEVERAL MODULES PER BOX, TAKE CARE WHEN OPENING THE BOX TO ENSURE THAT ALL MODULES ARE SECURELY HANDLED.
3. NEVER LEAVE A MODULE UNSUPPORTED OR UNSECURED. THE CONTRACTOR IS RESPONSIBLE FOR ALL MATERIAL HANDLING ON THE JOBSITE.

SOLAR ARRAY COMMISIONING

1. BEFORE CLOSING DISCONNECTS OR ATTEMPTING TO ENERGIZE THE INVERTERS, THE FOLLOWING COMMISSIONING PROCEDURE SHALL BE COMPLETED:
    A. CHECK THE OPEN CIRCUIT VOLTAGE (VOC) AND POLARITY (+/-) OF EACH SOURCE CIRCUIT. RECORD THE VALUES ON THE COMMISSIONING RECORD DOCUMENTS
    B. CHECK THE SHORT CIRCUIT CURRENT (ISC) FOR EACH SOURCE CIRCUIT RECORD THE VALUES ON COMMISSIONING RECORD DOCUMENTS.
    C. CHECK THAT ALL FUSES, DISCONNECTS AND OTHER BALANCE OF SYSTEM COMPONENTS ARE RATED FOR 600VDC AND THE APPRORIATE CURRENT CAPACITY.
    D. COMPLETE A VISUAL INSPECTION OF ALL THE MODULES TO CHECK FOR BROKEN GLASS, FRAYED WIRES, EXPOSED CONDUCTORS AND ANY OTHER PROBLEMSTHAY MAY CAUSE A FAULT.
    E. PRIOR TO INSTALLATION ALL FUSES SHALL BE TESTED FOR CONTINUITY.

INVERTER COMMISSIONING:

1. THIS CHECKLIST MUST BE COMPLETED BY THE CONTRACTOR PRIOR TO COMMISSIONING:
    A. CHECK THAT THE INVERTER IS PROPERLY GROUNDED, AS DESCRIBED BY THE MANUFACTURER AND THESE INSTRUCTIONS.
    B. CHECK THE INVERTER DC INPUT VOLTAGE (VOC) FROM THE SOLAR ARRAY FOR PROPER POLAR, INSIDE THE INVERTER CABINET.
    C. CHECK DC INPUT VOLTAGE (VOC) IS WITHIN THE PROPER RANGE IN THE INVERTER CABINET AS DEFINED BY THE INVERTER RATING LABEL AND ACCOMPANIED MANUAL.
    D. CHECK AC INPUT VOLTAGE IS IN THE PROPER PHASE SEQUENCE (CLOCKWISE) IF APPLICABLE.
    E. CHECK THAT THE AC GRID VOLTAGE, AT THE INVERTER AC TERMINALS, IS WITHIN THE PROPER RANGE DEFINED BY THE INVERTER RATING LABEL AND ACCOMPANIED MANUAL.
    F. FOLLOW START-UP SEQUENCE IN MANUFACTURER'S OPERATION AND MAINTENANCE MANUAL.
    G. VERIFY THAT ALL CONDUCTOR TERMINATION AND FASTENER TORQUE MEET LISTED SPECIFICATIONS.

ADDITIONAL SOLAR-360 INSTALLATION STANDARDS

1. NFPA70 (NEC) AND IBC, OR LOCAL CODES AS REQUIRED. COMPLIANCE FOR INSTALLATION AND WORKMANSHIP.
2. LABEL EQUIPMENT WITH PERMANENT WEATHERPROOF LABELS. COMPLY WITH NEC ART. 690.7, 690.17, AND 690.53 ESPECIALLY. LABEL UTILITY DISCONNECT AND SOLAR METER.
3. IDENTIFY BOTH ENDS OF WIRES WITH PERMANENT WIRE MARKERS.
4. THE POINT OF CONNECTION SHALL COMPLY WITH NFPA 70 ARTICLE 690.64(B)(2).
5. LIMIT TOTAL VOLTAGE DROP TO LESS THAN 3% INCLUDING ALL DC AND AC CIRCUITS (PROVIDE CALCULATIONS FOR WORST CIRCUIT). PREFERRED IS 2% DC AD 1%AC.
6. INSTALLATION OF ALL COMPONENTS COMPLETED IS WORKMANLIKE MANNER IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
7. USE 90°C OR HIGHER WET RATED WIRE FOR ALL EXTERIOR CONDUITS, WITH APPROPRIATE DERATINGS FOR TEMPERATURE AND OTHER FACTORS.
8. FUSES AND WIRES BETWEEN TRANSFORMER AND POINT OF INTERCONNECTION SIZED FOR TRANSFORMER IN-RUSH CURRENT (OCCURS DAILY DUE TO NIGHT-TIME DISCONNECT).
9. ALL DC MATERIALS (FUSES, EQUIPMENT, CONNECTORS, WIRES, ETC.) TO BE UL LISTED FOR 600VDC OR 1000VDC WHERE APPLICABLE.
10. ALL DISCONNECTS AND COMBINERS TO BE SECURED FROM UNAUTHORIZED/UNQUALIFIED PERSONNEL. (MAY BE WITH LOCK OR LOCATION) AND ALL SOURCES L.O.T.O. BEFORE COMMISSIONING.
11. ALL EXPOSED CABLES, SUCH AS MODULE LEADS TO BE SECURED WITH UV RATED PLASTIC OR OTHER APPROVED SUNLIGHT RESISTANT MEANS WITH A 25 YEAR LIFE.
12. ALL FASTENERS TO BE UV RESISTANT PLASTIC AND ASSEMBLED TO ISOLATE COPPER CONDUCTORS FROM DIRECT CONTACT WITH ALUMINUM COMPONENTS.
13. STRUCTURES AND SYSTEM LAYOUT MUST ACCOMMODATE EASY ACCESS FOR TROUBLESHOOTING AND MAINTENANCE.
14. NO WIRE NUTS SHALL BE USED IN SYSTEM CONNECTION POINTS.
15. CONNECTORS TO BE TORQUED PER DEVICE LISTING AFTER TREATING THREADS WITH ANTIOXIDANT OR ANTISEIZE. CAMMED OUT SET SCREWS SHALL BE REPLACED. HEX OR SQUARE DRIVE SOCKET HEAD SCREWS ARE RECOMMENDED.
16. SPLIT BOLTS/SPLICES/CONNECTORS SHALL BE INSULATED WITH APPROVED MEANS, UL LISTED ELECTRICAL TAPE ALONE IS NOT SUITABLE AS THE ONLY INSULATION MEANS. FOLLOW MANUFACTURER'S INSTRUCTIONS FOR APPLICATION OF INSULATING PRODUCT.
17. STRUCTURE FINISH TO BE CONSISTENT WITH 25 YEAR DESIGN LIFE WITH MINIMAL MAINTENANCE. ACCEPTABLE UNISTRUT FINISHES ARE THOSE COATING WITH DEMONSTRATED 25 YEAR LIFE.
18. ANODIZED ALUMINUM. HOT DIPPED GALVANIZED STEEL, AND STAINLESS STEEL ARE ACCEPTABLE MATERIALS. ALL OTHER FINISHES REQUIRE JUSTIFICATION WITH DETAILS ON MAINTENANCE REQUIREMENT DURING THE 25 YEAR LIFE.
19. ALL FIELD WELDS OR CUT SURFACES REQUIRE FIELD TOUCH UP TO MAINTAIN FINISH COATING. CUT GALVANIZED/ZINC COVERED SURFACES SHALL BE COATED WITH A COLD ZINC PRODUCT APPLIED IN AN APPROVED MANNER.
20. ALL WELDING TO BE COMPLETED BY WELDERS CERTIFIED AND CURRENT IN THE TYPE OF WELDING BEING COMPLETED.
21. ALL ELECTRICAL WORK TO BE COMPLETED BY QUALIFIED ELECTRICIANS OR APPRENTICES WORKING UNDER THE DIRECT SUPERVISION OF A QUALIFIED ELECTRICIAN EQUIVALENT IN EXPERIENCE TO A JOURNEYMAN OR MASTER ELECTRICIAN
22. STRUCTURE MUST ALLOW FOR UNRESTRICTED AIRFLOW AROUND MODULES AND THE MODULE FRAME
23. PULL SPLICE BOXES SHALL BE LISTED FOR PURPOSE AND INSTALLED IN A WORKMANLIKE MANNER. DIRECT BURIAL RATED CONNECTORS SHALL BE USED FOR CONDUCTORS.
24. GROUNDING SYSTEM WILL USE LISTED COMPONENTS INCLUDING GROUND RODS, GROUNDING LUGS/CLAMPS AND OTHER DEVICES RATED FOR DIRECT BURIAL WHEN EXPOSED TO THE ELEMENTS.
25. MODULES SHALL BE GROUNDED WITH EQUIPMENT GROUNDING CONDUCTOR USING THE LISTED MEANS AS DESCRIBED IN THE MODULE INSTALLATION MANUAL. MECHANICAL CONNECTORS SHALL BE RATED FOR DIRECT BURIAL.
26. CONCRETE SHALL BE CURED FOR A MINIMUM OF SEVEN (7) DAYS BEFORE LOADING, UNLESS THE RESPONSIBLE CHARGE ENGINEER CERTIFIES LOADING BEFORE INITIAL CURE, OR SPECIFIES A LONGER CURE TIME
27. TOP ENTRY CONDUITS WILL BE ROUTED SO WATER BUILDUP DOES NOT FALL ON ELECTRICAL/ELECTRONIC EQUIPMENT.
28. ALL CONDUIT ENTRY AND EXITS FROM ENCLOSURES WILL BE SEALED WITH MATERIAL LISTED FOR PURPOSE SUCH AS FIRE STOP OR DUCT SEAL
29. FIELD ASSEMBLY OF MC CABLES WILL BE EXECUTED BY CERTIFIED PERSONNEL ACCORDING TO MANUFACTURER'S GUIDELINES.
30. OTHER NEARBY UTILITY SERVICES WILL BE SECURED BEYOND THE BOUNDARY OF THE MODULES OR SUPPORT STRUCTURE AS REQUIRED BY APPLICABLE CODE(S). A MINIMUM CLEARANCE OF 7.5CM (3") IS REQUIRED WITH APPROVAL OF THE ENGINEER.
31. CIRCUIT COMBINERS SHALL BE LISTED TO UL 1741 AND APPROPRIATE FOR THE INSTALLATION DESIGN AND LOCATION
32. PER NEC STANDARD COLORS FOR WIRE SHALL BE USED. WHITE FOR THE GROUNDED CONDUCTOR, GREEN FOR EQUIPMENT GROUND, AND ALL OTHER COLORS NEEDED FOR PHASING.
33. ALL PVC CONDUIT SHALL BE SCHEDULE 80 WHERE SUBJECT TO DAMAGE, OTHERWISE SCHEDULE. ALL EMT CONDUIT RUNS SHALL USE RAINTIGHT COMPRESSION FITTINGS.

CPM
CLEAN POWER MANAGEMENT

CLEAN POWER MANAGEMENT
24941 DANA POINT HARBOR DR
SUITE C220
DANA POINT, CA 92629
469-735-2234

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SEAL:

SAVANT Engineering, LLC
5064 Roswell Road, Suite D-101
Sandy Springs GA 30342 770.319.7400
Project 16037 ©2016

PROJECT:

4 KENNEDY DR.
4 KENNEDY DR. PUTNAM CT 06260

APN: 037-081

OWNER:

-

24941 DANA POINT HARBOR DRIVE, C220 DANA POINT, CA 92629

Revisions:

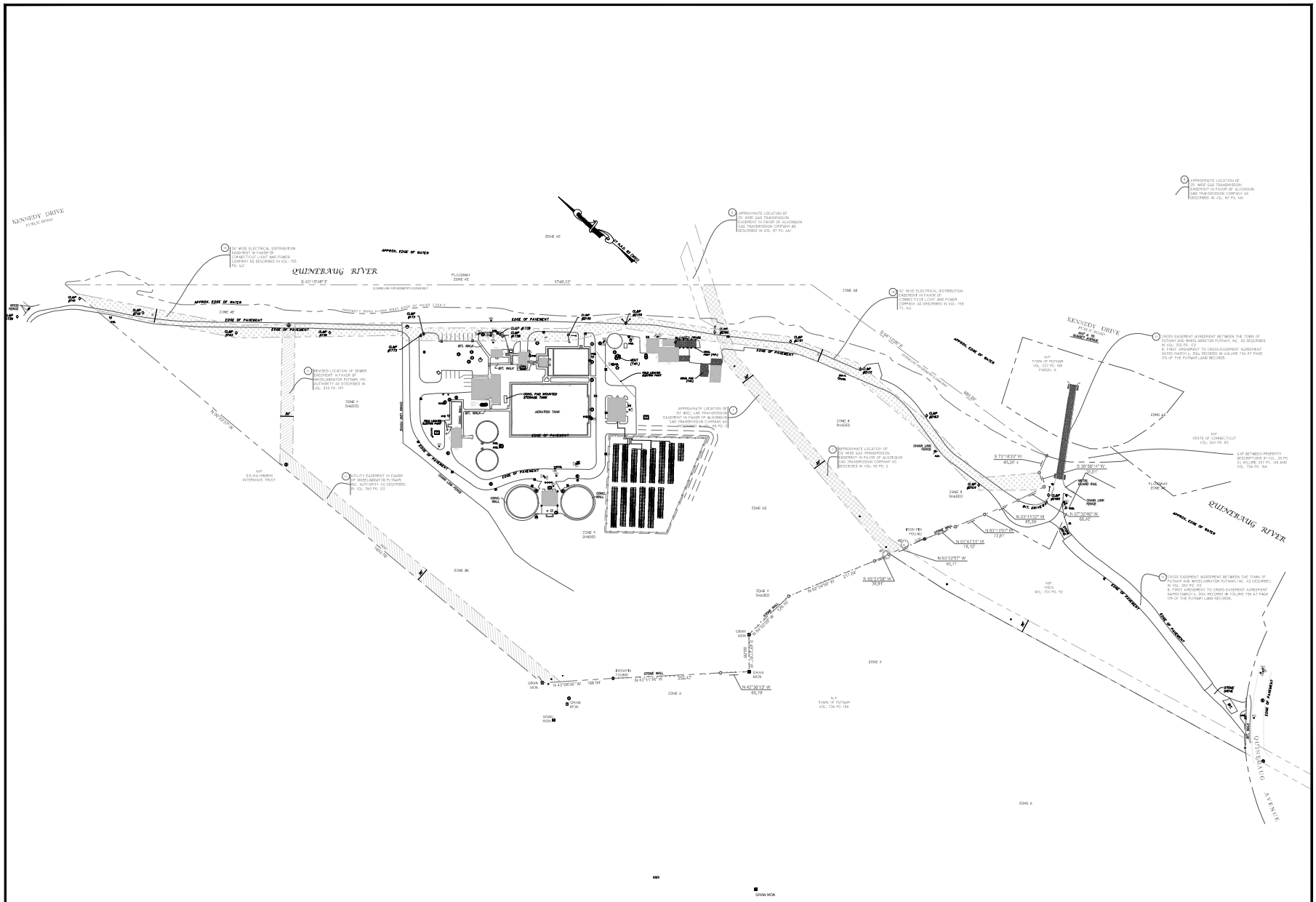
1	05/16/22	Added limit of disturbance and straw wattle to site plan

Drawn By: ADRIAN CISNEROS
Checked By:
Date: 11/16/21
Job No.:
Sheet Title:

GENERAL NOTES

Sheet No.

E-1.1



CPM
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4 KENNEDY DR.
4 KENNEDY DR. PUTNAM
CT 06260

APN: 037-081

OWNER:

-

24941 DANA POINT HARBOR DRIVE, C220 DANA POINT, CA 92629

Revisions:

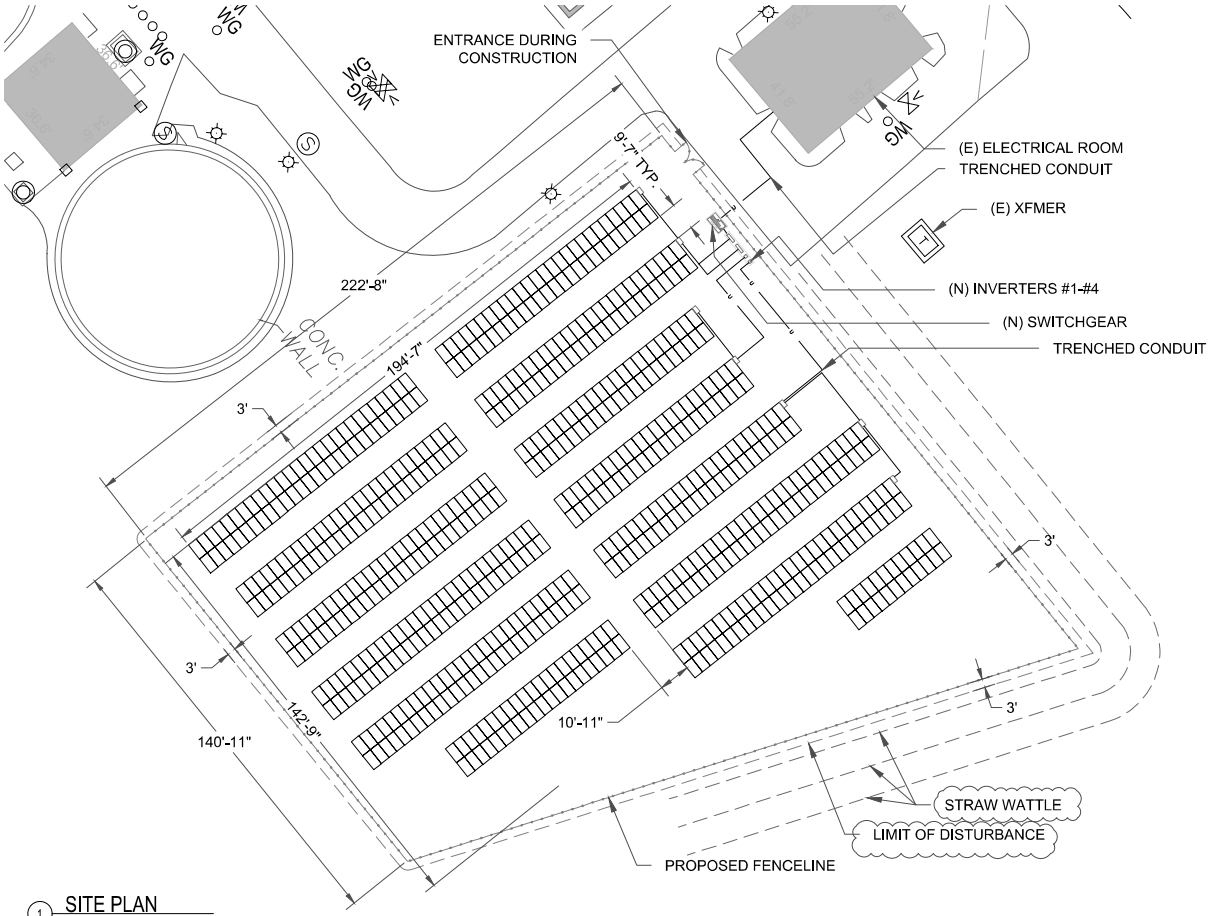
1	05/16/22	Added limit of disturbance and straw wattle to site plan

Drawn By: ADRIAN CISNEROS
Checked By:
Date: 11/16/21
Job No.:
Sheet Title:

SITE PLAN DETAIL

Sheet No.:

E-2.1



1 SITE PLAN
SCALE= 1" = 20'-0"

CPM
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469-735-2234

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Sandy Springs GA 30342 770.319.7400
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PROJECT:

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4 KENNEDY DR. PUTNAM CT 06260

APN: 037-081

OWNER:

-

24941 DANA POINT HARBOR DRIVE, C220 DANA POINT, CA 92629

Revisions:

1	05/16/22	Added limit of disturbance and straw wattle to site plan

Drawn By: ADRIAN CISNEROS
Checked By:
Date: 11/16/21
Job No.:

Sheet Title:
SITE PLAN DETAIL

Sheet No.:
E-2.2

24941 Dana Point Harbor Drive, Suite C220
Dana Point, CA 92629

Mr. Bruce Fitzback
Land Use Agent
Town of Putnam
200 School Street
Putnam, CT 06260

RE: Inland Wetland Commission Application for Permit – 83 Park Road Solar Facility

Dear Mr. Fitzback:

Please find enclosed three (3) copies of an Inland Wetland application and supporting materials for the construction of a solar array at 83 Park Road. Also enclosed is a check in the amount of $160.00 for the application fees.

I am requesting that this application be placed on the 6/8 Commission meeting agenda. Please let me know if you will require additional information.

Sincerely,

Colleen Debenedetto
Development Project Manager
Valta Energy, LLC
colleen@valtaenergy.com
508.463.5303

INLAND WETLAND COMMISSION

APPENDIX A

APPLICATION FOR PERMIT

This application is for the use of inland wetlands and water courses.

The meetings are held on the second Wednesday of every month at 7:00pm in the Town Hall. If an on-site inspection is canceled due to inclement weather, the applicant is asked to call the office at 963-6803 30 minutes before the scheduled inspection to see if or when the inspection will be held.

Name of Applicant: Valta Energy

Applicant's Address: 24941 Dana Point Harbor Drive, Suite C, Dana Point, CA 92629

Phone #: 404-409-4418

Owner of Land: Town of Putnam

Owner's Address: 200 School Street, Putnam, CT 06260

Location and description of proposed activity: Valta Energy is proposing to construct an array of photovolataic cells on the northeastern portion of the Town of Putnam Water treatment Facility and Wellfield property located at 83 Park Road, Putnam, CT. Installation will include a photovoltaic cell array, footings, and a fence surrounding the array. The racks will be installed on a driven pile system, with grass beneath the array. Straw wattles will be placed around the fenced area to mitigate any potential erosion during construction activities.

This array will be connected to the national electric grid for North America via a trenched conduit.

Activity & Purpose Code

Please CHECK one in each column that best describes the activity proposed.

Code	Activity Type	Code	Activity Purpose
☐	1 Filling	☐	A Residential Improvement by homeowner
☐	2 Excavation	☐	B New residential development - single family
☐	3 Land Clearing	☐	C New residential development - multi- family/condo
☐	4 Stream Channel	☐	D Commercial/Industrial Uses
☐	5 Stream Stabilization	☒	E Municipal Improvements
☐	6 Stream Clearance	☐	F Utility Company Improvements
☐	7 Culverting	☐	G Agriculture, Forestry or Conservation
☐	8 Und. Grd. Util.	☐	H Wetland Creation/Restoration
☐	9 Roadway Construction	☐	I Storm Water/Flood Control
☐	10 Drainage Improvements	☐	J Erosion/Sediment Control
☐	11 Pond Dredge/Dam Construction	☐	K Recreation/Boating/Navigation
☐	12 Activity Buffer/Set Back Area	☐	L Routine Maintenance
☑	13 Other: Please describe: Installation of photovoltaic cell array		

INLAND WETLAND COMMISSION

APPENDIX A *Continued*

Project Name (if applicable) 83 Park Road

Estimate of Linear Footage affecting Wetlands 0 feet - note: project will occur approximately 100 feet or more from delineated wetlands and 200+ feet from an area depicted as a green belt protection area in the IWWC Regulations (2007)

Affected number of acres in which Wetlands are part of the impacted area for Multi-Family, Condos and Commercial Development N/A

TO BE COMPLETED BY THE COMMISSION

Application Number _____ Date of Receipt _____

Application Approved (date) _____

Conditions of approval if applicable _____

Application Denied (date) _____

Reason(s) for Denial _____

_____ _____

Signature of Chairman or Secretary of Commission Date

INLAND WETLAND COMMISSION

APPENDIX A *Continued*

Application Procedure

1. Applicant will have a map showing the property boundaries, any wetlands on the property, proposed buildings, septic area, drainage if applicable and the dimension between these areas in scale 1" - 200' or less

2. Applicant must provide an approximate estimate of the linear footage of the wetlands that are affected by said proposal. This is for multi-family, condominiums or commercial development. Contact with the Zoning Official may clarify the nature of your project

3. Applicant must provide an approximate estimate of the number of acres that are affected by said proposal dealing with multi-family, condominiums and commercial development in which wetlands are part of that impacted area within the watershed.

4. Applicant will supply a copy of the soil scientist report with the application to the Wetlands Commission to be reviewed at the meeting by the Commission.

5. Applicant will have the soil scientist number the wetland flags and record the numbers of the flags on the site plan according to their location in the field. The location on the site map must match the field location.

6. If the applicant's estimates are not accurate, payment of the correct amount must be made before the Wetlands final approval of the application.

7. And any other information deemed necessary by the Commission.

Fee Schedule

1.	Permitted and non-regulated	$40.00
2.	One lot regulated	$40.00
3.	Regulated Area	
	Two (2) - Ten (10) lots	$100.00
	Ten (10) - Twenty (20) lots	$200.00
	Over Twenty (20+) lots	$300.00
4.	Multi-Family/Condominium Regulated area	
	Zero (0) to Five (5) Acres	$50.00
	Per linear foot of wetlands additional	$0.35
	Over Five (5) acres	$100.00
	Per linear foot of wetlands additional	$0.35
5.	Commercial	
	Zero (0) to Five (5) Acres	$100.00
	Per linear foot of wetlands additional	$0.50
	Over Five (5) acres	$300.00
	Per linear foot of wetlands additional	$0.50

All applications must be submitted one week prior to the regularly scheduled monthly meeting.

Soil Map—State of Connecticut



Map Scale: 1:2,350 if printed on A portrait (8.5" x 11") sheet.

N

Meters
0 30 60 120 180

Feet
0 100 200 400 600

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: State of Connecticut
Survey Area Data: Version 21, Sep 7, 2021

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

Date(s) aerial images were photographed: Apr 14, 2011—Oct 1, 2020

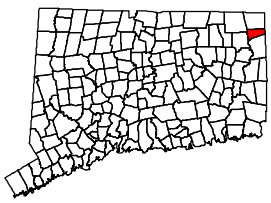
The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
38C	Hinckley loamy sand, 3 to 15 percent slopes	1.2	6.1%
103	Rippowam fine sandy loam	10.2	50.3%
305	Udorthents-Pits complex, gravelly	0.7	3.6%
306	Udorthents-Urban land complex	6.7	33.2%
W	Water	1.4	6.9%
Totals for Area of Interest		**20.2**	**100.0%**



Data Source:
1. World Imagery, available from ArcGIS Online
2. Parcels for Open Space, available from CTECO
3. Natural Diversity Database Areas, available from CTECO; last updated December 2021



Location Map

Legend

Approximate Site Location

Natural Diversity Area

0 600 1,200 Feet

Disclaimer: This map is not the product of a Professional Land Survey. It was created by Fuss & O'Neill, Inc. for general reference, informational, planning and guidance use, and is not a legally authoratative source as to location of natural or manmade features. Proper interpretation of this map may require the assistance of appropriate professional services. Fuss & O'Neill, Inc. makes no warrantee, express or implied, related to the spatial accuracy, reliability, completeness, or currentness of this map.

SITE MAP

83 Park Road

Putnam Connecticut

FUSS & O'NEILL

Att. B

K:\P98\98386\W30\AttB_ParRd_Vicinity.mxd

Connecticut Department of

ENERGY &
ENVIRONMENTAL
PROTECTION

April 19, 2022

Kristin Connell
Fuss & O'Neill, Inc
146 Hartford Rd
Manchester, CT 06040
kconnell@fando.com

NDDB DETERMINATION NUMBER: 202204676

Project: Solar field installation on the northeastern portion of the Town of Putnam Water Pollution Control Authority (WPCA) property located at 83 Park Road, Putnam

Expiration: April 19, 2024

I have reviewed Natural Diversity Database (NDDB) maps and files regarding this project. I do not anticipate negative impacts to State-listed species (RCSA Sec. 26-306) resulting from your proposed activity at the site. **This determination is good for 2 years**.

Natural Diversity Database information includes all information regarding critical biological resources available to us at the time of the request. This information is a compilation of data collected over the years by the Department of Energy and Environmental Protection's Natural History Survey and cooperating units of DEEP, private conservation groups and the scientific community. This information is not necessarily the result of comprehensive or site-specific field investigations. Consultations with the Database should not be substitutes for on-site surveys required for environmental assessments. Current research projects and new contributors continue to identify additional populations of species and locations of habitats of concern, as well as, enhance existing data. Such new information is incorporated into the Database as it becomes available. The result of this review does not preclude the possibility that listed species may be encountered on site and that additional action may be necessary to remain in compliance with certain state permits.

Please contact me if you have further questions at shannon.kearney@ct.gov . Thank you for consulting the Natural Diversity Database.

Sincerely,

/s/ Shannon B. Kearney
Wildlife Biologist

Abutting Property Information

PARCEL ID	PARCEL ADDRESS	PROPERTY OWNER 1	PROPERTY OWNER 2	MAILING ADDRESS	CITY	STATE	ZIP
038-060	77 INDUSTRIAL PARK RD	LABONTE PROPERTIES LLC		34 PARK RD	PUTNAM	CT	06260
038-066	60 PARK RD	PUTNAM TOWN OF		200 SCHOOL ST	PUTNAM	CT	06260
037-062	29 PARK RD	TEGRANT DIVERSIFIED BRANDS INC	C/O TAX DEPT	1 N 2ND ST TAX B 04	HARTSVILLE	SC	29550
044-011	123 PARK RD	123 PARK ROAD LLC		123 PARK RD	PUTNAM	CT	06260
045-002	104 PARK RD	VALLEY STREET INVESTMENTS LLC		PO BOX 130	NORTH WINDHAM	CT	06256
Subject Parcel Information							
037-074	83 PARK RD	PUTNAM TOWN OF	WATER WELLS WPCA	200 SCHOOL ST	PUTNAM	CT	06260

Information obtained from https://www.mainstreetmaps.com/ct/putnam/public.asp, accessed on May 3, 2022.

Connecticut Department of
ENERGY & ENVIRONMENTAL PROTECTION

GIS CODE #: ___ ___ ___ ___ ___ ___ ___ ___ ___
For DEEP Use Only

79 Elm Street • Hartford, CT 06106-5127 www.ct.gov/deep Affirmative Action/Equal Opportunity Employer

Statewide Inland Wetlands & Watercourses Activity Reporting Form

Please complete and mail this form in accordance with the instructions.
If completing by hand - please print and use the pdf version.
Incomplete or incomprehensible forms will be mailed back to the municipal inland wetlands agency.

PART I: Must Be Completed By The Inland Wetlands Agency

1. DATE ACTION WAS TAKEN: year: **Click Here for Year** month: **Click Here for Month**
2. CHOOSE ACTION TAKEN (see instructions for code): **Click Here to Choose a Code**
3. WAS A PUBLIC HEARING HELD (check one)? yes ☐ no ☐
4. NAME OF AGENCY OFFICIAL VERIFYING AND COMPLETING THIS FORM:

   (type name) _____ (signature) _____

PART II: To Be Completed By The Inland Wetlands Agency Or The Applicant

5. TOWN IN WHICH THE ACTIVITY IS OCCURRING (type name): **Putnam**
   does this project cross municipal boundaries (check one)? yes ☐ no ☒
   if yes, list the other town(s) in which the activity is occurring (type name(s)): _____, _____
6. LOCATION (click on hyperlinks for information): USGS quad map name: **Putnam** or quad number: **28**
   subregional drainage basin number: **3700**
7. NAME OF APPLICANT, VIOLATOR OR PETITIONER (type name): **Valta Energy**
8. NAME & ADDRESS OF ACTIVITY / PROJECT SITE (type information): **WaterTreatment Facility, Wellfield 83 Park Rd**
   briefly describe the action/project/activity (check and type information): temporary ☐ permanent ☒ description: **installation of solar array**
9. ACTIVITY *PURPOSE* CODE (see instructions for code): **P**
10. ACTIVITY *TYPE* CODE(S) (see instructions for codes): **1, 2, 14, Click for Code**
11. WETLAND / WATERCOURSE AREA ALTERED (see instructions for explanation, type acres or linear feet as indicated):
    wetlands: **0.00** acres open water body: **0** acres stream: **0.00** linear feet
12. UPLAND AREA ALTERED (type acres as indicated): **0.77** acres
13. AREA OF WETLANDS / WATERCOURSES RESTORED, ENHANCED OR CREATED (type acres as indicated): **0.00** acres

PART III: To Be Completed By The DEEP

DATE RECEIVED: DATE RETURNED TO DEEP:

FORM COMPLETED: YES NO FORM CORRECTED / COMPLETED: YES NO

JMM WETLAND CONSULTING SERVICES, LLC

23 Horseshoe Ridge Road
Newtown, CT 06482
Phone: 203-364-0345

REPORT DATE: August 5, 2021

ON-SITE SOIL INVESTIGATION REPORT

PROJECT NAME & SITE LOCATION:
Project Site
83 Park Road
Putnam, Connecticut

JMM Job No.: 21-2880-PUT-2
Field Investigation Date(s): 8/5/2021
Field Investigation Method(s):
- ☒ Spade and Auger
- ☐ Backhoe Test Pits
- ☐ Other:

REPORT PREPARED FOR:
Mr. Dean Martin
Martin Surveying Associates, LLC
201 Christian Lane, Suite D
Berlin, CT 06037

Field Conditions:
Weather: Rain, 70's
Soil Moisture: Moist
Snow Depth: N/A
Frost Depth: N/A

Purpose of Investigation:
- ☒ Wetland Delineation/Flagging in Field
- ☐ Wetland Mapping on Sketch Plan or Topographic Plan
- ☐ High Intensity Soil Mapping by Soil Scientist
- ☒ Medium Intensity Soil Mapping from USDA-NRCS Web Soil Survey Maps
- ☐ Other:

Base Map Source: USDA-NRCS Web Soil Survey (attached)

Wetland Boundary Marker Series: JMM-1 to JMM-12 and JMM-A-1 to JMM-A-9

General Site Description/Comments: The overall site is located west of Park Road, and east of I-395, in Putnam, CT. Specifically, JMM reviewed only a portion of the overall property for regulated wetlands at this time (i.e., JMM Study Area). The study area is roughly 200-feet to the north, south, east, and west of the proposed solar array location (see Figure 1, attached for approximate location of study area). Currently, the study area is comprised of existing structures associated with the well field facility, maintained lawn, weedy/meadow areas, gravel/paved parking areas and drives, scattered trees and shrubs, and forested upland and wetland areas, which include 2 man-made lakes along the northern property/study area boundaries. The soil types within the study area were found to be mainly disturbed; however, undisturbed soils were noted. The undisturbed soils are derived from glacial outwash (i.e., stratified sand and gravel) deposits. The undisturbed upland soils are comprised of the moderately well drained Ninigret (701) soil series. The disturbed upland and wetland soils were mapped as the Udorthents-Urban Land complex (306) and Aquents (308w) mapping units. The undisturbed wetland soils were identified as the poorly drained Walpole (13) soil series. The regulated areas associated with the study area consist of 2 man-made lakes and their associated shallow marsh and wooded swamp lake edge located along the northern portion of the study area (JMM-#-series) and a seasonally saturated to seasonally flooded wooded swamp located in the eastern part of the study area (JMM-A-series). Typical vegetation observed within the regulated areas included such species as, red maple, spicebush, multiflora rose, buckthorn, sedges, sensitive fern, cinnamon fern, Asiatic bittersweet, and poison ivy, to name a few.

 DATE: 8/5/2021

ON-SITE SOIL INVESTIGATION REPORT (CONTINUED)

PROJECT NAME & SITE LOCATION: Project Site
83 Park Road, Putnam, CT

SOIL MAP UNITS

Wetland Soils

Walpole sandy loam (13). This series consists of deep, poorly drained soils formed in sandy water deposited glacial outwash materials. They are nearly level to gently sloping soils on glaciofluvial landforms, typically in shallow drainage ways and low-lying positions on stream terraces and outwash plains. The soils formed in loamy over stratified sandy and gravelly outwash derived from a variety of acid rocks. Typically, these soils have a very dark brown sandy loam surface layer 6 inches thick. The subsoil from 6 to 23 inches is mottled, grayish brown sandy loam. The substratum from 23 to 60 inches is mottled, light brownish gray, gravelly loamy sand and gravelly sand.

Aquents (308w). This soil map unit consists of poorly drained and very poorly drained disturbed land areas. They are most often found on landscapes, which have been subject to prior filling and/or excavation activities. In general, this soil map unit occurs where two or more feet of the original soil surface has been filled over, graded or excavated. The *Aquents* are characterized by a seasonal to prolonged high ground water table and either support or are capable of supporting wetland vegetation. *Aquents* are recently formed soils, which have an aquic moisture regime. An aquic moisture regime is associated with a reducing soil environment that is virtually free of dissolved oxygen because the soil is saturated by groundwater or by water of the capillary fringe. The key feature is the presence of a ground water table at or very near to the soil surface for a period of fourteen days or longer during the growing season.

Upland Soils

Ninigret fine sandy loam (701). This series consists of very deep moderately well drained soils formed in a coarse-loamy mantle underlain by sandy water deposited glacial outwash materials. They are nearly level to gently sloping soils on glaciofluvial landforms, typically in slight depressions and broad drainage ways. The soils formed in loamy over stratified sandy and gravelly outwash derived from a variety of acid rocks. Typically, these soils have a very dark grayish brown fine sandy loam surface layer 8 inches thick. The subsoil from 8 to 26 inches is yellowish brown fine sandy loam with mottles below 16 inches. The substratum from 26 to 60 inches is mottled, pale brown, loose, stratified loamy sand.

Udorthents-Urban Land mapping complex (306). This soil mapping unit consists of well drained to moderately well drained soils that have been altered by cutting, filling, or grading. The areas either have had two feet or more of the upper part of the original soil removed or have more than two feet of fill material on top of the original soil. *Udorthents-Urban Land* or Made Land soils can be found on any soil parent material but are typically fluvial on glacial till plains and outwash plains and stream terraces.

 DATE: 8/5/2021

ON-SITE SOIL INVESTIGATION REPORT (CONTINUED)

PROJECT NAME & SITE LOCATION: Project Site
83 Park Road, Putnam, CT

SOIL MAP UNITS

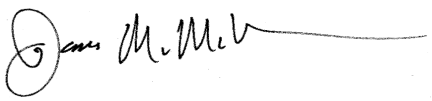
See previous page

Any accompanying soil logs and soil maps, and the on-site soil investigation narrative are in accordance with the taxonomic classification of the National Cooperative Soil Survey of the USDA Natural Resource Conservation Service, and with the Connecticut Soil Legend (DEP Bulletin No.5, 1983). Jurisdictional wetland boundaries were delineated pursuant to the Connecticut General Statutes (CGS Sections 22a-36 to 22a-45), as amended. The site investigation was conducted and/or reviewed by the undersigned Registered Soil Scientist(s) [registered with the Society of Soil Scientists of Southern New England (SSSSNE) in accordance with the standards of the Federal Office of Personnel Management].

All wetland boundary lines established by the undersigned Soil Scientist are subject to change until officially adopted by, local, state, and federal regulatory agencies.

Respectfully submitted,

JMM WETLAND CONSULTING SERVICES, LLC

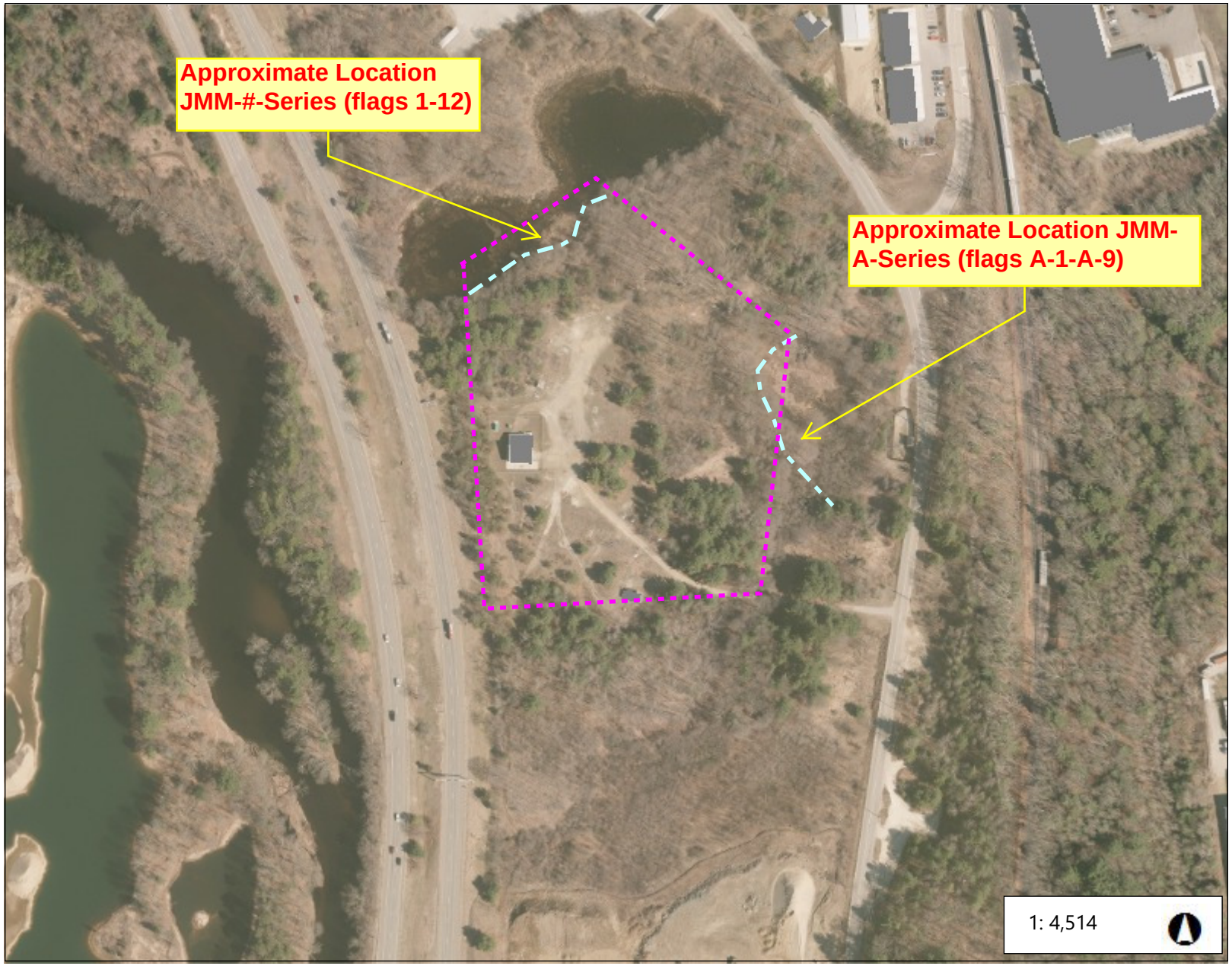


James M. McManus, MS, CPSS
Certified Professional Soil Scientist
Field Investigator/Reviewer

neccog

FIGURE 1: 83 Park Road, Putnam, CT

Aerial Photo Showing the Approximate Location of Wetland and Study Area Boundaries.





Legend

- Town
- Buildings 2012
- Parcels

Notes

Enter Map Description

0.1 0 0.07 0.1 Miles

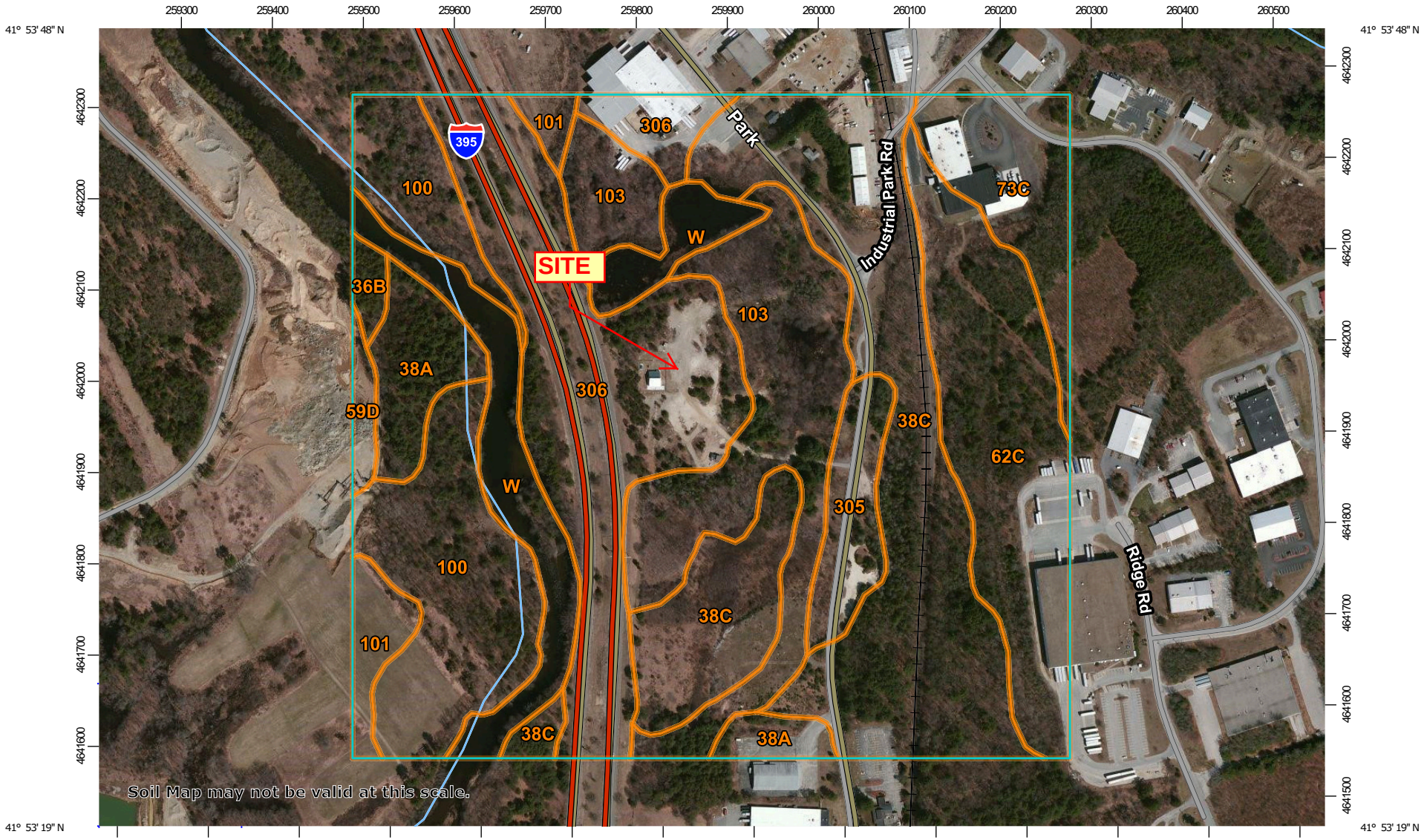
WGS_1984_Web_Mercator_Auxiliary_Sphere

© Latitude Geographics Group Ltd.

This map is a user generated static output from an Internet mapping site and is for reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable.

THIS MAP IS NOT TO BE USED FOR NAVIGATION

Soil Map—State of Connecticut
(83 Park Road, Putnam, CT)



Map Scale: 1:6,160 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 50 100 200 300

Feet
0 250 500 1000 1500

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: State of Connecticut
Survey Area Data: Version 20, 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: Apr 8, 2011—Apr 9, 2011

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.

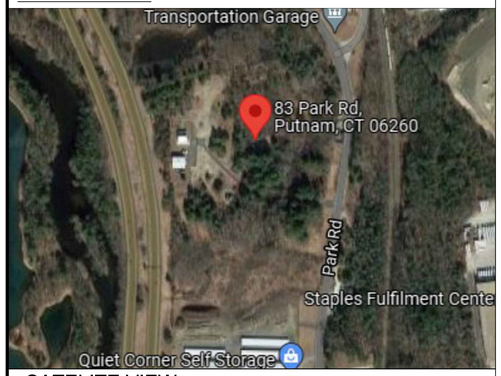
Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
36B	Windsor loamy sand, 3 to 8 percent slopes	0.9	0.6%
38A	Hinckley loamy sand, 0 to 3 percent slopes	5.8	4.0%
38C	Hinckley loamy sand, 3 to 15 percent slopes	32.8	23.0%
59D	Gloucester gravelly sandy loam, 15 to 35 percent slopes, extremely stony	1.0	0.7%
62C	Canton and Charlton fine sandy loams, 3 to 15 percent slopes, extremely stony	16.2	11.4%
73C	Charlton-Chatfield complex, 0 to 15 percent slopes, very rocky	7.0	4.9%
100	Suncook loamy fine sand	17.2	12.1%
101	Occum fine sandy loam	3.1	2.2%
103	Rippowam fine sandy loam	19.2	13.5%
305	Udorthents-Pits complex, gravelly	4.2	2.9%
306	Udorthents-Urban land complex	25.0	17.6%
W	Water	10.0	7.0%
Totals for Area of Interest		**142.3**	**100.0%**

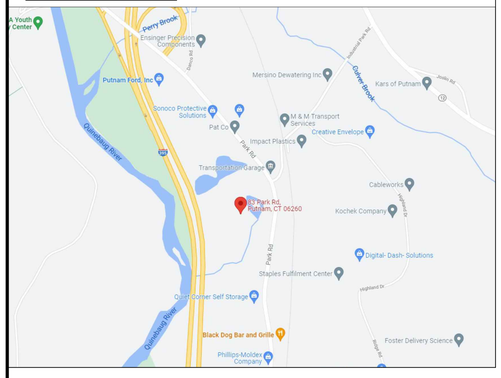
83 PARK RD, PUTNAM, CT 06260

PROJECT INFO	
PV Module	(656) JINKO JKM395M-72HL-TV
Inverter #1	(1) SOLAREDGE SE100KUS
Inverter #2	(2) SOLAREDGE SE40KUS
Inverter #3	(1) SOLAREDGE SE66.6KUS
DC Optimizer	SOLAREDGE P960
Racking	RBI SOLAR
DC WATTS	259.1kW
AC WATTS	246.6kW
CEC-AC	234.7kW
Azimuth	180
Tilt	15
Min. Temp.	-19°C
ASHRAE 2% AVG. TEMP	32°C
Utility	CLP

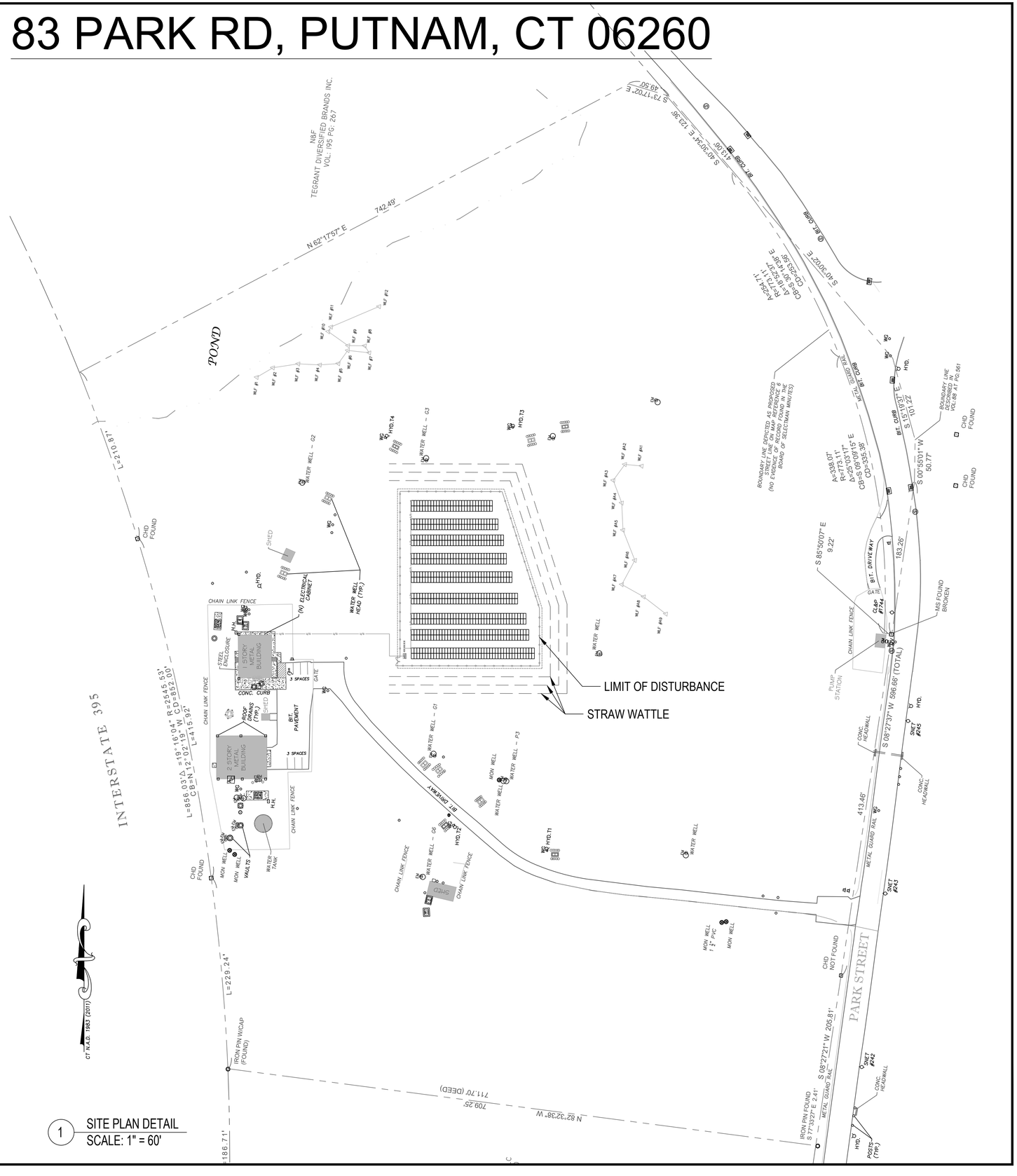
VICINITY MAP



SATELITE VIEW



SHEET INDEX	
E-1	TITLE SHEET
E-1.1	GENERAL NOTES
E-2	SITE PLAN DETAIL
E-3	STRINGING DIAGRAM
E-3.1	SINGLE LINE DIAGRAM
E-5.1	SITE PLAN DETAIL
E-5.2	SPEC SHEETS
E-5.3	SPEC SHEETS



1 SITE PLAN DETAIL
SCALE: 1" = 60'

CLEAN POWER MANAGEMENT

CLEAN POWER MANAGEMENT
24941 DANA POINT HARBOR DR
SUITE C220
DANA POINT, CA 92629
469-735-2234

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SEAL:

SAVANT Engineering, LLC
5064 Roswell Road, Suite D-301
Sandy Springs GA 30342 770.319.7400
Project 16037 ©2016

PROJECT: PROJ-1263

83 PARK RD
83 PARK RD, PUTNAM, CT 06260

APN: 037-074

OWNER:

XXX

XXX

Revisions:

1	05/16/22	Added limit of disturbance and straw wattle to site plan

Drawn By: A. CISNEROS
Checked By: XXX
Date: 5/16/22
Job No.:
Sheet Title:

TITLE SHEET

Sheet No.:

E-1

ELECTRICAL NOTES:

1. ELECTRICAL EQUIPMENT SHALL BE LISTED OR CERTIFIED BY A CITY OF CYPRESS RECOGNIZED ELECTRICAL TESTING LABORATORY OR APPROVED BY THE DEPARTMENT.
2. IN EVERY PULL BOX, TERMINAL BOX AND AT ALL PLACES WHERE WIRES MAY NOT BE READILY IDENTIFIED BY NAMEPLATE MARKINGS ON THE EQUIPMENT TO WHICH THEY CONNECT, IDENTIFY EACH CIRCUIT WITH A PLASTIC LABEL OR TAG FOR NUMBER, POLARITY OF PHASE.
3. THE LAYOUT OF CONDUIT SHOWN IN THESE PLANS IS INDICATIVE ONLY. THE CONTRACTOR SHALL ROUTE AND LOCATE THE CONDUITS TO SUIT SITE CONDITIONS BUT SHALL NOT EXCEED THE MAXIMUM CONDUCTOR LENGTHS IDENTIFIED ON WIRE SCHEDULE. CONTRACTOR WILL COORDINATE ALL CHANGES IN WIRING AND CONDUIT WITH ENGINEER.
4. BENDS SHALL NOT DAMAGE THE RACEWAY OR SIGNIFICANTLY CHANGE THE INTERNAL DIAMETER OF RACEWAYS (NO KINKS).
5. SUPPORT CONDUCTORS IN VERTICAL CONDUITS IN ACCORDANCE WITH REQUIREMENTS IN NEC 300.19
6. INSTALL AL WIRING MATERIALS IN A NEAT WORKMANLIKE MANNER. USE GOOD TRADE PRACTICE. AS REQUIRED BY CHAPTER 3 OF THE NEC AND ANSI/NECA 1-2000 'STANDARD PRACTICES FOR GOOD WORKMANSHIP IN ELECTRICAL CONTRACTING'.
7. INSTALL CONDUIT TO MAINTAIN PROPER CLEARANCES AND IN A NEAT INCONSPICUOUS MANNER. RUN PARALLEL AND AT RIGHT ANGLES TO STRUCTURAL MEMBERS OR OTHER CONDUITS. PROVIDE BOXES, FITTINGS AND BENDS FOR CHANGES IN DIRECTION. FASTEN CONDUIT SECURELY IN PLACE. CONDUCTORS' INSULATION IT IS BEING USED WITH.
8. SUPPORT CONDUIT USING STEEL PIPE STRAPS OAE, LAY-IN ADJUSTABLE HANGERS,M CLEVIS HANGERS OR SPLIT HANGERS. HANGER SPACING SHALL BE INSTALLED PER NEC REQUIREMENTS FOR THE TYPE OF CONDUIT BEING INSTALLED. USE APPROVED BEAM CLAMPS FOR CONNECTION TO STRUCTURAL MEMBERS.
9. PROVIDE PULL, JUNCTION OR CHRISTY BOXES WHERE REQUIRED TO FACILITATE THE INSTALLATION OF WIRING IN ADDITION TO THOSE ON THE DRAWINGS. BENDS IN CONDUITS BETWEEN PULL BOXES SHALL NOT EXCEED THE EQUIVALENT OF FOUR 90 DEGREE BENDS.
10. WHEN FIELD CUTTING IS REQUIRED THE CONDUIT SHALL BE CUT SQUARE AND DEBURRED.
11. CONDUIT SIZES NOT SPECIFIED SHOULD CONFORM TO NEC SPECIFICATIONS, TO INCLUDE FILL FACTOR AND DERATING FOR NUMBER OF CONDUCTORS WITH A MINIMUM CONDUIT SIZE BEING ¾".
12. THE WIRING MINIMUM SIZE SHALL BE #12 AWG.
13. SAFETY REGULATION (LOCK OUT - TAG OUT, ETC) IS THE FULL RESPONSIBILITY OF THE CONTRACTOR DURING CONSTRUCTION.
14. THE WIRING SIZE IS BASED ON THE ESTIMATED CONDUIT ROUTING SHOWN IN THIS DRAWING PACKAGE. SHOULD THE CONDUITS LENGTH INCREASE DUE TO LOCATION OF SOURCE AND/OR ROUTING THE CONDUITS AND THE CONDUCTORS MAY NEED BE RESIZED. PLEASE CONTACT THE ENGINEER PRIOR TO MAKING ANY FIELD CHANGES
15. ALL WIRING IN CONDUIT SHALL BE THWN-2 FOR 90 DEGREE CELSIUS APPLICATIONS. USE BARE COPPER FOR GROUND FOR AL EXTERNAL GROUNDING. USE2/RHW2/PV WIRE OR APPROVED EQUIVALENT SHALL BE USED FOR ALL EXPOSED OR HOMERUN WIRING
16. FOR INTER CONNECTION VIA BUS TAP:
    - OVERCURRENT PROTECTION (SWITCHING DEVICE AND MEANS OF DISCONNECT) MUST BE LOCATED PER NEC 240.21
    A. THE CONDUCTORS SHALL BE CRIMPED WITH A CRIMP-ON TERMINAL LUG, MANUFACTURED BY ILSCO, BURNDY, OAE. THE TERMINAL LUG SHALL HAVE IDENTIFICATION OR COLOR CODING TO MATCH THE CONDUCTOR SIZE. TERMINAL LUGS SHALL HAVE LONG BARRELS TO PROVIDE 2 CRIMPS PER TERMINAL LUG PER CONDUCTOR.
    B. CRIMPED TERMINAL LUGS SHALL BE CONSTRUCTED OF PURE COPPER AND TIN PLATED FOR HIGH CONDUCTIVITY AND RATED FOR 600V AT 90 DEGREES CELSIUS
    C. THE CRIMP MUST BE MADE WITH THE MANUFACTURER'S APPROVED TOOL DEVICE TO ACHIEVE THE PROPER CRIMP CONNECTION.
    D. USE STAINLESS STEEL HARDWARE WITH THE FASTENER TORQUED TO MANUFACTURERS RECOMMENDATIONS ON ALL THREE PHASES TO COMPLY WITH ARTICLE 110.14 OF THE 2020 NEC.
    E. MINIMUM BEND RADIUS SHALL BE OBSERVED TO MAINTAIN GOOD CONDUCTOR QUALITY AND WIRE MANAGEMENT IN THE LOAD CENTER OR TRANSFORMER. IF THIS BEND RADIUS IS TOO CONSTRICTING, USE A 90 DEGREE CRIMP-ON LUG MANUFACTURED BY ILSCO, BURNDY, OAE. 90 DEGREE CRIMP-ON LUG MUST BE INSTALLED WITH RATED INSULATION THAT MEETS OR EXCEEDS THE CONDUCTORS' INSULATION IT IS BEING USED WITH. IT IS RECOMMENDED THAT ACCEPTABLE CLEARANCES ARE MAINTAINED WIT THIS BUS TAP FOR SAFE, CONTINUOUS OPERATION.
    F. FOLLOW MANUFACTURERS GUIDELINES OR THE APPLICABLE AHJ, FOR MODIFICATION OF BUS BAR(S)
17. ALL CONDUITS SHALL BE FREE OF ANY OBSTRUCTIONS AND PROPERLY SECURED BEFORE WIRE IS PULLED.
18. ELECTRICAL CONTRACTOR TO PROVIDE SIGNAGE TO ALL ELECTRIC BOXES, JUNCTION BOXES, PULL BOXES, DC DISCONNECTS, CONDUIT RUNS, AC DISCONNECTS, SUB PANELS, AND MAIN SERVICES PER NEC ARTICLE 690.
19. MEGGER TESTING: MEGGER (INSULATION) TEST ALL CONDUCTORS AT 1000V TO 5 MEGAOHMS BETWEEN THE CONDUCTOR UNDER TEST AND GROUND WIRE. CONDUCT TEST AFTER WIRE IS PULLED THROUGH THE CONDUIT BUT BEFORE TERMINATING TO THE MODULES, COMBINERS, DISCONNECTS OR INVERTERS. **DO NOT MEGGER THE SOLAR MODULES AS THIS WILL LIKELY DAMAGE THEIR INTERNAL DIODES MEGGERING IS INTENDED FOR ALL CONDUCTORS INSTALLED BY THE ELECTRICAL CONTRACTOR.**
20. ALL UNDERGROUND ELECTRICAL WORK SHALL BE DONE WITH CARE. LOCATE EXISTING UTILITIES, IRRIGATION LINES AND OTHERS BEFORE COMMENCING UNDERGROUND WORK. CONTACT UNDERGROUND SERVICE ALERT *USA(WITHIN 48 HOURS OF ANY UNDERGROUND WORK. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL UNDERGROUND WORK PERFORMED.

MODULE INSTALLATION NOTES:

1. REFER TO THE MODULE MANUAL FOR MORE DETAILS ON RIGGING, UNPACKING HANDLING, PLANNING AND INSTALLATION.
2. THE MODULES MAY BE SHIPPED WITH SEVERAL MODULES PER BOX, TAKE CARE WHEN OPENING THE BOX TO ENSURE THAT ALL MODULES ARE SECURELY HANDLED.
3. NEVER LEAVE A MODULE UNSUPPORTED OR UNSECURED. THE CONTRACTOR IS RESPONSIBLE FOR ALL MATERIAL HANDLING ON THE JOBSITE.

SOLAR ARRAY COMMISIONING

1. BEFORE CLOSING DISCONNECTS OR ATTEMPTING TO ENERGIZE THE INVERTERS, THE FOLLOWING COMMISSIONING PROCEDURE SHALL BE COMPLETED:
    A. CHECK THE OPEN CIRCUIT VOLTAGE (VOC) AND POLARITY (+/-) OF EACH SOURCE CIRCUIT. RECORD THE VALUES ON THE COMMISSIONING RECORD DOCUMENTS
    B. CHECK THE SHORT CIRCUIT CURRENT (ISC) FOR EACH SOURCE CIRCUIT RECORD THE VALUES ON COMMISSIONING RECORD DOCUMENTS.
    C. CHECK THAT ALL FUSES, DISCONNECTS AND OTHER BALANCE OF SYSTEM COMPONENTS ARE RATED FOR 600VDC AND THE APPRORIATE CURRENT CAPACITY.
    D. COMPLETE A VISUAL INSPECTION OF ALL THE MODULES TO CHECK FOR BROKEN GLASS, FRAYED WIRES, EXPOSED CONDUCTORS AND ANY OTHER PROBLEMSTHAY MAY CAUSE A FAULT.
    E. PRIOR TO INSTALLATION ALL FUSES SHALL BE TESTED FOR CONTINUITY.

INVERTER COMMISSIONING:

1. THIS CHECKLIST MUST BE COMPLETED BY THE CONTRACTOR PRIOR TO COMMISSIONING:
    A. CHECK THAT THE INVERTER IS PROPERLY GROUNDED, AS DESCRIBED BY THE MANUFACTURER AND THESE INSTRUCTIONS.
    B. CHECK THE INVERTER DC INPUT VOLTAGE (VOC) FROM THE SOLAR ARRAY FOR PROPER POLAR, INSIDE THE INVERTER CABINET.
    C. CHECK DC INPUT VOLTAGE (VOC) IS WITHIN THE PROPER RANGE IN THE INVERTER CABINET AS DEFINED BY THE INVERTER RATING LABEL AND ACCOMPANIED MANUAL.
    D. CHECK AC INPUT VOLTAGE IS IN THE PROPER PHASE SEQUENCE (CLOCKWISE) IF APPLICABLE.
    E. CHECK THAT THE AC GRID VOLTAGE, AT THE INVERTER AC TERMINALS, IS WITHIN THE PROPER RANGE DEFINED BY THE INVERTER RATING LABEL AND ACCOMPANIED MANUAL.
    F. FOLLOW START-UP SEQUENCE IN MANUFACTURER'S OPERATION AND MAINTENANCE MANUAL.
    G. VERIFY THAT ALL CONDUCTOR TERMINATION AND FASTENER TORQUE MEET LISTED SPECIFICATIONS.

ADDITIONAL SOLAR-360 INSTALLATION STANDARDS

1. NFPA70 (NEC) AND IBC, OR LOCAL CODES AS REQUIRED. COMPLIANCE FOR INSTALLATION AND WORKMANSHIP.
2. LABEL EQUIPMENT WITH PERMANENT WEATHERPROOF LABELS. COMPLY WITH NEC ART. 690.7, 690.17, AND 690.53 ESPECIALLY. LABEL UTILITY DISCONNECT AND SOLAR METER.
3. IDENTIFY BOTH ENDS OF WIRES WITH PERMANENT WIRE MARKERS.
4. THE POINT OF CONNECTION SHALL COMPLY WITH NFPA 70 ARTICLE 690.64(B)(2).
5. LIMIT TOTAL VOLTAGE DROP TO LESS THAN 3% INCLUDING ALL DC AND AC CIRCUITS (PROVIDE CALCULATIONS FOR WORST CIRCUIT). PREFERRED IS 2% DC AD 1%AC.
6. INSTALLATION OF ALL COMPONENTS COMPLETED IS WORKMANLIKE MANNER IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
7. USE 90°C OR HIGHER WET RATED WIRE FOR ALL EXTERIOR CONDUITS, WITH APPROPRIATE DERATINGS FOR TEMPERATURE AND OTHER FACTORS.
8. FUSES AND WIRES BETWEEN TRANSFORMER AND POINT OF INTERCONNECTION SIZED FOR TRANSFORMER IN-RUSH CURRENT (OCCURS DAILY DUE TO NIGHT-TIME DISCONNECT).
9. ALL DC MATERIALS (FUSES, EQUIPMENT, CONNECTORS, WIRES, ETC.) TO BE UL LISTED FOR 600VDC OR 1000VDC WHERE APPLICABLE.
10. ALL DISCONNECTS AND COMBINERS TO BE SECURED FROM UNAUTHORIZED/UNQUALIFIED PERSONNEL. (MAY BE WITH LOCK OR LOCATION) AND ALL SOURCES L.O.T.O. BEFORE COMMISSIONING.
11. ALL EXPOSED CABLES, SUCH AS MODULE LEADS TO BE SECURED WITH UV RATED PLASTIC OR OTHER APPROVED SUNLIGHT RESISTANT MEANS WITH A 25 YEAR LIFE.
12. ALL FASTENERS TO BE UV RESISTANT PLASTIC AND ASSEMBLED TO ISOLATE COPPER CONDUCTORS FROM DIRECT CONTACT WITH ALUMINUM COMPONENTS.
13. STRUCTURES AND SYSTEM LAYOUT MUST ACCOMMODATE EASY ACCESS FOR TROUBLESHOOTING AND MAINTENANCE.
14. NO WIRE NUTS SHALL BE USED IN SYSTEM CONNECTION POINTS.
15. CONNECTORS TO BE TORQUED PER DEVICE LISTING AFTER TREATING THREADS WITH ANTIOXIDANT OR ANTISEIZE. CAMMED OUT SET SCREWS SHALL BE REPLACED. HEX OR SQUARE DRIVE SOCKET HEAD SCREWS ARE RECOMMENDED.
16. SPLIT BOLTS/SPLICES/CONNECTORS SHALL BE INSULATED WITH APPROVED MEANS, UL LISTED ELECTRICAL TAPE ALONE IS NOT SUITABLE AS THE ONLY INSULATION MEANS. FOLLOW MANUFACTURER'S INSTRUCTIONS FOR APPLICATION OF INSULATING PRODUCT.
17. STRUCTURE FINISH TO BE CONSISTENT WITH 25 YEAR DESIGN LIFE WITH MINIMAL MAINTENANCE. ACCEPTABLE UNISTRUT FINISHES ARE THOSE COATING WITH DEMONSTRATED 25 YEAR LIFE.
18. ANODIZED ALUMINUM. HOT DIPPED GALVANIZED STEEL, AND STAINLESS STEEL ARE ACCEPTABLE MATERIALS. ALL OTHER FINISHES REQUIRE JUSTIFICATION WITH DETAILS ON MAINTENANCE REQUIREMENT DURING THE 25 YEAR LIFE.
19. ALL FIELD WELDS OR CUT SURFACES REQUIRE FIELD TOUCH UP TO MAINTAIN FINISH COATING. CUT GALVANIZED/ZINC COVERED SURFACES SHALL BE COATED WITH A COLD ZINC PRODUCT APPLIED IN AN APPROVED MANNER.
20. ALL WELDING TO BE COMPLETED BY WELDERS CERTIFIED AND CURRENT IN THE TYPE OF WELDING BEING COMPLETED.
21. ALL ELECTRICAL WORK TO BE COMPLETED BY QUALIFIED ELECTRICIANS OR APPRENTICES WORKING UNDER THE DIRECT SUPERVISION OF A QUALIFIED ELECTRICIAN EQUIVALENT IN EXPERIENCE TO A JOURNEYMAN OR MASTER ELECTRICIAN
22. STRUCTURE MUST ALLOW FOR UNRESTRICTED AIRFLOW AROUND MODULES AND THE MODULE FRAME
23. PULL SPLICE BOXES SHALL BE LISTED FOR PURPOSE AND INSTALLED IN A WORKMANLIKE MANNER. DIRECT BURIAL RATED CONNECTORS SHALL BE USED FOR CONDUCTORS.
24. GROUNDING SYSTEM WILL USE LISTED COMPONENTS INCLUDING GROUND RODS, GROUNDING LUGS/CLAMPS AND OTHER DEVICES RATED FOR DIRECT BURIAL WHEN EXPOSED TO THE ELEMENTS.
25. MODULES SHALL BE GROUNDED WITH EQUIPMENT GROUNDING CONDUCTOR USING THE LISTED MEANS AS DESCRIBED IN THE MODULE INSTALLATION MANUAL. MECHANICAL CONNECTORS SHALL BE RATED FOR DIRECT BURIAL.
26. CONCRETE SHALL BE CURED FOR A MINIMUM OF SEVEN (7) DAYS BEFORE LOADING, UNLESS THE RESPONSIBLE CHARGE ENGINEER CERTIFIES LOADING BEFORE INITIAL CURE, OR SPECIFIES A LONGER CURE TIME
27. TOP ENTRY CONDUITS WILL BE ROUTED SO WATER BUILDUP DOES NOT FALL ON ELECTRICAL/ELECTRONIC EQUIPMENT.
28. ALL CONDUIT ENTRY AND EXITS FROM ENCLOSURES WILL BE SEALED WITH MATERIAL LISTED FOR PURPOSE SUCH AS FIRE STOP OR DUCT SEAL
29. FIELD ASSEMBLY OF MC CABLES WILL BE EXECUTED BY CERTIFIED PERSONNEL ACCORDING TO MANUFACTURER'S GUIDELINES.
30. OTHER NEARBY UTILITY SERVICES WILL BE SECURED BEYOND THE BOUNDARY OF THE MODULES OR SUPPORT STRUCTURE AS REQUIRED BY APPLICABLE CODE(S). A MINIMUM CLEARANCE OF 7.5CM (3") IS REQUIRED WITH APPROVAL OF THE ENGINEER.
31. CIRCUIT COMBINERS SHALL BE LISTED TO UL 1741 AND APPROPRIATE FOR THE INSTALLATION DESIGN AND LOCATION
32. PER NEC STANDARD COLORS FOR WIRE SHALL BE USED. WHITE FOR THE GROUNDED CONDUCTOR, GREEN FOR EQUIPMENT GROUND, AND ALL OTHER COLORS NEEDED FOR PHASING.
33. ALL PVC CONDUIT SHALL BE SCHEDULE 80 WHERE SUBJECT TO DAMAGE, OTHERWISE SCHEDULE. ALL EMT CONDUIT RUNS SHALL USE RAINTIGHT COMPRESSION FITTINGS.

CLEAN POWER MANAGEMENT
24941 DANA POINT HARBOR DR
SUITE C220
DANA POINT, CA 92629
469-735-2234

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SAVANT Engineering, LLC
5064 Roswell Road, Suite D-301
Sandy Springs GA 30342 770.319.7400
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PROJECT: PROJ-1263

83 PARK RD
83 PARK RD, PUTNAM, CT 06260

APN: 037-074

OWNER:

XXX

XXX

Revisions:

1	05/16/22	Added limit of disturbance and straw wattle to site plan

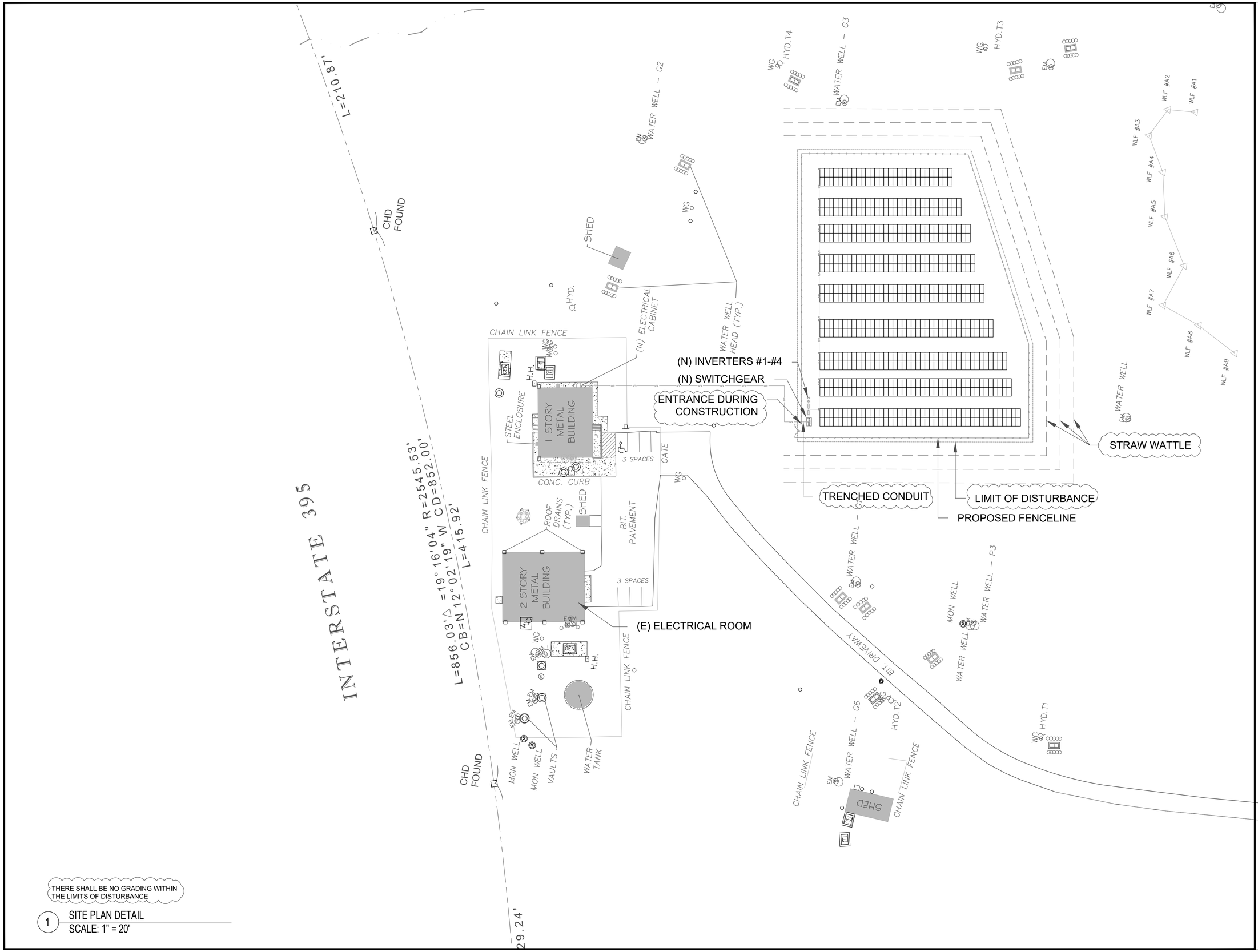
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Checked By: XXX
Date: 5/16/22
Job No.:

Sheet Title:

GENERAL NOTES

Sheet No.:

E-1.1



THERE SHALL BE NO GRADING WITHIN THE LIMITS OF DISTURBANCE

1 SITE PLAN DETAIL
SCALE: 1" = 20'

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Sandy Springs GA 30342 770.319.7400
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83 PARK RD
83 PARK RD, PUTNAM, CT
06260

APN: 037-074

OWNER:
XXX

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Revisions:

1	05/16/22	Added limit of disturbance and straw wattle to site plan

Drawn By: A. CISNEROS
Checked By: XXX
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Job No.:

Sheet Title:

SITE PLAN

Sheet No.:

E-2