



REPLY TO  
ATTENTION OF

**DEPARTMENT OF THE ARMY**  
NEW ENGLAND DISTRICT, CORPS OF ENGINEERS  
696 VIRGINIA ROAD  
CONCORD, MASSACHUSETTS 01742-2751

November 2, 2017

Regulatory Division  
File Number: NAE-2017-02124

Mr. Steve Broyer  
Ecos Energy  
222 South 9<sup>th</sup> Street, Suite 1600  
Minneapolis, Minnesota 55403

Dear Mr. Broyer:

We have reviewed your application to construct an access road for a new ground-mounted solar energy facility to be located at 91 Plainfield Pike Road in the Town of Plainfield, Connecticut. A portion of the access road will permanently fill 4,670 square feet of palustrine forested wetlands adjacent to Evans Pond. This work is illustrated on the enclosed plans in 17 sheets entitled "Plainfield Pike Solar Connecticut Siting Board Documents," dated August 16, 2017.

Based on the information that you have provided, we have determined that the proposed activity, which includes a discharge of dredged or fill material into waters or wetlands, may be authorized as a permittee self-verification under General Permit No. 18 of the enclosed Federal permit known as the Connecticut General Permits (GPs). This work must be performed in accordance with the terms and conditions of the GPs and must also be in compliance with the following special conditions:

1. Construction of the access road within the wetland should be performed during dry weather, when groundwater levels are low and surface flows are minimal.
2. You must follow Best Management Practices to minimize the spread of invasive species.
3. This authorization requires you to complete and return the enclosed Work Start Notification Form to this office at least two weeks before the anticipated starting date. You must also complete and return the enclosed Compliance Certification Form within one month following the completion of the authorized work.

You are responsible for complying with all of the GPs' requirements. Please review the enclosed GPs carefully; as well as the general conditions, to be sure you understand its requirements. You should ensure that whoever does the work also fully understands the requirements and that a copy of the permit document and this authorization letter are at the project site throughout the time the work is being performed.

This authorization expires on August 19, 2021, unless the GPs are modified, suspended, or revoked before then. You must commence or be under contract to commence the work

authorized herein by that expiration date and complete the work by August 19, 2022. If not, you must contact this office to determine the need for further authorization *before* beginning or continuing the activity. We recommend you contact us before this permit expires to discuss a permit reissuance.

If you change the plans or construction methods for work within our jurisdiction, please contact us immediately to discuss modification of this authorization. This office must approve any changes before you undertake them.

This permit does not obviate the need to obtain other Federal, state, or local authorizations required by law. Performing work not specifically authorized by this determination or failing to comply with any special condition(s) and all the terms and conditions of the GPs may subject you to the enforcement provisions of our regulations.

This authorization presumes that the work as described above and as shown on your plans noted above is in waters of the United States. Should you desire to appeal our jurisdiction, please submit a request for an approved jurisdictional determination in writing to this office.

We continually strive to improve our customer service. In order for us to better serve you, we would appreciate your completing our Customer Service Survey located at [http://corpsmapu.usace.army.mil/cm\\_apex/f?p=regulatory\\_survey](http://corpsmapu.usace.army.mil/cm_apex/f?p=regulatory_survey).

Please contact Daniel Breen of my staff at (978) 318-8732 if you have any questions.

Sincerely,



Robert J. DeSista  
Chief, Permits & Enforcement Branch  
Regulatory Division

Enclosures

Copies furnished:

Mr. Brandon Pizzoferrato  
C-TEC Solar  
1 Griffin Road South, Suite 200  
Bloomfield, Connecticut 06002

Mr. Bob Gilmore, CT DEEP, Chief, Land & Water Resources Division – via email

Mr. Nate Margason, US EPA – via e-mail

# PLAINFIELD PIKE SOLAR CONNECTICUT SITING BOARD DOCUMENTS

FOR  
Site/Electrical Layout, Grading/Drainage/Erosion Control/Landscaping  
IN  
PLAINFIELD, CONNECTICUT

## Westwood

Phone (409) 747-6558 6009 East Greenway Parkway, Suite 250  
Fax (409) 376-0025 Scottsdale, AZ 85254  
westwoodps.com  
Westwood Professional Services, Inc.

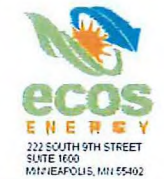


Designed \_\_\_\_\_ ADC  
Checked \_\_\_\_\_ SAW  
Drawn \_\_\_\_\_ SJB

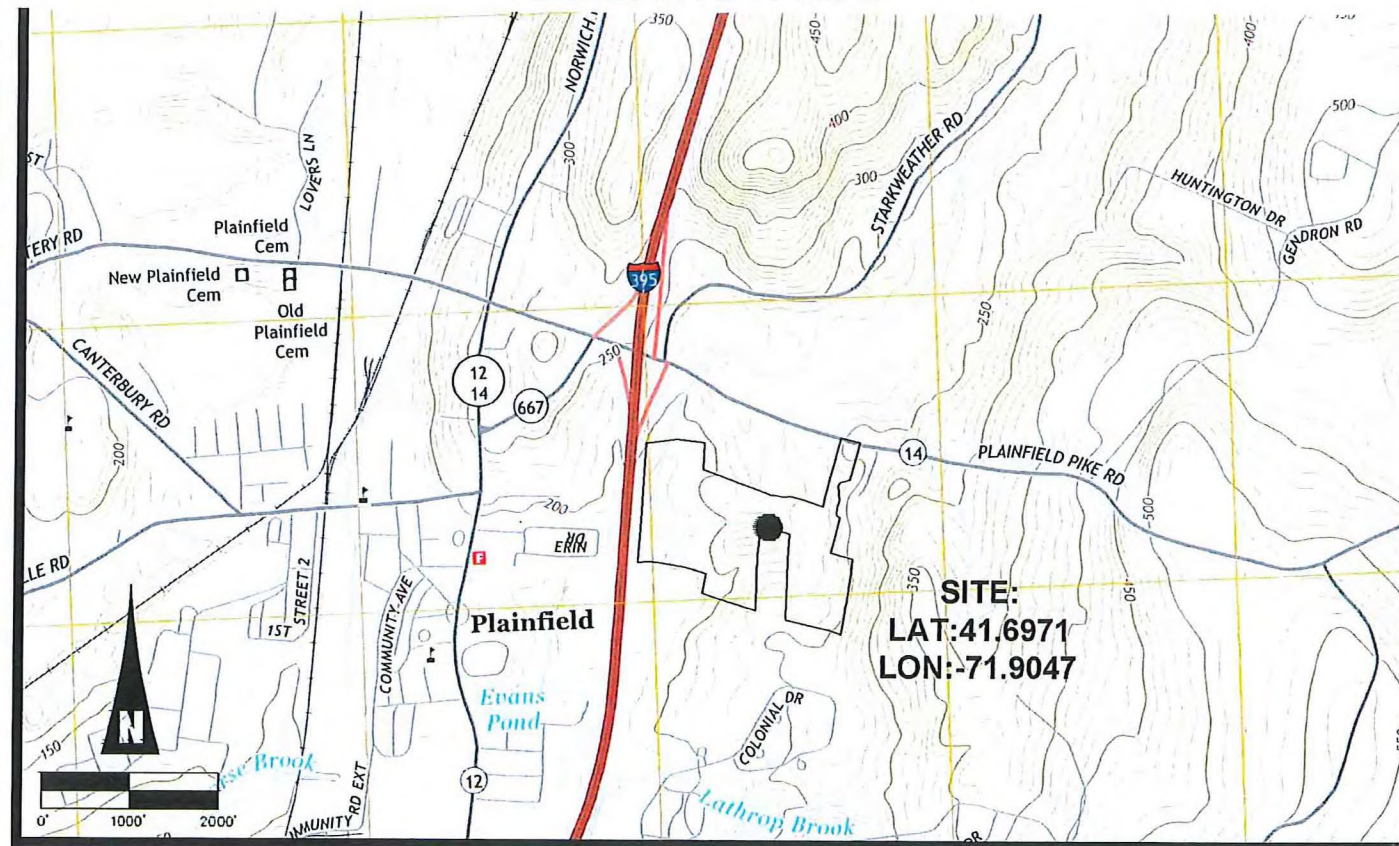
Record Drawing by/Date \_\_\_\_\_

REVISION #	DATE	DESCRIPTION
-	3/15/2016	CT SITING BOARD SUBMISSION
-	4/26/2016	CT SITING BOARD COMMENTS
-	7/21/2016	CT SITING BOARD REVISIONS
-	8/16/2017	CT SITING BOARD REVISED SUBMISSION

Prepared for:



### LOCATION MAP



### SHEET INDEX

●	08/16/2017	1	COVER SHEET
●	11/2015	2	PERIMETER SURVEY (BY ARCHER SURVEY, LLC)
●	08/16/2017	3	OVERALL SITE PLAN
●	08/16/2017	4	NORTHWEST REMOVAL & EROSION CONTROL PLAN - 1"=50'
●	08/16/2017	5	SOUTHWEST REMOVAL & EROSION CONTROL PLAN - 1"=50'
●	08/16/2017	6	NORTHEAST REMOVAL & EROSION CONTROL PLAN - 1"=50'
●	08/16/2017	7	SOUTHEAST REMOVAL & EROSION CONTROL PLAN - 1"=50'
●	08/16/2017	8	NORTHWEST SITE & GRADING PLAN - 1"=50'
●	08/16/2017	9	SOUTHWEST SITE & GRADING PLAN - 1"=50'
●	08/16/2017	10	NORTHEAST SITE & GRADING PLAN - 1"=50'
●	08/16/2017	11	EAST SITE & GRADING PLAN - 1"=50'
●	08/16/2017	12	SOUTHEAST SITE & GRADING PLAN - 1"=50'
●	08/16/2017	13	OVERALL LANDSCAPE PLAN
●	08/16/2017	14	SITE CROSS SECTION
●	08/16/2017	15	KEY OBSERVATION POINT PLAN
●	08/16/2017	16	CIVIL NOTES
●	08/16/2017	17	CIVIL DETAILS

### DRAWING INDEX LEGEND

FILLED CIRCLE INDICATES DRAWING INCLUDED WITHIN THIS ISSUE  
MOST RECENT REVISION NUMBER  
MOST RECENT ISSUE OR REVISION DATE

○ - X/XX/201X | X SHEET TITLE

### PLAINFIELD PIKE SOLAR

91 PLAINFIELD PIKE RD  
PLAINFIELD, CT 06374  
WINDHAM COUNTY

### COVER SHEET

SITING BOARD REVIEW

DATE: 08/16/2017  
SHEET: 1 of 17

### CONTACT INFO:

RECORD LANDOWNER:  
PLH, LLC  
77 WATER STREET  
8TH FLOOR  
NEW YORK, NY 10005

OWNER/DEVELOPER:  
ECOS ENERGY  
222 SOUTH 9TH STREET  
SUITE 1600  
MINNEAPOLIS, MN 55402

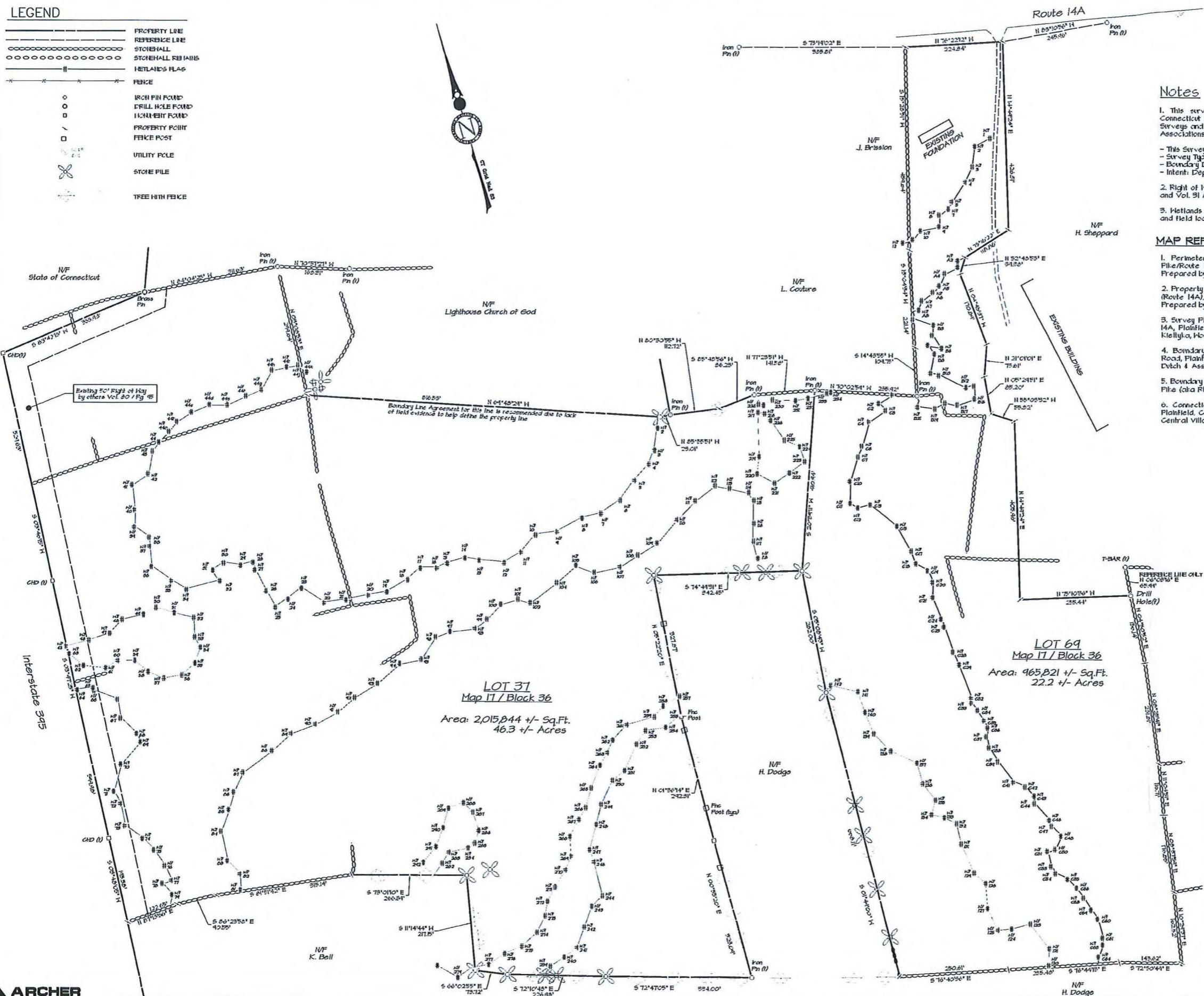
CIVIL ENGINEER:  
WESTWOOD PROFESSIONAL  
SERVICES  
7699 ANAGRAM DRIVE  
EDEN PRAIRIE, MN 55344

SURVEYOR:  
ARCHER SURVEYING, LLC  
18 PROVIDENCE RD  
BROOKLYN, CT 06234

WETLAND DELINEATION:  
HIGHLAND SOILS  
P.O. BOX 337  
STORRS, CT 06268

**LEGEND**

- PROPERTY LINE
- REFERENCE LINE
- STONEWALL
- STONEWALL REMAINS
- METLANDS FLAG
- FENCE
- IRON PIN FOUND
- DRILL HOLE FOUND
- MONUMENT FOUND
- PROPERTY POINT
- FENCE POST
- UTILITY POLE
- STONE PILE
- TREE WITH FENCE



**Notes**

1. This survey has been prepared pursuant to the Regulations of Connecticut State Agencies Section 20-300b-20 and the "Standards for Surveys and Maps in State of Connecticut" as adopted by the Connecticut Association of Land Surveyors, Inc. on September 26, 1996.
  - This Survey conforms to a Class "A-2" Horizontal Accuracy
  - Survey Type: Perimeter Survey
  - Boundary Determination: Resurvey
  - Intent: Depict Existing Conditions with Respect to Property Lines
2. Right of Ways exist of Parcels as stated in deeds Vol. 80 / Pg. 95 and Vol. 91 / Pg. 245
3. Wetlands were delineated in the field by Joseph Theroux & John Lait and field located by Archer Surveying LLC.

**MAP REFERENCE:**

1. Perimeter Survey Prepared for Sheppard/Steuer Trust, Plainfield Pike/Route 14A, Plainfield, Connecticut, Scale: 1"=100', Dated: 1 May 2015, Prepared by Archer Surveying LLC.
2. Property Survey Prepared for Leon and Sally Couture, Plainfield Pike (Route 14A), Plainfield, Connecticut, Scale: 1"=40', Date: December 2002, Prepared by Eric Seitz L.S.
3. Survey Plan, Prepared for Gertrude Sheppard & Colman Steer, Route 14A, Plainfield, Connecticut, Scale: 1"=50', Date: June 1982, Prepared by Killyka, Woods & Pile.
4. Boundary Survey Prepared for Fleet National Bank, Plainfield Pike Road, Plainfield, Connecticut, Scale: 1"=40', Date: Feb. 1997, Prepared by Dutch & Associates.
5. Boundary Survey, Prepared for Rex Project Management, Inc. Plainfield Pike (aka Rte 14A) Plainfield, Connecticut, Prepared by Fuss & O'Neill Inc.
6. Connecticut State Highway Department, Right of Way Map, Town of Plainfield, Connecticut Turnpike, From Lottrop Road Northeasterly to the Central Village Loop, Project # 103-19.

To My Knowledge and Belief this Map is substantially Correct as noted hereon.

Paul H. Archer LLS #70013 \_\_\_\_\_ Date \_\_\_\_\_

No Certification is expressed or implied unless this map bears the embossed seal of the land surveyor whose signature appears hereon.

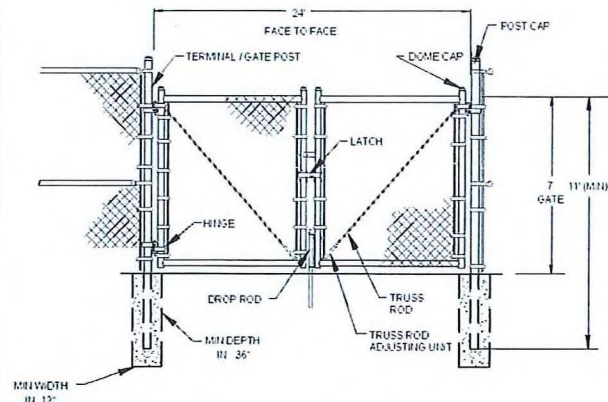
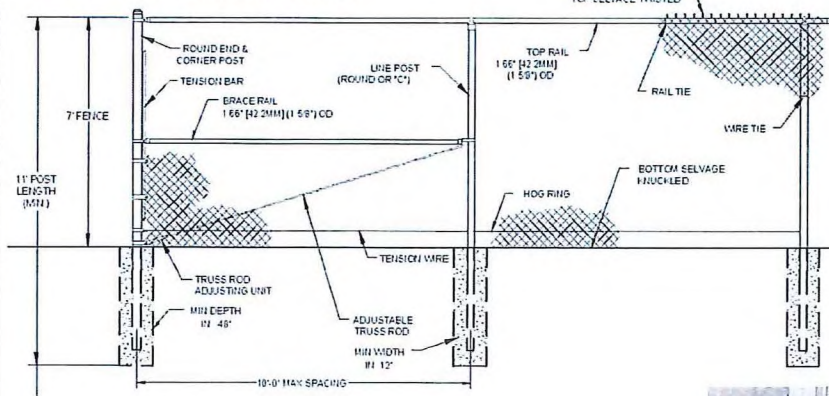
**Perimeter Survey**  
Prepared For:  
**ECOS Renewable Energy**  
Plainfield Pike / Route 14A  
Plainfield, Connecticut

DRAWING SCALE: 1"=100'

**ARCHER Surveying LLC**  
18 Providence Road, Brooklyn, CT  
(860) 779-2240

Sheet No. 1 of 1    Project No. 1366    Date: November 2015

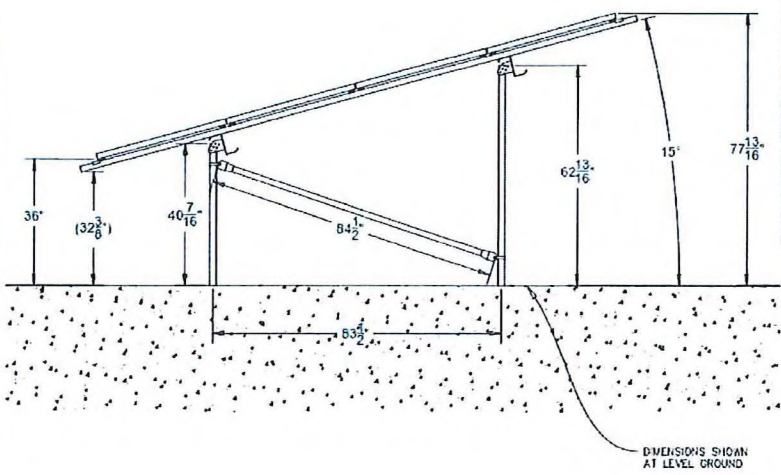
**PERIMETER FENCE DETAIL:**



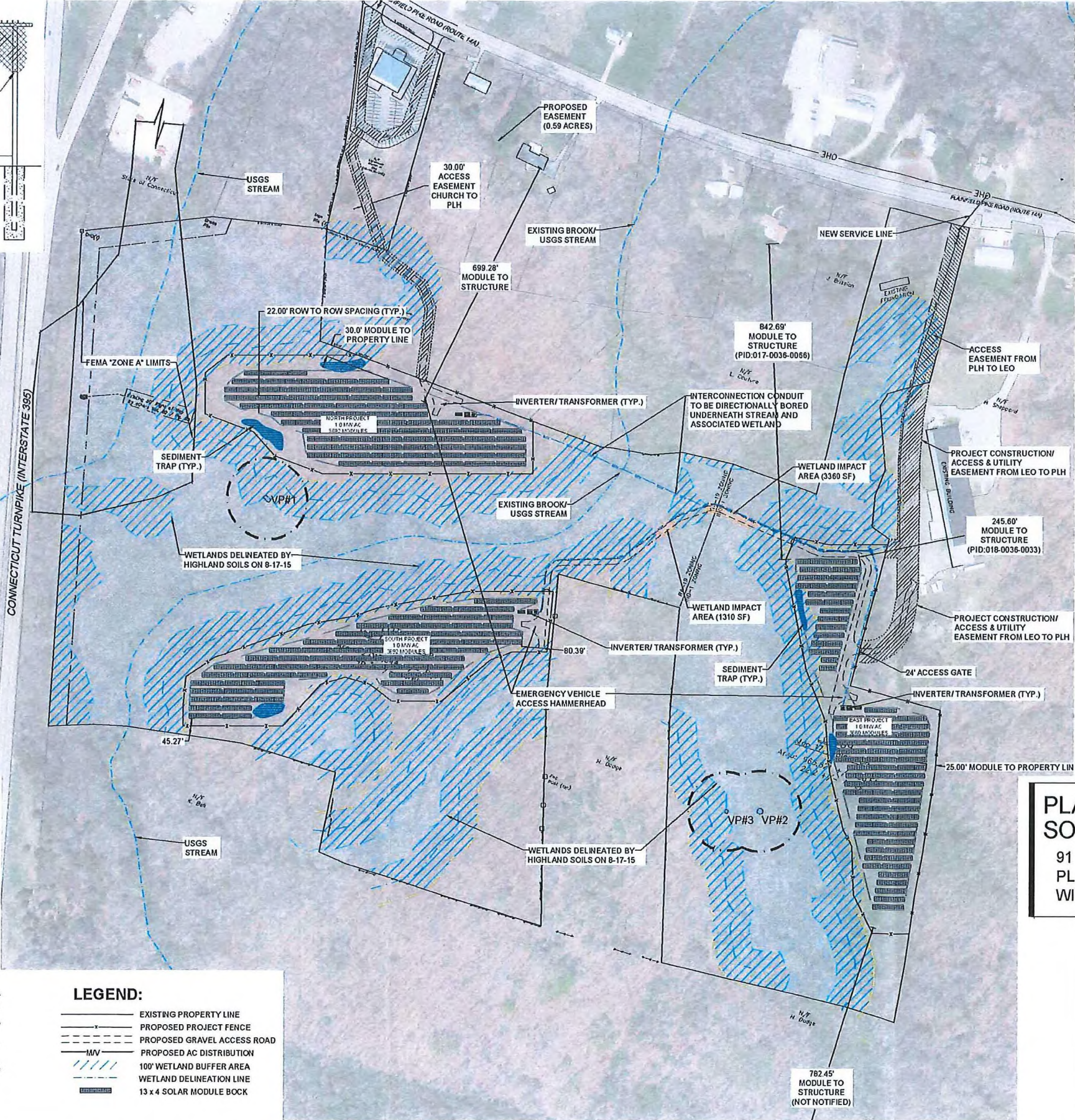
**PROJECT AREAS & IMPACTS:**

TOTAL SITE AREA = 67.2 ACRES  
 ARRAY FOOTPRINT (PROJECT FENCE LIMITS)  
 SOUTH PROJECT = 5.3 ACRES  
 EAST PROJECT = 5.3 ACRES  
 NORTH PROJECT = 5.3 ACRES  
 TOTAL = 16.0 ACRES  
 PROPOSED IMPERVIOUS (GRAVEL ACCESS ROAD, STRUCTURAL POSTS & EQUIPMENT PADS)  
 SOUTH & EAST PROJECT (OFF SITE ACCESS ROAD INCLUDED) = 0.73 ACRES  
 NORTH PROJECT (OFF SITE ACCESS ROAD INCLUDED) = 0.40 ACRES  
 PROPOSED WETLAND IMPACTS: 4670 SF (0.1 ACRES SOUTH PROJECT SITE ACCESS)

**RACKING PROFILE DETAIL:**



**AERIAL SITE PLAN:**



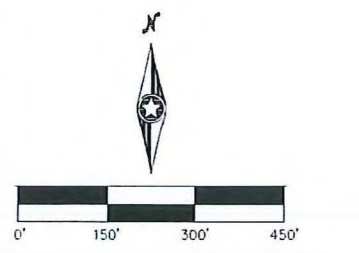
- LEGEND:**
- EXISTING PROPERTY LINE
  - - - PROPOSED PROJECT FENCE
  - - - PROPOSED GRAVEL ACCESS ROAD
  - - - PROPOSED AC DISTRIBUTION
  - WV 100' WETLAND BUFFER AREA
  - WETLAND DELINEATION LINE
  - 13 x 4 SOLAR MODULE BLOCK

**Westwood**  
 Phone (401) 747-6558 6009 East Greenway Parkway, Suite 250  
 Fax (401) 318-0925 Scottsdale, AZ 85254  
 westwoodps.com  
 Westwood Professional Services, Inc.



Designed	ADC	
Checked	SAW	
Drawn	SJB	
Record Drawing by Site		
Revisions		
#	DATE	DESCRIPTION
-	2/15/2016	CT SITING BOARD SUBMISSION
-	4/26/2016	CT SITING BOARD COMMENTS
-	6/21/2016	CT SITING BOARD R3 REVISIONS
-	8/16/2017	CT SITING BOARD REVISION SUBMISSION

Prepared for  
  
**ecos ENERGY**  
 222 SOUTH 9TH STREET  
 SUITE 1000  
 MINNEAPOLIS, MN 55402



**PLAINFIELD PIKE SOLAR**  
 91 PLAINFIELD PIKE RD  
 PLAINFIELD, CT 06374  
 WINDHAM COUNTY

**OVERALL SITE PLAN**  
 SITING BOARD REVIEW  
 DATE: 08/16/2017  
 SHEET: 3 of 17

**LEGEND:**

- EXISTING PROPERTY LINE
- - - PROPOSED PROJECT FENCE
- - - PROPOSED GRAVEL ACCESS ROAD
- 14 x 2 SOLAR MODULE BOCK
- 100' WETLAND BUFFER AREA
- WETLAND DELINEATION LINE/AREA
- PROPOSED SILT FENCE
- ▨ 100' WETLAND BUFFER CLEARING AREA
- ▨ SITE CLEARING AREA

**CONSTRUCTION SEQUENCING NOTES:**

1. THE CONTRACTOR SHALL PERFORM ALL TREE REMOVAL ACTIVITIES ON SITE TO ALLOW FOR BMP INSTALLATION, NO GRUBBING IS TO OCCUR DURING TREE REMOVAL, PRIOR TO BMP INSTALLATION.
2. ALL BMP'S IDENTIFIED ON THE PLAN SHALL BE STAKED BY A REGISTERED SURVEYOR AND INSTALLED PER PLANS PRIOR TO ANY CONSTRUCTION ACTIVITY.
3. AS-BUILT DRAWINGS SHALL BE MAINTAINED BY THE CONTRACTOR THROUGHOUT THE CONSTRUCTION OF THE PROJECT.

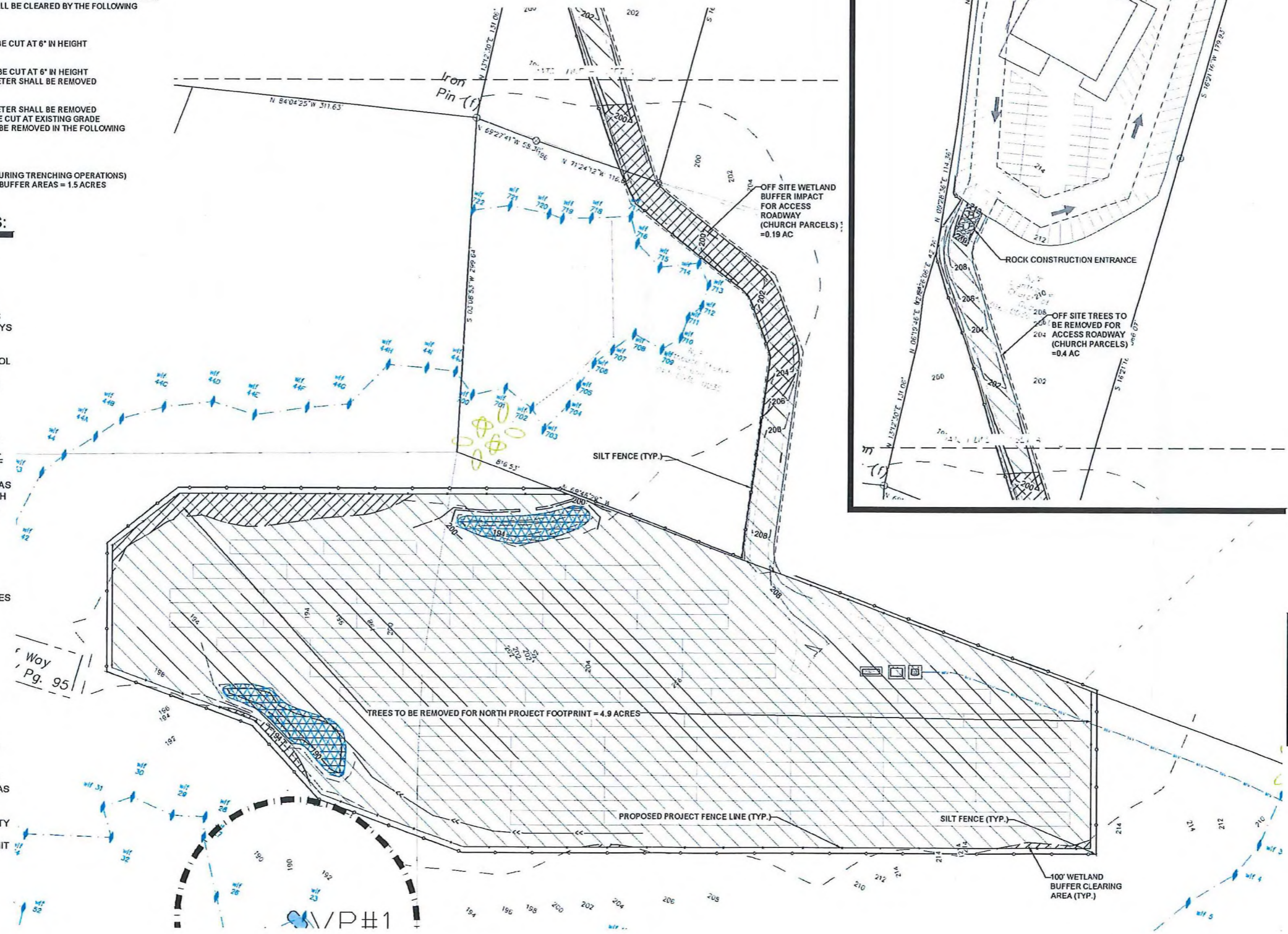
**PROJECT FOOTPRINT REMOVAL NOTES**

AREAS WITHIN THE PROJECT FENCELINE LIMITS SHALL BE CLEARED BY THE FOLLOWING METHODS:

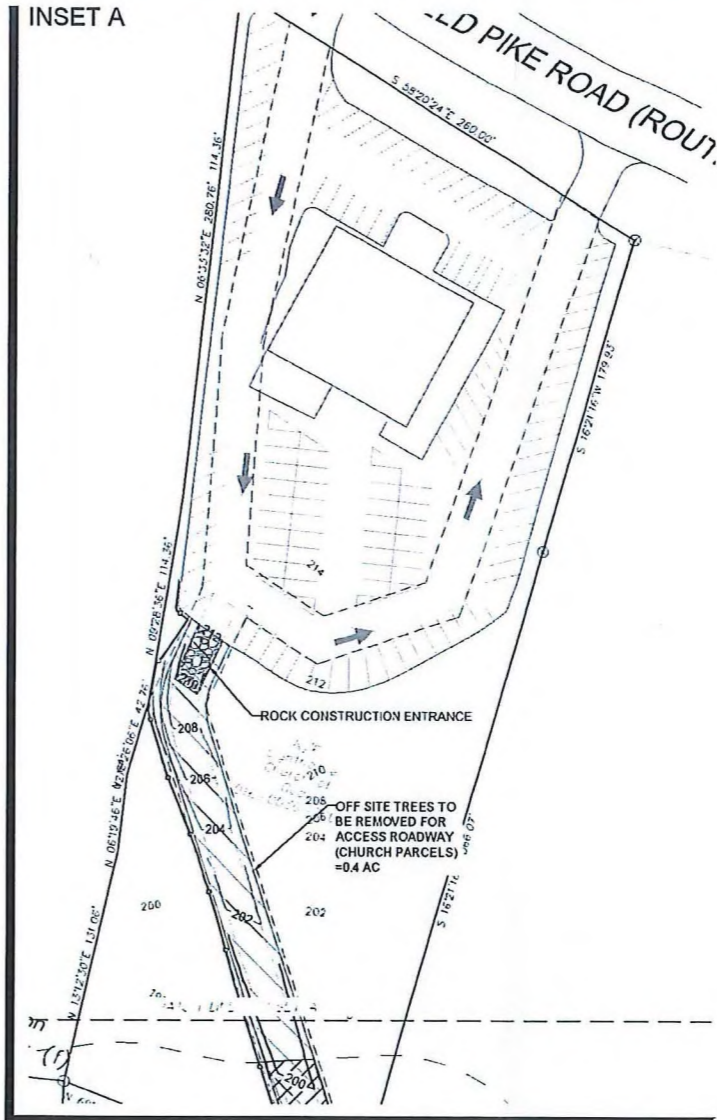
- OPEN FIELD AREAS (0.0 ACRES):**
1. PRIOR TO CONSTRUCTION VEGETATION SHALL BE CUT AT 6" IN HEIGHT
- BRUSH FIELD (0.0 ACRES):**
1. BRUSH AND LOW GROWTH VEGETATION SHALL BE CUT AT 6" IN HEIGHT
  2. TREES AND VEGETATION LESS THAN 4" IN DIAMETER SHALL BE REMOVED
- TREE CANOPY AREAS (16.0 ACRES):**
1. TREES AND VEGETATION LESS THAN 4" IN DIAMETER SHALL BE REMOVED
  2. TREES GREATER THAN 4" IN DIAMETER SHALL BE CUT AT EXISTING GRADE
  3. STUMPS GREATER THAN 4" IN DIAMETER SHALL BE REMOVED IN THE FOLLOWING LOCATIONS:
- 3.1. AREAS ILLUSTRATED IN GRADING LIMITS
  - 3.2. INVERTER / EQUIPMENT SKID
  - 3.3. 3' DIAMETER EACH ARRAY PIER
  - 3.4. ALL TRENCHING LOCATIONS (MAY OCCUR DURING TRENCHING OPERATIONS)
  - 3.5. TOTAL PROJECT CLEARING IN WETLAND BUFFER AREAS = 1.5 ACRES

**EROSION CONTROL NOTES:**

1. TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED BEFORE ANY SOIL DISTURBANCE.
2. THE AREA OF DISTURBANCE SHALL BE KEPT TO A MINIMUM. DISTURBED AREAS REMAINING IDLE FOR MORE THAN 14 DAYS SHALL BE STABILIZED.
3. MEASURES SHALL BE TAKEN TO CONTROL EROSION WITHIN THE PROJECT AREA. SEDIMENT IN RUNOFF WATER SHALL BE TRAPPED AND RETAINED WITHIN THE PROJECT AREA USING APPROVED MEASURES.
4. WETLAND AREAS AND SURFACE AREAS SHALL BE PROTECTED FROM SEDIMENT. OFF-SITE SURFACE WATER AND RUNOFF FROM UNDISTURBED AREAS SHALL BE DIVERTED AWAY FROM DISTURBED AREAS WHERE FEASIBLE OR CARRIED THROUGH THE PROJECT AREA WITHOUT CAUSING EROSION. INTEGRITY OF DOWNSTREAM DRAINAGE SYSTEMS SHALL BE MAINTAINED.
5. ALL TEMPORARY EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE REMOVED AFTER FINAL SITE STABILIZATION. STABILIZATION MEASURES SUCH AS HYDROSEEDING OR APPLICATION OF HAY/MULCH OR SOIL NETTING SHALL BE APPLIED PRIOR TO REMOVAL OF TEMPORARY EROSION MEASURES AND INSPECTED WEEKLY UNTIL STABILIZATION IS COMPLETE. TEMPORARY EROSION CONTROL MEASURES MAY BE REMOVED ONCE STABILIZATION OF ALL SITE SOILS HAS BEEN ACHIEVED AND WRITTEN AUTHORIZATION TO DO SO HAS BEEN PROVIDED BY THE STORMWATER AUTHORITY. TRAPPED SEDIMENT SHALL BE REMOVED IMMEDIATELY WITH TEMPORARY EROSION CONTROL METHODS AND LAWFULLY DISPOSED OF OFF-SITE. OTHER DISTURBED SOIL AREAS RESULTING FROM THE REMOVAL OF TEMPORARY MEASURES SHALL BE PERMANENTLY STABILIZED WITHIN THIRTY DAYS.
6. DEVELOPER TO OBTAIN AN NPDES PERMIT PRIOR TO CONSTRUCTION.



**INSET A**



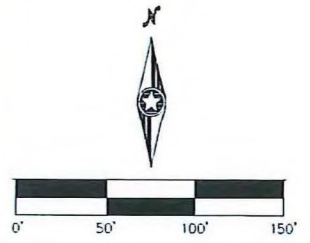
**Westwood**  
 Phone (480) 747-6558 0009 East Greenway Parkway, Suite 250  
 Fax (480) 376-0025 Scottsdale, AZ 85254  
 westwoodps.com  
 Westwood Professional Services, Inc.



Designed	ADC	
Checked	SAW	
Drawn	SJB	
Record Drawn by/Date		
Revisions		
#	DATE	DESCRIPTION
-	2/15/2016	CT SITING BOARD SUBMISSION
-	4/26/2016	CT SITING BOARD COMMENTS
-	6/21/2016	CT SITING BOARD IRS REVISIONS
-	8/16/2017	CT SITING BOARD REVISED SUBMISSION

Prepared for

**ecOS ENERGY**  
 222 SOUTH 9TH STREET  
 SUITE 1000  
 MINNEAPOLIS, MN 55402



**PLAINFIELD PIKE SOLAR**  
 91 PLAINFIELD PIKE RD  
 PLAINFIELD, CT 06374  
 WINDHAM COUNTY

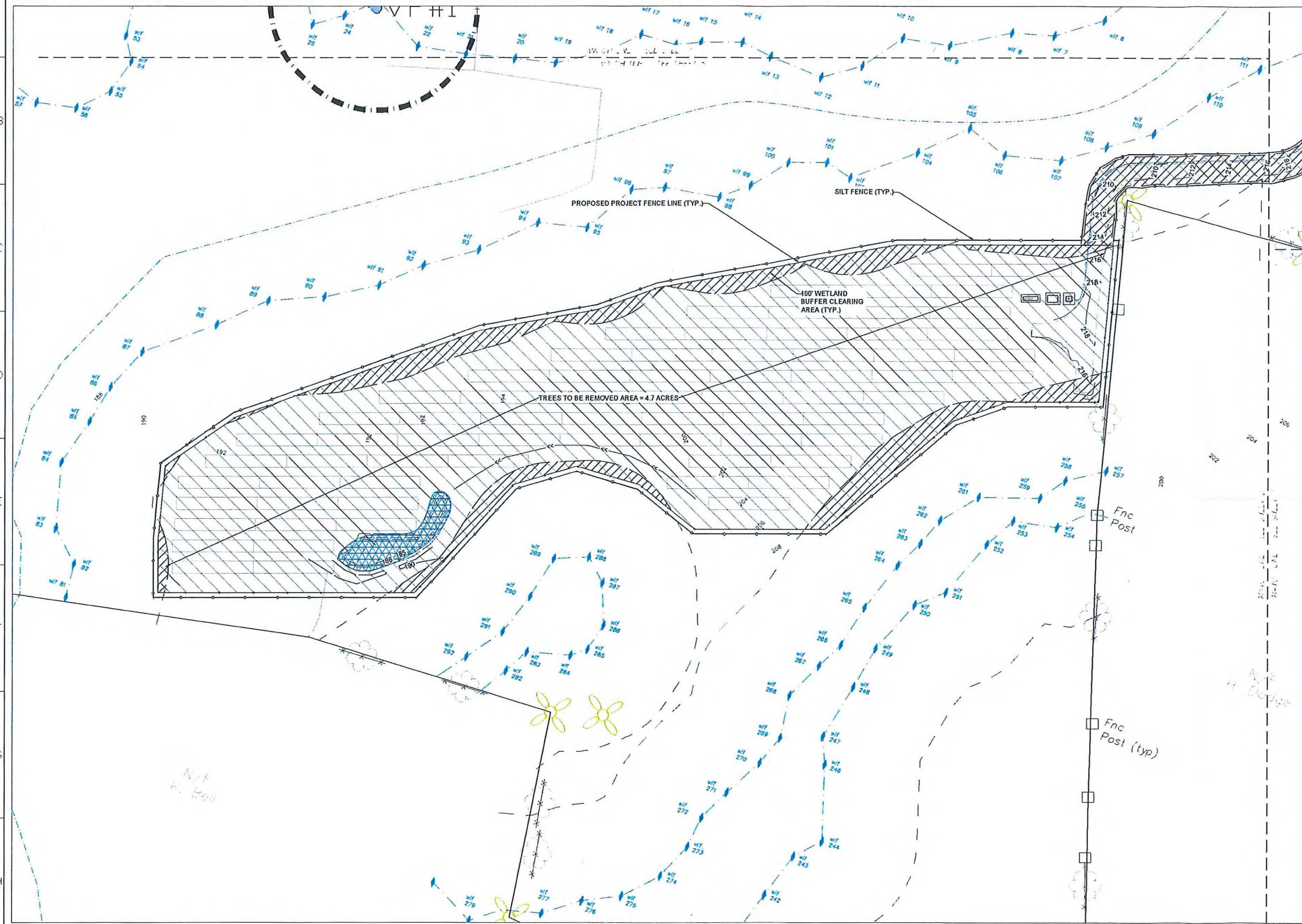
**NORTHWEST REMOVAL & EROSION CONTROL PLAN**

SITING BOARD REVIEW

DATE: 08/16/2017  
 SHEET: 4 of 17

**NOTES & LEGEND:**

SEE SHEET 4



**Westwood**

Phone (401) 747-6558 0909 East Greynway Parkway, Suite 250  
 Fax (401) 378-0925 Scottsdale, AZ 85254  
 westwoodps.com

Westwood Professional Services, Inc.



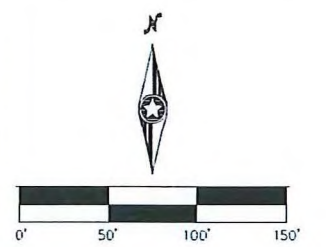
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Drawn	SJB

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REVISION	DATE	DESCRIPTION
-	3/15/2016	CT SITING BOARD SUBMISSION
-	4/26/2016	CT SITING BOARD COMMENTS
-	6/21/2016	CT SITING BOARD IR3 REVISIONS
-	8/16/2017	CT SITING BOARD REVISED SUBMISSION

Prepared for:

**ECOS ENERGY**  
 222 SOUTH 9TH STREET  
 SUITE 1600  
 MILWAUKEE, WI 53402



**PLAINFIELD PIKE SOLAR**  
 91 PLAINFIELD PIKE RD  
 PLAINFIELD, CT 06374  
 WINDHAM COUNTY

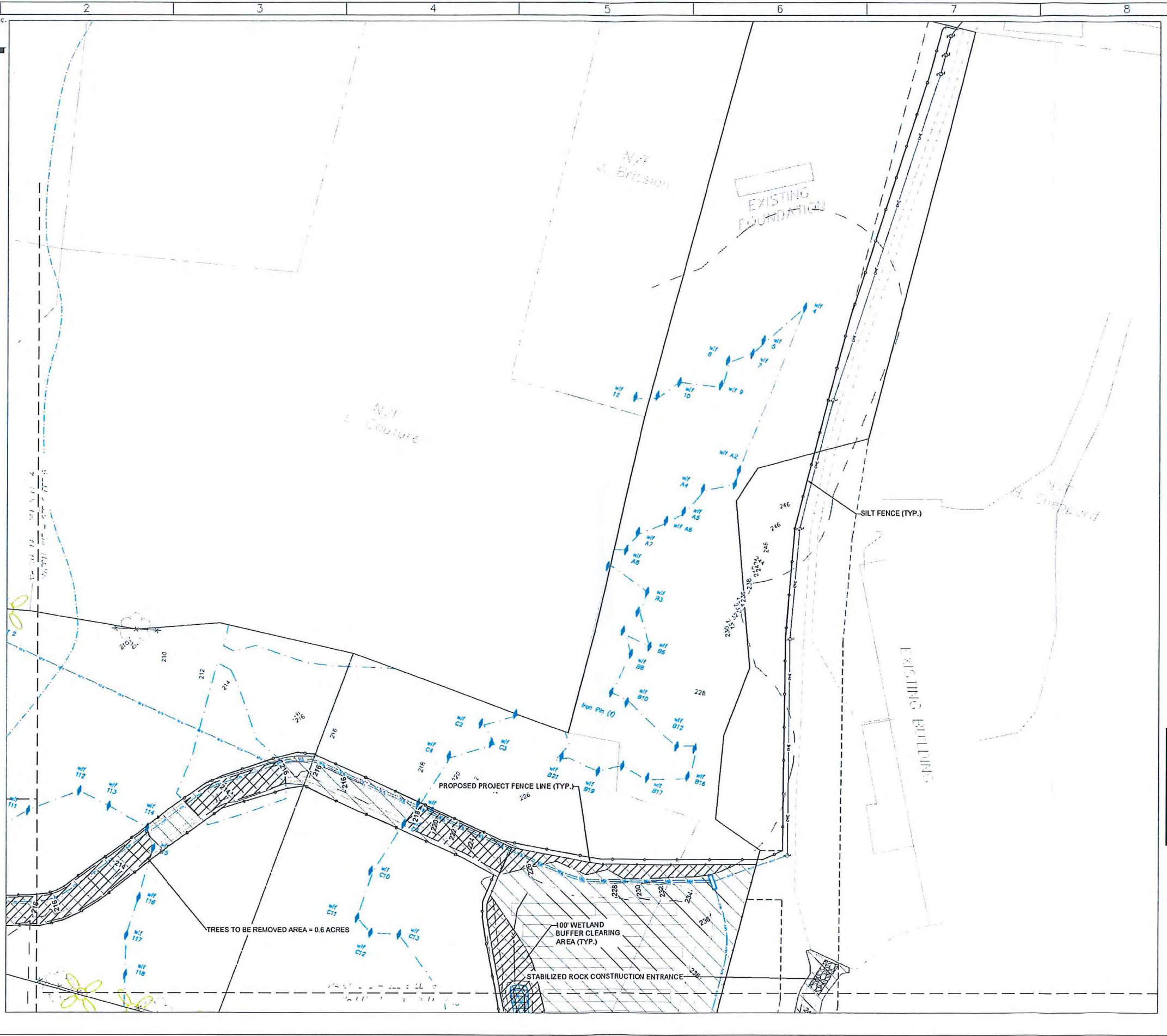
**SOUTHWEST REMOVAL & EROSION CONTROL PLAN**

SITING BOARD REVIEW

DATE: 08/16/2017  
 SHEET: 5 of 17

**NOTES & LEGEND:**

SEE SHEET 4



**Westwood**  
 Phone (480) 747-6558 6099 East Greenway Parkway, Suite 250  
 Fax (480) 316-8925 Scottsdale, AZ 85254 westwoodps.com  
 Westwood Professional Services, Inc.

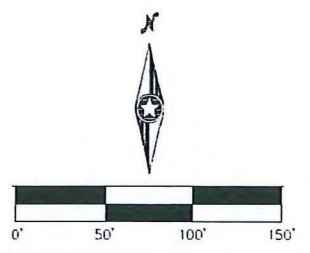


Designed	AEC
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Drawn	SJB

Record Drawings to Date

Revisions #	DATE	DESCRIPTION
-	3/15/2016	CT SITING BOARD SUBMISSION
-	4/20/2016	CT SITING BOARD COMMENTS
-	6/21/2016	CT SITING BOARD #3 REVISIONS
-	8/16/2017	CT SITING BOARD REVISED SUBMISSION

Prepared for



**PLAINFIELD PIKE SOLAR**  
 91 PLAINFIELD PIKE RD  
 PLAINFIELD, CT 06374  
 WINDHAM COUNTY

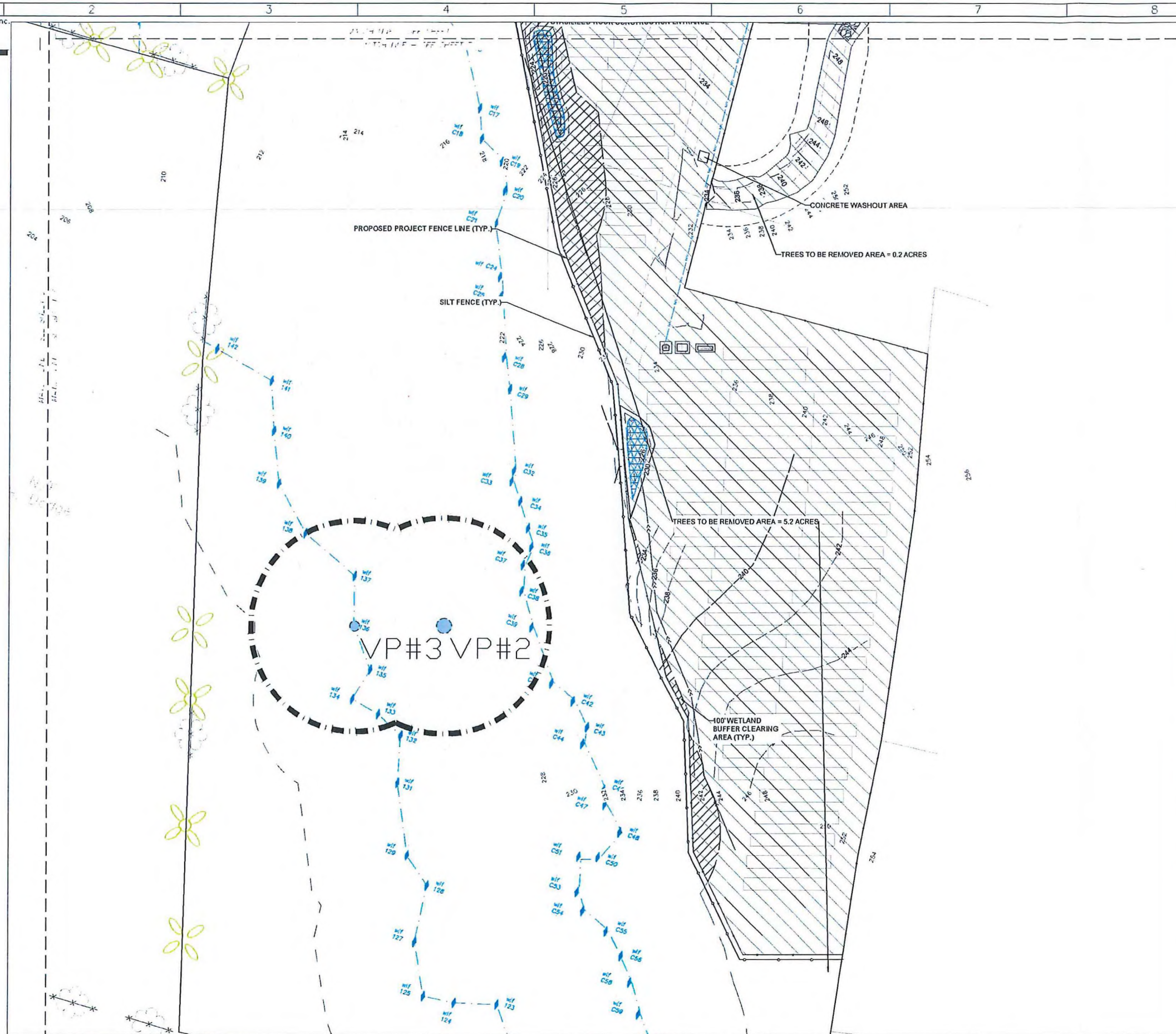
**NORTHEAST REMOVAL & EROSION CONTROL PLAN**  
 SITING BOARD REVIEW

DATE: 08/16/2017  
 SHEET: 6 of 17



**NOTES & LEGEND:**

SEE SHEET 4



**Westwood**

Phone (410) 747-6558 6099 East Greenway Parkway, Suite 250  
 Fax (410) 376-0025 Scottsdale, AZ 85254  
 westwoodps.com  
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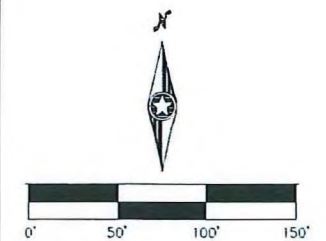
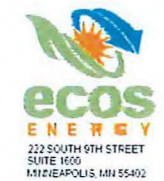


Designed	ADC
Checked	SAW
Drawn	S.B.

Record Drawing Update

Revision	DATE	DESCRIPTION
-	3/15/2016	CT SITING BOARD SUBMISSION
-	4/28/2016	CT SITING BOARD COMMENTS
-	6/21/2016	CT SITING BOARD #1 REVISIONS
-	8/16/2017	CT SITING BOARD REVISED SUBMISSION

Prepared for



**PLAINFIELD PIKE SOLAR**

91 PLAINFIELD PIKE RD  
 PLAINFIELD, CT 06374  
 WINDHAM COUNTY

**SOUTHEAST  
 REMOVAL &  
 EROSION  
 CONTROL PLAN**

SITING BOARD REVIEW

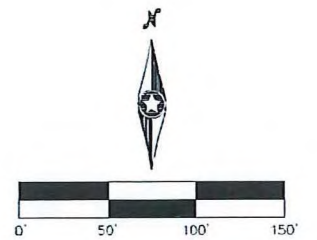
DATE: 08/16/2017  
 SHEET: 7 of 17



Designed	ADC
Checked	SAW
Drawn	SJB
Record Drawing by date	

Revision #	DATE	DESCRIPTION
-	3/15/2016	CT SITING BOARD SUBMISSION
-	4/28/2016	CT SITING BOARD COMMENTS
-	6/21/2016	CT SITING BOARD R3 REVISIONS
-	8/16/2017	CT SITING BOARD REVISED SUBMISSION

Prepared for



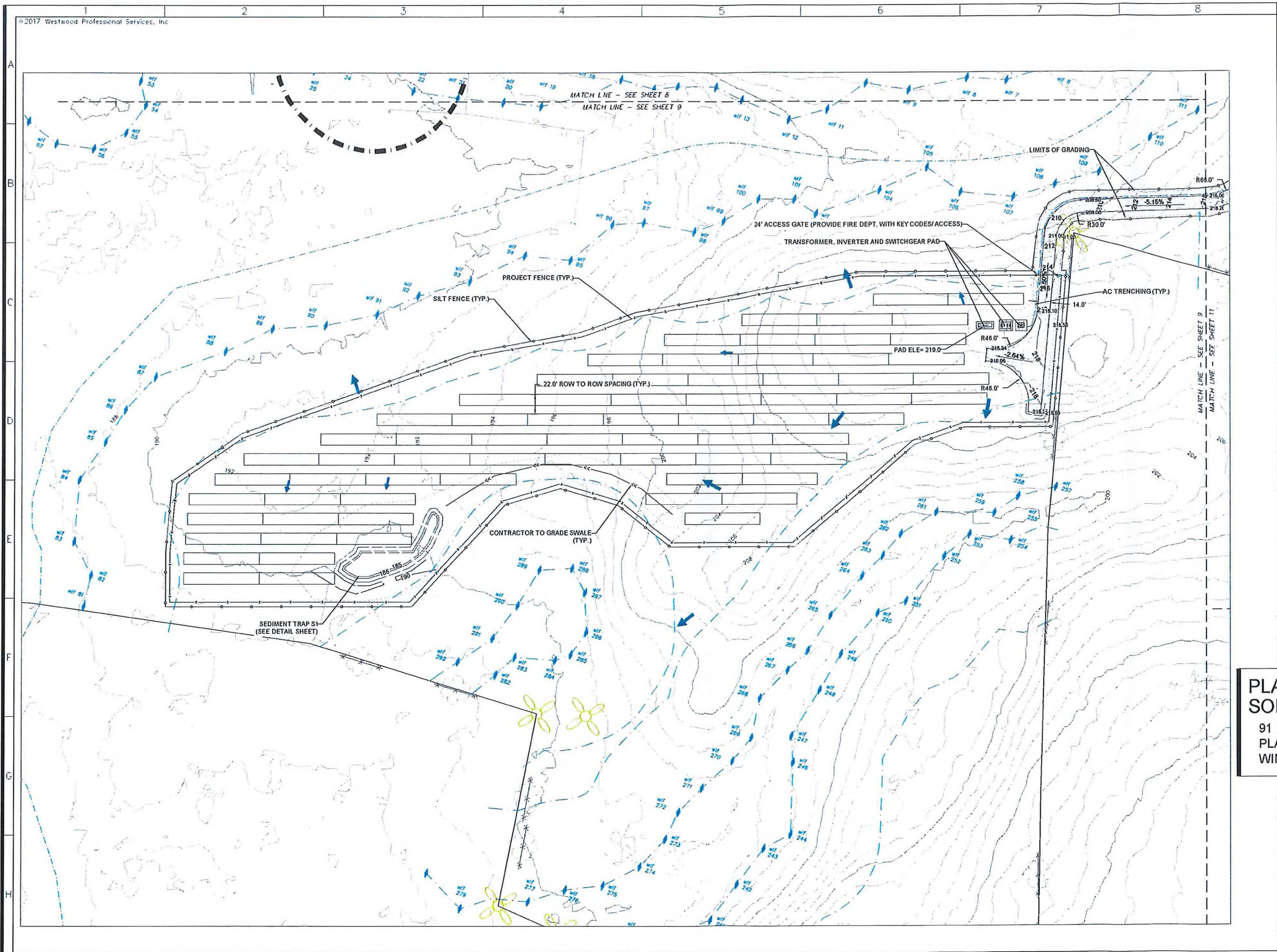
**PLAINFIELD PIKE SOLAR**

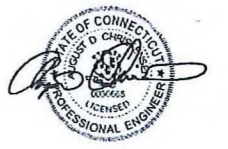
91 PLAINFIELD PIKE RD  
 PLAINFIELD, CT 06374  
 WINDHAM COUNTY

**SOUTHWEST  
 SITE/GRADING/  
 EROSION CONTROL  
 PLAN**

SITING BOARD REVIEW

DATE: 08/16/2017  
 SHEET: 9 of 17

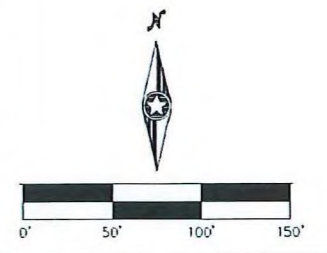




Designed	ADC	
Checked	SAW	
Drawn	SJB	
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Revisions		
#	DATE	DESCRIPTION
-	3/15/2016	CT SITING BOARD SUBMISSION
-	4/26/2016	CT SITING BOARD COMMENTS
-	6/21/2016	CT SITING BOARD #13 REVISIONS
-	8/16/2017	CT SITING BOARD REVISED SUBMISSION

Prepared for

**ECOS ENERGY**  
 222 SOUTH 9TH STREET  
 SUITE 1000  
 MIDLEBURY, VT 05750

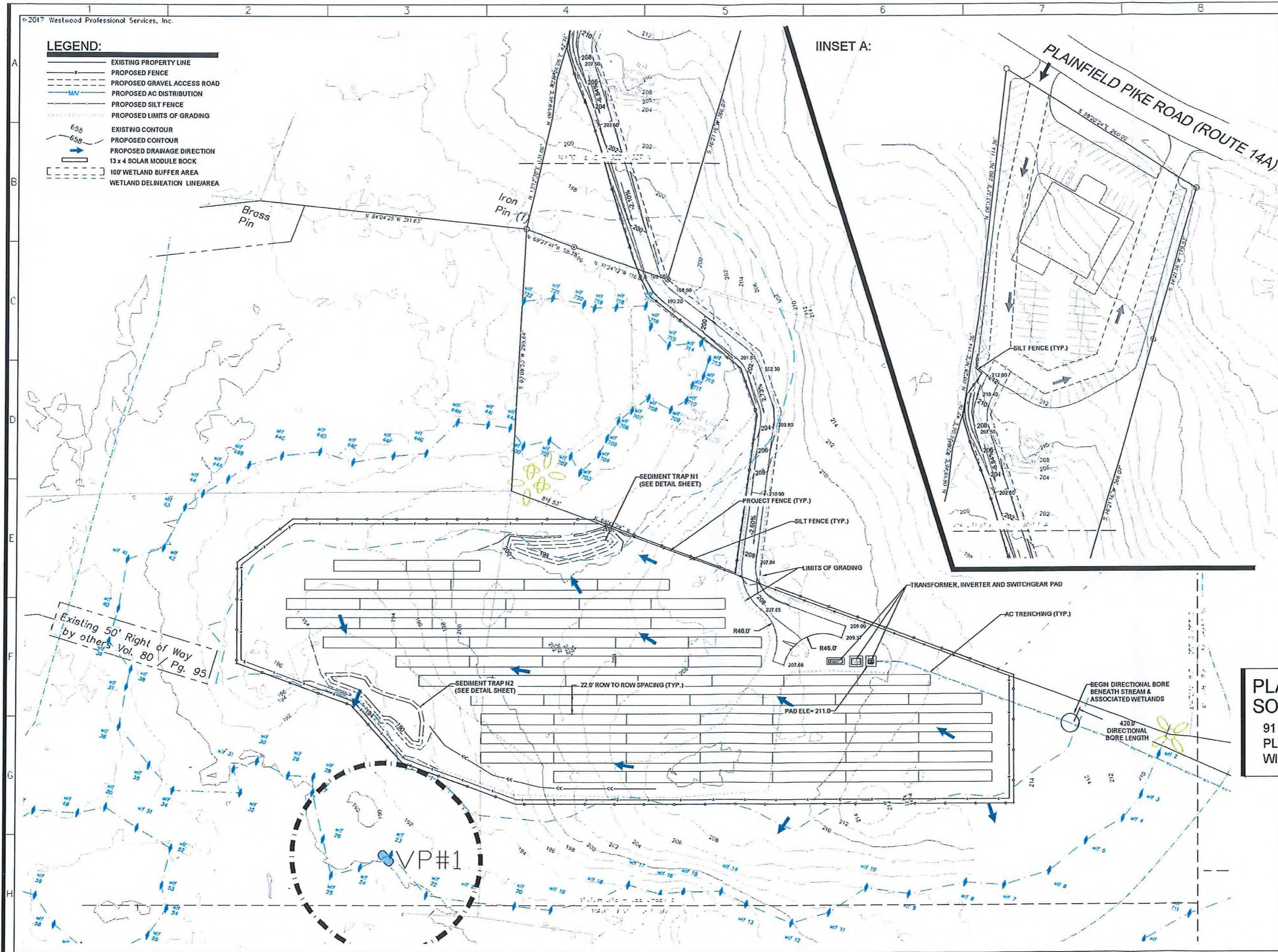


**PLAINFIELD PIKE SOLAR**  
 91 PLAINFIELD PIKE RD  
 PLAINFIELD, CT 06374  
 WINDHAM COUNTY

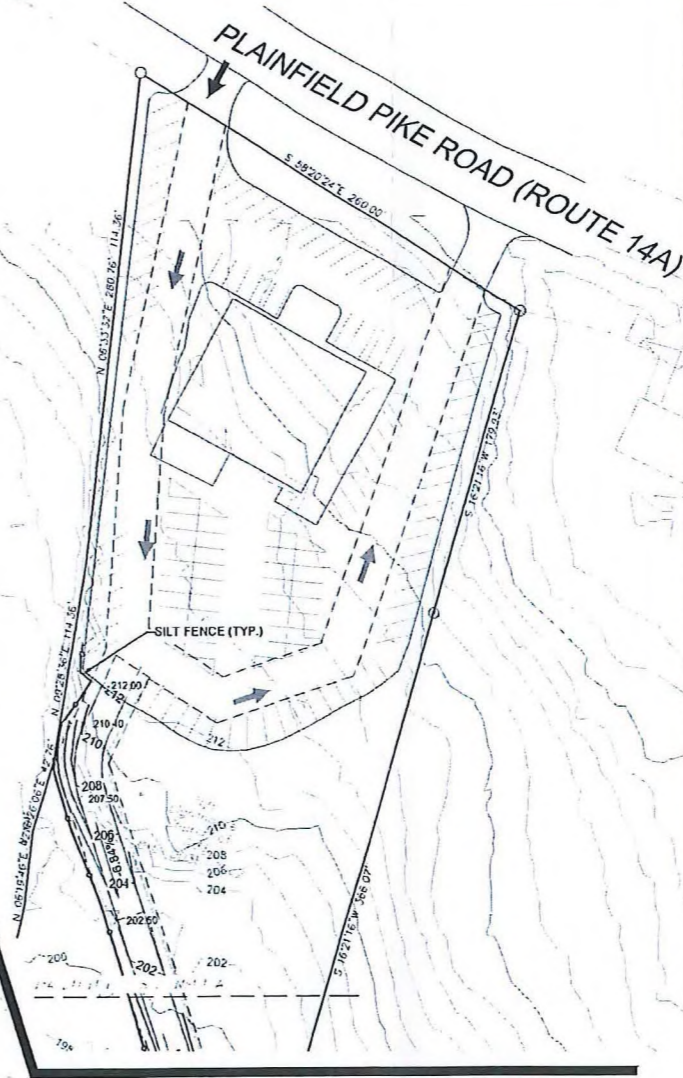
**NORTHWEST SITE & GRADING PLAN**

SITING BOARD REVIEW

DATE: 08/16/2017  
 SHEET: 8 of 17



**INSET A:**



- LEGEND:**
- EXISTING PROPERTY LINE
  - - - PROPOSED FENCE
  - - - PROPOSED GRAVEL ACCESS ROAD
  - - - PROPOSED AC DISTRIBUTION
  - - - PROPOSED SILT FENCE
  - - - PROPOSED LIMITS OF GRADING
  - 658 EXISTING CONTOUR
  - 658 PROPOSED CONTOUR
  - PROPOSED DRAINAGE DIRECTION
  - 13 x 4 SOLAR MODULE BOCK
  - 100' WETLAND BUFFER AREA
  - WETLAND DELINEATION LINE/AREA

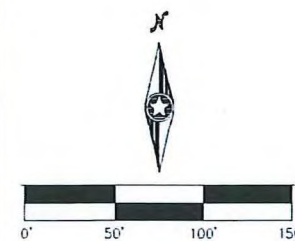


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Drawn	SJB

Record Drawings/Date

Revisions #	DATE	DESCRIPTION
-	3/15/2016	CT SITING BOARD SUBMISSION
-	4/26/2016	CT SITING BOARD COMMENTS
-	6/21/2016	CT SITING BOARD #1 REVISIONS
-	8/16/2017	CT SITING BOARD REVISED SUBMISSION

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**PLAINFIELD PIKE SOLAR**

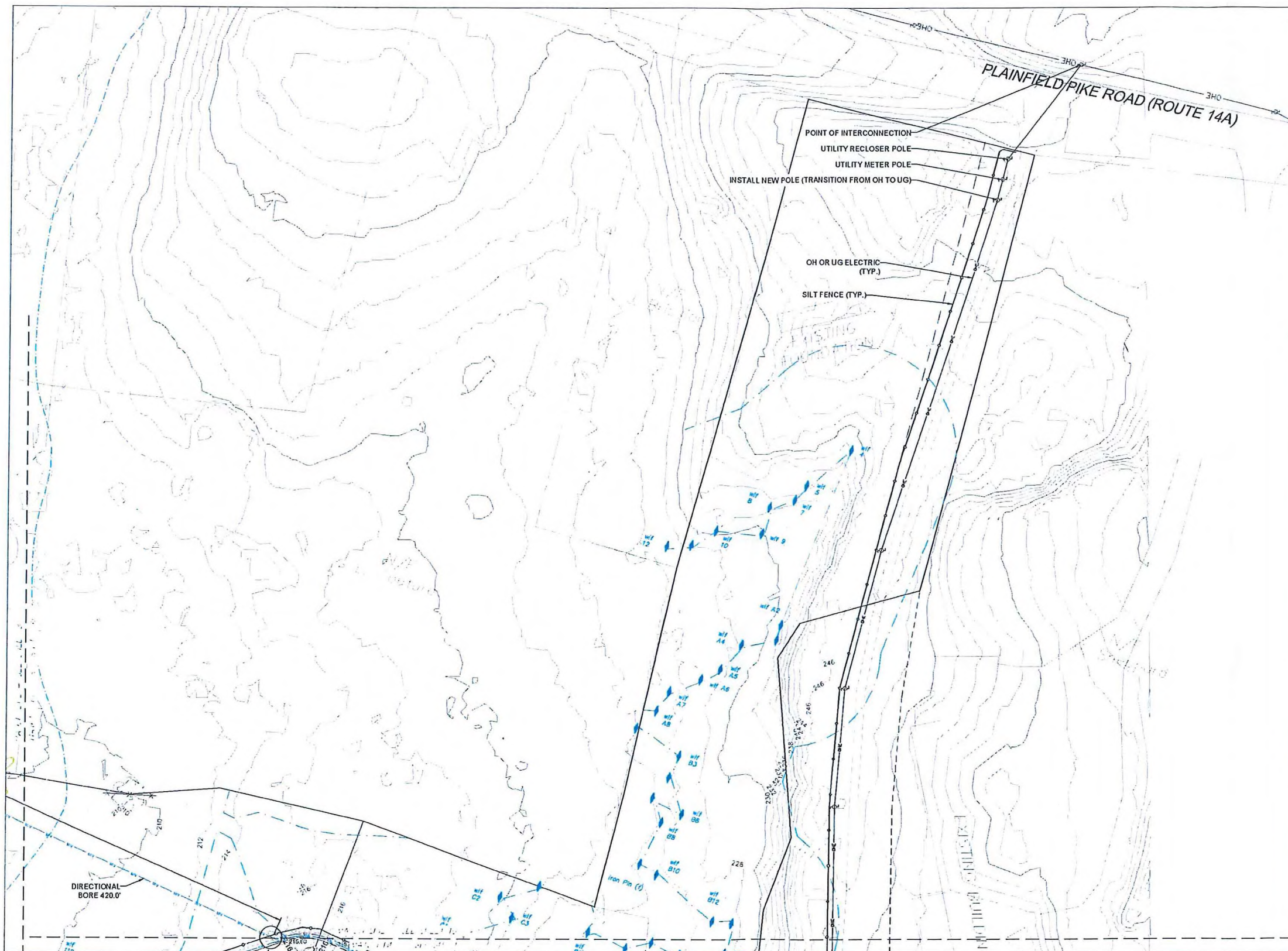
91 PLAINFIELD PIKE RD  
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 WINDHAM COUNTY

**NORTHEAST  
 SITE/GRADING/  
 EROSION CONTROL  
 PLAN**

SITING BOARD REVIEW

DATE: 08/16/2017

SHEET: 10 of 17





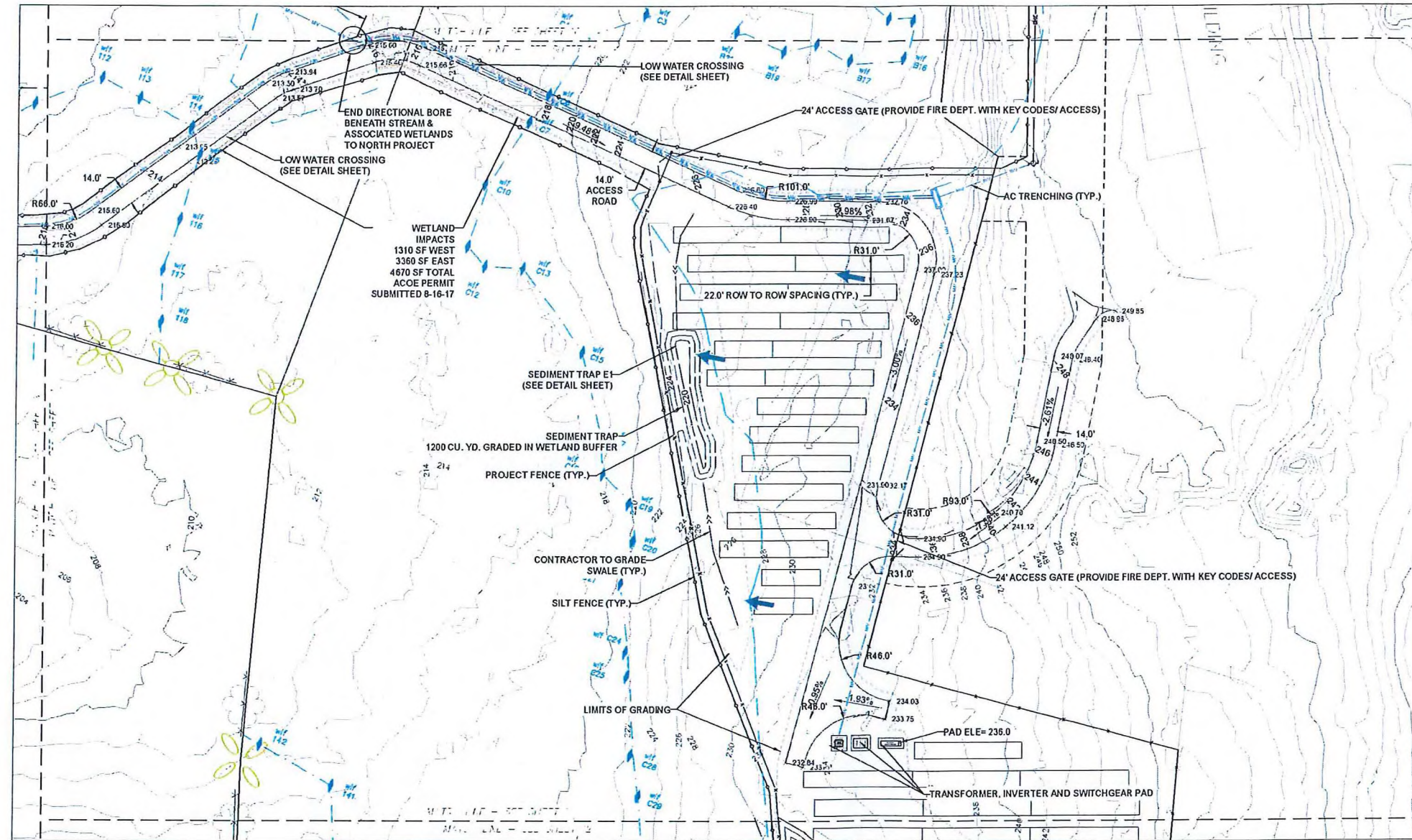
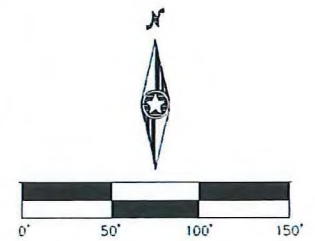
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Record Drawing by date

Revision #	DATE	DESCRIPTION
-	3/15/2016	CT SITING BOARD SUBMISSION
-	4/26/2016	CT SITING BOARD COMMENTS
-	6/21/2016	CT SITING BOARD (R2) REVISIONS
-	8/16/2017	CT SITING BOARD REVISED SUBMISSION

Prepared for

**ECOS ENERGY**  
 222 SOUTH 5TH STREET  
 SUITE 1600  
 MINNEAPOLIS, MN 55402



**PLAINFIELD PIKE SOLAR**  
 91 PLAINFIELD PIKE RD  
 PLAINFIELD, CT 06374  
 WINDHAM COUNTY

**EAST SITE/GRADING/  
 EROSION CONTROL  
 PLAN**

SITING BOARD REVIEW

DATE: 08/16/2017  
 SHEET: 11 of 17



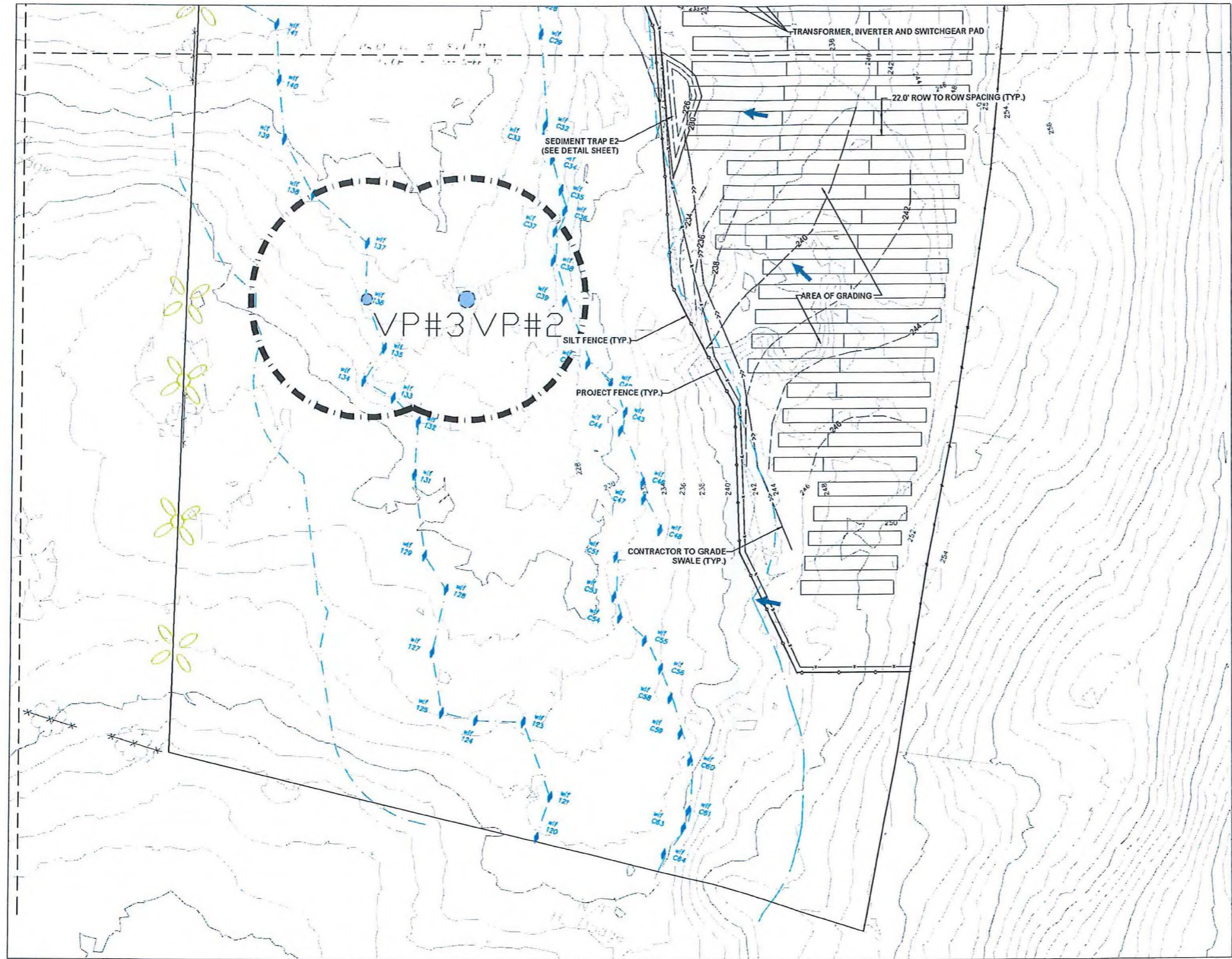
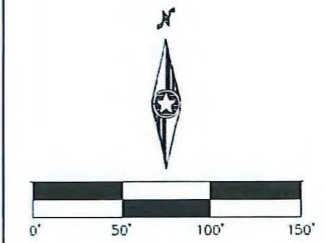
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Revisions

#	DATE	DESCRIPTION
1	2/15/2016	CT SITING BOARD SUBMISSION
2	4/26/2016	CT SITING BOARD COMMENTS
3	6/21/2016	CT SITING BOARD R3 REVISIONS
4	8/16/2017	CT SITING BOARD REVISED SUBMISSION

Prepared for

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**PLAINFIELD PIKE SOLAR**  
 91 PLAINFIELD PIKE RD  
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 WINDHAM COUNTY

**SOUTHEAST  
 SITE/GRADING/  
 EROSION CONTROL  
 PLAN**

SITING BOARD REVIEW

**SEEDING NOTES:**

1. THE CONTRACTOR SHALL HYDROSEED ALL DISTURBED AREAS ASSOCIATED WITH THE CONSTRUCTION OF THE SOLAR FACILITY. CONTRACTOR SHALL USE AN APPROVED LOW GROWTH LOW MAINTENANCE SEED MIX APPROVED BY THE APPROPRIATE GOVERNING AUTHORITY.

CONNECTICUT TURNPIKE (INTERSTATE 395)



**Westwood**


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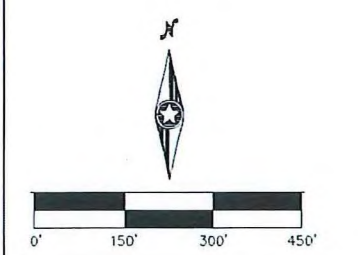
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Revision #	DATE	DESCRIPTION
-	3/15/2016	CT SITING BOARD SUBMISSION
-	4/26/2016	CT SITING BOARD COMMENTS
-	6/21/2016	CT SITING BOARD IR3 REVISIONS
-	8/16/2017	CT SITING BOARD REVISED SUBMISSION

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 222 SOUTH 9TH STREET  
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 MILWAUKEE, WI 53202



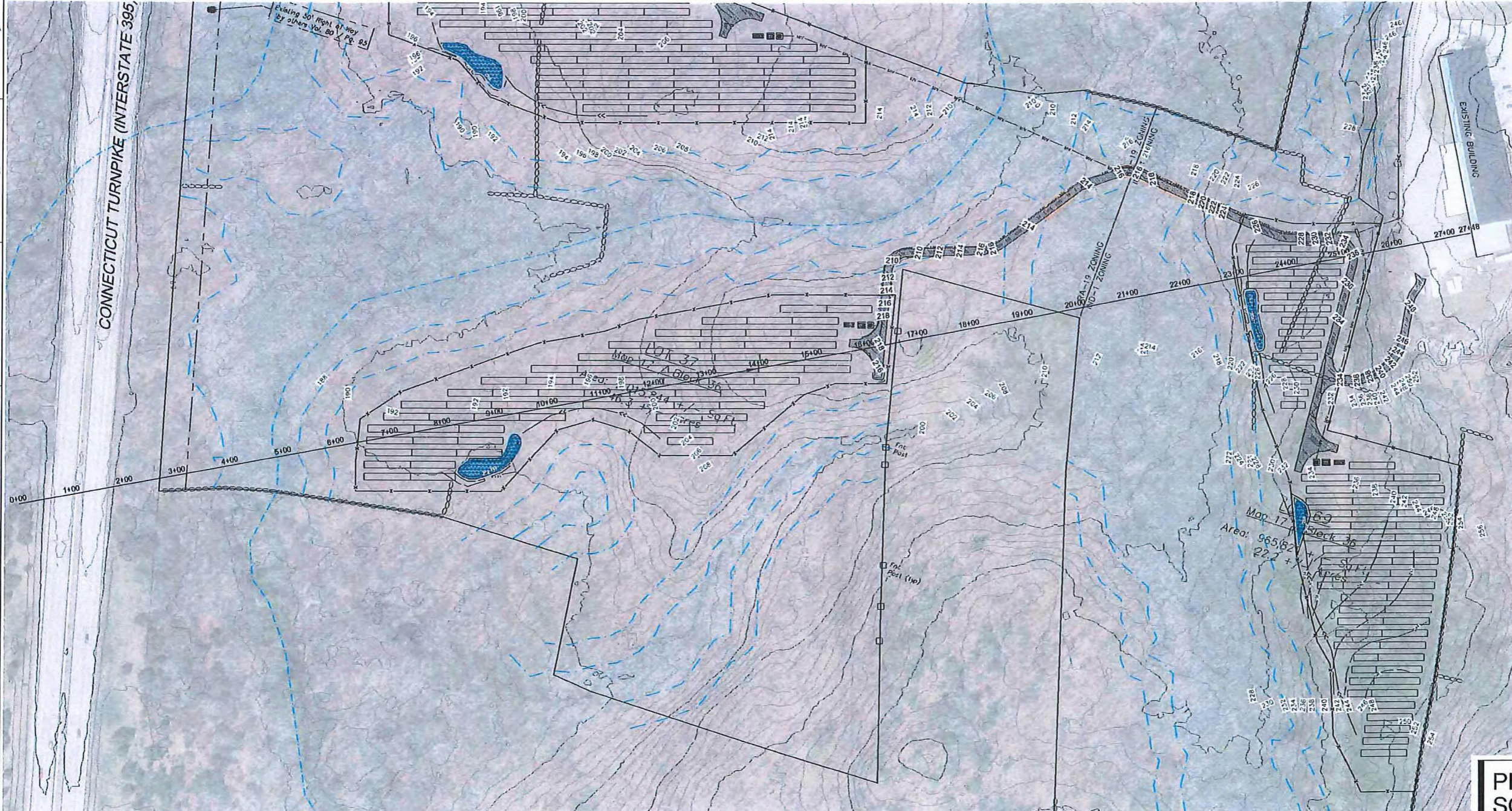
**PLAINFIELD PIKE SOLAR**  
 91 PLAINFIELD PIKE RD  
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 WINDHAM COUNTY

**LANDSCAPE PLAN**

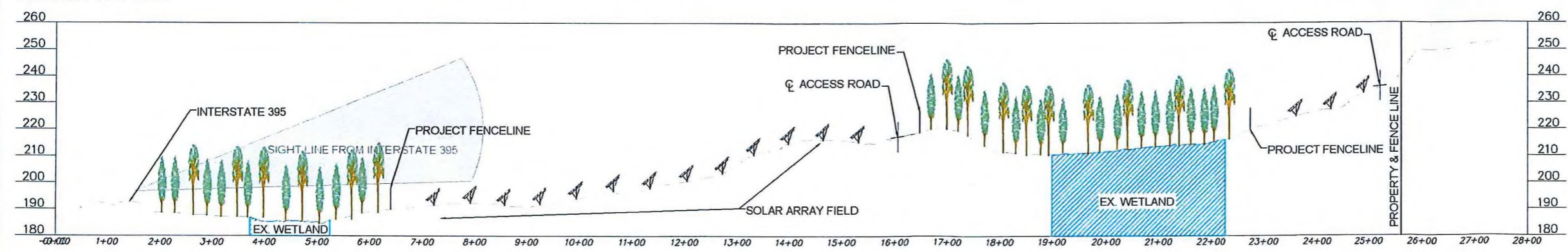
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DATE: 08/16/2017  
 SHEET: 13 of 17

**PROJECT CROSS SECTION:**



**PROJECT PROFILE:**



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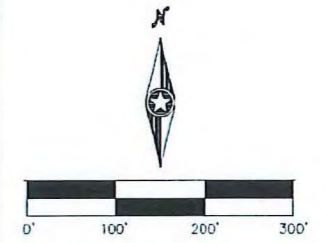
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-	3/15/2016	CT SITING BOARD SUBMISSION
-	4/26/2016	CT SITING BOARD COMMENTS
-	6/21/2016	CT SITING BOARD IR3 REVISIONS
-	8/16/2017	CT SITING BOARD REVISED SUBMISSION

Prepared for

**ecos ENERGY**  
 222 SOUTH 9TH STREET  
 SUITE 1600  
 MINNEAPOLIS, MN 55402



**PLAINFIELD PIKE SOLAR**  
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**PROJECT CROSS SECTION**

SITING BOARD REVIEW

DATE: 08/16/2017  
 SHEET: 14 of 17



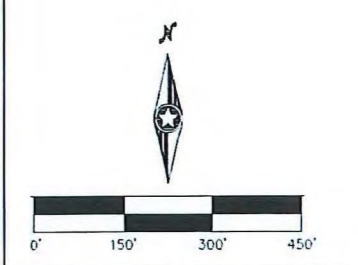


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Revisions #	DATE	DESCRIPTION
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-	8/16/2017	CT SITING BOARD REVISED SUBMISSION

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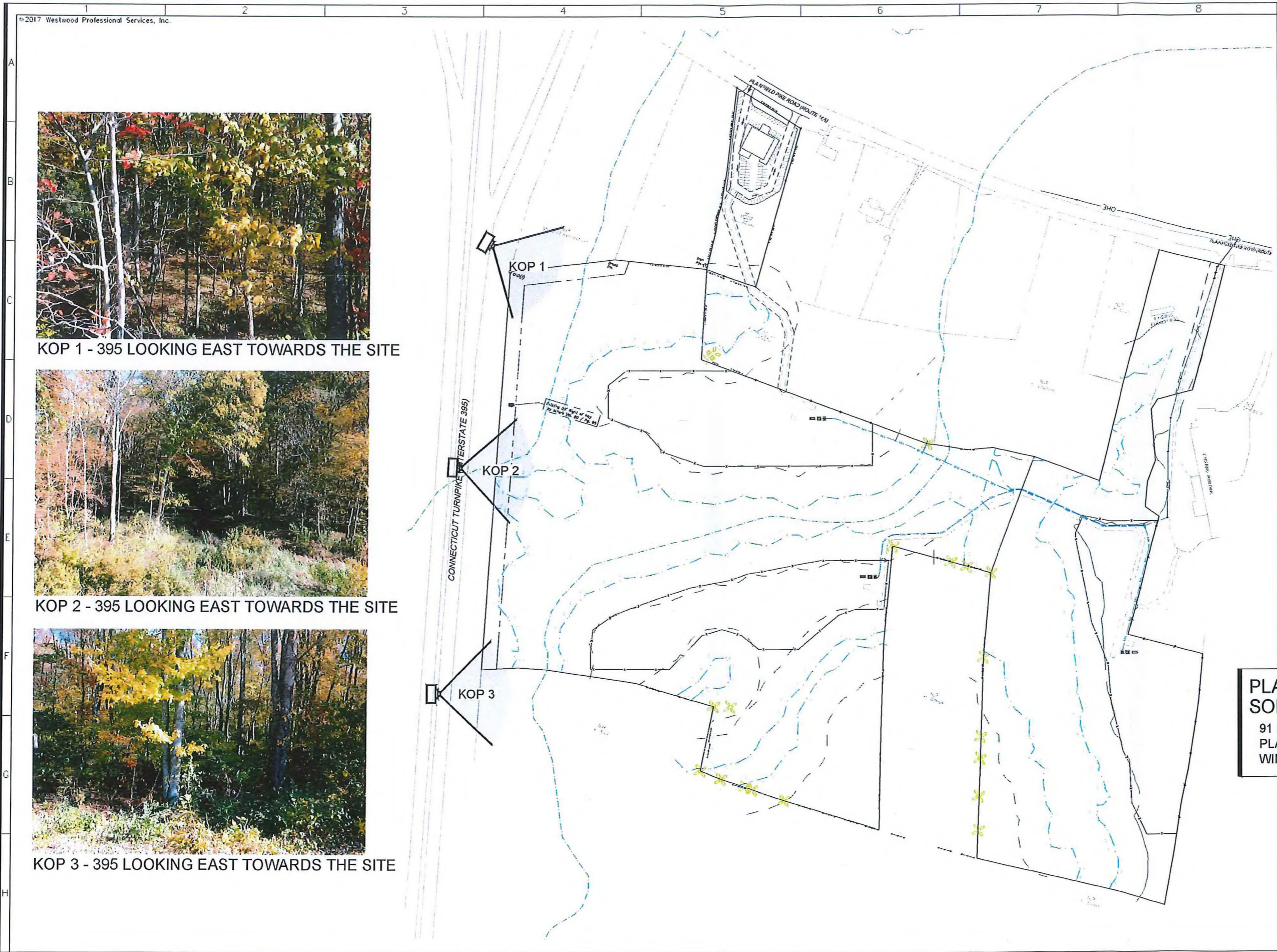
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**KEY OBSERVATION POINT PLAN**

SITING BOARD REVIEW  
 DATE: 08/16/2017  
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KOP 1 - 395 LOOKING EAST TOWARDS THE SITE



KOP 2 - 395 LOOKING EAST TOWARDS THE SITE



KOP 3 - 395 LOOKING EAST TOWARDS THE SITE

**ROAD DESIGN PARAMETERS**

- ROAD MAINTENANCE CAN BE EXPECTED OVER THE LIFE OF THE PERMANENT FACILITY.

**SPECIAL PROVISIONS FOR GRADING AND EROSION CONTROL**

THE CONTRACTOR SHALL PROVIDE EROSION CONTROL MEASURES AS PLANNED AND SPECIFIED FOLLOWING BEST MANAGEMENT PRACTICES AS OUTLINED BY THE STATE OF CONNECTICUT AND BEING IN CONFORMANCE WITH THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) GENERAL STORMWATER PERMIT. SEE THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) FOR EROSION CONTROL AND RESTORATION SPECIFICATIONS. UNLESS OTHERWISE NOTED OR MODIFIED HEREIN, ALL SECTIONS OF THE GENERAL CONDITIONS SHALL APPLY.

**EXECUTION**

- CLEARING AND GRUBBING
  - THE CONTRACTOR SHALL BE REQUIRED TO REMOVE ALL TREES, STUMPS, BRUSH, AND DEBRIS WITHIN THE GRADING LIMITS SHOWN ON THE PLANS. THE CONTRACTOR IS TO REMOVE ONLY THOSE TREES WHICH ARE DESIGNATED BY THE OWNER'S REPRESENTATIVE FOR REMOVAL, AND SHALL EXERCISE EXTREME CARE AROUND EXISTING TREES TO BE SAVED.
- TOPSOIL STRIPPING
  - TOPSOIL SHALL BE STRIPPED FROM ALL ROADWAY AREAS THROUGH THE ROOT ZONE. TOPSOIL SHALL NOT BE STRIPPED OUTSIDE OF THE DESIGNATED DISTURBANCE AREAS.
  - ANY TOPSOIL, THAT HAS BEEN STRIPPED, SHALL BE RE-SPREAD OR STOCKPILED WITHIN GRADING AREAS AND/OR USED AS FILL OUTSIDE OF THE DISTURBANCE AREAS, AS DIRECTED BY THE ENGINEER.
- EMBANKMENT CONSTRUCTION
  - EMBANKMENT CONSTRUCTION SHALL CONSIST OF THE PLACING OF SUITABLE FILL MATERIAL, AFTER TOPSOIL STRIPPING, ABOVE THE EXISTING GRADE. GENERALLY, EMBANKMENTS SHALL HAVE COMPACTED SUPPORT SLOPES OF TWO AND A HALF FEET HORIZONTAL TO ONE FOOT VERTICAL. THE MATERIAL FOR EMBANKMENT CONSTRUCTION SHALL BE OBTAINED FROM THE ACCESS ROAD EXCAVATION (SEE GEOTECHNICAL REPORT FOR RESTRICTIONS), OR ANY SUITABLE, APPROVED SOIL OBTAINED OFFSITE BY CONTRACTOR, AS DIRECTED OR APPROVED BY THE ENGINEER. THIS MATERIAL SHALL BE PLACED IN LIFTS NOT TO EXCEED 9".
  - SIDE SLOPES GREATER THAN 2.5:1 WILL NOT BE PERMITTED, UNLESS OTHERWISE NOTED ON THE PLAN.

**TESTING REQUIREMENTS:**

- TESTING SHALL BE PERFORMED BY A DESIGNATED INDEPENDENT TESTING AGENCY.
- SUBMIT TESTING AND INSPECTION RECORDS SPECIFIED TO THE CIVIL ENGINEER OF RECORD FOR REVIEW.
  - THE ENGINEER WILL REVIEW THE TESTING AND INSPECTION RECORDS TO CHECK CONFORMANCE WITH THE DRAWINGS AND SPECIFICATIONS. THE ENGINEER'S REVIEW DOES NOT RELIEVE THE CONSTRUCTION CONTRACTOR FROM THE RESPONSIBILITY FOR CORRECTING DEFECTIVE WORK.
- PROOF ROLLING:
  - PROOF-ROLLING SHALL BE PERFORMED IN THE PRESENCE OF THE GEOTECHNICAL ENGINEER OR QUALIFIED GEOTECHNICAL REPRESENTATIVE USING A FULLY LOADED TANDEM AXLE DUMP TRUCK WITH A MINIMUM GROSS WEIGHT OF 25 TONS OR A FULLY LOADED WATER TRUCK WITH AN EQUIVALENT AXLE LOADING. PROOF-ROLLING ACCEPTANCE STANDARDS INCLUDE NO RUTTING GREATER THAN 1.5 INCHES, AND NO "PUMPING" OF THE SOIL BEHIND THE LOADED TRUCK.
- SIEVE ANALYSIS:
  - SIEVE ANALYSIS SHALL BE CONDUCTED IN ACCORDANCE WITH AASHTO T27
- PROCTOR:
  - PROCTORS SHALL BE DETERMINED IN ACCORDANCE WITH ASTM D-1557
- ATTERBERG LIMITS:
  - ATTERBERG LIMITS SHALL BE DETERMINED IN ACCORDANCE WITH AASHTO T89 AND T90
- MOISTURE DENSITY (NUCLEAR DENSITY):
  - MOISTURE DENSITY TESTING SHALL BE DONE IN ACCORDANCE WITH AASHTO T310

**SUBGRADE COMPACTION, TEST ROLLING AND AGGREGATE BASE COMPACTION:**

- FILL MATERIAL:
  - SOILS USED AS FILL MATERIAL SHALL BE TESTED FOR GRAIN SIZE ANALYSIS, MOISTURE CONTENT, ATTERBERG LIMITS ON FINES CONTENT, AND PROCTOR TESTS (MODIFIED DRY MAXIMUM DENSITY).
    - FOR PLACED & COMPACTED FILLS, PROVIDE ONE COMPACTION TEST PER LIFT FOR EVERY 1000 FT OF ROAD LENGTH. INCLUDE THE LOCATION, DRY DENSITY, MOISTURE CONTENT, AND COMPACTION PERCENT BASED ON MODIFIED PROCTOR MAXIMUM DRY DENSITY.
  - IN ROADWAY CUT AREAS, OR WHERE EMBANKMENT CONSTRUCTION REQUIRES LESS THAN 12 INCHES OF FILL PLACEMENT, COMPACT TO A MINIMUM OF 95 PERCENT OF THE MATERIAL'S MODIFIED PROCTOR MAXIMUM DRY DENSITY.
- COMPACTED SUBGRADE:
  - THE ENTIRE SUBGRADE SHALL BE PROOF-ROLLED PRIOR TO THE PLACEMENT OF THE AGGREGATE BASE TO IDENTIFY AREAS OF UNSTABLE SUBGRADE.
  - IF PROOF ROLLING DETERMINES THAT THE SUBGRADE STABILIZATION CANNOT BE ACHIEVED, THE FOLLOWING ALTERNATIVES WILL BE IMPLEMENTED:
    - REMOVE UNSUITABLE MATERIAL AND REPLACE WITH SUITABLE EMBANKMENT.
    - SCARIFY, DRY, AND RECOMPACT SUBGRADE AND PERFORM ADDITIONAL PROOF ROLL.
    - INCREASE ROAD BASE THICKNESS.
  - PROVIDE 1 MOISTURE DENSITY COMPACTION TESTS FOR EVERY 1000 L.F. OF ROAD LENGTH. COMPACTED SUBGRADE MUST BE COMPACTED TO A MINIMUM OF 95% MODIFIED PROCTOR MAXIMUM DRY DENSITY AT ±3% OF OPTIMUM MOISTURE CONTENT FOR GRANULAR SOILS AND AT ±1 TO +3% OF OPTIMUM MOISTURE CONTENT FOR COHESIVE SOILS.
- AGGREGATE BASE:
  - AGGREGATE BASE SHALL BE PROOF-ROLLED OVER THE ENTIRE LENGTH. PROVIDE 1 SIEVE ANALYSIS PER 2500 CY OF ROAD BASE PLACED.
    - IF PROOF ROLLING DETERMINES THAT THE ROAD IS UNSTABLE, ADDITIONAL AGGREGATE SHALL BE ADDED UNTIL THE UNSTABLE SECTION IS ABLE TO PASS A PROOF ROLL.

LOCATION	TEST	FREQUENCY
STRUCTURAL FILL	GRAIN SIZE ANALYSIS, MOISTURE CONTENT, ATTERBERG LIMITS ON FINES CONTENT, AND PROCTOR	1 PER MAJOR SOIL TYPE
	MOISTURE DENSITY	1 PER 2,000 CY OR MIN 1 PER LIFT
COMPACTED SUBGRADE	PROOF-ROLL	ENTIRE LENGTH
	MOISTURE DENSITY TEST (NUCLEAR DENSITY)	1 PER 1,000 FT OR MIN 5 FOR THE SITE
AGGREGATE BASE	PROOF-ROLL	ENTIRE LENGTH
	SIEVE ANALYSIS	1 PER 2,500 CY

**GENERAL NOTES:**

- THE PLANIMETRIC FEATURES, GROUND SURFACE CONTOURS ON A LIDAR SURFACE PROVIDED NOAA.
- NO GRADING OR SOIL DISTURBANCE IS PERMITTED OUTSIDE OF THE GRADING LIMITS IDENTIFIED ON THE PLANS.
- GRADE ALL PROPOSED ROADS TO THE SLOPES PROPOSED ON THE PLANS.
- THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING DRAINAGE THROUGHOUT THE CONSTRUCTION OF THIS PROJECT. CONSTRUCTION ACTIVITIES SHALL NOT BLOCK THE NATURAL OR MANMADE CREEKS OR DRAINAGE SWALES CAUSING RAINWATER TO POND. ADDITIONAL CULVERTS IN EXCESS OF THOSE ON THE PLANS MAY BE REQUIRED AS APPROVED BY THE ENGINEER.
- THE CONTRACTOR SHALL NOTIFY DIGSAFE AT LEAST 48 HOURS BEFORE EXCAVATION ACTIVITIES COMMENCE.
- WETLAND INFORMATION SHOWN ON THE PLAN WAS PROVIDED BY ROB HELLSTROM LAND SURVEYING AND FLAGGED BY HIGHLANDS SOILS. THE GENERAL CONTRACTOR SHALL VERIFY THAT ALL WETLAND PERMITS HAVE BEEN SUBMITTED AND APPROVED PRIOR TO CONSTRUCTION COMMENCING.
- ELECTRICAL COLLECTION SYSTEM SHOWN ON THE PLAN SHALL BE CONSIDERED PRELIMINARY. CONTRACTOR SHALL REFER TO FINAL ELECTRICAL DESIGN PLANS FOR ACTUAL DESIGN LOCATIONS.

**STORMWATER POLLUTION PREVENTION PLAN (SWPPP):**

- REFER TO THE SWPPP BOOKLET FOR SEDIMENT AND EROSION CONTROL PROCEDURES, LOCATIONS OF BMPs, DETAILS, AND INSPECTION INFORMATION.
- ALL AREAS DISTURBED DURING CONSTRUCTION ACTIVITIES AND NOT COVERED BY ROAD SURFACING MATERIALS, SHALL BE SEEDDED IN ACCORDANCE WITH THE SWPPP PLAN.
- TEMPORARY EROSION CONTROL SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE TEMPORARY EROSION CONTROL PLAN SHALL BE IN ACCORDANCE WITH STATE OF CONNECTICUT, THE EPA, AND THE SWPPP ON FILE.

**SLOPE STABILIZATION:**

ALL AREAS DESIGNATED ON THE PLAN FOR SLOPE STABILIZATION SHALL BE GRADED AND COMPACTED, SMOOTH AND CLEAN TO THE FINISH CONTOURS SHOWN ON THE PLAN, WITH A MINIMUM OF 4 INCHES OF TOPSOIL PLACED ON THE AREA. STABILIZATION SHALL BE ACHIEVED IN ONE OF TWO MANNERS:

- EITHER: 1) HAND-PLACED RIPRAP  
OR:  
2) SEED WITH EROSION CONTROL AND REVEGETATION MAT (ECRM)

**1. PLACEMENT OF RIP-RAP**

RIPRAP HAND PLACED. HAND-PLACED RIPRAP SHALL CONSIST OF ROUGH UNHEWN QUARRY STONES, APPROXIMATELY RECTANGULAR, PLACED DIRECTLY ON THE SPECIFIED SLOPES OR SURFACES. IT SHALL BE SO LAID THAT THE WEIGHT OF THE LARGE STONES IS CARRIED BY THE SOIL RATHER THAN BY ADJACENT STONES. STONES SHALL WEIGH BETWEEN 50 AND 150 LB. EACH AND AT LEAST 60 % OF THEM SHALL WEIGH MORE THAN 100 LB. EACH WHEN USED ON EMBANKMENT CONSTRUCTION. RIP RAP FOR BMPs SHALL BE 6"-8" DIA. PREPARATION FOR HAND-PLACED RIP RAP. BEFORE ANY RIP RAP IS PLACED, THE SURFACE TO BE COVERED SHALL BE FULLY COMPACTED AND GRADED TO THE REQUIRED SLOPE. PLACE MIRAFITM8 OR APPROVED EQUAL GEOTEXTILE ON SLOPE. RIP RAP ON SLOPES SHALL COMMENCE COMMENCE IN A TRENCH BELOW THE TOW OF THE SLOPE AND SHALL PROGRESS UPWARD, EACH STONE BEING LAID BY HAND PERPENDICULAR TO THE SLOPE WITH THE LONG DIMENSION VERTICAL, FIRMLY BEDDED AGAINST THE SLOPE AND AGAINST THE ADJOINING STONE, WITH ENDS IN CONTACT, AND WITH WELL-BROKEN JOINTS. SIMILAR METHODS SHALL BE USED WHEN LAYING RIPRAP ON STREAM BEDS, IN DITCHES, AND ON LEVEL SURFACES.

THE FINISHED SURFACE OF THE RIPRAP SHALL PRESENT AN EVEN, TIGHT SURFACE, NOT LESS THAN 12 INCHES THICK, MEASURED PERPENDICULAR TO THE SLOPE.

THE STONES WEIGHING MORE THAN 100 LB. SHALL BE WELL DISPERSED THROUGHOUT THE AREA WITH THE 50-100 LB. STONES LAID BETWEEN THEM IN SUCH A MANNER THAT ALL STONES WILL BE IN CLOSE CONTACT. THE REMAINING VOIDS SHALL BE FILLED WITH SPALLS OF SUITABLE SIZE AND WELL TAMPED TO PRODUCE A FIRM AND COMPACT REVETMENT.

**2. STABILIZATION WITH EROSION CONTROL AND REVEGETATION MAT (ECRM)**

- AREA MUST BE GRADED SMOOTH AND CLEAN TO FINISH GRADES, AND COMPACTED.

- SEED AND MULCH AREA. USE SEED MIX APPROVED BY THE ENGINEER.

- INSTALL ECRM PER MANUFACTURER'S INSTRUCTIONS, HOWEVER THESE MUST INCLUDE THE FOLLOWING MINIMUM REQUIREMENTS:

A) GRADE GROUND TO FINISH CONTOURS. REMOVE ALL ROCKS, DIRT CLOUDS, STUMPS, ROOTS, TRASH, AND OTHER OBSTRUCTIONS LYING IN DIRECT CONTACT WITH THE SOIL SURFACE.

B) DIG MAT ANCHOR TRENCHES (MINIMUM 12" DEEP, 6" WIDE) AT TERMINAL ENDS AND PERIMETER SIDES WHERE MAT IS TO BE INSTALLED.

C) INSTALL MAT BY ROLLING UPHILL PARALLEL TO WATER FLOW, STARTING AT TRENCH. OVERLAP ROLLS BY MINIMUM OF 3". FASTEN TO GROUND WITH 18" PINS AND 1 1/2" WASHERS, OR EQUIVALENT. PIN MAT AT ENDS, AND EVERY 3' TO 5' ALONG OVERLAPS. DO NO STRETCH MAT. SPLICING ROLLS SHOULD BE DONE IN A CHECK SLOT. BACKFILL TO COVER ENDS AND FASTENERS, ROLLING MAT ACROSS BACKFILL AND PIN AGAIN.

FOR MAT USE MIRAFI MIRAMAT TM8 OR EQUIVALENT.

**SEEDING:**

- COMPOSITION OF SEED MIX CHANGES YEARLY. SEED SPECIFICATIONS MUST BE SUBMITTED TO ENGINEER 2 WEEKS PRIOR TO INSTALLATION. ALL SPECIES MUST BE NATIVE TO WORCESTER COUNTY.
- RESTORED AREAS TO BE SEEDDED WITH ABOVE MIX OR EQUAL (SUBJECT TO ENGINEERS APPROVAL). SEED TO BE LIGHTLY RAKED TO ALLOW FOR PROPER SEED/SOIL CONTACT.
- CONTRACTOR SHALL OVERSEED AND/OR RE-MULCH AS NECESSARY TO ESTABLISH A GOOD COVER OF VEGETATION, WHETHER DUE TO POOR INITIAL COVER, INCLEMENT WEATHER BEFORE/DURING/AFTER SEEDING, OR THE ONSET OF WINTER.
- RILLING, GULLIES, OR OTHER EROSION DUE TO POOR COVER SHALL BE RAKED AND/OR REFILLED AND REMULCH/RESEEDDED.
- CONTRACTOR SHALL WARRANT SEEDING, MULCHING AND EROSION CONTROL FABRIC FOR ONE YEAR FROM THE SUBSTANTIAL COMPLETION OF THE RELEVANT AREA OF WORK.

**INVASIVE SPECIES:**

- ALL EQUIPMENT SHALL BE INSPECTED UPON ARRIVAL. EQUIPMENT ARRIVING WITH OBSERVABLE SOIL OR PLANT FRAGMENTS WILL BE REMOVED AND CLEANED.
- HAY BALES ARE NOT TO BE USED ON SITE; ONLY WEED-FREE STRAW BALES ARE APPROVED.
- OFF-SITE TOPSOIL MUST BE FREE OF INVASIVE SPECIES. THE ENGINEER SHALL BE NOTIFIED OF THE TOPSOIL SOURCE 6 WEEKS BEFORE DELIVERY.

**Westwood**

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Drawn: SJB

**Record Drawing by Date**

Revisions #	DATE	DESCRIPTION
-	2/15/2016	CT SITING BOARD SUBMISSION
-	4/24/2016	CT SITING BOARD COMMENTS
-	6/21/2016	CT SITING BOARD/R2 REVISIONS
-	6/16/2017	CT SITING BOARD REVISED SUBMISSION

Prepared for:



**PLAINFIELD PIKE SOLAR**

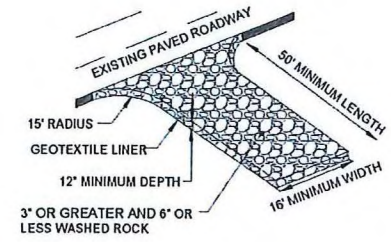
91 PLAINFIELD PIKE RD  
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**CIVIL AND EROSION CONTROL NOTES**

**SITING BOARD REVIEW**

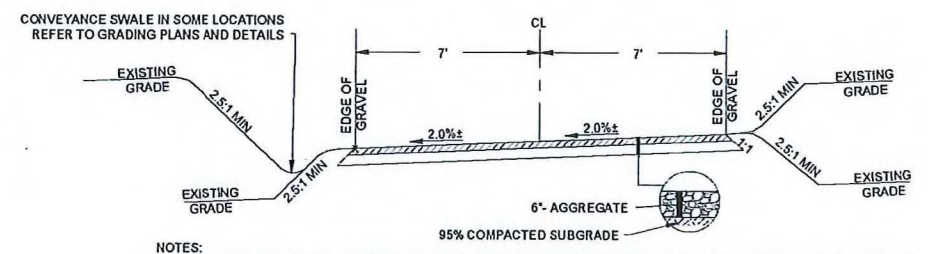
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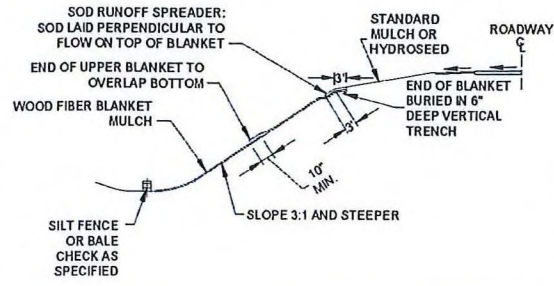
**NOTE:**  
 ROCK CONSTRUCTION ENTRANCE SHOULD BE A MINIMUM THICKNESS OF 1.0' AND CONTAIN MAXIMUM SIDE SLOPES OF 4:1. ROCK ENTRANCE SHOULD BE INSPECTED AND MAINTAINED REGULARLY. ROCK ENTRANCE LENGTH MAY NEED TO BE EXTENDED IN CLAY SOILS.

**ROCK CONSTRUCTION ENTRANCE**



**NOTES:**  
 1. CONTRACTOR TO SUBCUT ROADWAY TO EXISTING GRADE ELEVATION TO MAINTAIN EXISTING SITE DRAINAGE PATTERNS WHEREVER POSSIBLE.  
 2. IN FILL LOCATIONS CONTRACTOR TO GRADE TOE OF SLOPE TO EXISTING GRADE, AND MAINTAIN NATURAL DRAINAGE PATTERNS.  
 3. IN CUT LOCATIONS CONTRACTOR TO CREATE SWALE ON DOWNSTREAM SIDE, REFER TO GRADING PLANS FOR DETAILS.  
 4. CONTRACTOR TO COMPACT AGGREGATE TO 95% MAXIMUM DRY DENSITY.  
 5. REFER TO GEOTECHNICAL RECOMMENDATIONS FOR ADDITIONAL ROADWAY SECTION DESIGN INFORMATION.

**ACCESS ROAD DETAIL**



**EROSION CONTROL BLANKET INSTALLATION ON AN INSLOPE (WHEN REQUIRED)**

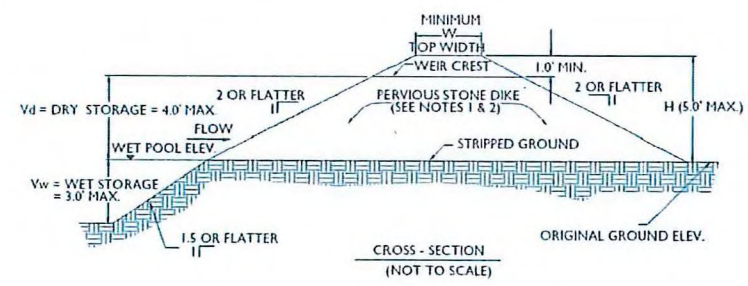
CATEGORY	SLOPE	VELOCITY
1	FLAT	< 5.0 fps
2	3:1	< 6.5 fps
3	3:1	< 7.0 fps
4	3:1	< 7.0 fps

CATEGORY	ACCEPTABLE TYPES
1	STRAW RD 1S, WOOD FIBER RD 1S
2	STRAW 1S, WOOD FIBER 1S
3	STRAW 2S, WOOD FIBER 2S
4	STRAW/COCONUT 2S, WOOD FIBER HV 2S

**THE LETTERING DESIGNATION SHALL BE DEFINED AS FOLLOWS:**  
 1S - NETTING ON ONE SIDE  
 RD - RAPIDLY DEGRADABLE  
 2S - NETTING ON TWO SIDES  
 HV - HIGH VELOCITY

**EROSION CONTROL BLANKET**



**TOP WIDTH VS. HEIGHT**  
 H = HEIGHT OF EMBANKMENT  
 W = TOP WIDTH OF EMBANKMENT

H (ft)	W (ft)
1.5	2.0
2.0	2.0
2.5	2.5
3.0	2.5
3.5	3.0
4.0	3.0
4.5	4.0
5.0	4.5

**1. PERVIOUS STONE DIKE SHALL BE CONSTRUCTED OF CT DOT MODIFIED RIPRAP WITH #3 STONE ON FACE.**  
**2. NON-OVERFLOW PORTIONS AND ABUTMENTS OF TEMPORARY SEDIMENT TRAPS MAY BE CONSTRUCTED OF COMPACTED EARTHFILL.**

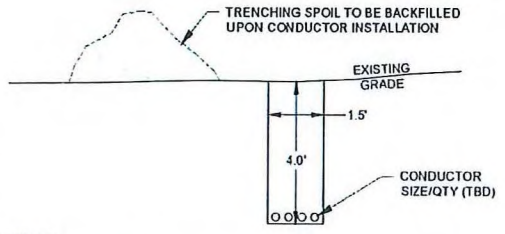
**TEMPORARY SEDIMENT TRAP**

**UTILITY PADS CONCRETE SECTION**

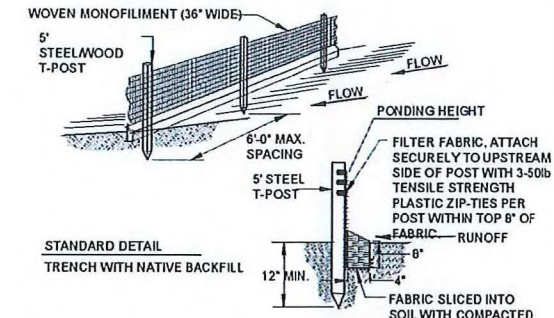
**NOTES:**  
 REBAR 3" FROM ALL EDGES & CUTOUTS. 3" SPACING ON FIRST THREE PERIMETER REBARS. 12" ON ALL OTHER INTERIOR.  
 3,000 PSI CONCRETE. TOP TO BE SMOOTH AND LEVEL. TOP EDGES TO HAVE 1" BEVEL.  
 FINAL PAD DESIGN DEPENDENT ON FINAL EQUIPMENT WEIGHT AND STRUCTURAL ENGINEERS DETERMINATION.

BMP	DRAINAGE AREA	REQUIRED TRAP CAPACITY	BOTTOM AREA	BOTTOM ELEVATION	OVERFLOW AREA	OVERFLOW ELEVATION	WET STORAGE	WIER LENGTH	TOP AREA	TOP BASIN	DRY STORAGE	PROPOSED TRAP CAPACITY	EXCESS TRAP CAPACITY
(ID#)	AC	CU.YD.	SF	FT	SF	FT	CU.YD.	FT	SF	FT	CU.YD.	CU.YD.	CU.YD.
N1	2.9	394	625	194	2560	199	295	20	3700	200	116	411	17
N2	1.8	245	2100	190	3300	193	300	20	4600	194	146	446	201
S1	3.0	402	2100	185	4270	189	472	20	4960	190	171	643	241
E1	2.2	301	600	220	2500	223	172	20	3300	225	215	387	86
E2	3.2	431	900	226	2900	229	211	20	3500	231	237	448	17

**TRENCHING DETAIL**

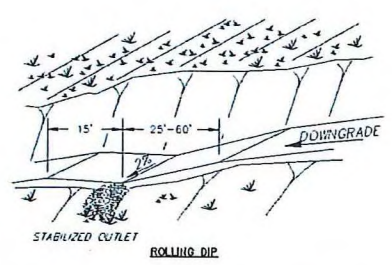


**NOTES:**  
 1. CONDUCTOR CLEARANCES DEPENDENT ON GEOTECHNICAL PARAMETERS AND ELECTRICAL DESIGN.  
 2. CONDUCTOR SIZING AND QUANTITIES PER TRENCH DEPENDENT ON FINAL ELECTRICAL DESIGN TRENCH DIMENSIONS.



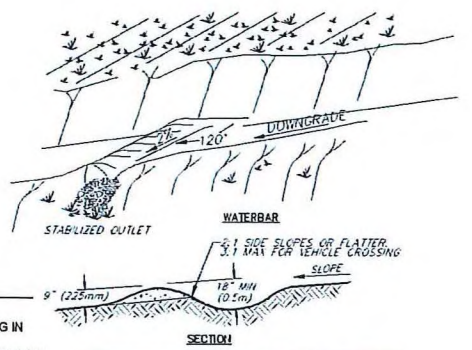
**NOTE:**  
 1. INSPECT AND REPAIR FENCE AFTER EACH STORM EVENT AND REMOVE SEDIMENT WHEN ACCUMULATED TO 1/3 THE HEIGHT OF THE FABRIC OR MORE.  
 2. REMOVED SEDIMENT SHALL BE DEPOSITED TO AN AREA THAT WILL NOT CONTRIBUTE SEDIMENT OFF-SITE AND CAN BE PERMANENTLY STABILIZED.  
 3. SILT FENCE SHALL BE PLACED ON SLOPE CONTOURS TO MAXIMIZE PONDING EFFICIENCY.  
 4. ALL ENDS OF THE SILT FENCE SHALL BE WRAPPED UPSLOPE SO THE ELEVATION OF THE BOTTOM OF FABRIC IS HIGHER THAN "PONDING HEIGHT".

**SILT FENCE**



**NOTE:**  
 1. CONTRACTOR HAS THE ABILITY DEPENDING ON FIELD LOCATED GRADE AND GRADE TRANSITIONS TO INSTALL ROLLING DIPS OR WATERBARS AT THE RECOMMENDED SPACING IN TABLE 1.  
 2. ROLLING DIPS AND WATERBARS WILL REQUIRE MAINTENANCE FOLLOWING RAINFALL EVENTS TO ENSURE FUNCTIONALITY.  
 3. THE ROLLING DIPS AND WATERBARS SHOULD BE BUILT AT AN ANGLE OF 45° TO 60° FROM THE CENTERLINE.  
 4. THE DIVERSION SHOULD HAVE A POSITIVE GRADE OF 2% MINIMUM.  
 5. FOR ROLLING DIPS, THE HEIGHT FROM CHANNEL BOTTOM TO THE TOP OF THE SETTLED RIDGE SHALL BE 18 INCHES AND THE SIDE SLOPES OF THE RIDGE SHALL BE 2:1 OR FLATTER.  
 6. STABLE OUTLETS SHALL EITHER BE AN EXTENSION OF AN ADJACENT SWALE, OR 2 CU. YD. 6" RIP RAP AT OTHER LOCATIONS.  
 7. SEDIMENT SHALL BE REMOVED FROM THE FLOW AREA THROUGHOUT THE DURATION OF THE PROJECT. REFER TO THE PROJECTS STORMWATER O&M MANUAL.

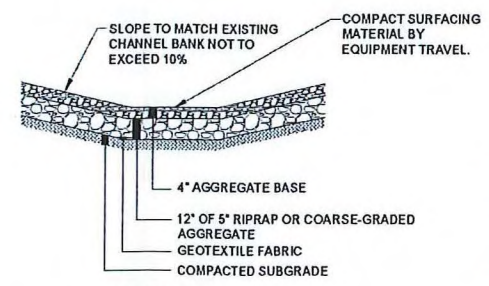
**ROLLING DIP AND WATERBAR**



**TABLE 1: ROLLING DIP AND WATERBAR SPACING RECOMMENDATIONS**

SLOPE (%)	SPACING (FT)
<5	125
5-10	100
10-20	75

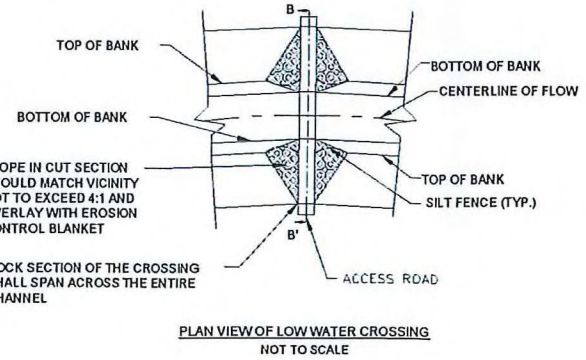
**TEMPORARY SEDIMENT TRAP BASIN DETAILS**



**SECTION B' - B' PROFILE ALONG CENTERLINE OF LOW WATER CROSSING NOT TO SCALE**

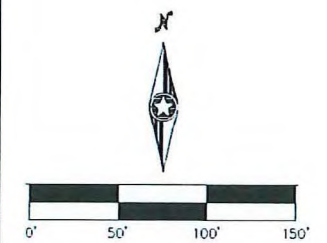
**NOTE:**  
 1. CROSSINGS SHALL HAVE THE TOP-MOST SURFACE LAYER EVEN OR BELOW THE ELEVATION OF THE EXISTING WETLAND.  
 2. THE ACCESS ROAD SHALL CROSS THE CONVEYANCE AT 90° ANGLE.  
 3. THE TOP BED OF THE ROCK CHANNEL CROSSING SHALL CONFORM TO THE EXISTING DITCH CROSS SECTIONAL SLOPES.  
 4. MATERIAL THICKNESSES MAY BE FIELD ADJUSTED TO ACHIEVE SUFFICIENT BEARING CAPACITIES AS ARE NECESSARY FOR ANTICIPATED ROAD USE.

**LOW WATER CROSSING**



Designed: ADC  
 Checked: SAV  
 Drawn: S.B.  
 Record Drawing by date:

Revisions #	DATE	DESCRIPTION
-	3/15/2016	CT SITING BOARD SUBMISSION
-	4/28/2016	CT SITING BOARD COMMENTS
-	6/21/2016	CT SITING BOARD REVISED SUBMISSION
-	8/16/2017	CT SITING BOARD REVISED SUBMISSION



**PLAINFIELD PIKE SOLAR**  
 91 PLAINFIELD PIKE RD  
 PLAINFIELD, CT 06374  
 WINDHAM COUNTY

**CIVIL AND EROSION CONTROL DETAILS**

**SITING BOARD REVIEW**

DATE: 08/16/2017  
 SHEET: 17 of 17



**US Army Corps  
of Engineers** ®  
New England District

**WORK-START NOTIFICATION FORM**  
(Minimum Notice: Two weeks before work begins)

\*\*\*\*\*  
 \* EMAIL TO: [cenae-r@usace.army.mil](mailto:cenae-r@usace.army.mil); or \*  
 \* \* \* \* \*  
 \* MAIL TO: **Daniel Breen** \*  
 \* U.S. Army Corps of Engineers, New England District \*  
 \* Permits and Enforcement Branch B \*  
 \* Regulatory Division \*  
 \* 696 Virginia Road \*  
 \* Concord, Massachusetts 01742-2751 \*  
 \*\*\*\*\*

Corps of Engineers Permit No. NAE-2017-02124 was issued to Ecos Energy. This work is located within wetlands adjacent to Evans Pond at 91 Plainfield Pike Road in Plainfield, Connecticut. The permit authorized the construction of an access road for a new solar energy facility, entailing the permanently fill 4,670 square feet of palustrine forested wetlands.

The people (e.g., contractor) listed below will do the work, and they understand the permit's conditions and limitations.

**PLEASE PRINT OR TYPE**

**Name of Person/Firm:** \_\_\_\_\_

**Business Address:** \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**Telephone Numbers:** ( ) \_\_\_\_\_ ( ) \_\_\_\_\_

**Proposed Work Dates:** Start: \_\_\_\_\_ Finish: \_\_\_\_\_

**Permittee/Agent Signature:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**Printed Name:** \_\_\_\_\_ **Title:** \_\_\_\_\_

**Date Permit Issued:** \_\_\_\_\_ **Date Permit Expires:** \_\_\_\_\_

\*\*\*\*\*

**FOR USE BY THE CORPS OF ENGINEERS**

**PM:** \_\_\_\_\_ **Submittals Required:** \_\_\_\_\_

**Inspection Recommendation:** \_\_\_\_\_



**US Army Corps  
of Engineers** ®  
New England District

**COMPLIANCE CERTIFICATION FORM**  
(Minimum Notice: Permittee must sign and return notification  
within one month of the completion of work.)

**Permit Number:** NAE-2017-02124

**Project Manager:** Daniel Breen

**Name of Permittee:** Ecos Energy

**Permit Issuance Date:** November 2, 2017

Please sign this certification and return it to our office upon completion of the activity and any mitigation required by the permit. You must submit this after the mitigation is complete, but not the mitigation monitoring, which requires separate submittals.

```

***** *
* E-MAIL TO: cenae-r@usace.army.mil; or *
* * *
* MAIL TO: Permits and Enforcement Branch B *
* U.S. Army Corps of Engineers, New England District *
* Regulatory Division *
* 696 Virginia Road *
* Concord, Massachusetts 01742-2751 *
***** *

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Please note that your permitted activity is subject to a compliance inspection by an U.S. Army Corps of Engineers representative. If you fail to comply with this permit you are subject to permit suspension, modification, or revocation.

**I hereby certify that the work authorized by the above referenced permit was completed in accordance with the terms and conditions of the above referenced permit, and any required mitigation was completed in accordance with the permit conditions.**

\_\_\_\_\_  
Signature of Permittee

\_\_\_\_\_  
Date

\_\_\_\_\_  
Printed Name

\_\_\_\_\_  
Date of Work Completion

( ) \_\_\_\_\_  
Telephone Number

( ) \_\_\_\_\_  
Telephone Number