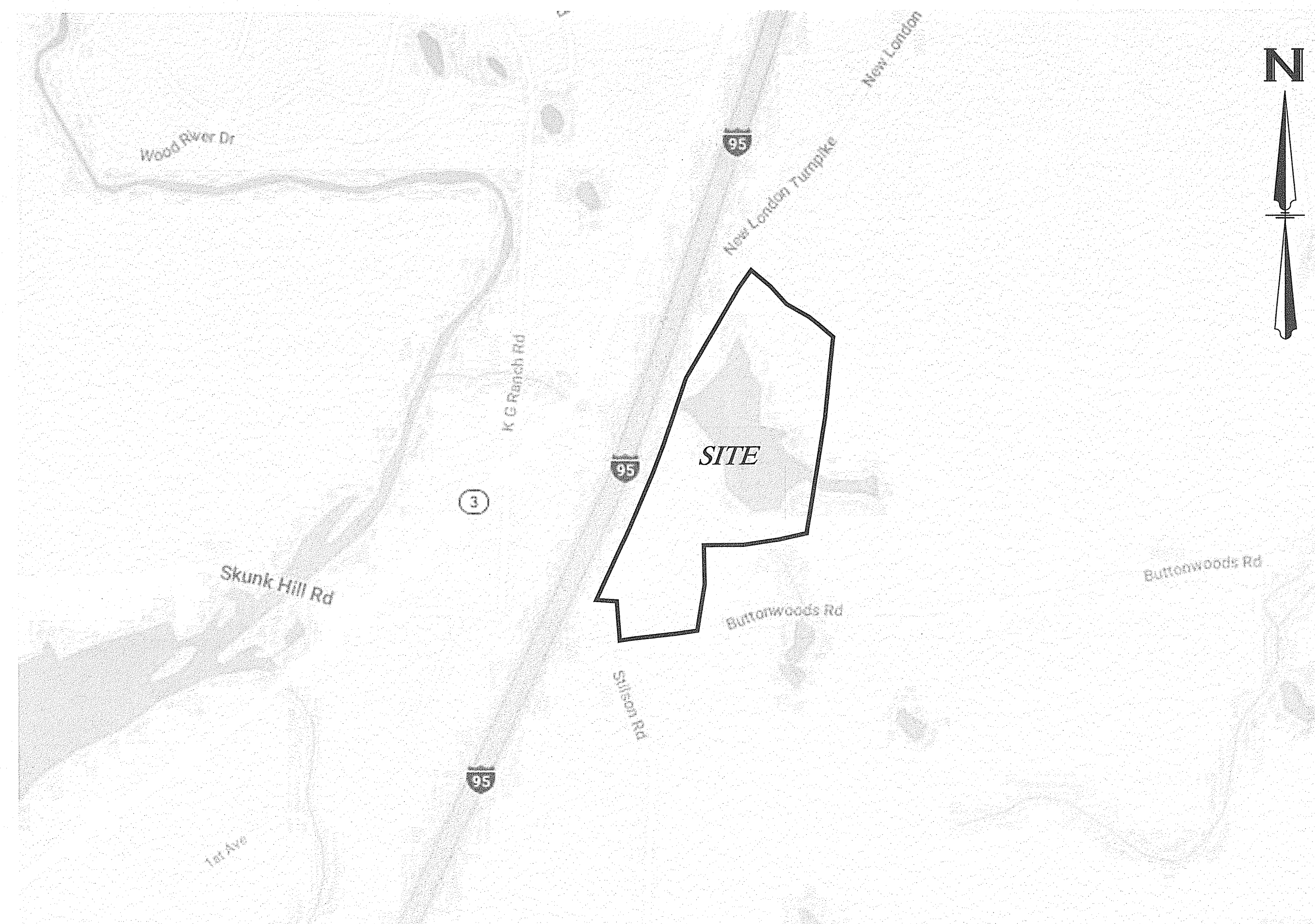


DEVELOPMENT PLAN REVIEW & SPECIAL USE PERMIT SUBMISSION

GD Richmond Buttonwoods I Solar
 Direct Current(DC):1.56MW / Alternating Current(AC):1.25MW
6 Buttonwoods Road
Richmond, Rhode Island 02898
Assessor's Plat 4B Lot 54

Sheet Index

Sheet Number	Sheet Title
C1.1	Cover Sheet
C1.2	Aerial & Map Sheet
C1.3	Existing Site Analysis Plan
C1.4	Proposed Site Plan
C1.5	Enlarged Site, Grading & Utility Plan
C1.6	Soil Erosion and Sediment Control Plan
C1.7	Detail Sheet
1 of 1	Boundary Survey Plan

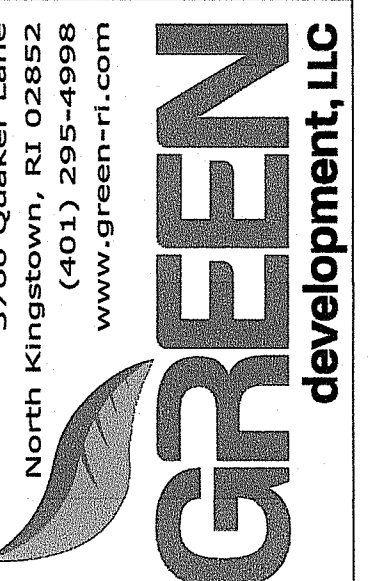


Vicinity Map (Scale: 1"=500')

Kindly be advised that this Permit is not equivalent to a verification of the type or extent of freshwater wetlands on site.

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF WATER RESOURCES
 FRESHWATER WETLANDS PROGRAM
 APPROVED WITH CONDITIONS
 AS SPECIFIED IN THE LETTER OF APPROVAL
 DATED MAR 21 2019 FILE # 18-0162
 NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
 APPROVED PLANS MUST BE AT CONSTRUCTION SITE

Stephen D. Wenzel



APPLICANT INFO: **GD Richmond Buttonwoods, LLC**
 3760 QUAKER LANE NORTH KINGSTOWN, 02852
 OWNER INFO: **Norbert Ansay**
 P.O. BOX 440, WYOMING, RI 02898
 PREPARED BY: **Green Development, LLC**
 3760 QUAKER LANE, NORTH KINGSTOWN, RI 02852

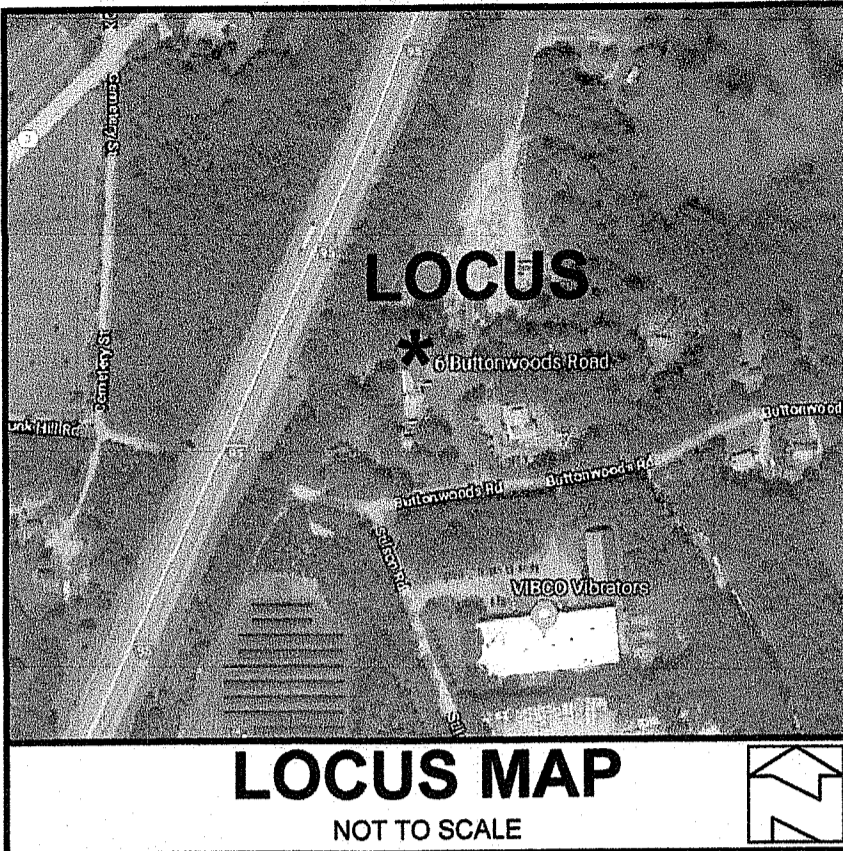
No.	DATE	REVISION
3	12/27/2018	REDA & PLANNING RESUBMISSION
2	11/17/2018	TOWN PLANNER COMMENTS
1	9/10/2018	DEVELOPMENT PLAN REVIEW & SPECIAL USE PERMIT SUBMISSION

SHEET TITLE:
Cover Sheet
 PROJECT INFORMATION:
GD Richmond Buttonwoods I Solar
 DIRECT CURRENT(DC):1.56MW | ALTERNATING CURRENT(AC):1.25MW
 6 BUTTONWOODS ROAD, RICHMOND, RI 02898
 ASSESSOR'S PLAT 4B LOT 54

NEW: C. JOSH
[Signature]
 12/27/2018

SHEET NO.:
C1.1 OF **7**

NO.	DATE	DESCRIPTION	BY



- REFERENCES:**
- R.I.D.O.T. HIGHWAY PLAT #849
 - R.I.D.O.T. HIGHWAY PLAT #1587
 - A CERTAIN PLAN ENTITLED "FINAL SUBDIVISION PREPARED FOR JOHN J. FULLER ; dba WJ/F RADIO STATION PORTION OF ASSESSOR'S PLAT 46, LOT 54, BUTTONWOODS ROAD, RICHMOND, RHODE ISLAND ; SCALE 1" = 30'; DATED OCTOBER 31, 1997, REVISED APRIL 1998 ; SURVEYED BY RICHARD A. GREENE & ASSOCIATES, INC. " AND RECORDED IN THE TOWN OF RICHMOND RHODE ISLAND
 - HORIZONTAL DATUM BASE ON NAD-83 RHODE ISLAND STATE PLANE COORDINATE SYSTEM.

TOWN OF RICHMOND, RHODE ISLAND
RECEIVED FOR RECORD

DATE: _____
AT _____ M
MAP # _____ SLIDE # _____

Sarah S. Rapose
Town Clerk

APPROVED BY THE PLANNING BOARD

Chairperson Secretary _____ Date _____

NORBERT A. THERIEN
No. 1739
PROFESSIONAL LAND SURVEYOR

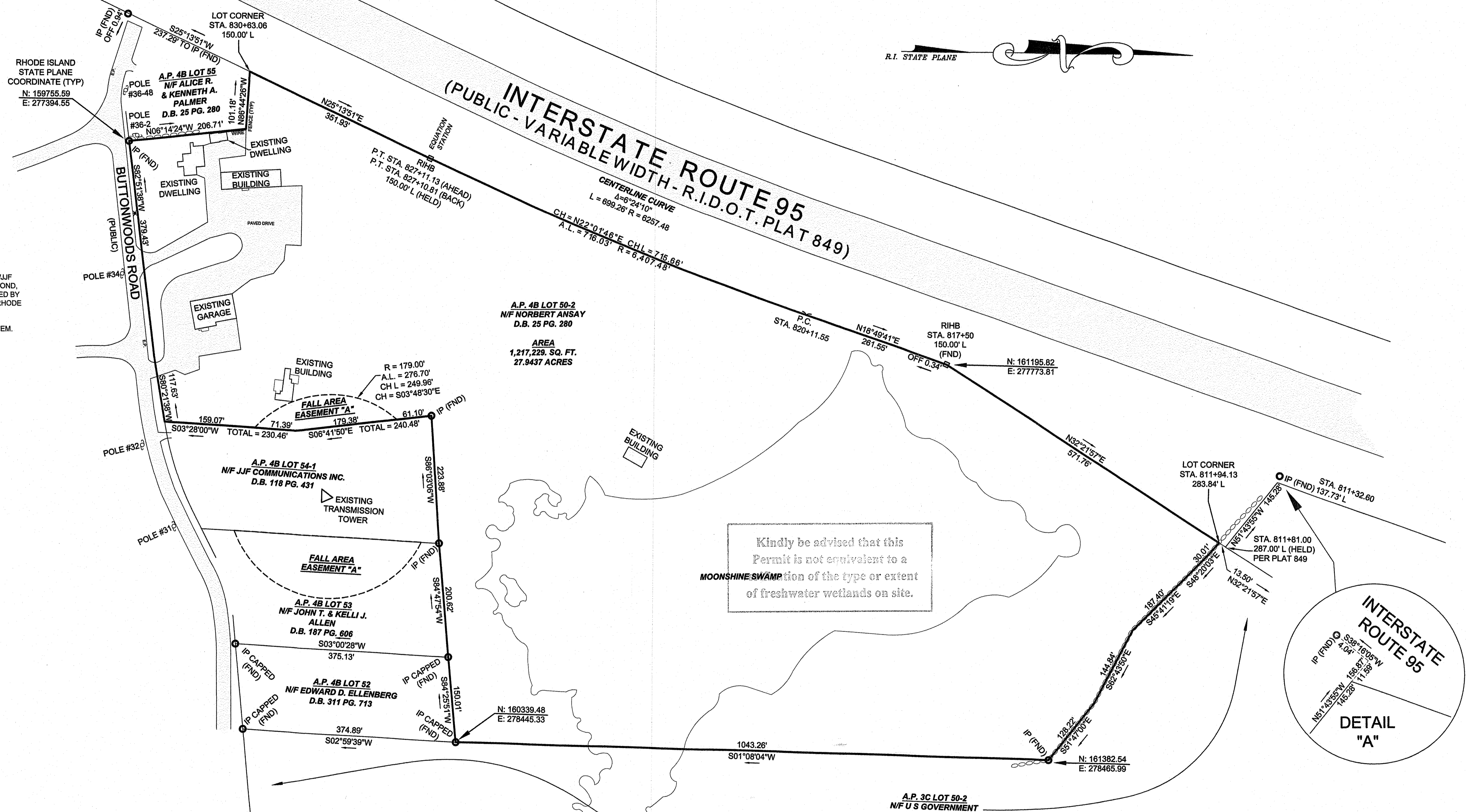
NATIONAL Surveyors-Developers Inc.
42 Hamlet Ave., Woonsocket, R.I.
(401) 769-7779

THIS SURVEY HAS BEEN CONDUCTED AND THE PLAN HAS BEEN PREPARED PURSUANT TO SECTION 9 OF THE RULES AND REGULATIONS ADOPTED BY THE RHODE ISLAND STATE BOARD OF REGISTRATIONS FOR PROFESSIONAL LAND SURVEYORS NOVEMBER 25, 2016 AS FOLLOWS:

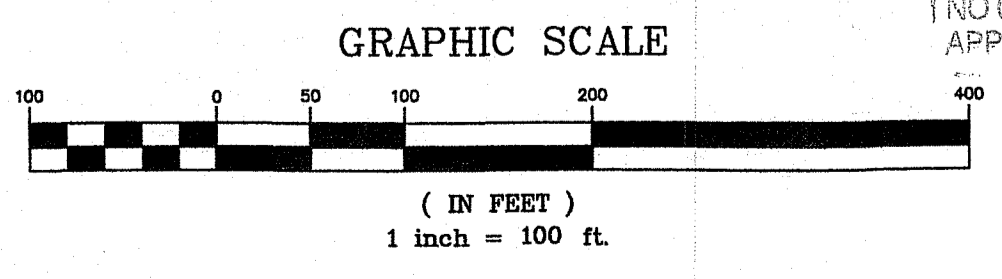
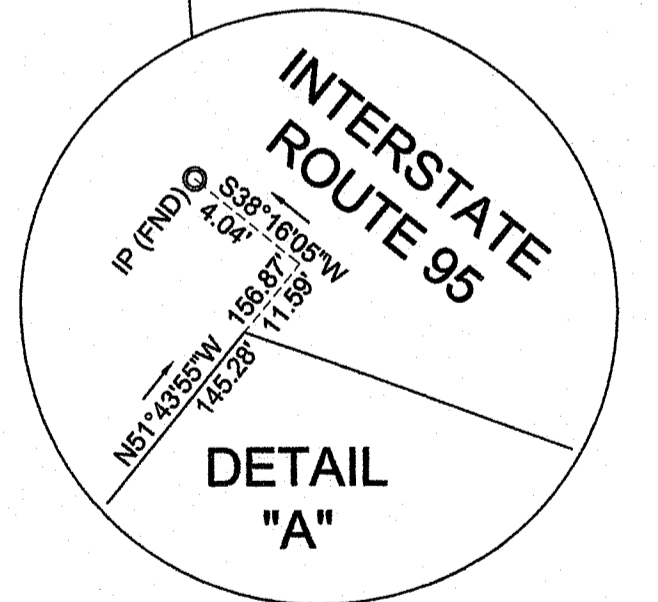
TYPE OF SURVEY: COMPREHENSIVE BOUNDARY SURVEY
MEASUREMENT SPECIFICATION: CLASS 1 STANDARD

PURPOSE OF SURVEY: BOUNDARY SURVEY

BY: *Norbert A. Therien* DATE: 10-22-18
NORBERT A. THERIEN, PLS NO. 1739



Kindly be advised that this Permit is not equivalent to a determination of the type or extent of freshwater wetlands on site.



DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED MAR 21 2019 FILE # 18-0152
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

Stephen D. Womack

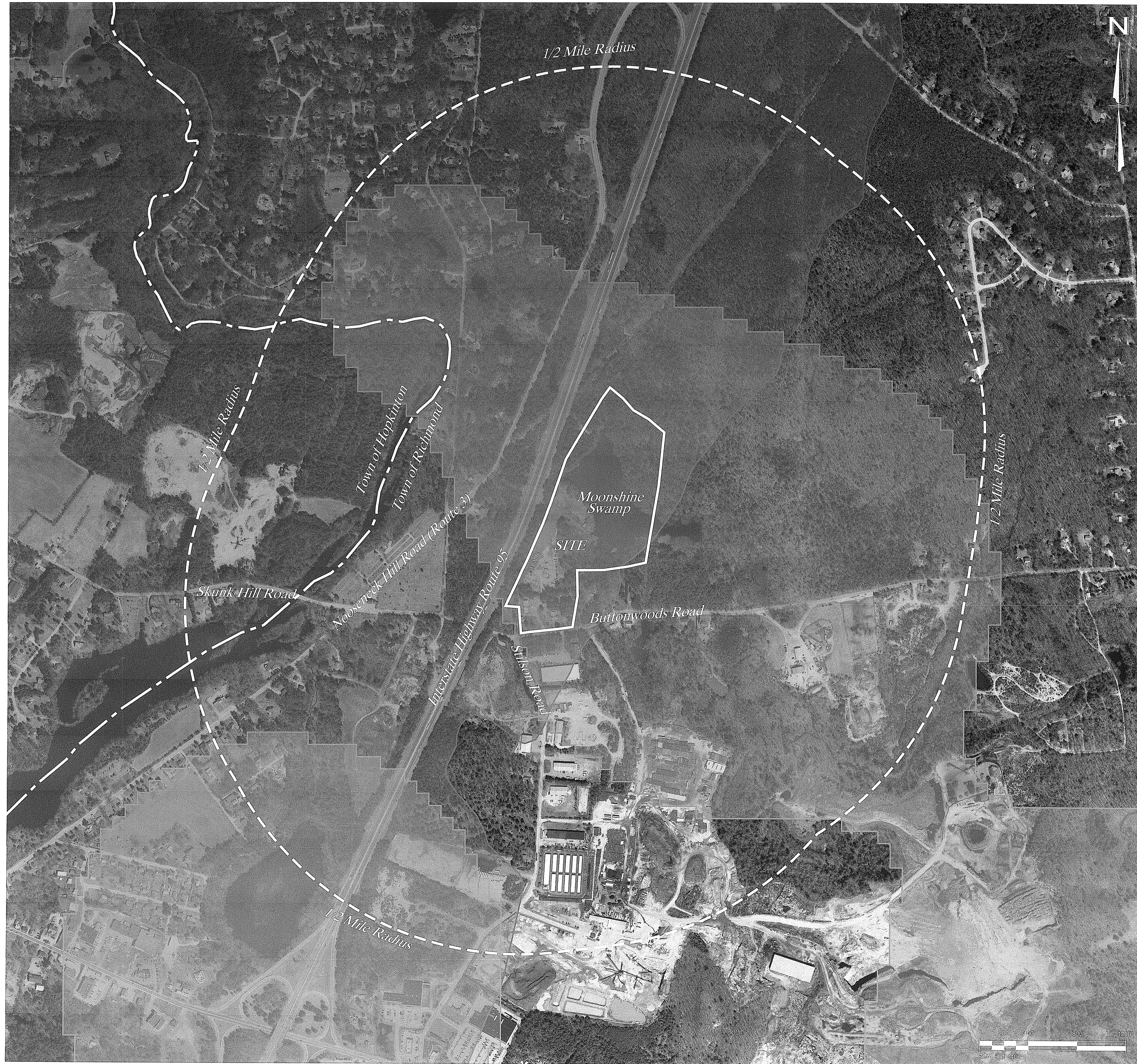
LEGEND
NOT TO SCALE

—	BOUNDARY
—	ABUTTER
—	STONEWALL
○	IRON PIN
●	BOUND
⊙	DRILL HOLE
⊕	UTILITY POLE
⊗	HYDRANT

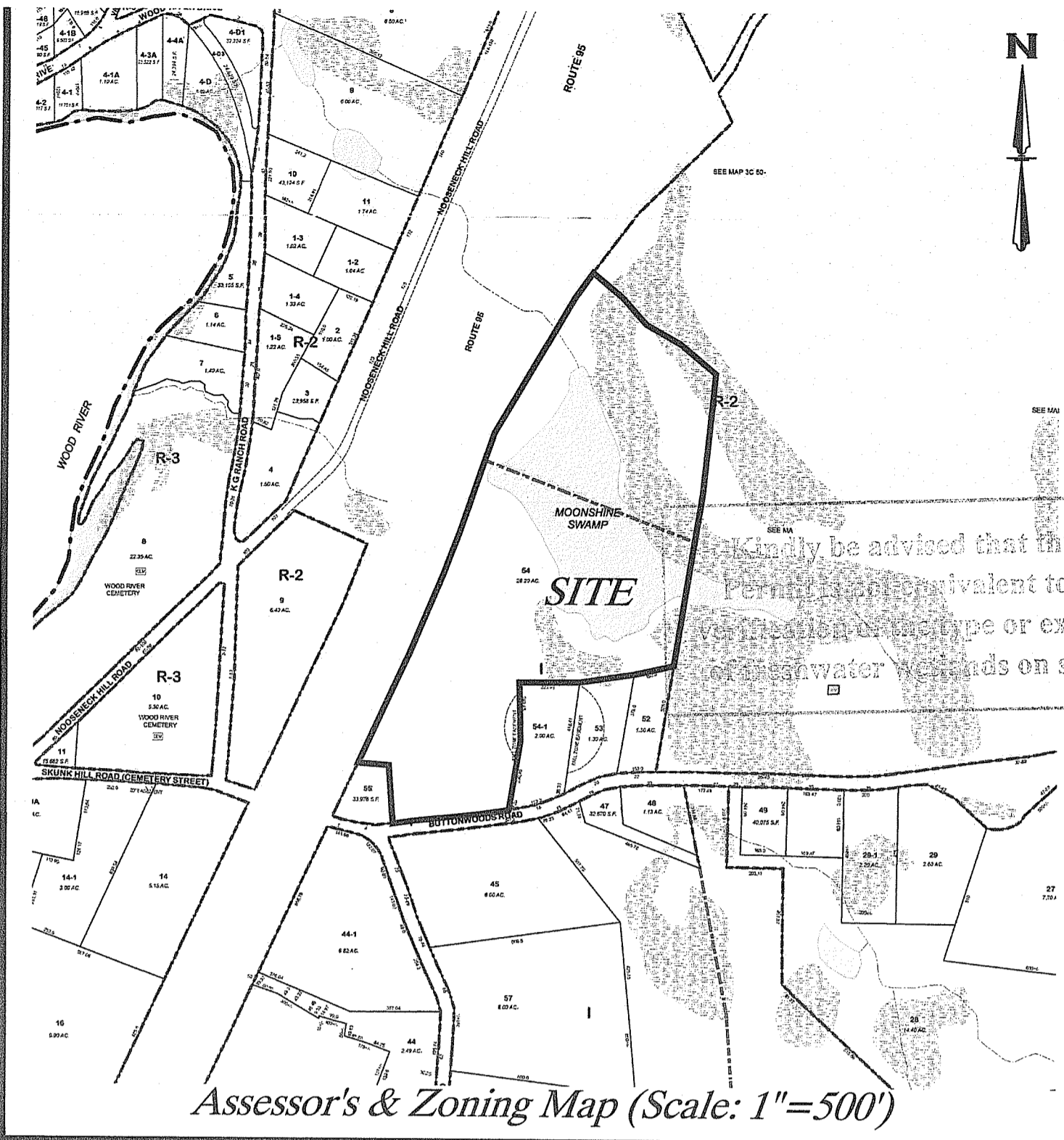
NORBERT ANSAY
AP 4B LOT 50-2
6 BUTTONWOODS ROAD
RICHMOND, RHODE ISLAND

GREEN DEVELOPMENT
RICHMOND BUTTONWOODS 1 SOLAR
BOUNDARY SURVEY PLAN

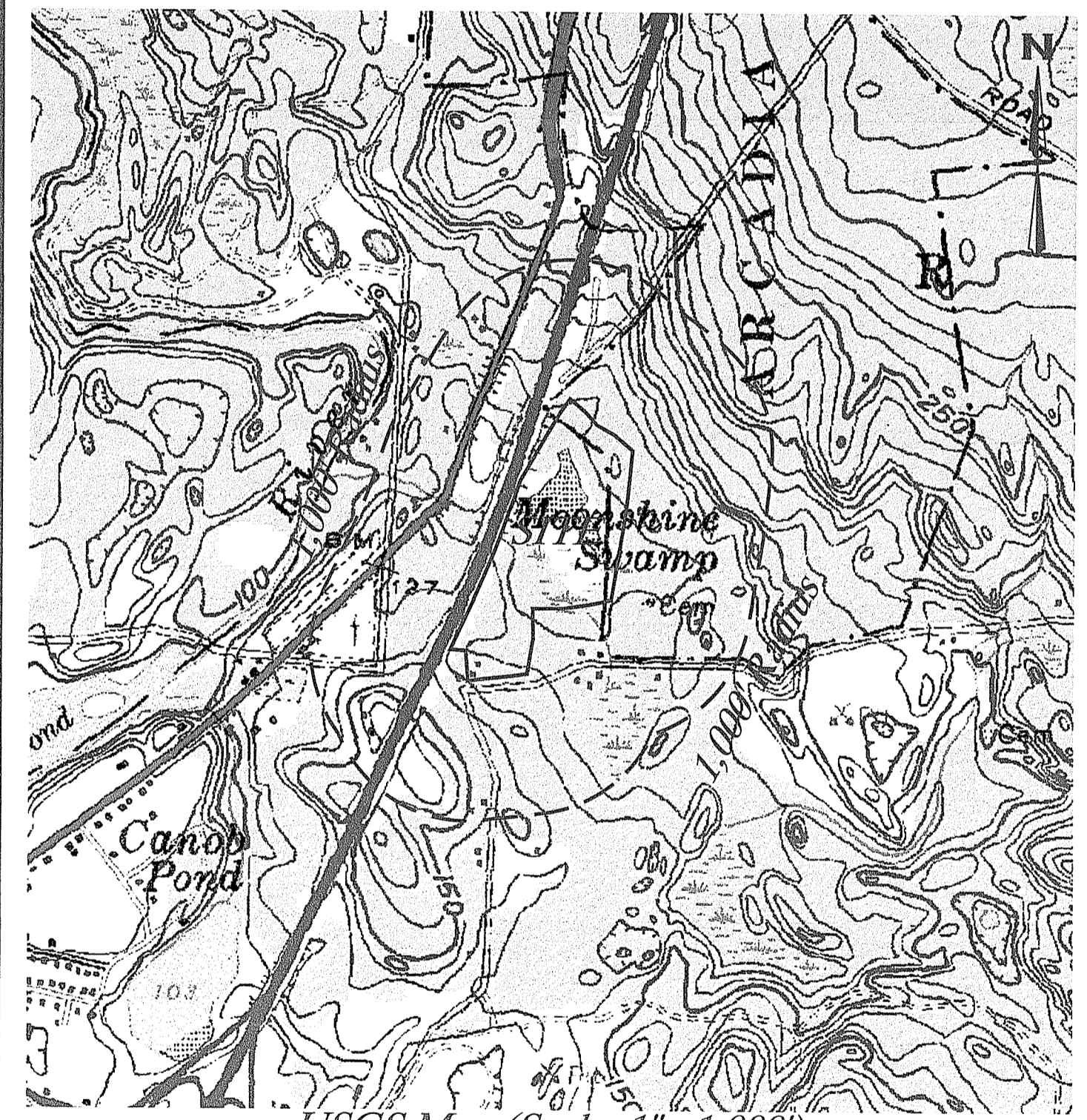
DRAWN BY: J.M.L.	CHECKED BY: N.A.T.	FIELD BY: M.A.
MAY 2018	JOB No. 2018-58	SHEET 1 OF 1



1/2 Mile Radius Map



Assessor's & Zoning Map (Scale: 1"=500')



USGS Map (Scale: 1"=1,000')

Disclaimer:

THIS PLAN IS NOT TO BE CONSTRUED AS AN ACCURATE BOUNDARY SURVEY AND IS SUBJECT TO SUCH CHANGES AS AN ACCURATE BOUNDARY SURVEY MAY DISCLOSE. INFORMATION AND IMAGES ON THIS PLAN ARE THOSE FOUND THROUGH ONLINE STATE AND CITY/TOWN GIS DATABASES. THE INFORMATION SHOWN IS ONLY AS ACCURATE AS THE INFORMATION FOUND THROUGH ONLINE SITE RESEARCH. AERIAL IMAGE DEPICTED IS FROM 2014 USGS DIGITAL TRUE COLOR ORTHOPHOTOGRAPHY. THE ASSESSOR'S AND ZONING MAP ABOVE IS TAKEN FROM PLAN TITLED "TOWN OF RICHMOND, WASHINGTON COUNTY - RHODE ISLAND, TAX ASSESSOR'S MAP WITH ZONING" TAX MAP REVISIONS THROUGH DECEMBER 31, 2015 AND ZONING AMENDMENTS THROUGH AUGUST 12, 2014 FOR PLAT MAP 4B. FOR BEST CLARITY, THIS SHEET SHOULD BE REPRODUCED IN COLOR ONLY.

Existing Conditions Legend

- NATURAL HERITAGE AREA
- RICHMOND'S AQUIFER PROTECTION OVERLAY DISTRICT

AS SHOWN
 DATED MAR 21 2019 18-0252
 APPROVED PLANS MUST BE AT CONSTRUCTION SITE
Christopher D. Wenzel

3760 Quaker Lane
 North Kingstown, RI 02852
 (401) 295-4998
 www.green-hi.com

GREEN
 development, LLC

APPLICANT INFO: **GD Richmond Buttonwoods, LLC**
 3760 QUAKER LANE, NORTH KINGSTOWN, 02852

OWNER INFO: **Norbert Ansay**
 P.O. BOX 440, WYOMING, RI 02898

PREPARED BY: **Green Development, LLC**
 3760 QUAKER LANE, NORTH KINGSTOWN, RI 02852

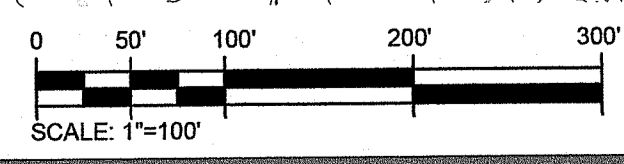
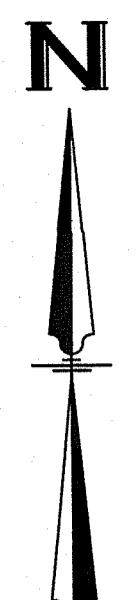
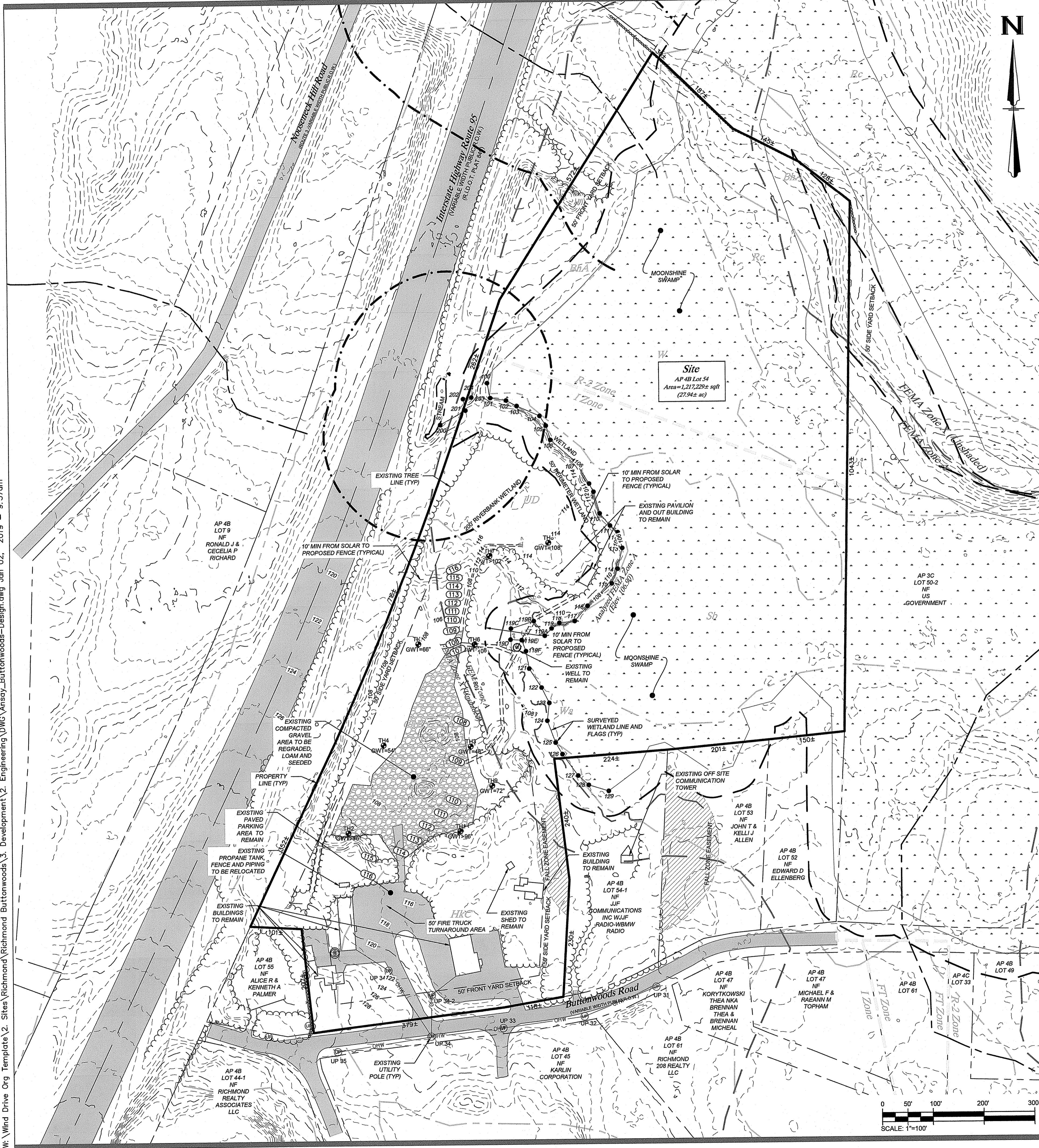
No.	DATE	REVISION
3	12/27/2018	REVISION
2	11/12/2018	TOWN PLANNER COMMENTS
1	9/10/2018	DEVELOPMENT PLAN REVISION & SPECIAL USE PERMIT SUBMISSION

SHEET TITLE:
Aerial & Map Sheet

PROJECT INFORMATION:
GD Richmond Buttonwoods I Solar
 DIRECT CURRENT (DC): 1.56MW | ALTERNATING CURRENT (AC): 1.25MW
 6 BUTTONWOODS ROAD, RICHMOND, RI 02898
 ASSESSOR'S PLAT 4B LOT 54

Amey
 12/27/2018

SHEET NO.:
C1.2 OF **7**



General Site Information:

- APPLICANT INFORMATION:** GD RICHMOND BUTTONWOODS I, LLC
3760 QUAKER LANE
NORTH KINGSTOWN, RHODE ISLAND 02852
- OWNER INFORMATION:** NORBERT ANSAY
P.O. BOX 440
WYOMING, RHODE ISLAND 02898
- SITE INFORMATION:** 6 BUTTONWOODS ROAD
RICHMOND, RHODE ISLAND, 02898
ASSESSOR'S PLAT 4B, LOT 54
AREA: 27.94± ACRES
ZONE: R-2 (RESIDENTIAL, 2 ACRE MINIMUM) AND I (INDUSTRIAL)
- FEMA INFORMATION:** THE SITE IS LOCATED WITHIN ZONE X AND ZONE A AS DELINEATED ON THE FLOOD INSURANCE RATE MAP (FIRM) FOR THE TOWN OF RICHMOND, WASHINGTON COUNTY. FIRM MAP NUMBERS, REVISION DATES AND ZONE DESCRIPTIONS ARE AS FOLLOW:

MAP	MAP REVISION DATE
44009C0088H	OCTOBER 19, 2010

ZONE DESCRIPTION
A AREAS OF 100-YEAR FLOOD; BASE FLOOD ELEVATIONS AND FLOOD HAZARD FACTORS NOT DETERMINED.
X (UNSHADED) AREAS WHERE THERE IS MINIMAL FLOODING.

THE PROPOSED SOLAR PANELS ARE LOCATED ENTIRELY OUTSIDE THE 100-YEAR FLOODPLAIN BASED ON THE ANALYSIS PROVIDED AND NO FILLING OR GRADING WITHIN THE 100-YEAR FLOODPLAIN IS PROPOSED.
- AREA INFORMATION:**

SITE WITHIN	YES/NO
GROUNDWATER PROTECTION AREA (RIDEM)	NO
NATURAL HERITAGE AREAS (RIDEM AREA #160-ENTIRELY WITHIN)	YES*
HISTORIC CEMETERY AREA (CITY/TOWN)	NO
HISTORIC DISTRICT (CITY/TOWN)	NO
OVERLAY DISTRICT (CITY/TOWN)	YES**

*AS PER RIDEM'S PAUL JURDAN IN CORRESPONDENCE ON AUGUST 15 2018, RINGED BOGHAUNTER IS ASSOCIATED WITH THIS AREA. NO WORK IS PROPOSED WITHIN ANY AREA OF BIOLOGICAL OR 50' PERIMETER WETLANDS, THUS NO KNOWN HABITAT REQUIREMENTS OF THE RINGED BOGHAUNTER WILL BE AFFECTED.
**SITE IS LOCATED ENTIRELY WITHIN A FLOOD OVERLAY AND AQUIFER OVERLAY DISTRICT
- SOIL INFORMATION:**

SOIL NAME	HSG	ACREAGE	DESCRIPTION
BnA*	B	2.36 AC	BRIDGEHAMPTON SILT LOAM, 0 TO 3 PERCENT SLOPES
ChB	B	4.94 AC	CANTON AND CHARLTON VERY STONY FINE SANDY LOAMS, 3 TO 8 PERCENT SLOPES
HkC	A	4.00 AC	HINKLEY GRAVELLY SANDY LOAM, ROLLING
Rc	C/D	2.91 AC	RAYPOL SILT LOAM
Sb	A/D	4.28 AC	SCARBORO MUCKY SANDY LOAM
UD	N/A	2.68 AC	UDORTENTS-URBAN LAND COMPLEX
W	N/A	4.93 AC	WATER
Wa	B/D	1.84 AC	WALPOLE SANDY LOAM
TOTAL:		27.94 AC	

*PRIME AGRICULTURAL SOILS

THE SOIL ABBREVIATIONS REFERENCE THE SOIL SURVEY OF RHODE ISLAND, PREPARED BY THE USDA SOIL CONSERVATION SERVICE INFORMATION FOUND THROUGH ONLINE RESEARCH FROM RIGIS DATA. THE ABBREVIATIONS CORRESPOND TO SOIL AREAS OUTLINE ON THE PLAN AND ARE TO BE CONSIDERED APPROXIMATE BASED ON RIGIS DATABASE
- ZONING INFORMATION:**

EXISTING ZONE (TABLE 18.20.010)	ZONE R-2 (SINGLE-FAMILY DWELLING)	ZONE I (INDUSTRIAL)	PROPOSED
MINIMUM LOT AREA:	2 ACRES	2 ACRES	27.94 ACRES
MINIMUM FRONTAGE:	200'	200'	497'
MINIMUM FRONT YARD:	50'	50'	N/A
MINIMUM FRONT YARD (SOLAR):	50'	50'	264'
MINIMUM SIDE YARD:	35'	35'	51'
MINIMUM SIDE YARD (SOLAR):	50'	50'	N/A
MINIMUM REAR YARD:	100'	100'	812'
MINIMUM REAR YARD (SOLAR):	50'	50'	N/A
MAXIMUM HEIGHT OF MAIN STRUCTURE:	35'	40'	N/A
MAXIMUM BUILDING COVERAGE:	10%	30%	N/A
MAXIMUM HEIGHT OF SOLAR PANEL:	12'	12'	<12'
- WETLANDS WERE DELINEATED ONSITE BY MASON & ASSOCIATES, INC., 771 PLAINFIELD PIKE, NORTH SCITUATE, RI 02857 ON MARCH 6, 2018.
- EXISTING CONDITIONS WITHIN THE PROPERTY WERE DETERMINED BY ONLINE INFORMATION, AERIAL MAPPING, THE RIGIS DATABASE AND A SITE WALK PERFORMED ON MAY 21, 2018 AND JULY 10, 2018. THE PROPERTY BOUNDARY IS TAKEN FROM A CLASS I SURVEY PREPARED BY NATIONAL SURVEYORS-DEVELOPERS, INC. BASED ON A SURVEY PERFORMED IN MAY OF 2018.
- ON SITE SOIL EVALUATIONS WERE PERFORMED BY DIPRETE ENGINEERING, 2 STAFFORD COURT, CRANSTON, RI 02920 ON MAY 21, 2018.
- TOPOGRAPHY SHOWN ON THE PLAN IS LIDAR AND WAS OBTAINED BY RIGIS DATABASE. ELEVATIONS IN U.S. SURVEY FEET ARE REFERENCED TO NAVD83 DATUM.
- THERE ARE NO HISTORICAL CEMETERIES LOCATED ON SITE BASED ON THE RHODE ISLAND HISTORICAL CEMETERY COMMISSION WEBSITE AND RESOURCES.
- THERE ARE NO HISTORICAL STRUCTURES ON SITE BASED ON THE NATIONAL REGISTER OF HISTORIC PLACES WEBSITE AND RESOURCES.
- THE FACILITY IS NOT LOCATED IN A CONSERVATION EASEMENT, PRESERVATION EASEMENT, OR HAS ANY DEED RESTRICTIONS EXCEPT AS NOTED BY THE FALL ZONE EASEMENT. NO WORK IS PROPOSED WITHIN THE FALL ZONE EASEMENT.

Certification Note:

THE BOUNDARY LINE SHOWN ON THIS PLAN DEPICTS A CLASS I BOUNDARY PROVIDED BY NATIONAL SURVEYORS-DEVELOPERS, INC. DATED MAY 2018. THIS PLAN ITSELF IS NOT TO BE CONSTRUED AS AN ACCURATE BOUNDARY SURVEY AND IS SUBJECT TO SUCH CHANGES AS AN ACCURATE BOUNDARY SURVEY MAY DISCLOSE. ONLINE INFORMATION FROM RECORDED DATA AND EXISTING MAPS FROM THE TOWN AND STATE, AND RIGIS DATABASE WAS USED TO COMPLETE THIS PLAN. DUE TO THE ACCURACY LEVELS OF SAID DATA AND MAPS, THIS PLAN IS TO BE CONSIDERED APPROXIMATE UNLESS SPECIFIED THAT ACTUAL FIELD SURVEY AND DEED RESEARCH HAS BEEN CONDUCTED.

Existing Conditions Legend

	PROPERTY LINE		TEST HOLE LOCATION
	SETBACK LINE		USDA SOIL LINE
	ASSESSOR LINE		USDA SOIL TYPE
	GIS WETLAND LINE		FEMA LINE
	WETLAND HATCH		ANALYZED FLOODPLAIN LINE
	WETLAND FLAG AND WETLAND LINE		ZONE LINE
	50' PERIMETER WETLAND LINE		ZONE CLASSIFICATION
	SURVEYED STREAM/RIVER LINE		TREE LINE
	200' RIVERBANK WETLAND LINE		UTILITY POLE
	EDGE OF PAVEMENT		MAJOR CONTOURS AND LABELS
	PAVEMENT HATCH		MINOR CONTOURS AND LABELS
			EASEMENT LINE & HATCH

Kindly be advised that this Permit is not equivalent to a verification of the type or extent of freshwater wetlands on site.

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED MAR 21 2019 FILE # 18-0152
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

Kevin C. Moran

3760 Quaker Lane
North Kingstown, RI 02852
(401) 295-4998
www.green-ri.com

GREEN development, LLC

APPLICANT INFO: GD Richmond Buttonwoods, LLC
3760 QUAKER LANE, NORTH KINGSTOWN, 02852

OWNER INFO: Norbert Ansay
P.O. BOX 440, WYOMING, RI 02898

PREPARED BY: Green Development, LLC
3760 QUAKER LANE, NORTH KINGSTOWN, RI 02852

SHEET TITLE: Existing Site Analysis Plan
PROJECT INFORMATION: GD Richmond Buttonwoods I Solar
DIRECT CURRENT (DC): 1.96MW | ALTERNATING CURRENT (AC): 1.25MW
6 BUTTONWOODS ROAD, RICHMOND, RI 02898
ASSESSOR'S PLAT 4B LOT 54

NO. 12/27/2018 RIGIS & PLANNING REVISION
2 11/17/2018 RIGIS & PLANNING REVISION
3 11/17/2018 RIGIS & PLANNING REVISION
4 9/10/2018 DEVELOPMENT PLAN REVIEW & SPECIAL USE PERMIT SUBMISSION

REVISION

DATE

BY

NO.

KEVIN C. MORAN
REGISTERED PROFESSIONAL ENGINEER
CIVIL
No. 122712
12/27/2018

SHEET NO.: C1.3 OF 7

W:\Wind Drive Org Template\2_Sites\Richmond\Richmond Buttonwoods\2_Development\2_Engineering\DWG\Ansoy_Buttonwoods-Design.dwg Jan 02, 2019 9:37am

Existing Conditions Legend

- PROPERTY LINE
- - - SETBACK LINE
- - - ASSESSOR LINE
- - - GIS WETLAND LINE
- WETLAND HATCH
- WETLAND FLAG AND WETLAND LINE
- 50' PERIMETER WETLAND LINE
- SURVEYED STREAM/RIVER LINE
- 200' RIVERBANK WETLAND LINE
- EDGE OF PAVEMENT
- TEST HOLE LOCATION
- USDA SOIL LINE
- USDA SOIL TYPE
- FEMA LINE
- ANALYZED FLOODPLAN LINE
- ZONE LINE
- ZONE CLASSIFICATION
- TREE LINE
- UTILITY POLE
- MAJOR CONTOURS AND LABELS
- MINOR CONTOURS AND LABELS
- EASEMENT LINE & HATCH

Proposed Development Legend

- SOLAR PANELS
- INVERTER
- INVERTER CONCRETE PAD
- ACCESS PATH EDGE
- ACCESS PATH HATCH
- SECURITY FENCE LINE
- VEGETATIVE BUFFER
- LIMIT OF DISTURBANCE
- SOIL EROSION CONTROL/LIMIT OF DISTURBANCE
- CONTOUR
- OVERHEAD WIRES
- UNDERGROUND ELECTRIC LINE
- UTILITY POLE

**TOWN OF RICHMOND, RHODE ISLAND
RECEIVED FOR RECORD**

DATE: _____ M.

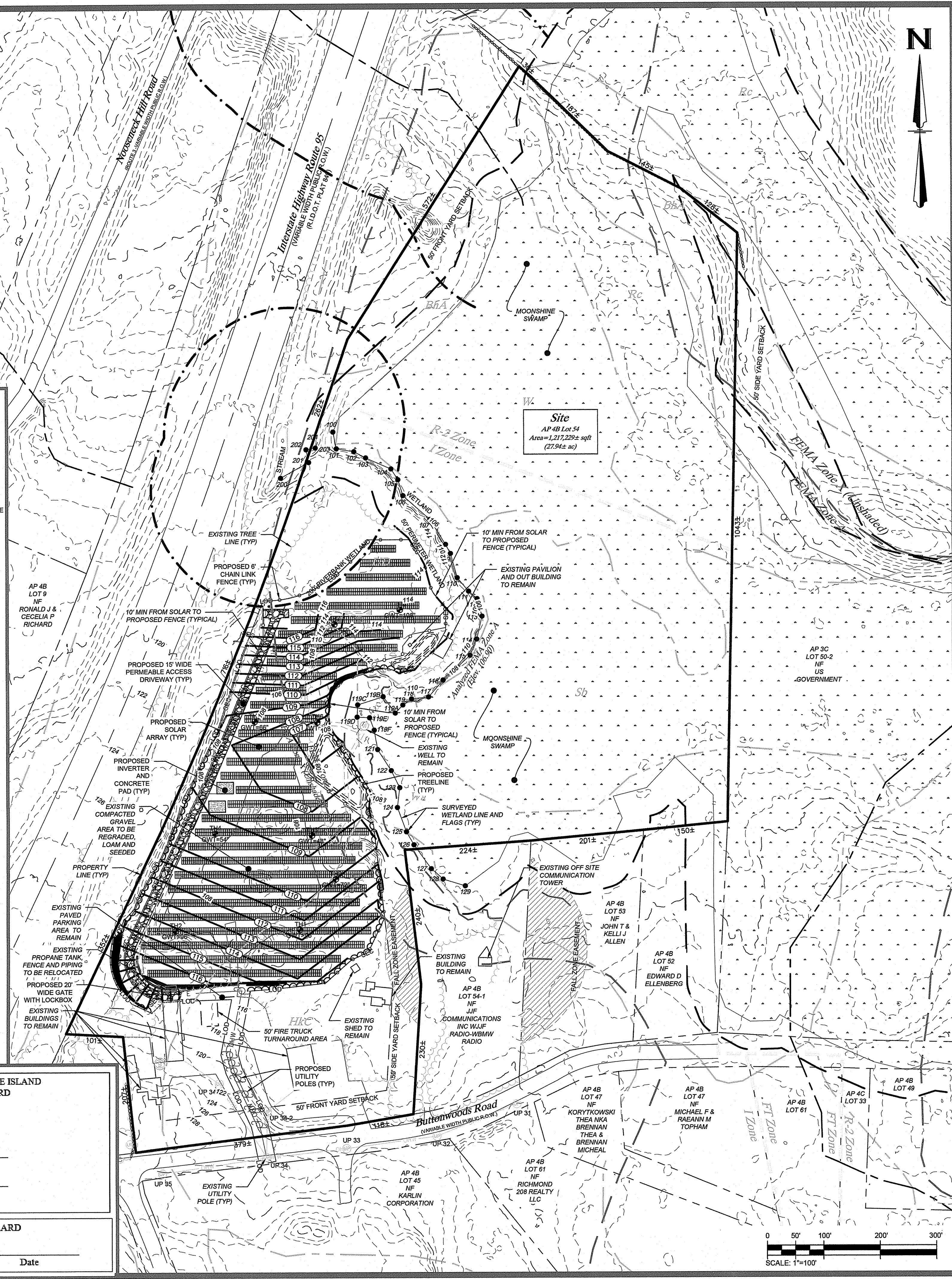
AT _____ M.

MAP # _____ SLIDE # _____

Sarah S. Rapose
Town Clerk

APPROVED BY THE PLANNING BOARD

Chairperson/Secretary _____ Date _____



Development Information:

1. APPLICANT INFORMATION: GD RICHMOND BUTTWOODS I, LLC
3760 QUAKER LANE
NORTH KINGSTOWN, RHODE ISLAND 02852
2. OWNER INFORMATION: NORBERT ANSAY
P.O. BOX 440
WYOMING, RHODE ISLAND 02898
3. SITE INFORMATION: 6 BUTTWOODS ROAD
RICHMOND, RHODE ISLAND, 02898
ASSESSOR'S PLAT 4B, LOT 54
AREA: 27.94± ACRES
ZONE: R-2 (RESIDENTIAL, 2 ACRE MINIMUM) AND I (INDUSTRIAL)
4. REQUIRED PERMITS: DEVELOPMENT PLAN REVIEW - PLANNING (TOWN)
FRESHWATER WETLANDS/RIPDES - RIDEM (STATE)
5. PANEL INFORMATION: MODEL: JA SOLAR (JKM 380M-72L-V)
CAPACITY (PER PANEL): 380 W
DIMENSIONS (PER PANEL): 39 X 78.7 IN
6. ARRAY INFORMATION: PANEL COUNT: 4,198
TOTAL AREA (PANELS ONLY): 2,01± ACRES
TOTAL AREA (SOLAR ARRAY): 4,01± ACRES
TOTAL AREA (WITHIN FENCE): 5,00± ACRES
TOTAL AREA (LDD): 6,01± ACRES
DIRECT CURRENT (DC): 1,561,040 W (1.56 MW)
ALTERNATING CURRENT (AC): 1,250,000 W (1.25 MW)
ARRAY TYPE: FIXED
AZIMUTH (DEG): 180°
TILT (DEG): 25°
7. TRANSFORMER INFORMATION: TOTAL TRANSFORMER COUNT: 2
750KVA TRANSFORMER: 1
500KVA TRANSFORMER: 1
8. INVERTER INFORMATION: TOTAL INVERTER COUNT: 2
SOLECTRIA XTM 500 INVERTER: 1
SOLECTRIA XTM 750 INVERTER: 1
9. FEMA INFORMATION: THE SITE IS LOCATED WITHIN ZONE X AND ZONE A AS DELINEATED ON THE FLOOD INSURANCE RATE MAP (FIRM) FOR THE TOWN OF RICHMOND, WASHINGTON COUNTY. FIRM MAP NUMBERS, REVISION DATES AND ZONE DESCRIPTIONS ARE AS FOLLOWS:

MAP	MAP REVISION DATE
44009C0068H	OCTOBER 18, 2010

ZONE	DESCRIPTION
A	AREAS OF 100-YEAR FLOOD; BASE FLOOD ELEVATIONS AND FLOOD HAZARD FACTORS NOT DETERMINED.
X (UNSHADED)	AREAS WHERE THERE IS MINIMAL FLOODING.

 THE PROPOSED SOLAR PANELS ARE LOCATED ENTIRELY OUTSIDE THE 100-YEAR FLOODPLAIN BASED ON THE ANALYSIS PROVIDED AND NO FILLING OR GRADING WITHIN THE 100-YEAR FLOODPLAIN IS PROPOSED.
10. AREA INFORMATION:

SITE WITHIN	YES/NO
GROUNDWATER PROTECTION AREA (RIDEM)	NO
NATURAL HERITAGE AREAS (RIDEM AREA #160-ENTIRELY WITHIN)	YES*
HISTORIC CEMETERY AREA (CITY/TOWN)	NO
HISTORIC DISTRICT (CITY/TOWN)	NO
OVERLAY DISTRICT (CITY/TOWN)	YES**

 *AS PER RIDEM'S PAUL JURDAN IN CORRESPONDENCE ON AUGUST 15 2018, RINGED BOGHAUNTER IS ASSOCIATED WITH THIS AREA. NO WORK IS PROPOSED WITHIN ANY AREA OF BIOLOGICAL OR 50' PERIMETER WETLANDS, THUS NO KNOWN HABITAT REQUIREMENTS OF THE RINGED BOGHAUNTER WILL BE AFFECTED.
 **SITE IS LOCATED ENTIRELY WITHIN A FLOOD OVERLAY AND AQUIFER OVERLAY DISTRICT
11. SOIL INFORMATION:

SOIL NAME	HSG	ACREAGE	DESCRIPTION
BtA*	B	2.36 AC	BRIDGEHAMPTON SILT LOAM, 0 TO 3 PERCENT SLOPES
ChB	B	4.94 AC	CANTON AND CHARLTON VERY STONY FINE SANDY LOAMS, 3 TO 8 PERCENT SLOPES
HkC	A	4.00 AC	HINKLEY GRAVELLY SANDY LOAM, ROLLING
Rc	GD	2.91 AC	RAYPOL SILT LOAM
Sb	A/D	4.28 AC	SCARBORO MUCKY SANDY LOAM
UD	NA	2.68 AC	UDORTHTENS-URBAN LAND COMPLEX
W	NA	4.93 AC	WATER
Wa	B/D	1.84 AC	WALPOLE SANDY LOAM
		TOTAL: 27.94 AC	

 *PRIME AGRICULTURAL SOILS
 THE SOIL ABBREVIATIONS REFERENCE THE SOIL SURVEY OF RHODE ISLAND PREPARED BY THE USDA SOIL CONSERVATION SERVICE INFORMATION FOUND THROUGH ONLINE RESEARCH FROM RIGIS DATA. THE ABBREVIATIONS CORRESPOND TO SOIL AREAS OUTLINE ON THE PLAN AND ARE TO BE CONSIDERED APPROXIMATE BASED ON RIGIS DATABASE
12. ZONING INFORMATION:

EXISTING ZONE (TABLE 18.20.010)	ZONE R-2 (SINGLE-FAMILY DWELLING)	ZONE I (INDUSTRIAL)	PROPOSED
MINIMUM LOT AREA:	2 ACRES	2 ACRES	27.94 ACRES
MINIMUM FRONTAGE:	200'	200'	497'
MINIMUM FRONT YARD:	50'	50'	N/A
MINIMUM FRONT YARD (SOLAR):	50'	50'	264'
MINIMUM SIDE YARD:	35'	35'	N/A
MINIMUM SIDE YARD (SOLAR):	50'	50'	51'
MINIMUM REAR YARD:	100'	100'	N/A
MINIMUM REAR YARD (SOLAR):	50'	50'	812'
MAXIMUM HEIGHT OF MAIN STRUCTURE:	35'	40'	N/A
MAXIMUM BUILDING COVERAGE:	10%	30%	N/A
MAXIMUM HEIGHT OF SOLAR PANEL:	12'		<12'
13. WETLANDS WERE DELINEATED ONSITE BY MASON & ASSOCIATES, INC., 771 PLAINFIELD PIKE, NORTH SCITUATE, RI 02857 ON MARCH 6, 2018.
14. EXISTING CONDITIONS WITHIN THE PROPERTY WERE DETERMINED BY ONLINE INFORMATION, AERIAL MAPPING, THE RIGIS DATABASE AND A SITE WALK PERFORMED ON MAY 21, 2018 AND JULY 10, 2018. THE PROPERTY BOUNDARY IS TAKEN FROM A CLASS I SURVEY PREPARED BY NATIONAL SURVEYORS-DEVELOPERS, INC. BASED ON A SURVEY PERFORMED IN MAY OF 2018.
15. ON SITE SOIL EVALUATIONS WERE PERFORMED BY DIPRETE ENGINEERING, 2 STAFFORD COURT, CRANSTON, RI 02920 ON MAY 21, 2018.
16. TOPOGRAPHY SHOWN ON THE PLAN IS LIDAR AND WAS OBTAINED BY RIGIS DATABASE. ELEVATIONS IN U.S. SURVEY FEET ARE REFERENCED TO NAVD83 DATUM.
17. THERE ARE NO HISTORICAL CEMETERIES LOCATED ON SITE BASED ON THE RHODE ISLAND CEMETERY COMMISSION WEBSITE AND RESOURCES.
18. THERE ARE NO HISTORICAL STRUCTURES ON SITE BASED ON THE NATIONAL REGISTER OF HISTORIC PLACES WEBSITE AND RESOURCES.
19. THE FACILITY IS NOT LOCATED IN A CONSERVATION EASEMENT, PRESERVATION EASEMENT, OR HAS ANY DEED RESTRICTIONS EXCEPT AS NOTED BY THE FALL ZONE EASEMENT. NO WORK IS PROPOSED WITHIN THE FALL ZONE EASEMENT.
20. THIS PLAN SET REFERENCES RHODE ISLAND DEPARTMENT OF TRANSPORTATION (RIDOT) STANDARD DETAILS WHICH CAN BE FOUND ON THE RIDOT ONLINE DATABASE. DESIGNATED DETAILS ARE LABELED WITHIN THIS PLAN SET AS RIDOT STD X.X.X. REFERENCE LINK: [HTTP://WWW.DOT.RI.GOV/DOCUMENTS/DOINGBUSINESS/RIDOT_STD_DETAILS.PDF](http://www.dot.ri.gov/documents/doingbusiness/ridot_std_details.pdf)
21. NO TOPSOIL OR PRIME AGRICULTURAL SOIL, AS DEFINED IN CHAPTER 18.08, SHALL BE REMOVED FROM THE SITE FOR INSTALLATION OF THE FACILITY.
22. THE SITE HAS MULTIPLE FUNCTIONS INCLUDING BOTH COMMERCIAL AND RESIDENTIAL STRUCTURES. ALL EXISTING STRUCTURES AND SUPPORTING UTILITIES ARE TO REMAIN AND PROTECTED DURING ALL DEMOLITION AND CONSTRUCTION ACTIVITIES.
23. THIS PROJECT IS PROPOSED TO BE BUILT IN 1 PHASE.
24. NO OUTDOOR LIGHTING IS PROPOSED FOR THIS PROJECT.
25. NO SIGNAGE IS PROPOSED FOR THIS PROJECT EXCEPT REQUIRED WARNING SIGNAGE PER ELECTRIC CODE AND NATIONAL GRID REQUIREMENTS.
26. AS PER DEVELOPMENT PLAN CHECKLIST ITEM 17 THE FOLLOWING SUMMARY OF AREAS IS PROVIDED:
 - AREA OF SOLAR PANELS - 92,463 SQ.FT.
 - AREA OF GRAVEL ACCESS DRIVEWAY - 12,513 SQ.FT.
 - AREA OF CONCRETE PADS FOR ELECTRICAL EQUIPMENT - 1,200 SQ.FT.
 - AREA WITH PERIMETER FENCE (INCLUDES OF THE ABOVE) 230,500 SQ.FT.

Kindly be advised that this Permit is not equivalent to a verification of the type or extent of freshwater wetlands on site.

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED MAR 21 2019 FILE # 18-0752
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

Jonathan D. Wonsick

3760 Quaker Lane
North Kingstown, RI 02852
(401) 295-4998
www.green-ri.com

GREEN

development, LLC

APPLICANT INFO: GD Richmond Buttonwoods, LLC
3760 QUAKER LANE, NORTH KINGSTOWN, 02852

OWNER INFO: Norbert Ansay
P.O. BOX 440, WYOMING, RI 02898

PREPARED BY: Green Development, LLC
3760 QUAKER LANE, NORTH KINGSTOWN, RI 02852

REV	DATE	DESCRIPTION
3	12/27/2018	ISSUE & PLANING RESUBMISSION
2	11/21/2018	TOWN PLANNING COMMENTS
1	8/10/2018	DEVELOPMENT PLAN REVIEW & SPECIAL USE PERMIT SUBMISSION

REV	DATE	BY
3		
2		
1		

SHEET TITLE:
Proposed Site Plan
GD Richmond Buttonwoods I Solar

PROJECT INFORMATION:
DIRECT CURRENT (DC): 1.56MW | ALTERNATING CURRENT (AC): 1.25MW
6 BUTTWOODS ROAD, RICHMOND, RI 02898
ASSESSOR'S PLAT 4B LOT 54

KEVIN C. MORIN
No. _____
REGISTERED PROFESSIONAL ENGINEER
1/27/2018

C1.4 OF 7

Development Information:

- 1. APPLICANT INFORMATION:** GD RICHMOND BUTTWOODS I, LLC
3760 QUAKER LANE
NORTH KINGSTOWN, RHODE ISLAND 02852
- 2. OWNER INFORMATION:** NORBERT ANSAY
P.O. BOX 440
WYOMING, RHODE ISLAND 02898
- 3. SITE INFORMATION:** 6 BUTTWOODS ROAD
RICHMOND, RHODE ISLAND, 02898
ASSESSOR'S PLAT 4B, LOT 54
AREA: 27.94 ACRES
ZONE: R-2 (RESIDENTIAL, 2 ACRE MINIMUM) AND I (INDUSTRIAL)
- 4. REQUIRED PERMITS:** DEVELOPMENT PLAN REVIEW - PLANNING (TOWN)
FRESHWATER WETLANDS/RIPDES - RIDEM (STATE)
- 5. PANEL INFORMATION:** MODEL: JA SOLAR (JKM 380M-72L-V)
CAPACITY (PER PANEL): 380 W
DIMENSIONS (PER PANEL): 39 X 78.7 IN
- 6. ARRAY INFORMATION:** PANEL COUNT: 4,108
TOTAL AREA (PANELS ONLY): 2,122 ACRES
TOTAL AREA (SOLAR ARRAY): 4.01± ACRES
TOTAL AREA (WITHIN FENCE): 5.00± ACRES
TOTAL AREA (LOD): 6.01± ACRES
DIRECT CURRENT(DC): 1,561,040 W (1.56 MW)
ALTERNATING CURRENT(AC): 1,250,000 W (1.25 MW)
ARRAY TYPE: FIXED
AZIMUTH (DEG): 180°
TILT(DEG): 25°
- 7. TRANSFORMER INFORMATION:** TOTAL TRANSFORMER COUNT: 2
750KVA TRANSFORMER: 1
500KVA TRANSFORMER: 1
- 8. INVERTER INFORMATION:** TOTAL INVERTER COUNT: 2
SOLECTRIA XTM 500 INVERTER: 1
SOLECTRIA XTM 750 INVERTER: 1
- 9. FEMA INFORMATION:** THE SITE IS LOCATED WITHIN ZONE X AND ZONE A AS DELINEATED ON THE FLOOD INSURANCE RATE MAP (FIRM) FOR THE TOWN OF RICHMOND, WASHINGTON COUNTY. FIRM MAP NUMBERS, REVISION DATES AND ZONE DESCRIPTIONS ARE AS FOLLOW:

MAP	MAP REVISION DATE
44099C0088H	OCTOBER 19, 2010

ZONE DESCRIPTION

A AREAS OF 100-YEAR FLOOD; BASE FLOOD ELEVATIONS AND FLOOD HAZARD FACTORS NOT DETERMINED.
X (UNSHADED) AREAS WHERE THERE IS MINIMAL FLOODING.

THE PROPOSED SOLAR PANELS ARE LOCATED ENTIRELY OUTSIDE THE 100-YEAR FLOODPLAIN BASED ON THE ANALYSIS PROVIDED AND NO FILLING OR GRADING WITHIN THE 100-YEAR FLOODPLAIN IS PROPOSED.
- 10. AREA INFORMATION:**

SITE WITHIN	YES/NO
GROUNDWATER PROTECTION AREA (RIDEM)	NO
NATURAL HERITAGE AREAS (RIDEM AREA #160-ENTIRELY WITHIN)	YES*
HISTORIC CEMETERY AREA (CITY/TOWN)	NO
HISTORIC DISTRICT (CITY/TOWN)	NO
OVERLAY DISTRICT (CITY/TOWN)	YES**

*AS PER RIDEM'S PAUL JORDAN IN CORRESPONDENCE ON AUGUST 15 2018, "RINGED BOGHAUNTER IS ASSOCIATED WITH THIS AREA. NO WORK IS PROPOSED WITHIN ANY AREA OF BIOLOGICAL OR 50' PERIMETER WETLANDS. THUS NO KNOWN HABITAT REQUIREMENTS OF THE RINGED BOGHAUNTER WILL BE AFFECTED."
**SITE IS LOCATED ENTIRELY WITHIN A FLOOD OVERLAY AND AQUIFER OVERLAY DISTRICT
- 11. SOIL INFORMATION:**

SOIL NAME	HSG	ACREAGE	DESCRIPTION
BNA*	B	2.36 AC	BRIDGEHAMPTON SILT LOAM, 0 TO 3% SLOPES
CHB	B	4.94 AC	CANTON AND CHARLTON VERY STONY FINE SANDY LOAMS, 3 TO 8 PERCENT SLOPES
HKC	A	4.00 AC	HINCKLEY GRAVELLY SANDY LOAM, ROLLING
Rc	C/D	2.91 AC	RAYPOL SILT LOAM
Sd	A/D	4.28 AC	SCARBORO MUCKY SANDY LOAM
Ud	N/A	2.85 AC	UDORIENTHS-JURAN LAND COMPLEX
W	A	4.83 AC	WATER
Wa	B/D	1.84 AC	WALPOLE SANDY LOAM
TOTAL:		27.94 AC	

*PRIME AGRICULTURAL SOILS
THE SOIL ABBREVIATIONS REFERENCE THE SOIL SURVEY OF RHODE ISLAND, PREPARED BY THE USDA SOIL CONSERVATION SERVICE INFORMATION FOUND THROUGH ONLINE RESEARCH FROM RIGIS DATA. THE ABBREVIATIONS CORRESPOND TO SOIL AREAS OUTLINE ON THE PLAN AND ARE TO BE CONSIDERED APPROXIMATE BASED ON RIGIS DATABASE
- 7. ZONING INFORMATION:**

EXISTING ZONE (TABLE 18.20.010)	ZONE R-2 (SINGLE-FAMILY DWELLING)	ZONE I (INDUSTRIAL)	PROPOSED
MIN LOT AREA:	2 ACRES	2 ACRES	27.94 ACRES
MIN FRONTAGE:	200'	200'	497'
MIN FRONT YARD:	50'	50'	N/A
MIN FRONT YARD (SOLAR):	50'	50'	254'
MIN SIDE YARD:	35'	35'	N/A
MIN SIDE YARD (SOLAR):	50'	50'	51'
MIN REAR YARD:	100'	100'	N/A
MIN REAR YARD (SOLAR):	50'	50'	812'
MAX HEIGHT - MAIN STRUCTURE:	35'	40'	N/A
MAX BUILDING COVERAGE:	10%	30%	N/A
MAX HEIGHT OF SOLAR PANEL:	12'	12'	<12'
- WETLANDS WERE DELINEATED ONSITE BY MASON & ASSOCIATES, INC., 771 PLAINFIELD PIKE, NORTH SCITUATE, RI 02857 ON MARCH 8, 2018.
- EXISTING CONDITIONS WITHIN THE PROPERTY WERE DETERMINED BY ONLINE INFORMATION, AERIAL MAPPING, THE RIGIS DATABASE AND A SITE WALK PERFORMED ON MAY 21, 2018 AND JULY 10, 2018. THE PROPERTY BOUNDARY IS TAKEN FROM A CLASS 1 SURVEY PREPARED BY NATIONAL SURVEYORS-DEVELOPERS, INC. BASED ON A SURVEY PERFORMED IN MAY OF 2018.
- ON SITE SOIL EVALUATIONS WERE PERFORMED BY DIPRETE ENGINEERING, 2 STAFFORD COURT, CRANSTON, RI 02920 ON MAY 21, 2018.
- TOPOGRAPHY SHOWN ON THE PLAN IS LIDAR AND WAS OBTAINED BY RIGIS DATABASE. ELEVATIONS IN U.S. SURVEY FEET ARE REFERENCED TO NAVD83 DATUM.
- THERE ARE NO HISTORICAL CEMETERIES LOCATED ON SITE BASED ON THE RHODE ISLAND HISTORICAL CEMETERY COMMISSION WEBSITE AND RESOURCES.
- THERE ARE NO HISTORICAL STRUCTURES ON SITE BASED ON THE NATIONAL REGISTER OF HISTORIC PLACES WEBSITE AND RESOURCES.
- THE FACILITY IS NOT LOCATED IN A CONSERVATION EASEMENT, PRESERVATION EASEMENT, OR HAS ANY DEED RESTRICTIONS EXCEPT AS NOTED BY THE FALL ZONE EASEMENT. NO WORK IS PROPOSED WITHIN THE FALL ZONE EASEMENT.
- THIS PLAN SET REFERENCES RHODE ISLAND DEPARTMENT OF TRANSPORTATION (RIDOT) STANDARD DETAILS WHICH CAN BE FOUND ON THE RIDOT ONLINE DATABASE. DESIGNATED DETAILS ARE LABELED WITHIN THIS PLAN SET AS RIDOT STD.X.X.X. REFERENCE LINK: HTTP://WWW.DOT.RI.GOV/DOCUMENTS/DOINGBUSINESS/RIDOT_STD_DETAILS.PDF
- NO TOPSOIL OR PRIME AGRICULTURAL SOIL, AS DEFINED IN CHAPTER 18.08, SHALL BE REMOVED FROM THE SITE FOR INSTALLATION OF THE FACILITY.
- THE SITE HAS MULTIPLE FUNCTIONS INCLUDING BOTH COMMERCIAL AND RESIDENTIAL STRUCTURES. ALL EXISTING STRUCTURES AND SUPPORTING UTILITIES ARE TO REMAIN AND PROTECTED DURING ACTIVITIES.
- THIS PROJECT IS PROPOSED TO BE BUILT IN 1 PHASE.
- NO OUTDOOR LIGHTING IS PROPOSED FOR THIS PROJECT.
- NO SIGNAGE IS PROPOSED FOR THIS PROJECT EXCEPT REQUIRED WARNING SIGNAGE PER ELECTRIC CODE AND NATIONAL GRID REQUIREMENTS.
- AS PER DEVELOPMENT PLAN CHECKLIST ITEM 17 THE FOLLOWING SUMMARY OF AREAS IS PROVIDED:
 - AREA OF SOLAR PANELS - 92,463 SQ.FT.
 - AREA OF GRAVEL ACCESS DRIVEWAY - 12,513 SQ.FT.
 - AREA OF CONCRETE PADS FOR ELECTRICAL EQUIPMENT - 1,200 SQ.FT.
 - AREA WITH PERIMETER FENCE (INCLUDING THE 50' PERIMETER WETLAND)

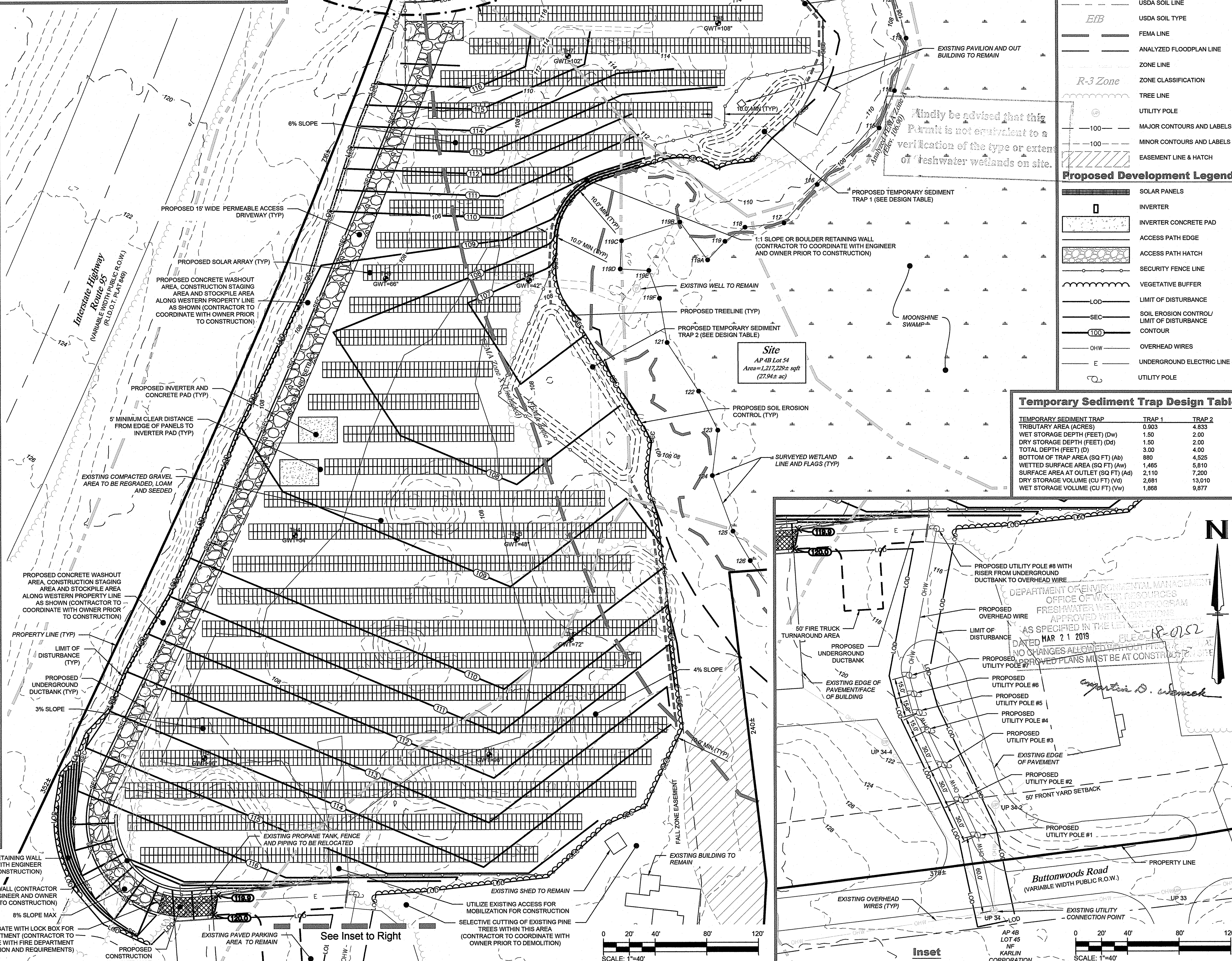
**TOWN OF RICHMOND, RHODE ISLAND
RECEIVED FOR RECORD**

DATE: _____
 AT _____ M.
 MAP # _____ SLIDE # _____

Sarah S. Rapose
Town Clerk

APPROVED BY THE PLANNING BOARD

Chairperson/Secretary _____ Date _____



Existing Conditions Legend

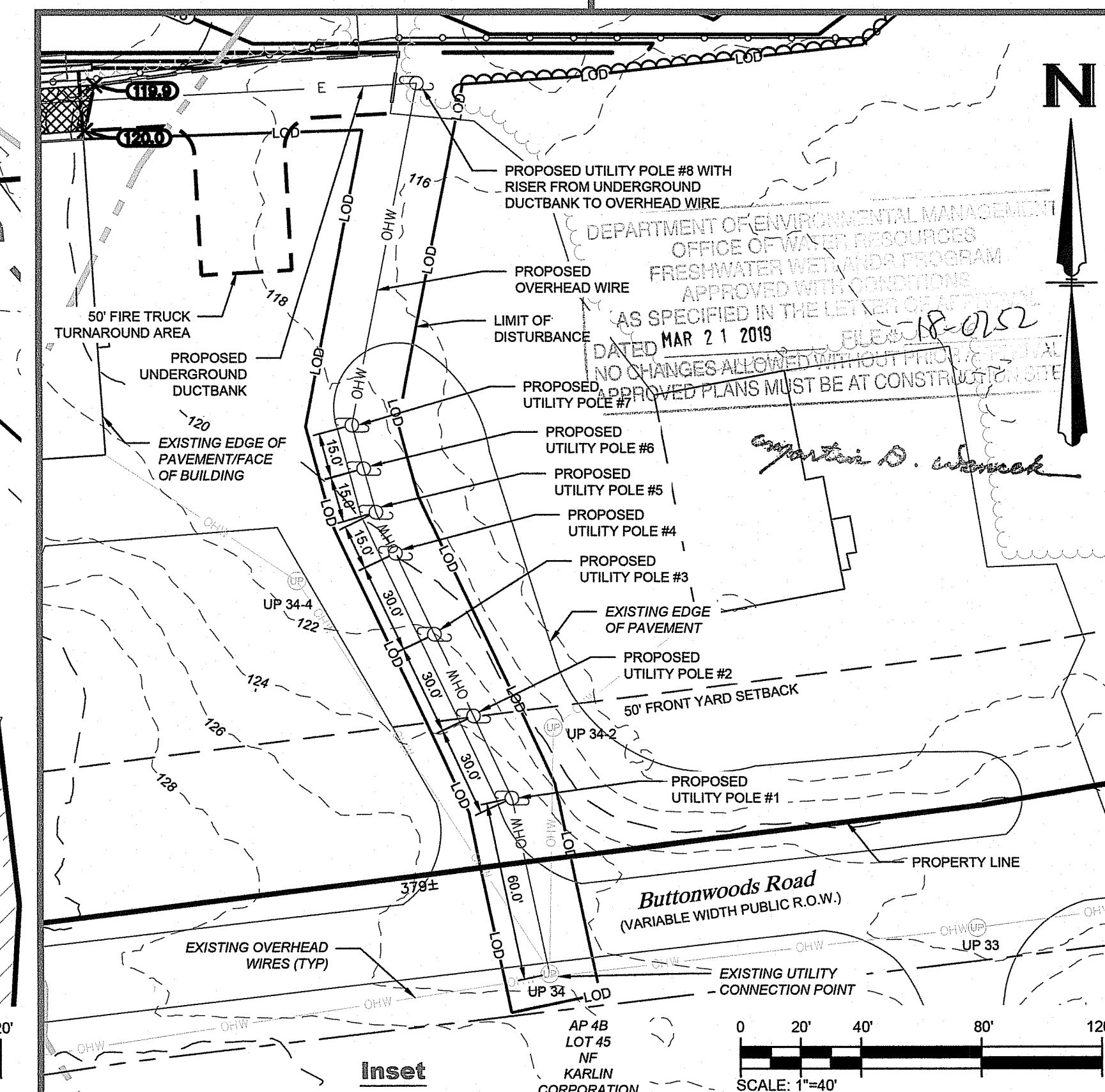
- PROPERTY LINE
- - - SETBACK LINE
- - - ASSESSOR LINE
- GIS WETLAND LINE
- WETLAND HATCH
- WETLAND FLAG AND WETLAND LINE
- 50' PERIMETER WETLAND LINE
- SURVEYED STREAM/RIVER LINE
- 200' RIVERBANK WETLAND LINE
- EDGE OF PAVEMENT
- TEST HOLE LOCATION
- USDA SOIL LINE
- USDA SOIL TYPE
- FEMA LINE
- ANALYZED FLOODPLAN LINE
- ZONE LINE
- ZONE CLASSIFICATION
- TREE LINE
- UTILITY POLE
- MAJOR CONTOURS AND LABELS
- MINOR CONTOURS AND LABELS
- EASEMENT LINE & HATCH

Proposed Development Legend

- SOLAR PANELS
- INVERTER
- INVERTER CONCRETE PAD
- ACCESS PATH EDGE
- ACCESS PATH HATCH
- SECURITY FENCE LINE
- VEGETATIVE BUFFER
- LIMIT OF DISTURBANCE
- SOIL EROSION CONTROL/LIMIT OF DISTURBANCE CONTOUR
- OVERHEAD WIRES
- UNDERGROUND ELECTRIC LINE
- UTILITY POLE

Temporary Sediment Trap Design Table:

TEMPORARY SEDIMENT TRAP	TRAP 1	TRAP 2
TRIBUTARY AREA (ACRES)	0.903	4.833
WET STORAGE DEPTH (FEET) (Dw)	1.50	2.00
DRY STORAGE DEPTH (FEET) (Dd)	1.50	2.00
TOTAL DEPTH (FEET) (D)	3.00	4.00
BOTTOM OF TRAP AREA (SQ FT) (Ab)	880	4,525
WETTED SURFACE AREA (SQ FT) (Aw)	1,465	5,810
SURFACE AREA AT OUTLET (SQ FT) (Ao)	2,110	7,200
DRY STORAGE VOLUME (CU FT) (Vd)	2,681	13,010
WET STORAGE VOLUME (CU FT) (Vw)	1,888	9,877



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GREEN development, LLC

3760 Quaker Lane
North Kingstown, RI 02852
(401) 295-4998
www.green-r.com

APPLICANT INFO: **GD Richmond Buttonwoods, LLC**
3760 QUAKER LANE, NORTH KINGSTOWN, 02852

OWNER INFO: **Norbert Ansay**
P.O. BOX 440, WYOMING, RI 02898

PREPARED BY: **Green Development, LLC**
3760 QUAKER LANE, NORTH KINGSTOWN, RI 02852

NO.	DATE	DESCRIPTION
3	12/27/2018	RIPDES & PLANNING REVISIONS
1	9/10/2018	DEVELOPMENT PLAN REVIEW & SPECIAL USE PERMIT SUBMITTAL

SHEET TITLE: **Enlarged Site, Grading & Utility Plan**

PROJECT INFORMATION:
GD Richmond Buttonwoods I Solar
DIRECT CURRENT(DC): 1.56MW | ALTERNATING CURRENT(AC): 1.25MW
6 BUTTWOODS ROAD, RICHMOND, RI 02898
ASSESSOR'S PLAT 4B LOT 54

SHEET NO.: **C1.5 OF 7**

KEVIN C. MORRIS
REGISTERED PROFESSIONAL ENGINEER
No. 005127127

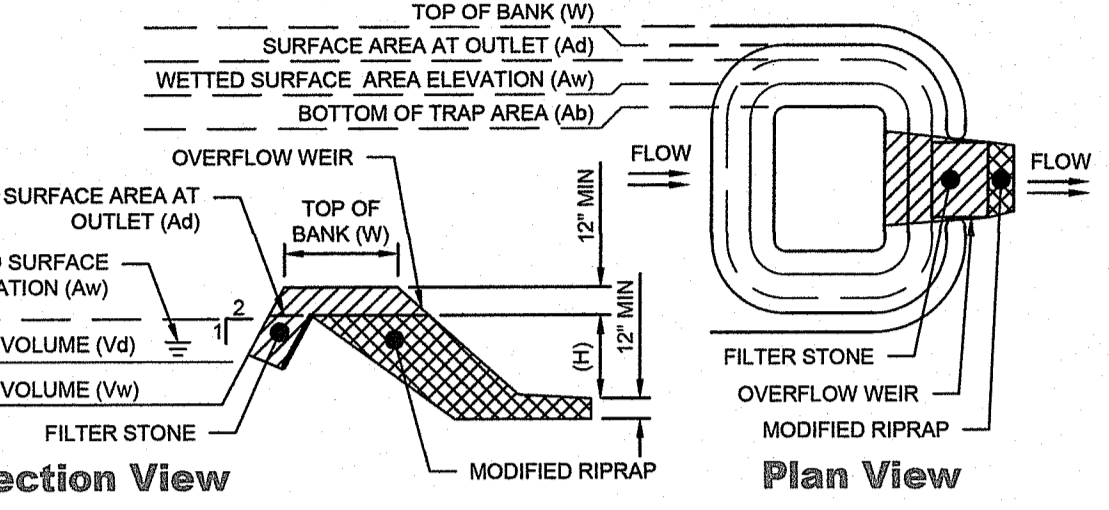
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Temporary Sediment Trap Design Table:

TEMPORARY SEDIMENT TRAP	TRAP 1	TRAP 2
TRIBUTARY AREA (ACRES)	0.803	4.833
WET STORAGE DEPTH (FEET) (Dw)	1.50	2.00
DRY STORAGE DEPTH (FEET) (Dd)	1.50	2.00
TOTAL DEPTH (FEET) (D)	3.00	4.00
BOTTOM OF TRAP AREA (SQ FT) (Ab)	890	4,525
WETTED SURFACE AREA (SQ FT) (Aw)	1,465	5,810
SURFACE AREA AT OUTLET (SQ FT) (Aa)	2,110	7,200
DRY STORAGE VOLUME (CU FT) (Vd)	2,681	13,010
WET STORAGE VOLUME (CU FT) (Vw)	1,868	9,877

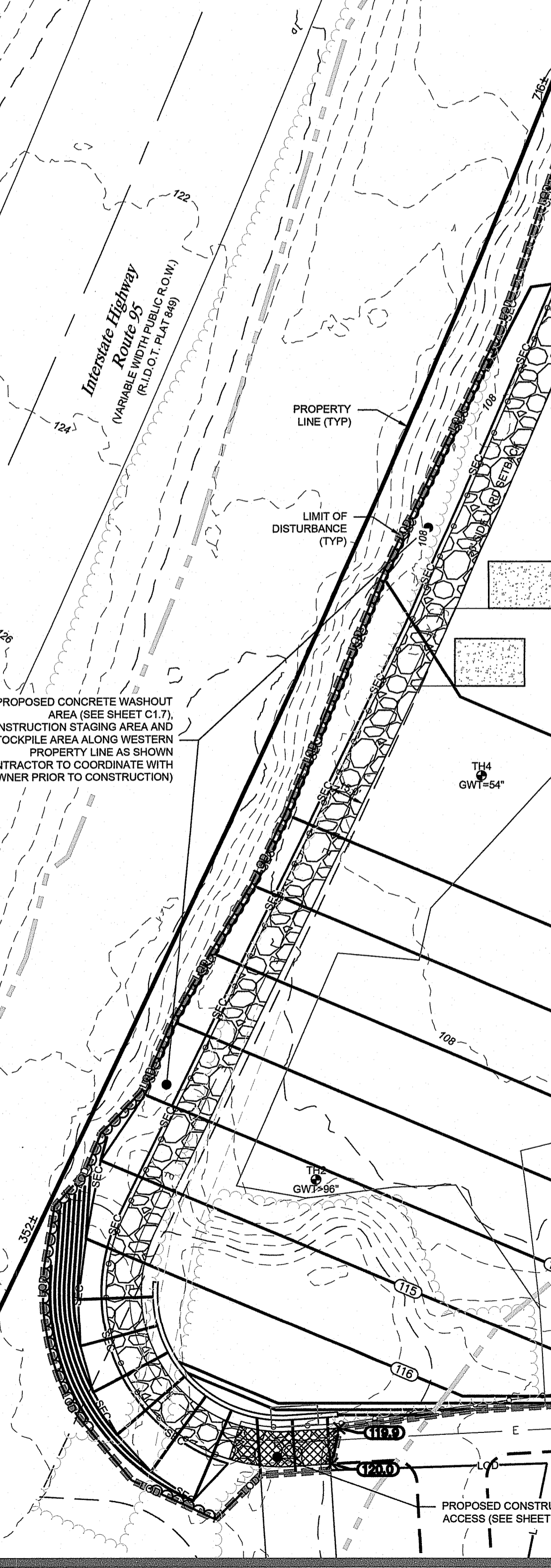
Top Width vs Height

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



Section View
Plan View
Temporary Sediment Trap (N.T.S.)

AP 48 Lot 54
Area = 1,217,229 sqft
(27.94 ac)



Soil Erosion and Sediment Control Notes:

- ACCOMPANYING DOCUMENTS: SOIL EROSION AND SEDIMENT CONTROL PLAN (SESC) WHICH CONTAINS THE FOLLOWING:
 - EROSION CONTROL MEASURES
 - SHORT TERM MAINTENANCE
 - ESTABLISHMENT OF VEGETATIVE COVER
 - CONSTRUCTION POLLUTION PREVENTION
 - SEQUENCE OF CONSTRUCTION
 OPERATIONS AND MAINTENANCE PLAN (O&M) WHICH CONTAINS THE FOLLOWING:
 - LONG TERM MAINTENANCE
 - LONG TERM POLLUTION PREVENTION
 THESE DOCUMENTS ARE TO BE CONSIDERED AS PART OF THE PROJECT PLANS AND THE CONTRACTOR AND OWNER MUST MAINTAIN CURRENT COPIES OF THE ABOVE DOCUMENTS AS PART OF A FULL PLAN SET.
- CONTRACTOR TO REFER TO THE SESC FOR SEQUENCE OF CONSTRUCTION ACTIVITIES, PROJECT PHASING AND ADDITIONAL INFORMATION. CONTRACTOR MAY MODIFY SEQUENCE OF CONSTRUCTION WITH THE APPROVAL FROM THE DESIGN ENGINEER.
- ALL EXISTING UTILITIES SHOWN ARE FROM VISIBLE INFORMATION, DRAWINGS FROM OTHERS, RIGHTS DATA, SURVEYED INFORMATION AND/OR INFORMATION PROVIDED TO GREEN DEVELOPMENT AND IS SUBJECT TO CHANGE AND ARE TO BE CONSIDERED APPROXIMATE ONLY. PRIOR TO CONSTRUCTION, THE CONTRACTOR IS RESPONSIBLE TO CONTACT THE PROPER UTILITY ENGINEERING DEPARTMENTS AND COMPANIES TO LOCATE ALL EXISTING SUBSURFACE UTILITIES AND STRUCTURES IN AND AROUND THE LIMIT OF DISTURBANCE.
- CONTRACTOR TO CALL THE DIG SAFE CENTER TOLL FREE AT 1-888-344-7233, 72 HOURS PRIOR TO ANY EXCAVATION WORK TAKES PLACE. CONTRACTOR TO NOTIFY THE DESIGN ENGINEER OF ANY DISCREPANCIES FOUND DURING UTILITY RESEARCH PRIOR TO EXCAVATION. ANY DAMAGE TO ANY EXISTING UTILITIES WHICH ARE SHOWN AND NOT SHOWN ON THE PLANS OR DETAILED BY DIG SAFE SHALL BE THE RESPONSIBILITY OF THE SITE CONTRACTOR.
- CONTRACTOR IS LIABLE TO OBTAIN ALL MUNICIPAL, STATE AND FEDERAL APPROVALS AND PERMITS PRIOR TO THE START OF CONSTRUCTION.
- DAILY SWEEPING AT CONSTRUCTION ENTRANCE DURING CONSTRUCTION IS REQUIRED TO MINIMIZE SEDIMENTS ON BUTTWOODS ROAD. THE CONTRACTOR SHALL PROVIDE STORAGE FOR WATER AS NECESSARY TO ENSURE PROPER DUST CONTROL.
- CONTRACTOR IS RESPONSIBLE FOR REMOVING AND DISPOSING (R&D) OF ALL MATERIALS LEGALLY AS INDICATED ON THE PLANS TO AN APPROVED OFF-SITE LOCATION.
- CONTRACTOR'S STOCKPILE AND STAGING AREAS WITHIN THE LIMIT OF DISTURBANCE SHALL BE RESTORED TO MATCH PRIOR CONDITIONS OR PROPOSED CONDITIONS SHOWN ON THE PLANS.
- THIS PLAN SET REFERENCES RHODE ISLAND DEPARTMENT OF TRANSPORTATION (RIDOT) STANDARD DETAILS WHICH CAN BE FOUND ON THE RIDOT ONLINE DATABASE. DESIGNATED DETAILS ARE LABELED WITHIN THIS PLAN SET AS RIDOT STD X.X.X.

Design Rules and Regulations:

- THE TEMPORARY SEDIMENT TRAPS SHALL BE INSTALLED AND CONFORM TO ALL RULES AND REGULATIONS SET FORTH BY THE RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT AND DESCRIBED WITHIN THE THOSE ISLAND SOIL EROSION AND SEDIMENT CONTROL HANDBOOK, LATEST REVISION, UNDER SECTION SIX FOR TEMPORARY SEDIMENT TRAPS.
- APPLICABILITY: BELOW DISTURBED AREAS WHERE THE CONTRIBUTING DRAINAGE AREA IS 5 ACRES OR LESS - FOR DRAINAGE AREAS GREATER THAN 5 ACRES USE A TEMPORARY SEDIMENT BASIN.
- TEMPORARY SEDIMENT TRAPS SHALL ALSO BE USED WHERE THE INTENDED USE IS 6 MONTHS OR LESS. FOR USES EXTENDING BEYOND 6 MONTHS USE A TEMPORARY SEDIMENT BASIN.
- REQUIREMENTS: THE TEMPORARY SEDIMENT TRAP HAS TWO STORAGE REQUIREMENTS AS FOLLOWS:
 WET STORAGE - CREATED BY EXCAVATION WITHIN A DRAINAGE WAY
 DRY STORAGE - CREATED BY THE CONSTRUCTION OF A PERVIOUS STONE DIKE ACROSS THE DRAINAGE WAY
- SEDIMENT IS REQUIRED TO BE REMOVED FROM THE TRAP WHEN THE SEDIMENT ACCUMULATION EXCEEDS HALF OF THE WET STORAGE VOLUME OF THE TRAP.
- ACCESS IS TO BE PROVIDED TO THE TRAP FOR SEDIMENT REMOVAL. EXCAVATED SEDIMENT WILL BE REMOVED AND DISPOSED OF AT AN APPROVED OFF-SITE LOCATION OR ON THE EXISTING SITE.
- LOCATIONS: NOT TO BE LOCATED IN CLOSE PROXIMITY TO EXISTING OR PROPOSED BUILDING FOUNDATIONS.
- LOCATE TRAPS TO OBTAIN MAXIMUM STORAGE BENEFIT FROM THE TERRAIN, FOR EASE OF CLEAN OUT AND DISPOSAL OF THE TRAPPED SEDIMENT.
- TRAP CAPACITY: THE TRAP SHALL HAVE AN INITIAL STORAGE VOLUME OF 134 CUBIC YARDS PER ACRE OF DRAINAGE AREA, HALF OF WHICH SHALL BE IN THE FORM OF WET STORAGE TO PROVIDE A STABLE SETTLING MEDIUM. THE REMAINING STORAGE VOLUME SHALL BE IN THE FORM OF A DRAWDOWN (DRY STORAGE) WHICH WILL PROVIDE EXTENDED SETTLING TIME DURING LESS FREQUENT, LARGER STORM EVENTS.
 WET STORAGE - VOLUME SHALL BE MEASURED FROM THE LOW POINT OF THE EXCAVATED AREA TO THE BASE OF THE STONE OUTLET STRUCTURE.
 DRY STORAGE - VOLUME SHALL BE MEASURED FROM THE BASE OF THE STONE OUTLET TO THE TOP OF THE STONE OUTLET (OVERFLOW MECHANISM)
- SLOPES: ALL CUT AND FILL SLOPES SHALL BE 2:1 OR FLATTER EXCEPT FOR THE EXCAVATED WET STORAGE AREA WHERE SLOPES SHALL NOT EXCEED 1.5:1. THE MAXIMUM DEPTH OF EXCAVATION WITHIN THE WET STORAGE AREA SHOULD NOT EXCEED THREE (3) FEET TO FACILITATE CLEAN-OUT AND FOR SITE SAFETY CONSIDERATIONS.
- INLETS/OUTLETS: THE OUTLET SHALL BE LOCATED AT THE MOST DISTANT HYDRAULIC POINT FROM THE INLET.
 THE OUTLET CONSISTS OF A PERVIOUS STONE DIKE WITH A CORE OF MODIFIED RIPRAP AND FACED ON THE UPSTREAM SIDE WITH STONE AND MUST OUTLET ONTO STABILIZED GROUND.
- EMBANKMENT: THE MAXIMUM HEIGHT OF A TEMPORARY SEDIMENT TRAP EMBANKMENT IS LIMITED TO 5 FEET AS MEASURED VERTICALLY FROM THE CREST OF THE EMBANKMENT TO THE DOWN SLOPE BASE OF THE EMBANKMENT OR TOW OF THE STONE DIKE, WHICHEVER IS LOWER.
 SIDE SLOPES OF THE EMBANKMENT SHALL BE 2:1 OR FLATTER.
- MODIFIED RIPRAP: SHALL MEET THE REQUIREMENTS OF THE RIDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION SUBSECTION M.10.03.2.
- FILTER STONE: SHALL MEET THE REQUIREMENTS OF THE RIDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION SUBSECTION M.10.03.9 TABLE I, COLUMN V FILTER STONE.

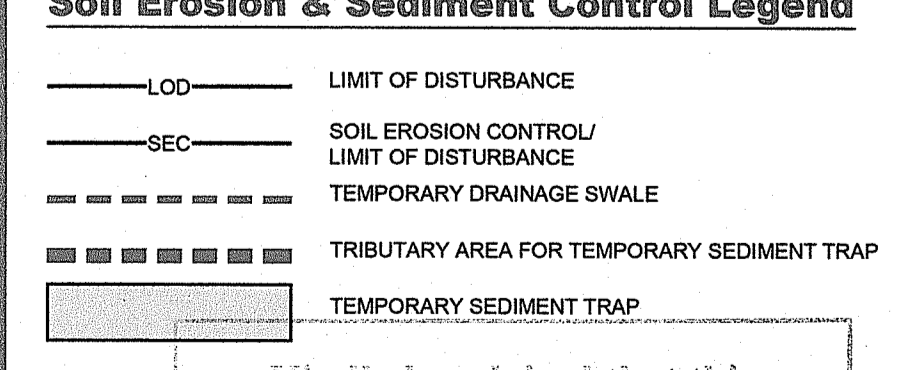
Installation Requirements:

- CLEAR, GRUB AND STRIP ANY VEGETATION AND ROOT MAT FROM ANY PROPOSED EMBANKMENT AND OUTLET AREA. REMOVE STONES AND ROCKS WHOSE DIAMETER IS GREATER THAN THREE (3) INCHES AND OTHER DEBRIS.
- EXCAVATE WET STORAGE AND CONSTRUCT THE EMBANKMENT AND/OR OUTLET AS NEEDED TO ATTAIN THE NECESSARY STORAGE REQUIREMENTS. USE ONLY FILL MATERIAL FOR THE EMBANKMENT THAT IS FREE FROM EXCESSIVE ORGANICS, DEBRIS, LARGE ROCKS (OVER SIX (6) INCHES) OR OTHER UNSUITABLE MATERIALS. COMPACT THE EMBANKMENT IN 9-INCH LAYERS BY TRAVERSING WITH EQUIPMENT WHILE IT IS BEING CONSTRUCTED.
- STABILIZE THE EARTHEN EMBANKMENT USING ANY OF THE FOLLOWING MEASURES, SEEDING FOR TEMPORARY VEGETATIVE COVER, SEEDING FOR PERMANENT VEGETATIVE COVER, OR SLOPE PROTECTION, IMMEDIATELY AFTER INSTALLATION.
- CARRY OUT CONSTRUCTION OPERATIONS IN SUCH A MANNER THAT EROSION AND WATER POLLUTION ARE MINIMIZED.

Inspection, Maintenance, and Removal Requirements:

- INSPECT THE TEMPORARY SEDIMENT TRAP AT LEAST ONCE A WEEK AND WITHIN 24 HOURS OF THE END OF A STORM WITH A RAINFALL AMOUNT OF 0.25 INCH OR GREATER. CHECK THE OUTLET TO ENSURE THAT IT IS STRUCTURALLY SOUND AND HAS NOT BEEN DAMAGED BY EROSION OR CONSTRUCTION EQUIPMENT. THE HEIGHT OF THE STONE OUTLET OR WEIR CREST SHOULD BE MAINTAINED AT LEAST 1 FOOT BELOW THE CREST OF THE EMBANKMENT. ALSO CHECK FOR SEDIMENT ACCUMULATION AND FILTRATION PERFORMANCE.
- WHEN SEDIMENTS HAVE ACCUMULATED TO ONE HALF THE MINIMUM REQUIRED VOLUME OF THE WET STORAGE, Dewater the trap as needed, remove sediments and restore the trap to its ORIGINAL DIMENSIONS. DISPOSE OF THE SEDIMENT REMOVED FROM THE BASIN IN A SUITABLE AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE AND CAUSE SEDIMENTATION PROBLEMS.
- THE TEMPORARY SEDIMENT TRAP MAY BE REMOVED AFTER THE CONTRIBUTING DRAINAGE AREA IS STABILIZED. IF IT IS TO BE REMOVED, THEN THE PLANS SHOULD SHOW HOW THE SITE OF THE TEMPORARY SEDIMENT TRAP IS TO BE GRADED AND STABILIZED AFTER REMOVAL.

Soil Erosion & Sediment Control Legend



Kindly be advised that this Permit is not equivalent to a verification of the type or extent of freshwater wetlands on site.

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 CONSTRUCTION POLLUTION PREVENTION PROGRAM
 APPROVED FOR CONSTRUCTION
 AS SHOWN AND DETAILED ON THESE APPROVAL
 DATED: MAR 21 2019 FILE # 18-0252
 NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
 APPROVED PLANS MUST BE AT CONSTRUCTION SITE

3760 Quaker Lane
 North Kingstown, RI 02882
 (401) 295-4998
 www.green-ri.com

GREEN
 development, LLC

APPLICANT INFO: **GD Richmond Buttonwoods, LLC**
 3760 QUAKER LANE NORTH KINGSTOWN, 02882

OWNER INFO: **Norbert Ansay**
 P.O. BOX 440, WYOMING, RI 02898

PREPARED BY: **Green Development, LLC**
 3760 QUAKER LANE, NORTH KINGSTOWN, RI 02882

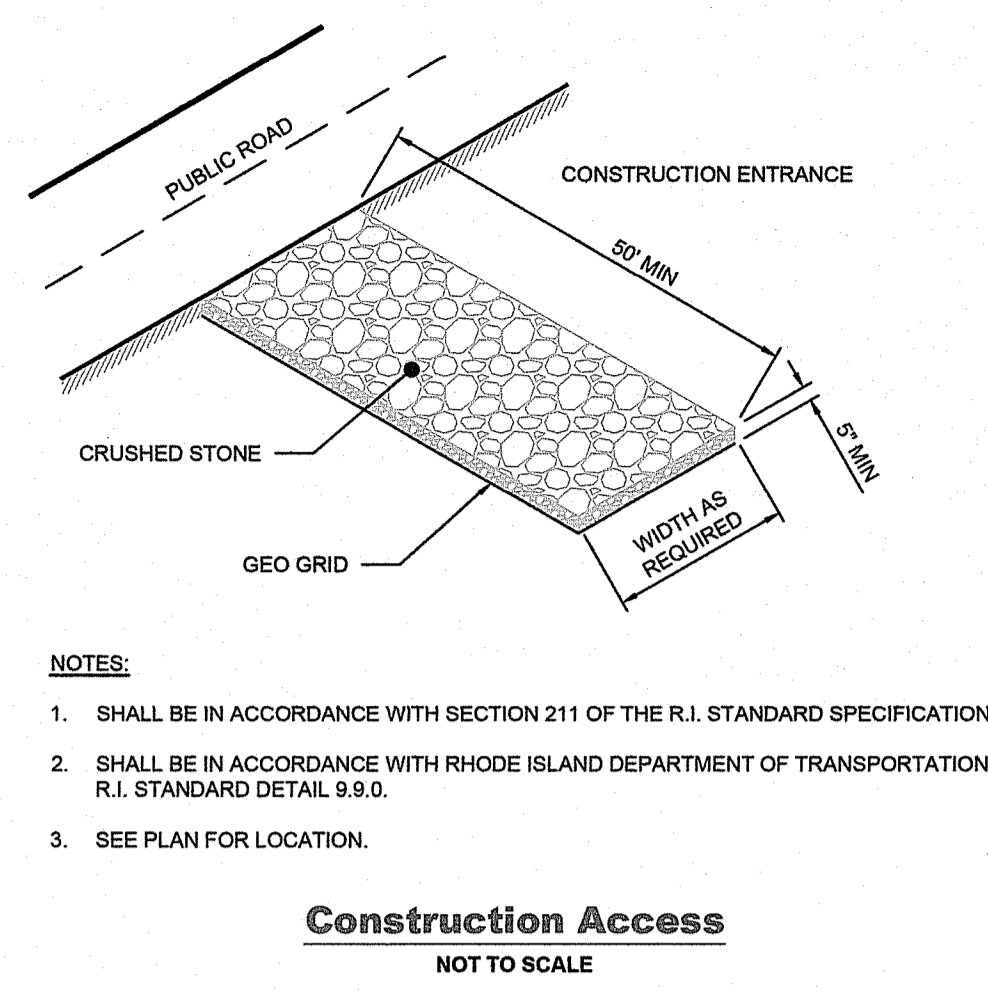
NO.	DATE	REVISION
1	12/27/2018	ISSUE # PLANNING RESUBMISSION
2	11/02/2018	TOWN PLANNER COMMENTS
3	9/10/2018	DEVELOPMENT PLAN REVIEW & SPECIAL USE PERMIT SUBMISSION

SHEET TITLE:
Soil Erosion and Sediment Control Plan

PROJECT INFORMATION:
GD Richmond Buttonwoods I Solar
 DIRECT CURRENT (DC) 1.56MW | ALTERNATING CURRENT (AC) 1.25MW
 6 BUTTWOODS ROAD, RICHMOND, RI 02898
 ASSESSOR'S PLAT 4B LOT 54

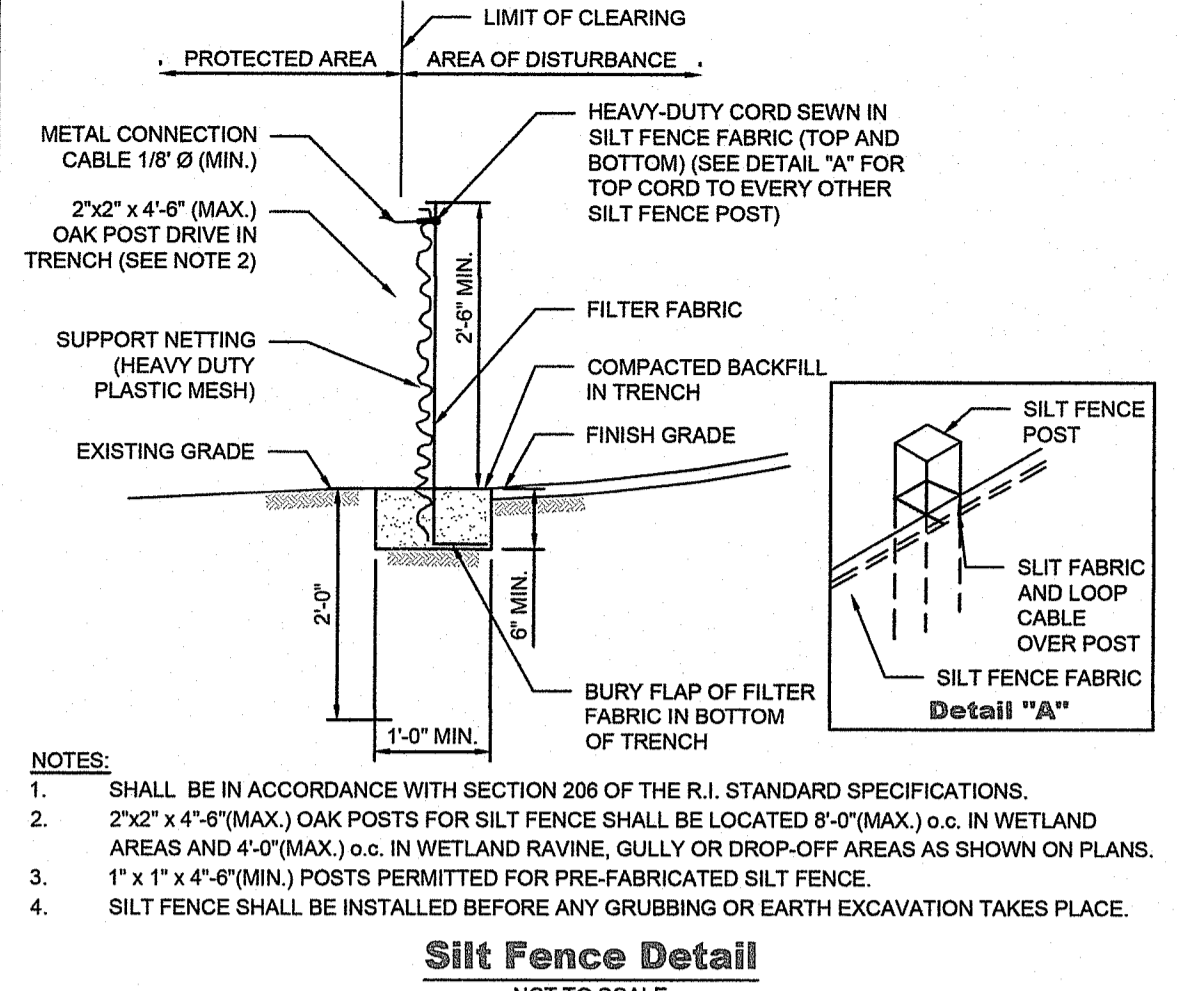
KEVIN C. MORIN
 No. 12272
 REGISTERED PROFESSIONAL ENGINEER
 CIVIL

W:\Wind Drive Org Template\2. Sites\Richmond\Richmond Buttonwoods\3. Development\2. Engineering\DWG\Ansay_Buttonwoods-Design.dwg Jan 02, 2019 9:37am



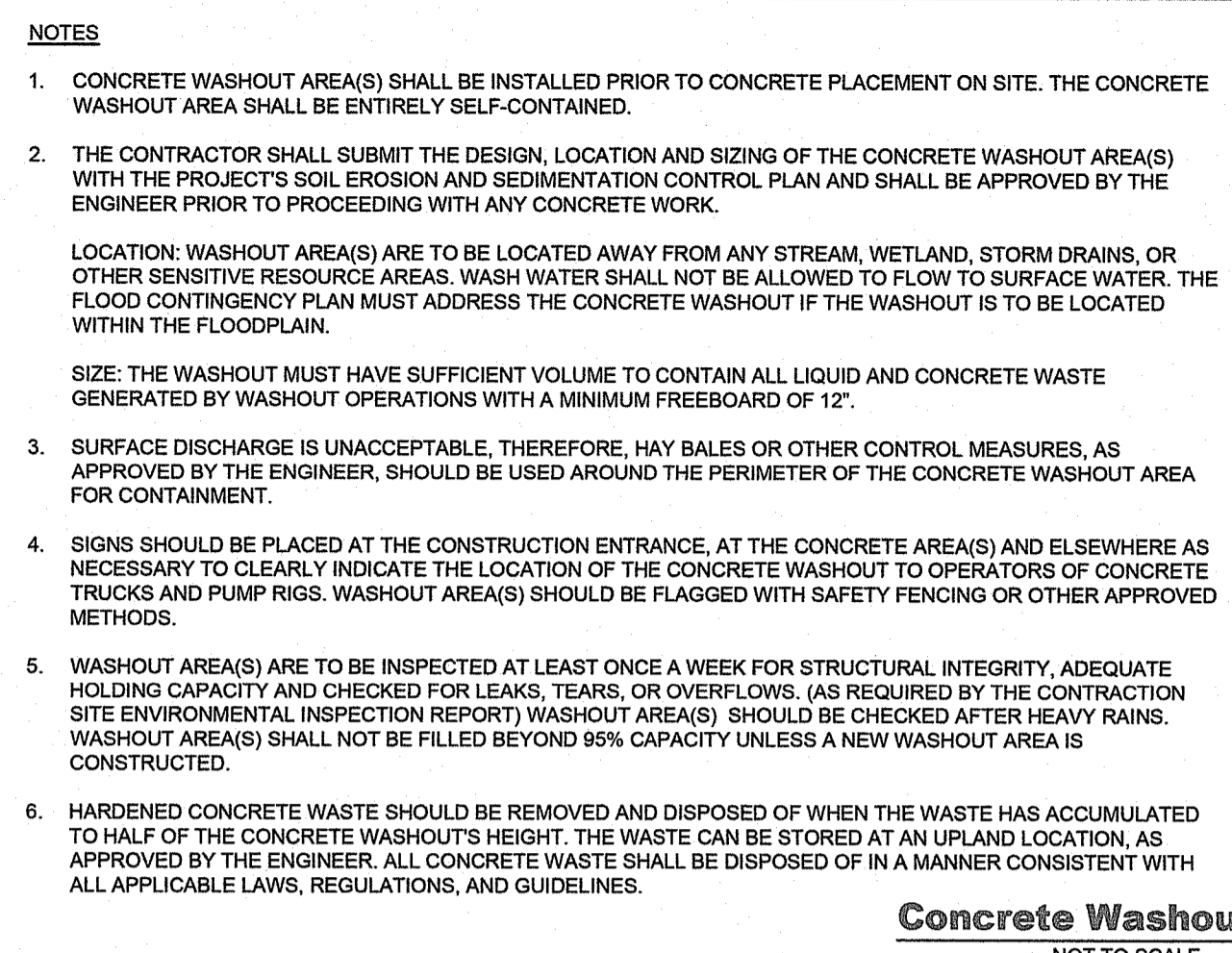
- NOTES:**
- SHALL BE IN ACCORDANCE WITH SECTION 211 OF THE R.I. STANDARD SPECIFICATIONS
 - SHALL BE IN ACCORDANCE WITH RHODE ISLAND DEPARTMENT OF TRANSPORTATION R.I. STANDARD DETAIL 9.9.0.
 - SEE PLAN FOR LOCATION.

Construction Access
NOT TO SCALE



- NOTES:**
- SHALL BE IN ACCORDANCE WITH SECTION 208 OF THE R.I. STANDARD SPECIFICATIONS.
 - 2"x2" x 4'-6" (MAX.) OAK POSTS FOR SILT FENCE SHALL BE LOCATED 8'-0" (MAX.) O.C. IN WETLAND AREAS AND 4'-0" (MAX.) O.C. IN WETLAND RAVINE, GULLY OR DROP-OFF AREAS AS SHOWN ON PLANS.
 - 1' x 1' x 4'-6" (MIN.) POSTS PERMITTED FOR PRE-FABRICATED SILT FENCE.
 - SILT FENCE SHALL BE INSTALLED BEFORE ANY GRUBBING OR EARTH EXCAVATION TAKES PLACE.

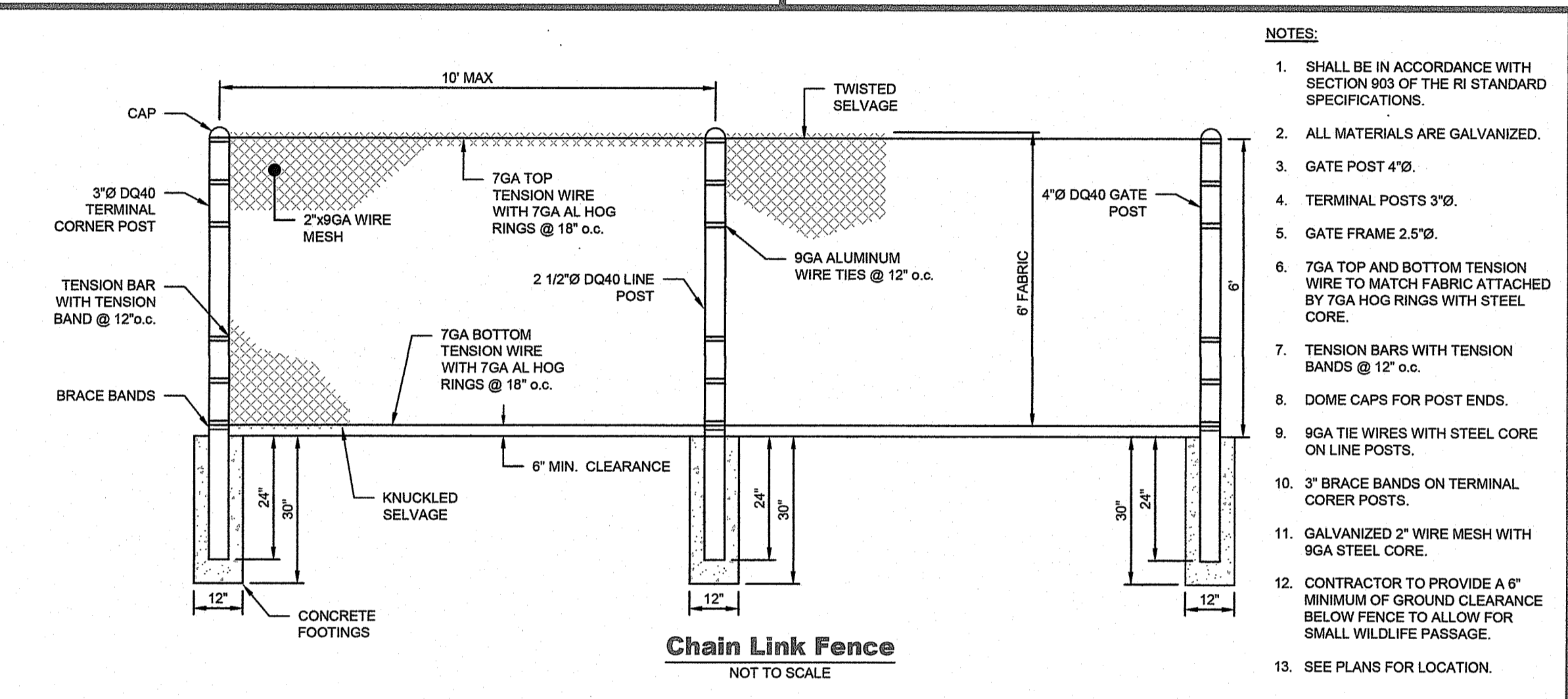
Silt Fence Detail
NOT TO SCALE



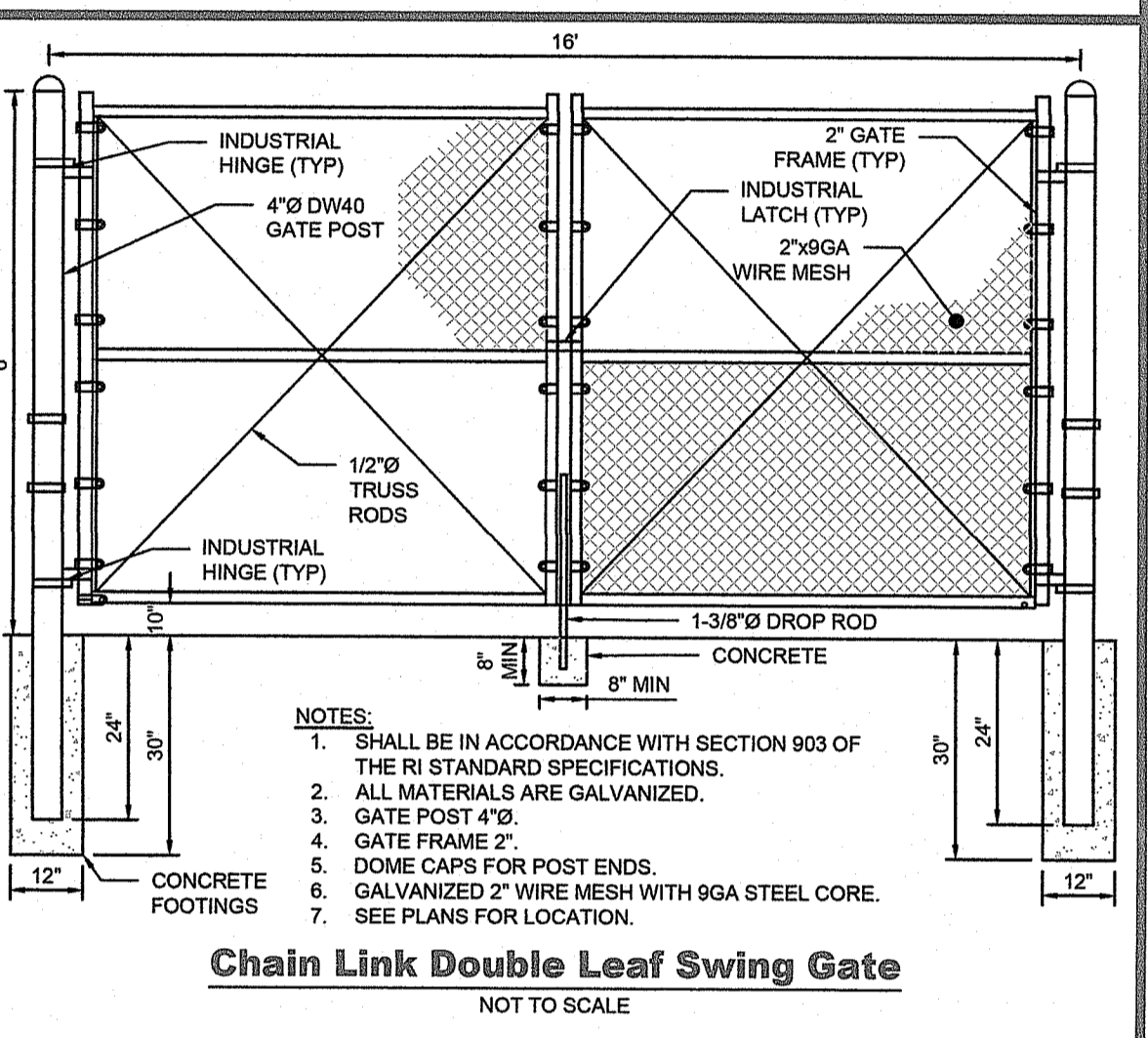
- NOTES:**
- CONCRETE WASHOUT AREA(S) SHALL BE INSTALLED PRIOR TO CONCRETE PLACEMENT ON SITE. THE CONCRETE WASHOUT AREA SHALL BE ENTIRELY SELF-CONTAINED.
 - THE CONTRACTOR SHALL SUBMIT THE DESIGN, LOCATION AND SIZING OF THE CONCRETE WASHOUT AREA(S) WITH THE PROJECT'S SOIL EROSION AND SEDIMENTATION CONTROL PLAN AND SHALL BE APPROVED BY THE ENGINEER PRIOR TO PROCEEDING WITH ANY CONCRETE WORK.
- LOCATION: WASHOUT AREA(S) ARE TO BE LOCATED AWAY FROM ANY STREAM, WETLAND, STORM DRAINS, OR OTHER SENSITIVE RESOURCE AREAS. WASH WATER SHALL NOT BE ALLOWED TO FLOW TO SURFACE WATER. THE FLOOD CONTINGENCY PLAN MUST ADDRESS THE CONCRETE WASHOUT IF THE WASHOUT IS TO BE LOCATED WITHIN THE FLOODPLAIN.
- SIZE: THE WASHOUT MUST HAVE SUFFICIENT VOLUME TO CONTAIN ALL LIQUID AND CONCRETE WASTE GENERATED BY WASHOUT OPERATIONS WITH A MINIMUM FREEBOARD OF 12".
- SURFACE DISCHARGE IS UNACCEPTABLE. THEREFORE, HAY BALES OR OTHER CONTROL MEASURES, AS APPROVED BY THE ENGINEER, SHOULD BE USED AROUND THE PERIMETER OF THE CONCRETE WASHOUT AREA FOR CONTAINMENT.
- SIGNS SHOULD BE PLACED AT THE CONSTRUCTION ENTRANCE, AT THE CONCRETE AREA(S) AND ELSEWHERE AS NECESSARY TO CLEARLY INDICATE THE LOCATION OF THE CONCRETE WASHOUT TO OPERATORS OF CONCRETE TRUCKS AND PUMP RIGS. WASHOUT AREA(S) SHOULD BE FLAGGED WITH SAFETY FENCING OR OTHER APPROVED METHODS.
- WASHOUT AREA(S) ARE TO BE INSPECTED AT LEAST ONCE A WEEK FOR STRUCTURAL INTEGRITY, ADEQUATE HOLDING CAPACITY AND CHECKED FOR LEAKS, TEARS, OR OVERFLOWS. (AS REQUIRED BY THE CONTRACTOR SITE ENVIRONMENTAL INSPECTION REPORT) WASHOUT AREA(S) SHOULD BE CHECKED AFTER HEAVY RAINS. WASHOUT AREA(S) SHALL NOT BE FILLED BEYOND 95% CAPACITY UNLESS A NEW WASHOUT AREA IS CONSTRUCTED.
- HARDENED CONCRETE WASTE SHOULD BE REMOVED AND DISPOSED OF WHEN THE WASTE HAS ACCUMULATED TO HALF OF THE CONCRETE WASHOUT'S HEIGHT. THE WASTE CAN BE STORED AT AN UPLAND LOCATION, AS APPROVED BY THE ENGINEER. ALL CONCRETE WASTE SHALL BE DISPOSED OF IN A MANNER CONSISTENT WITH ALL APPLICABLE LAWS, REGULATIONS, AND GUIDELINES.

Concrete Washout Area
NOT TO SCALE

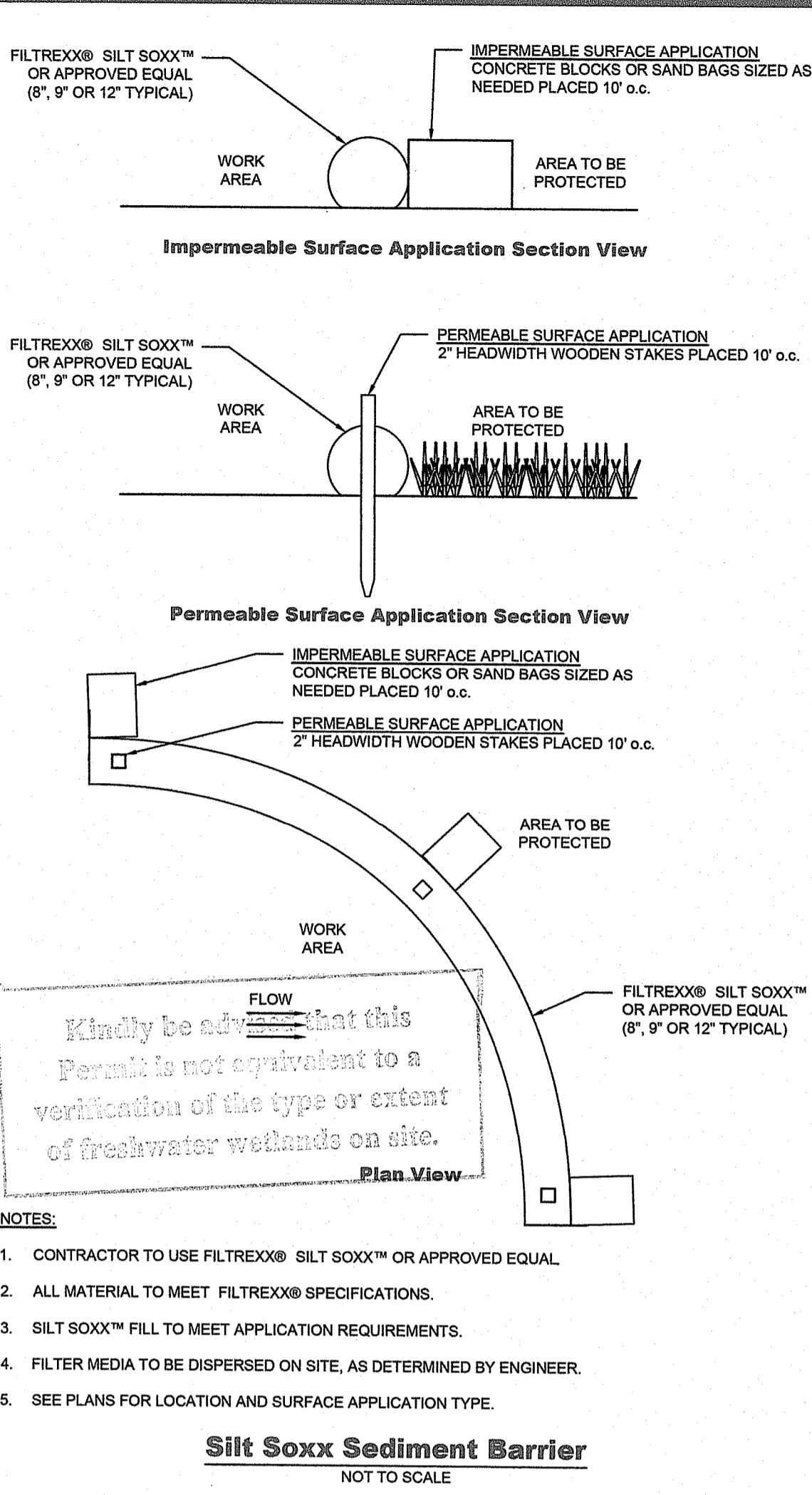
- Sequence of Construction**
- SURVEY AND STAKE LIMIT OF SEDIMENTATION BARRIERS/LIMIT DISTURBANCE.
 - INSTALL PERIMETER EROSION CONTROL BARRIERS AS SHOWN ON THE PLANS ALONG LIMIT OF DISTURBANCE. IN NO CASE IS THE LIMIT OF DISTURBANCE TO EXTEND BEYOND THE SEDIMENTATION BARRIERS.
 - CLEAR BRUSH AND TREES ON SITE IF NECESSARY, WITHIN LIMIT OF DISTURBANCE. IN NO CASE IS THE LIMIT OF DISTURBANCE TO EXTEND BEYOND THE SEDIMENTATION BARRIERS OR CONSTRUCTION FENCING.
 - PRIOR TO REMOVAL OF STUMPS AND SOIL DISTURBANCE, INSTALL TEMPORARY SEDIMENT SWALE AND TRAPS AS PER PLANS. ALL TEMPORARY CONTROL DEVICES SHALL BE INSTALLED PER THE RHODE ISLAND SOIL EROSION AND SEDIMENTATION CONTROL HANDBOOK.
 - GRUB AND REMOVE TREE STUMPS ON SITE IF NECESSARY. TOPSOIL IS TO BE STRIPPED AND STOCKPILED IN APPROVED LOCATIONS SHOWN ON PLANS TO BE RE-USED FOLLOWING TEMPORARY GRADING ACTIVITIES FOR SOIL EROSION MEASURES. STOCKPILES ARE TO BE PROTECTED BY A ROW OF SILT FENCE AND COVERED OR TEMPORARILY SEEDED.
 - RE-GRADE SITE AS NECESSARY PER PLANS.
 - INSTALL SOLAR PROJECT INCLUDING BUT NOT LIMITED TO THE INSTALLATION OF THE RACKING SYSTEM, UNDERGROUND CONDUIT, EQUIPMENT PADS, ACCESS PATH, PANELS, NEW UTILITY POLES ON SITE, FENCING, ETC. AS REQUIRED BY APPROVED PLANS.
 - ONCE ROUGH GRADE ON THE SITE HAS BEEN ESTABLISHED AND SOLAR PANELS/EQUIPMENT HAS BEEN INSTALLED, DISTURBED AREAS SHALL BE LOANED AND SEEDED TO RE-ESTABLISH VEGETATION.
 - TEMPORARY SEDIMENT CONTROLS AND TRAPS ARE TO BE MAINTAINED AND REMAIN UNTIL THE SITE IS STABILIZED.
 - IN THE EVENT THE DRIP EDGE AT PANELS RESULTS IN RILL EROSION, INSTALL PROTECTIVE MEASURES SUCH AS CRUSHED STONE, EROSION CONTROLS BLANKETS, ETC. AS NEEDED.
 - REMOVE ALL TEMPORARY SOIL EROSION AND SEDIMENTATION CONTROL MEASURES FOLLOWING FINAL VEGETATIVE ESTABLISHMENT OF ALL DISTURBED AREAS AND FULL SITE STABILIZATION.
 - IMPLEMENT LONG TERM OPERATION AND MAINTENANCE PLAN.



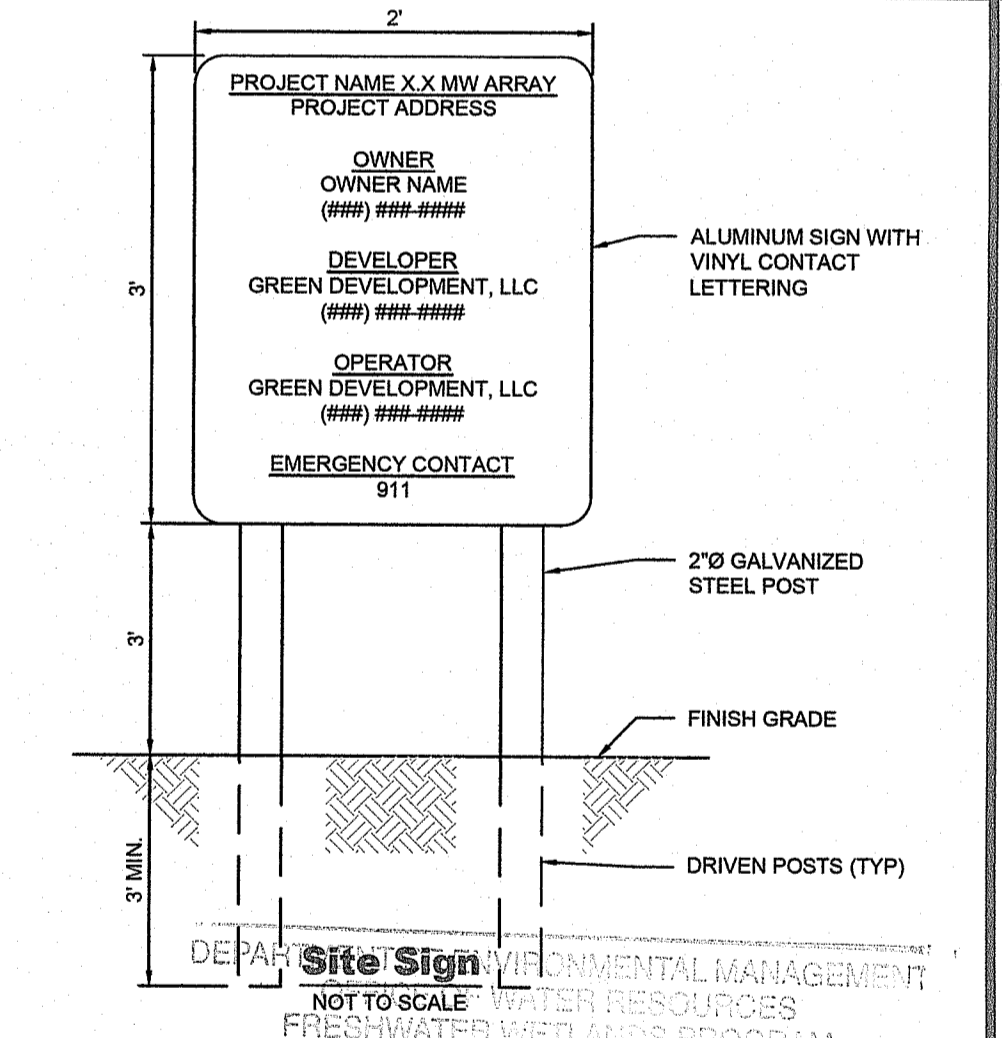
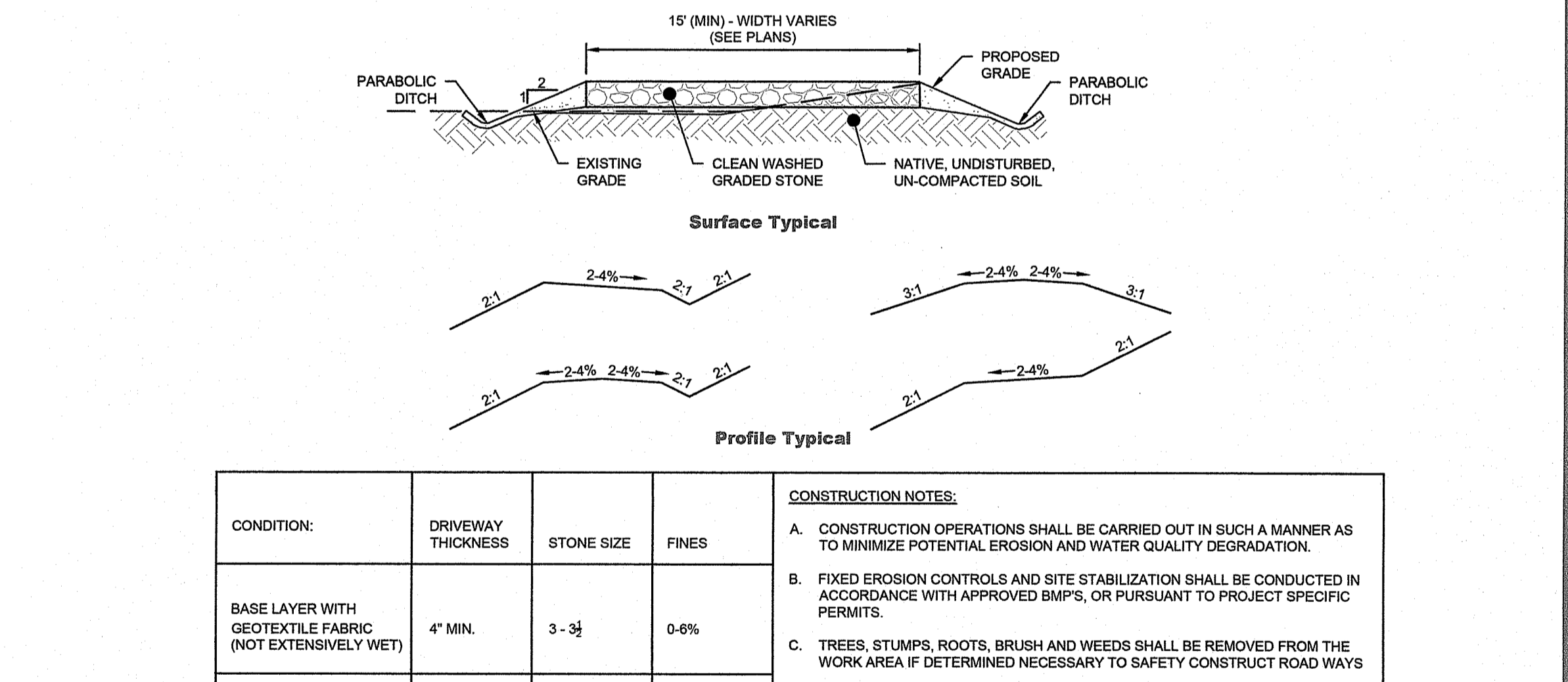
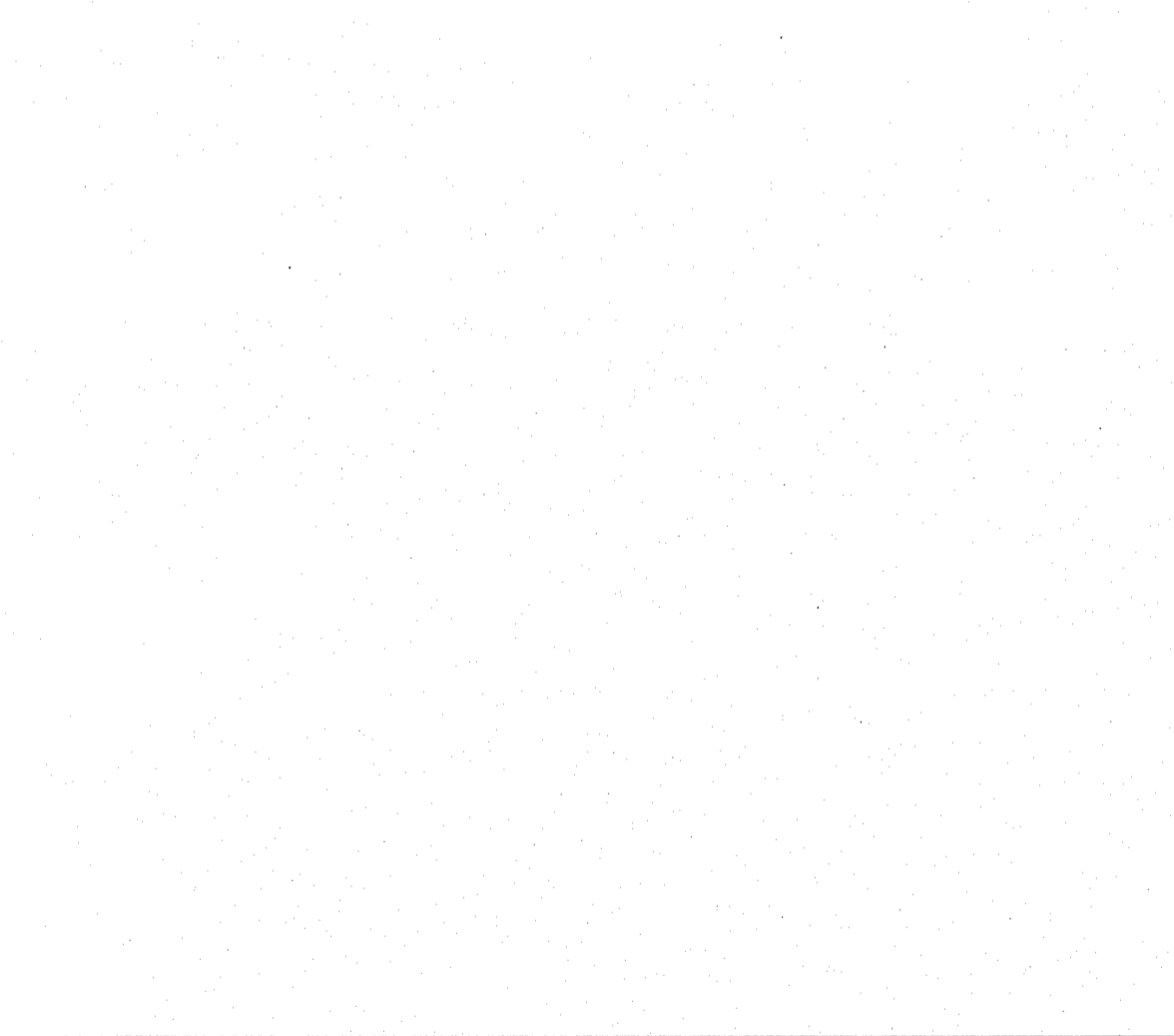
Chain Link Fence
NOT TO SCALE



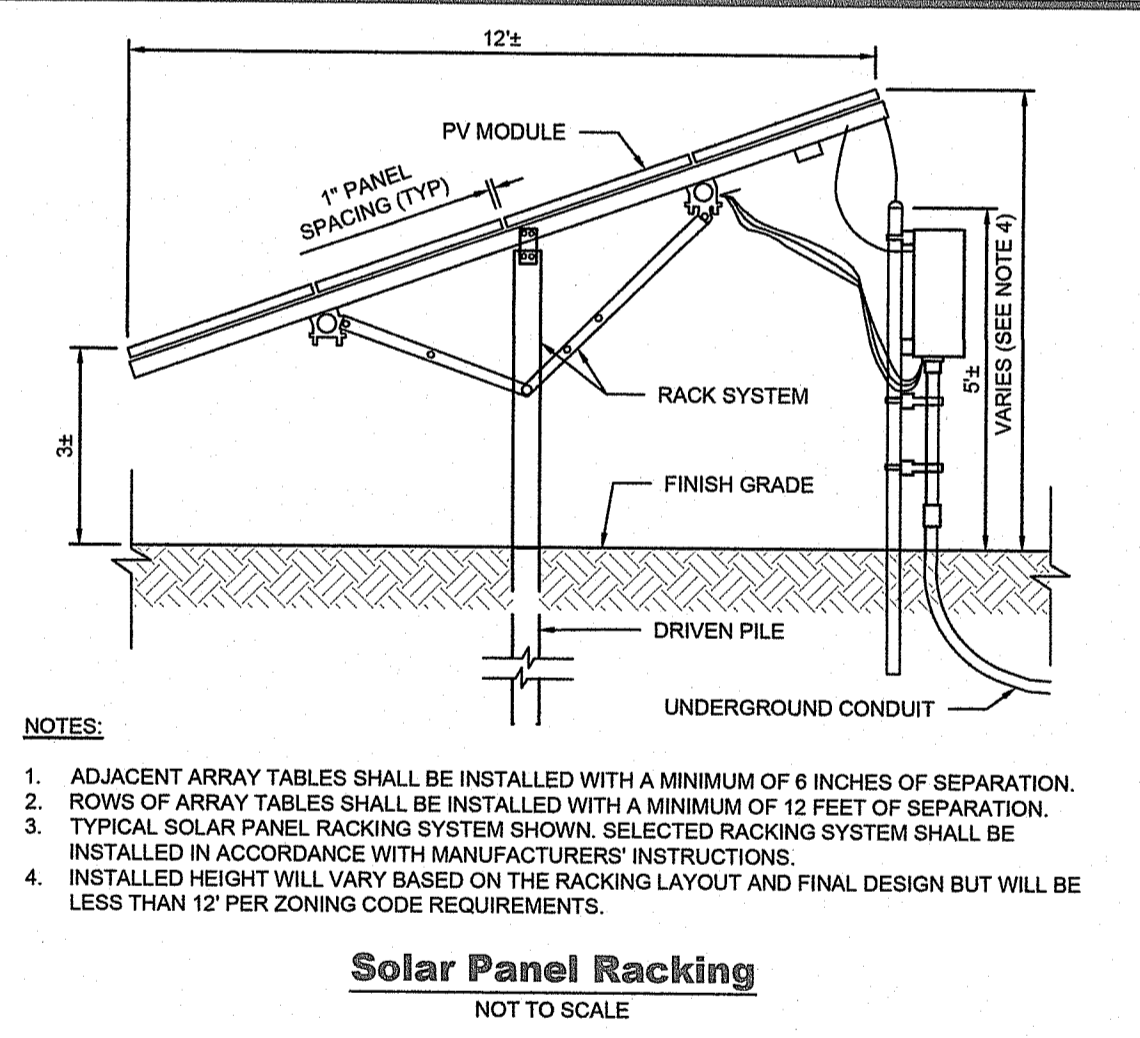
Chain Link Double Leaf Swing Gate
NOT TO SCALE



Silt Soxx Sediment Barrier
NOT TO SCALE



Site Sign
NOT TO SCALE



Solar Panel Racking
NOT TO SCALE

CONDITION:	DRIVEWAY THICKNESS	STONE SIZE	FINES	CONSTRUCTION NOTES:
BASE LAYER WITH GEOTEXTILE FABRIC (NOT EXTENSIVELY WET)	4" MIN.	3-3/4"	0-6%	A. CONSTRUCTION OPERATIONS SHALL BE CARRIED OUT IN SUCH A MANNER AS TO MINIMIZE POTENTIAL EROSION AND WATER QUALITY DEGRADATION. B. FIXED EROSION CONTROLS AND SITE STABILIZATION SHALL BE CONDUCTED IN ACCORDANCE WITH APPROVED BMPs, OR PURSUANT TO PROJECT SPECIFIC PERMITS. C. TREES, STUMPS, ROOTS, BRUSH AND WEEDS SHALL BE REMOVED FROM THE WORK AREA IF DETERMINED NECESSARY TO SAFELY CONSTRUCT ROADWAYS D. ON WEAK BEARING SOIL SUCH AS LOOSE ALLUVIAL, OR WETLANDS SOILS, SURFACE TREATMENT SHOULD BE UNDERLAIN WITH WOVEN GEOTEXTILES. E. AT MINIMUM, ROADSIDE DITCHES SHALL BE 1-FT BELOW ROAD SURFACE. F. DISCHARGE POINTS FOR DITCHES SHALL NOT BE NEAR WETLANDS OF STREAMS, AND OR BE LOCATED AT THE DIRECTION OF THE EPSCS.
BASE LAYER WITH GEOTEXTILE FABRIC (WET CONDITIONS)	6" MIN.	3-3/4"	0-6%	

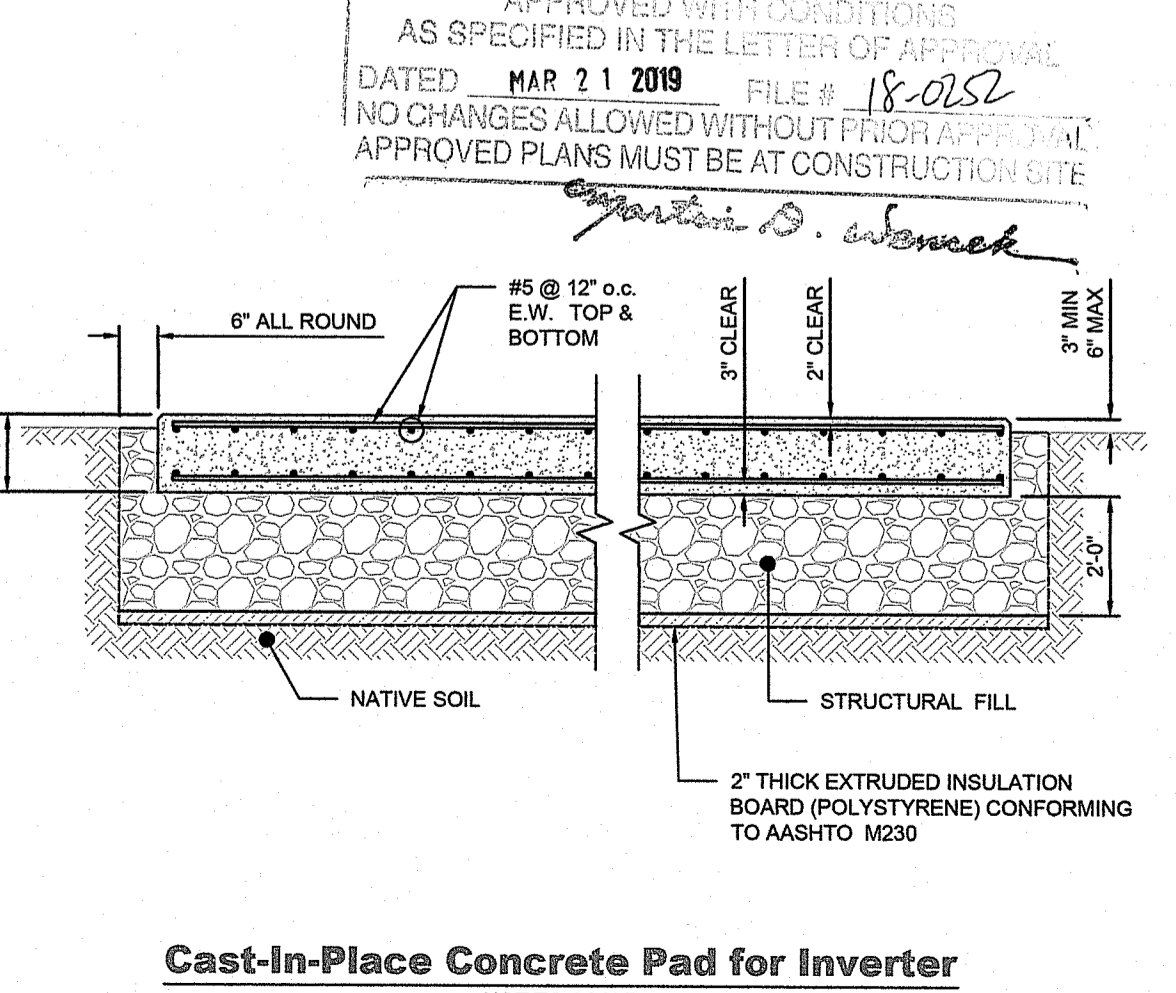
SIEVE DESIGNATION	PERCENTAGE BY MASS (WEIGHT) PASSING SQUARE MESH SIEVES	DENSE GRADED CRUSHED STONE FOR SUBBASE:
90 MM (3.5 INCH)	100	A. DENSE GRADED CRUSHED STONE FOR SUBBASE SHALL CONSIST OF CLEAN, HARD, UNIFORMLY GRADED, CRUSHED STONE. IT SHALL BE SUFFICIENTLY FREE FROM DIRTY, DELETERIOUS MATERIAL, AND PIECES THAT ARE STRUCTURALLY WEAK AND SHALL MEET THE FOLLOWING REQUIREMENTS: B. SOURCE OF MATERIALS SHALL BE OBTAINED FROM AREAS STRIPPED AND CLEANED OF SOIL AND DEBRIS BEFORE BLASTING. C. MATERIAL COARSER THAN THE THE 4.75 MM (NO.4) SIEVE SHALL NOT BE MORE THAN 30 PERCENT, BY MASS (WEIGHT), OF THIN AND/OR ELONGATED PIECES.
75 MM (3 INCH)	90-100	
50 MM (2 INCH)	75-100	
25 MM (1 INCH)	50-80	
12.5 MM (1/2 INCH)	30-60	
4.75 MM (NO.4)	15-40	
75 UM (NO. 200)	0-6	

SOURCES:

- SURFACING TYPICAL AND SURFACING SPECS. DERIVED FROM USDA NRCS DRAWING "ACCESS ROAD, ME-ENG-AR-1"
- PROFILE TYPICAL DERIVED FROM USDA FOREST SERVICE PUBLICATION "FOREST ROAD CONSTRUCTION AND MAINTENANCE"
- MATERIAL SPECS. DERIVED FROM VTRANS 704.06 SUBBASE

Material Specifications

Permeable Access Driveway
NOT TO SCALE



Cast-in-Place Concrete Pad for Inverter
NOT TO SCALE

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(401) 295-4998
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GREEN development, LLC

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OWNER INFO: **Norbert Ansay**
P.O. BOX 440, WYOMING, RI 02898

PREPARED BY: **Green Development, LLC**
3760 QUAKER LANE, NORTH KINGSTOWN, RI 02882

NO.	DATE	REVISION
3	12/27/2018	REBAR & PLANING REVISION
2	11/12/2018	TOWN PLANNER COMMENT
1	1/10/2018	DEVELOPMENT PLAN REVIEW & SPECIAL USE PERMIT SUBMISSION

Detail Sheet

PROJECT INFORMATION:
GD Richmond Buttonwoods I Solar
DIRECT CURRENT (DC): 1.56MW | ALTERNATING CURRENT (AC): 1.25MW
6 BUTTONWOODS ROAD, RICHMOND, RI 02898
ASSESSOR'S PLAT 4B LOT 54

SHEET TITLE: **Detail Sheet**

NO. **1** OF **16**

REGISTERED PROFESSIONAL ENGINEER
KEVIN C. MORIN
2/27/2018

SHEET NO.: **C1.7** OF **7**