

# JEPSON LANE SOLAR DEVELOPMENT

## 259 JEPSON LANE PORTSMOUTH, RI 02871

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF WATER RESOURCES  
FRESHWATER WETLANDS PROGRAM  
APPROVED WITH CONDITIONS  
AS SPECIFIED IN THE LETTER OF APPROVAL  
DATED JUL 14 2017 FILE # 17-0014  
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL  
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

*Martin D. Wenczek*

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

**DEVELOPER**  
**PORTSMOUTH SOLAR, LLC**  
**119 BRAINTREE STREET, SUITE 211**  
**ALLSTON, MA 02134**

**OWNER**  
**SEABURY APARTMENTS, LLC**  
**32 PERRAULT STREET**  
**PORTSMOUTH, RI 02871**

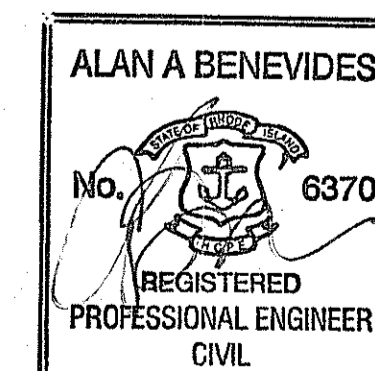
**PROPERTY**  
**MAP 60, LOT 3**

**APRIL 2017**

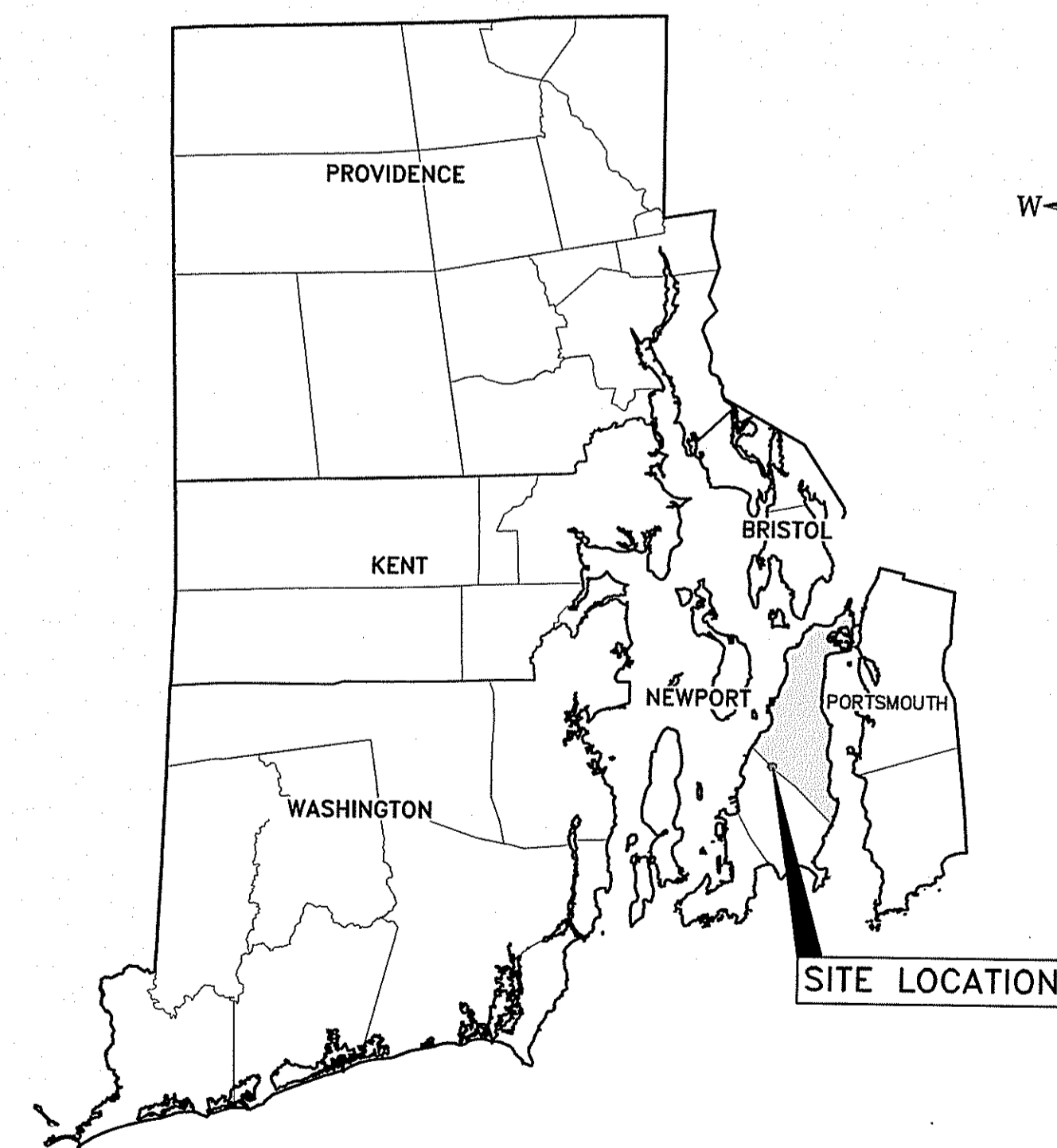
**SHEET INDEX**

<b>GENERAL</b>		
0	G-000	COVER SHEET
<b>CIVIL</b>		
1	C-100	EXISTING CONDITIONS PLAN
2	C-200	SITE PLAN
3	C-301	CIVIL DETAILS - 1
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**ENGINEER**

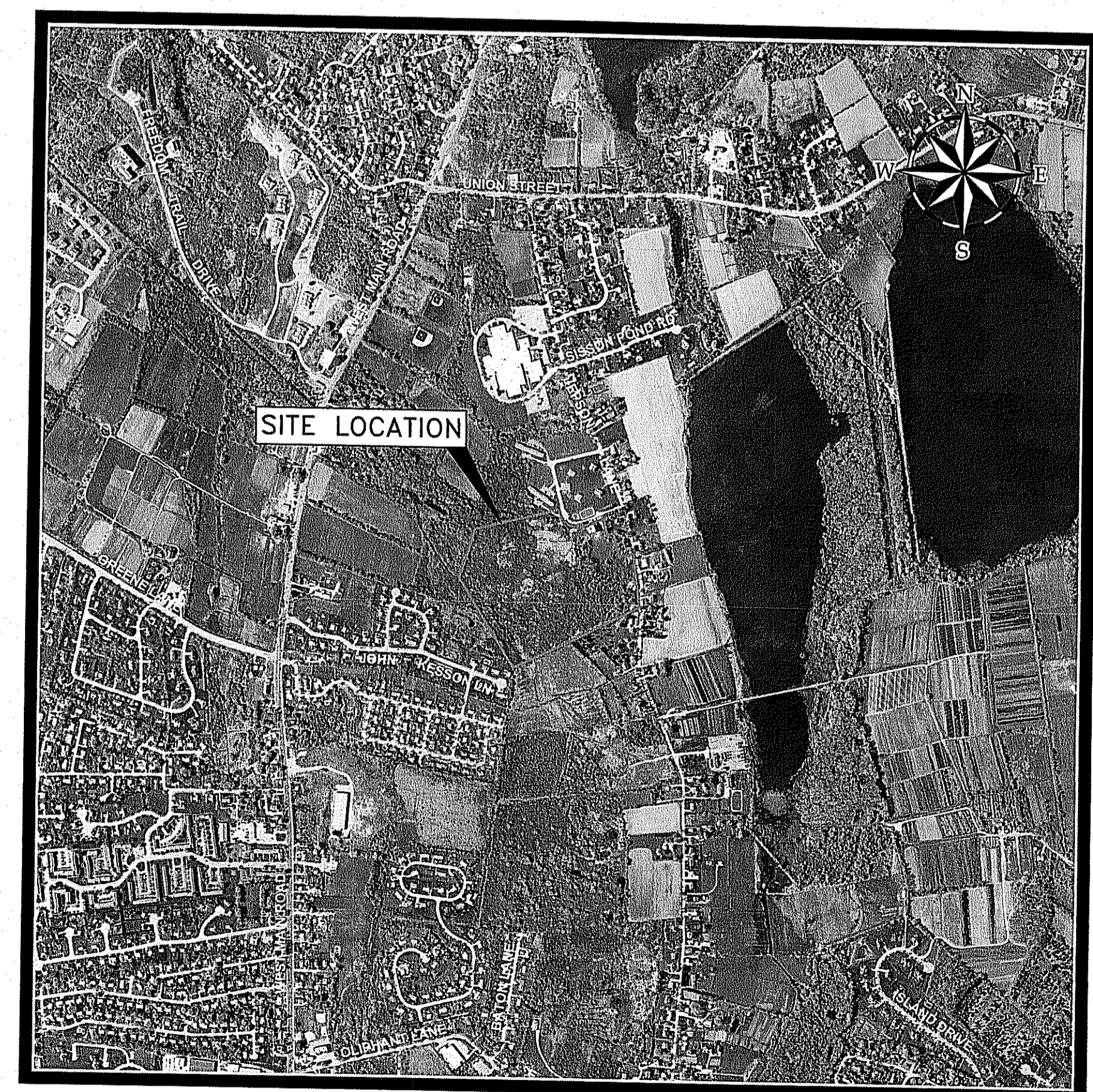
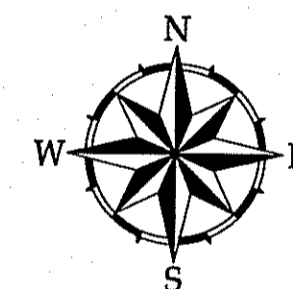


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**SITE LOCATION MAP**

SCALE: N.T.S.



REFERENCE: USGS NATIONAL DATABASE

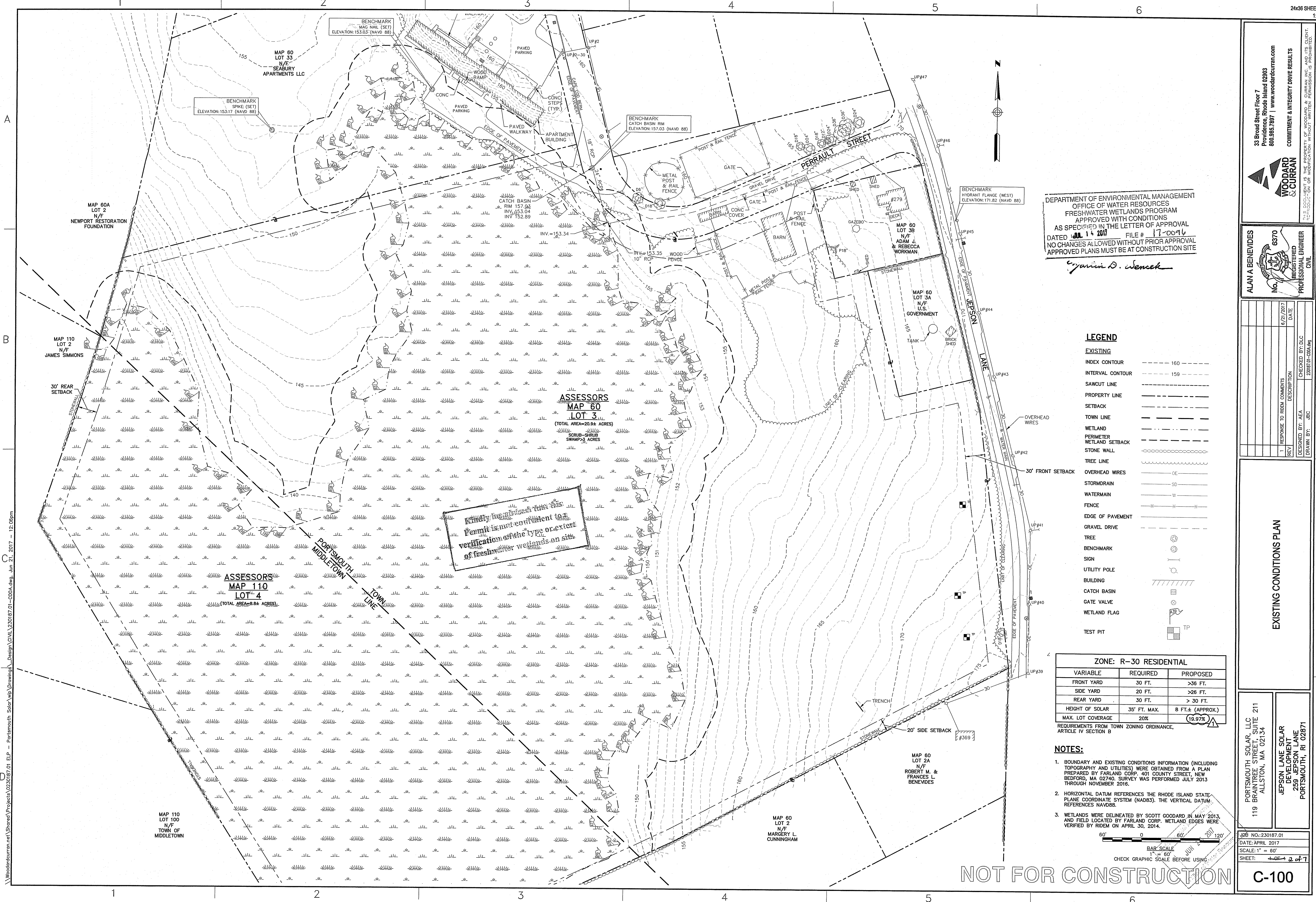
**SITE LOCATION AERIAL PHOTO**

SCALE: 1" = 1000'  
0 1000 2000  
FEET

Environmental Management  
JUN 26 2017  
Office of Water Resources

G-000

\\woodardcurran.net\Shared\Projects\0230187.01 ELP - Portsmouth Solar\Map Drawings\GENERAL\0230187.01 G-000.dwg, Jun 21, 2017, 12:06pm



DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
 OFFICE OF WATER RESOURCES  
 FRESHWATER WETLANDS PROGRAM  
 APPROVED WITH CONDITIONS  
 AS SPECIFIED IN THE LETTER OF APPROVAL  
 DATED June 14 2017 FILE # 17-0096  
 NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL  
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*Yvonne D. Senack*

**LEGEND**

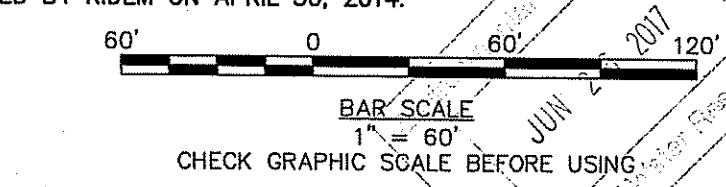
EXISTING INDEX CONTOUR	---	160
INTERVAL CONTOUR	---	159
SAWCUT LINE	---	
PROPERTY LINE	---	
SETBACK	---	
TOWN LINE	---	
WETLAND PERIMETER	---	
WETLAND SETBACK	---	
STONE WALL	---	
TREE LINE	---	
OVERHEAD WIRES	---	
STORMDRAIN	---	
WATERMAIN	---	
FENCE	---	
EDGE OF PAVEMENT	---	
GRAVEL DRIVE	---	
TREE	---	
BENCHMARK	---	
SIGN	---	
UTILITY POLE	---	
BUILDING	---	
CATCH BASIN	---	
GATE VALVE	---	
WETLAND FLAG	---	
TEST PIT	---	

**ZONE: R-30 RESIDENTIAL**

VARIABLE	REQUIRED	PROPOSED
FRONT YARD	30 FT.	>36 FT.
SIDE YARD	20 FT.	>26 FT.
REAR YARD	30 FT.	> 30 FT.
HEIGHT OF SOLAR	35' FT. MAX.	8 FT.± (APPROX.)
MAX. LOT COVERAGE	20%	(19.97%)

REQUIREMENTS FROM TOWN ZONING ORDINANCE, ARTICLE IV SECTION B

- NOTES:**
- BOUNDARY AND EXISTING CONDITIONS INFORMATION (INCLUDING TOPOGRAPHY AND UTILITIES) WERE OBTAINED FROM A PLAN PREPARED BY FARLAND CORP. 401 COUNTY STREET, NEW BEDFORD, MA 02740. SURVEY WAS PERFORMED JULY 2013 THROUGH NOVEMBER 2016.
  - HORIZONTAL DATUM REFERENCES THE RHODE ISLAND STATE-PLANE COORDINATE SYSTEM (NAD83). THE VERTICAL DATUM, REFERENCES NAVD88.
  - WETLANDS WERE DELINEATED BY SCOTT GOODARD IN MAY 2013, AND FIELD LOCATED BY FARLAND CORP. WETLAND EDGES WERE VERIFIED BY RIDEM ON APRIL 30, 2014.



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**WOODARD & CURRAN**  
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ALANA BENEVIDES  
 No. 6370  
 REGISTERED PROFESSIONAL ENGINEER  
 CIVIL

RESPONSE TO RIDEM COMMENTS  
 DATE: 6/21/2017

DESIGNED BY: ACA  
 CHECKED BY: D.C.  
 DRAWN BY: JBC

**EXISTING CONDITIONS PLAN**

PORTSMOUTH SOLAR, LLC  
 119 BRAINTREE STREET, SUITE 211  
 ALLSTON, MA 02134

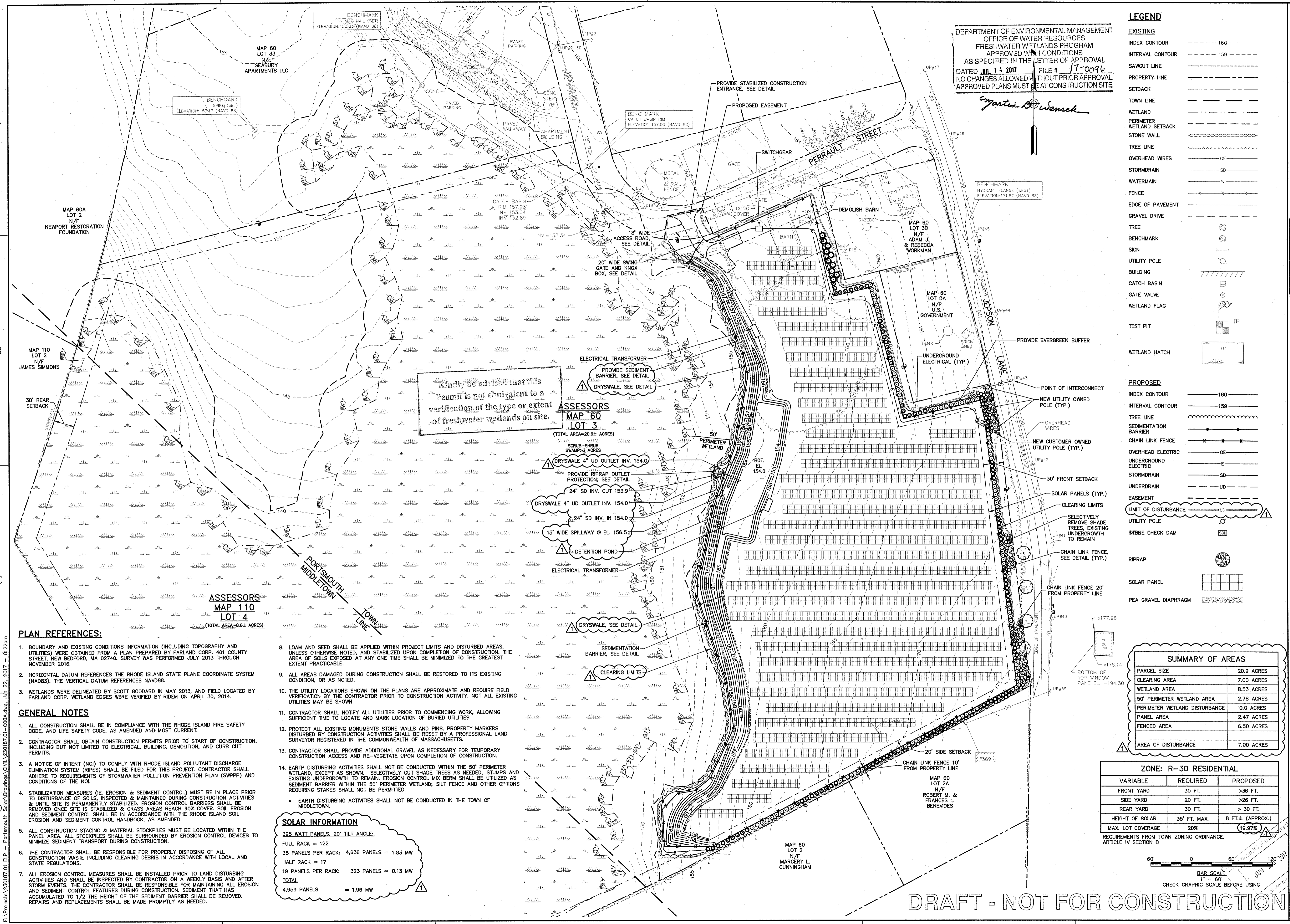
JEPPSON LANE SOLAR DEVELOPMENT  
 259 JEPPSON LANE  
 PORTSMOUTH, RI 02871

JOB NO.: 230187.01  
 DATE: APRIL 2017  
 SCALE: 1" = 60'  
 SHEET: 1 of 2

**C-100**

NOT FOR CONSTRUCTION

WoodardCurran.net \Share\Projects\0230187.01 ELP - Portsmouth Solar\Drawings\Design\Civil\230187.01-C00A.dwg, Jun 21, 2017 - 12:06pm



DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
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*Martin W. Senack*

**LEGEND**

EXISTING	
INDEX CONTOUR	---
INTERVAL CONTOUR	---
SAWCUT LINE	---
PROPERTY LINE	---
SETBACK	---
TOWN LINE	---
WETLAND	---
PERIMETER WETLAND SETBACK	---
STONE WALL	---
TREE LINE	---
OVERHEAD WIRES	---
STORMDRAIN	---
WATERMAIN	---
FENCE	---
EDGE OF PAVEMENT	---
GRAVEL DRIVE	---
TREE	---
BENCHMARK	---
SIGN	---
UTILITY POLE	---
BUILDING	---
CATCH BASIN	---
GATE VALVE	---
WETLAND FLAG	---
TEST PIT	---
WETLAND HATCH	---
PROPOSED	
INDEX CONTOUR	---
INTERVAL CONTOUR	---
TREE LINE	---
SEDIMENTATION BARRIER	---
CHAIN LINK FENCE	---
OVERHEAD ELECTRIC	---
UNDERGROUND ELECTRIC	---
STORMDRAIN	---
UNDERDRAIN	---
EASEMENT	---
LIMIT OF DISTURBANCE	---
UTILITY POLE	---
SEDIMENT CHECK DAM	---
RIPRAP	---
SOLAR PANEL	---
PEA GRAVEL DIAPHRAGM	---

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ALAN A. BENEVIDES  
 No. 6370  
 REGISTERED PROFESSIONAL ENGINEER  
 CIVIL

**SITE PLAN**

RESPONSE TO RIDEM COMMENTS	6/21/2017	DATE
REV	DESCRIPTION	CHECKED BY: D.C.
1		DESIGNED BY: AEA
		DRAWN BY: JBC

**SUMMARY OF AREAS**

PARCEL SIZE	20.9 ACRES
CLEARING AREA	7.00 ACRES
WETLAND AREA	8.53 ACRES
50' PERIMETER WETLAND AREA	2.78 ACRES
PERIMETER WETLAND DISTURBANCE	0.0 ACRES
PANEL AREA	2.47 ACRES
FENCED AREA	6.50 ACRES
AREA OF DISTURBANCE	7.00 ACRES

**ZONE: R-30 RESIDENTIAL**

VARIABLE	REQUIRED	PROPOSED
FRONT YARD	30 FT.	>36 FT.
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MAX. LOT COVERAGE	20%	(19.97%)

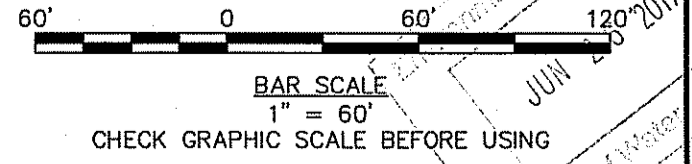
REQUIREMENTS FROM TOWN ZONING ORDINANCE, ARTICLE IV SECTION B

**SOLAR INFORMATION**

395 WATT PANELS, 20° TILT ANGLE

FULL RACK = 122
38 PANELS PER RACK: 4,636 PANELS = 1.83 MW
HALF RACK = 17
19 PANELS PER RACK: 323 PANELS = 0.13 MW
TOTAL
4,959 PANELS = 1.96 MW

- PLAN REFERENCES:**
- BOUNDARY AND EXISTING CONDITIONS INFORMATION (INCLUDING TOPOGRAPHY AND UTILITIES) WERE OBTAINED FROM A PLAN PREPARED BY FARLAND CORP., 401 COUNTY STREET, NEW BEDFORD, MA 02740. SURVEY WAS PERFORMED JULY 2013 THROUGH NOVEMBER 2016.
  - HORIZONTAL DATUM REFERENCES THE RHODE ISLAND STATE PLANE COORDINATE SYSTEM (NAD83), THE VERTICAL DATUM REFERENCES NAVD83.
  - WETLANDS WERE DELINEATED BY SCOTT GOODARD IN MAY 2013, AND FIELD LOCATED BY FARLAND CORP. WETLAND EDGES WERE VERIFIED BY RIDEM ON APRIL 30, 2014.
- GENERAL NOTES**
- ALL CONSTRUCTION SHALL BE IN COMPLIANCE WITH THE RHODE ISLAND FIRE SAFETY CODE, AND LIFE SAFETY CODE, AS AMENDED AND MOST CURRENT.
  - CONTRACTOR SHALL OBTAIN CONSTRUCTION PERMITS PRIOR TO START OF CONSTRUCTION, INCLUDING BUT NOT LIMITED TO ELECTRICAL, BUILDING, DEMOLITION, AND CURB CUT PERMITS.
  - A NOTICE OF INTENT (NOI) TO COMPLY WITH RHODE ISLAND POLLUTANT DISCHARGE ELIMINATION SYSTEM (RPDES) SHALL BE FILED FOR THIS PROJECT. CONTRACTOR SHALL ADHERE TO REQUIREMENTS OF STORMWATER POLLUTION PREVENTION PLAN (SWPPP) AND CONDITIONS OF THE NOI.
  - STABILIZATION MEASURES (IE EROSION & SEDIMENT CONTROL) MUST BE IN PLACE PRIOR TO DISTURBANCE OF SOILS, INSPECTED & MAINTAINED DURING CONSTRUCTION ACTIVITIES & UNTIL SITE IS PERMANENTLY STABILIZED. EROSION CONTROL BARRIERS SHALL BE REMOVED ONCE SITE IS STABILIZED & GRASS AREAS REACH 90% COVER. SOIL EROSION AND SEDIMENT CONTROL SHALL BE IN ACCORDANCE WITH THE RHODE ISLAND SOIL EROSION AND SEDIMENT CONTROL HANDBOOK, AS AMENDED.
  - ALL CONSTRUCTION STAGING & MATERIAL STOCKPILES MUST BE LOCATED WITHIN THE PANEL AREA. ALL STOCKPILES SHALL BE SURROUNDED BY EROSION CONTROL DEVICES TO MINIMIZE SEDIMENT TRANSPORT DURING CONSTRUCTION.
  - THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROPERLY DISPOSING OF ALL CONSTRUCTION WASTE INCLUDING CLEARING DEBRIS IN ACCORDANCE WITH LOCAL AND STATE REGULATIONS.
  - ALL EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO LAND DISTURBING ACTIVITIES AND SHALL BE INSPECTED BY CONTRACTOR ON A WEEKLY BASIS AND AFTER STORM EVENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL EROSION AND SEDIMENT CONTROL FEATURES DURING CONSTRUCTION. SEDIMENT THAT HAS ACCUMULATED TO 1/2 THE HEIGHT OF THE SEDIMENT BARRIER SHALL BE REMOVED. REPAIRS AND REPLACEMENTS SHALL BE MADE PROMPTLY AS NEEDED.
  - LOAM AND SEED SHALL BE APPLIED WITHIN PROJECT LIMITS AND DISTURBED AREAS, UNLESS OTHERWISE NOTED, AND STABILIZED UPON COMPLETION OF CONSTRUCTION. THE AREA OF SOILS EXPOSED AT ANY ONE TIME SHALL BE MINIMIZED TO THE GREATEST EXTENT PRACTICABLE.
  - ALL AREAS DAMAGED DURING CONSTRUCTION SHALL BE RESTORED TO ITS EXISTING CONDITION, OR AS NOTED.
  - THE UTILITY LOCATIONS SHOWN ON THE PLANS ARE APPROXIMATE AND REQUIRE FIELD VERIFICATION BY THE CONTRACTOR PRIOR TO CONSTRUCTION ACTIVITY. NOT ALL EXISTING UTILITIES MAY BE SHOWN.
  - CONTRACTOR SHALL NOTIFY ALL UTILITIES PRIOR TO COMMENCING WORK, ALLOWING SUFFICIENT TIME TO LOCATE AND MARK BURIED UTILITIES.
  - PROTECT ALL EXISTING MONUMENTS STONE WALLS AND PINS. PROPERTY MARKERS DISTURBED BY CONSTRUCTION ACTIVITIES SHALL BE RESET BY A PROFESSIONAL LAND SURVEYOR REGISTERED IN THE COMMONWEALTH OF MASSACHUSETTS.
  - CONTRACTOR SHALL PROVIDE ADDITIONAL GRAVEL AS NECESSARY FOR TEMPORARY CONSTRUCTION ACCESS AND RE-VEGETATE UPON COMPLETION OF CONSTRUCTION.
  - EARTH DISTURBING ACTIVITIES SHALL NOT BE CONDUCTED WITHIN THE 50' PERIMETER WETLAND, EXCEPT AS SHOWN. SELECTIVELY CUT SHADE TREES AS NEEDED; STUMPS AND EXISTING UNDERGROWTH TO REMAIN. EROSION CONTROL MIX BERM SHALL BE UTILIZED AS SEDIMENT BARRIER WITHIN THE 50' PERIMETER WETLAND; SILT FENCE AND OTHER OPTIONS REQUIRING STAKES SHALL NOT BE PERMITTED.
  - EARTH DISTURBING ACTIVITIES SHALL NOT BE CONDUCTED IN THE TOWN OF MIDDLETOWN.



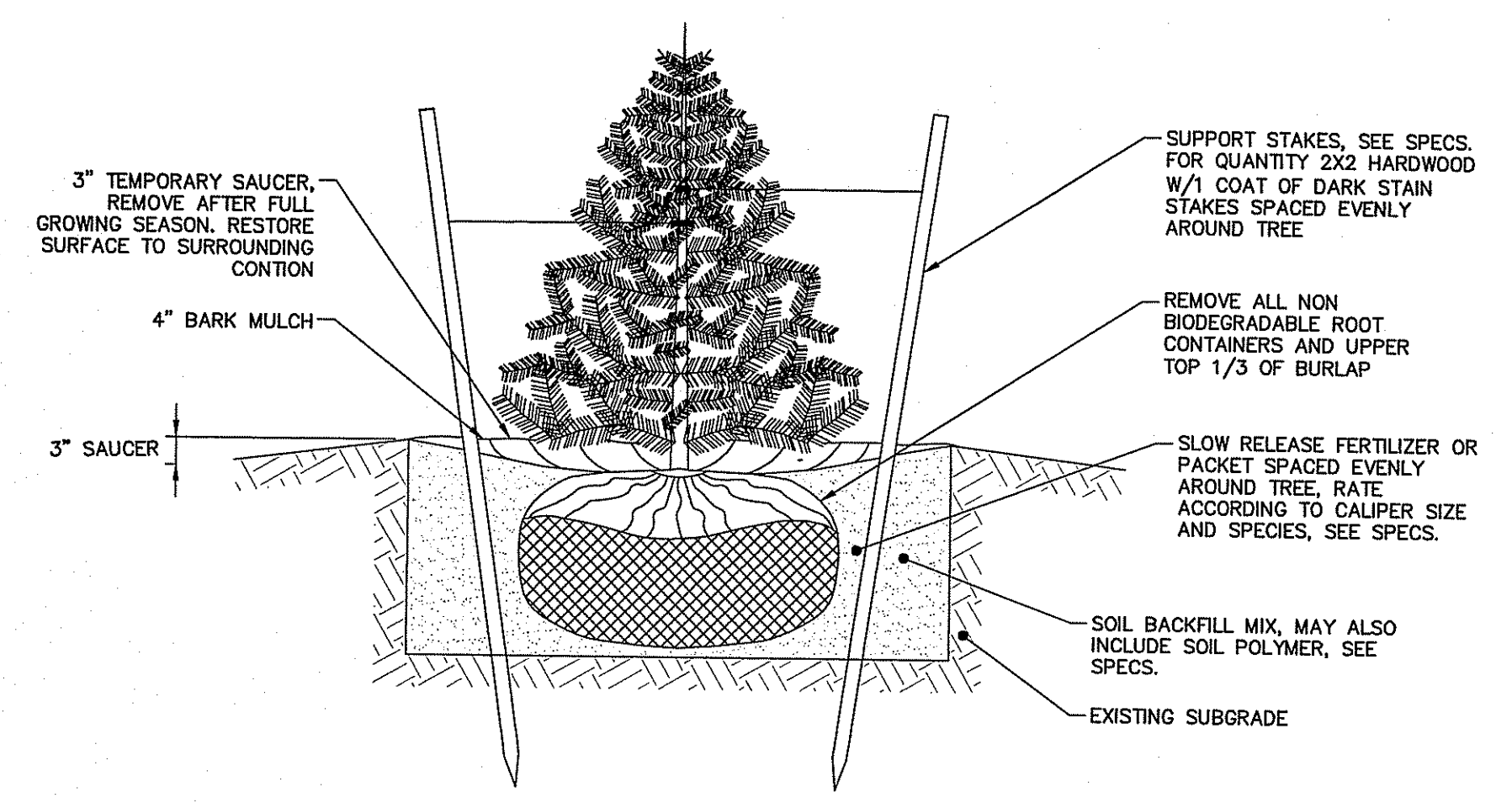
**DRAFT - NOT FOR CONSTRUCTION**

PORTSMOUTH SOLAR, LLC  
 119 BRAINTREE STREET, SUITE 211  
 ALLSTON, MA 02134

JEFFSON LANE SOLAR  
 DEVELOPMENT  
 259 JEFFSON LANE  
 PORTSMOUTH, RI 02871

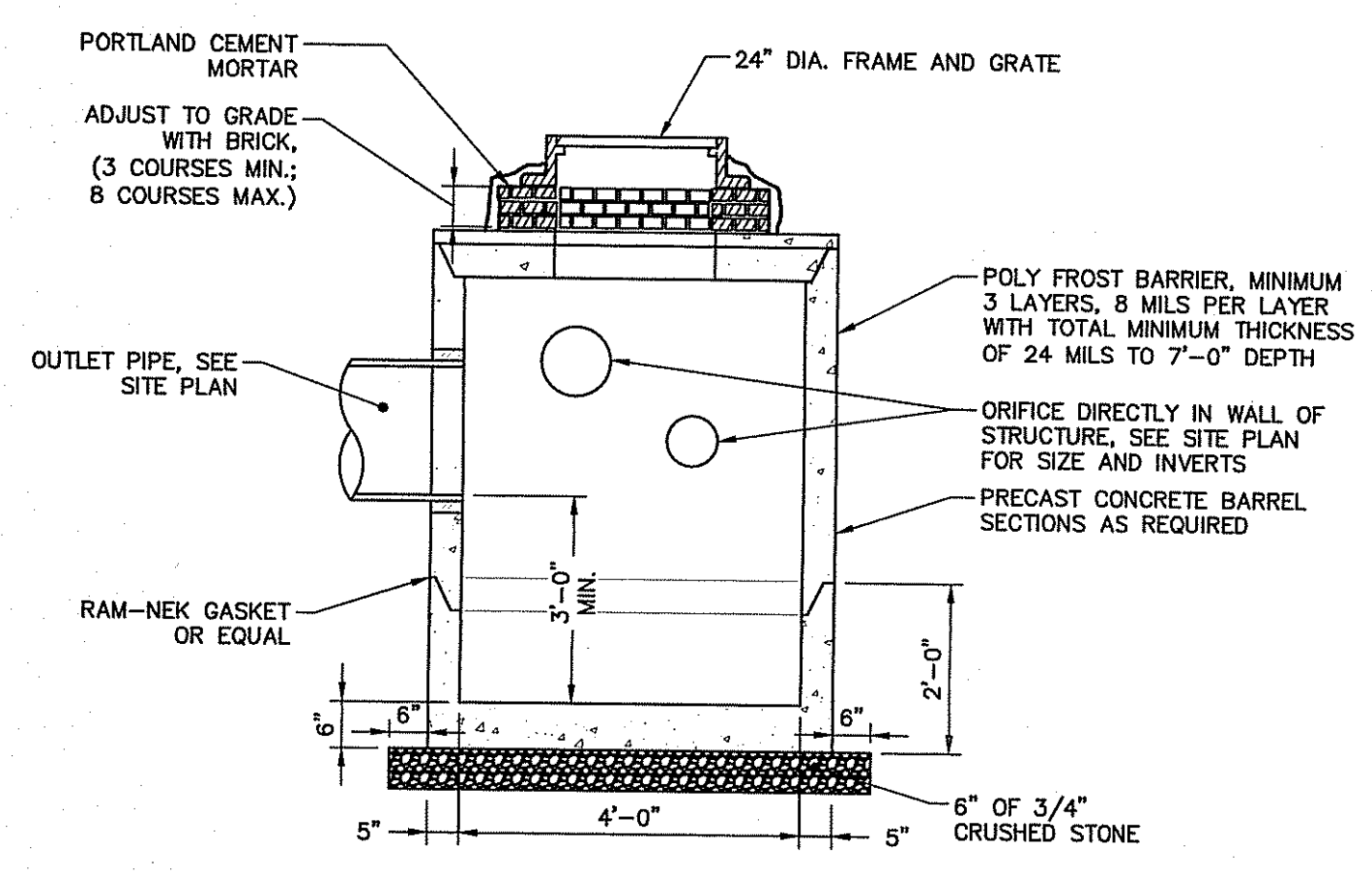
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 DATE: APRIL 2017  
 SCALE: 1" = 60'  
 SHEET: 2 of 7

**C-200**

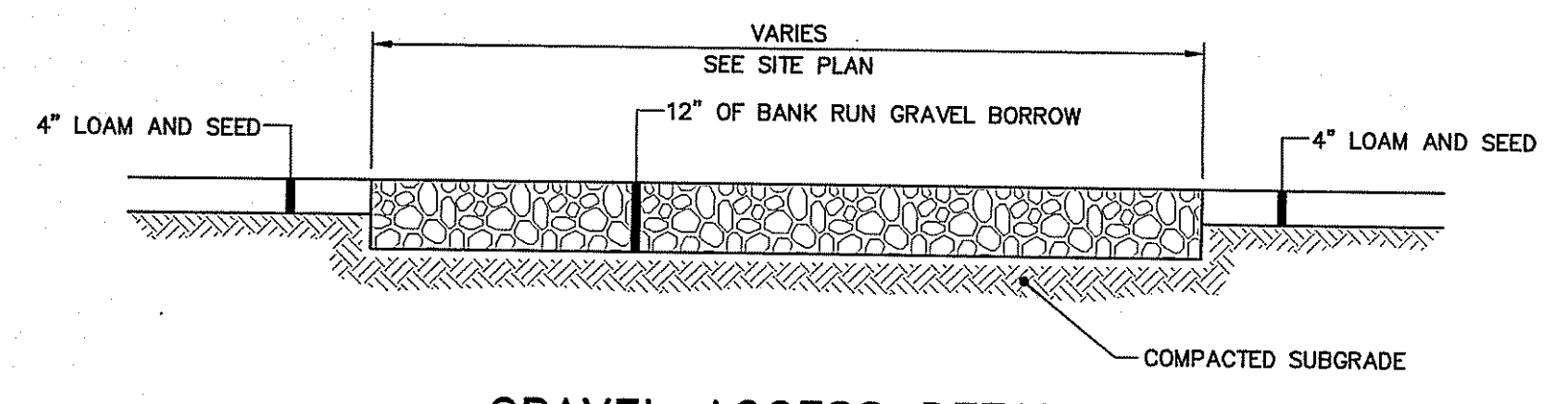


- NOTES:
- NEVER CUT OUT CENTRAL LEADER, PRUNE OUT BROKEN, DEAD OR CONFLICTING BRANCHES
  - SEE SPECS. FOR ADDITIONAL REQUIREMENTS
  - TREE GUYS SHALL BE GUYING CHAIN, WEB STRAPPING OR TIE WIRE, RUBBER HOSE AND TURNBUCKLES

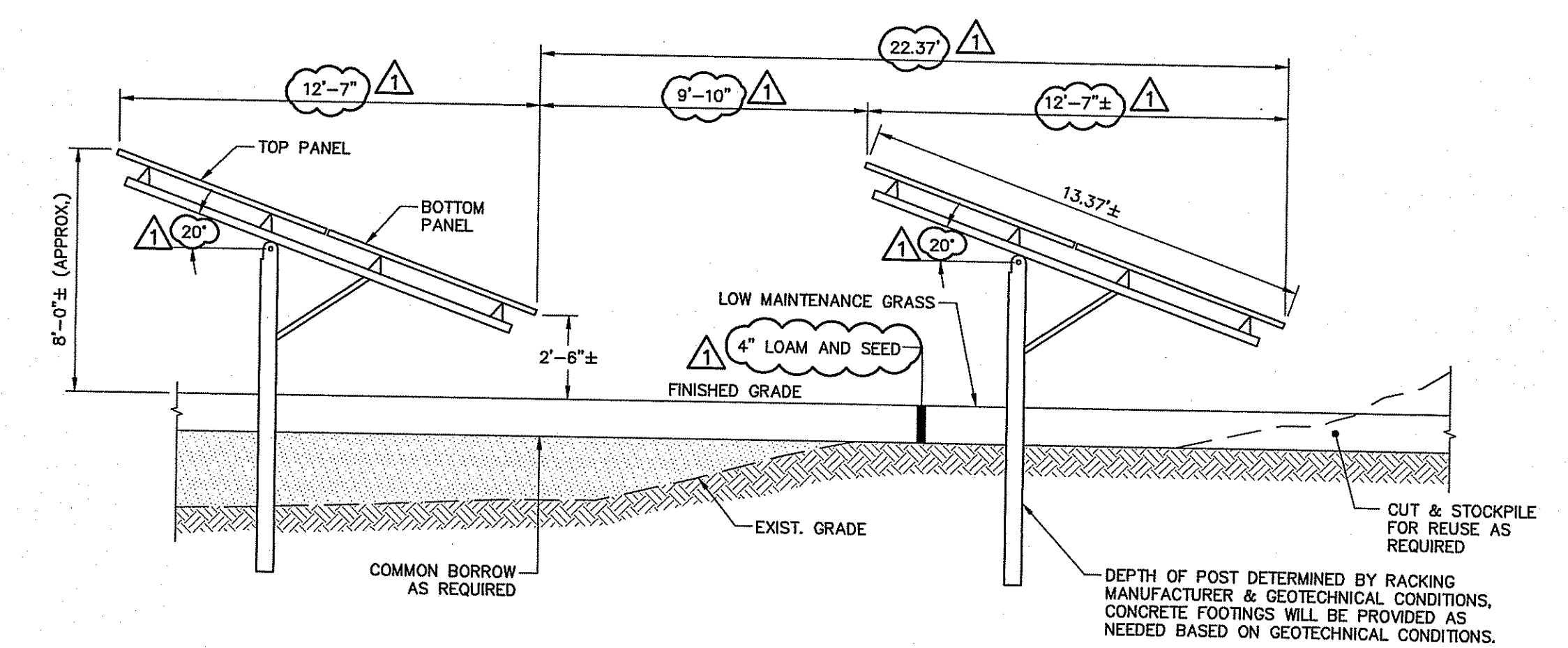
**EVERGREEN TREE PLANTING AND STAKING**  
NOT TO SCALE



**OUTLET CONTROL STRUCTURE DETAIL**  
N.T.S.



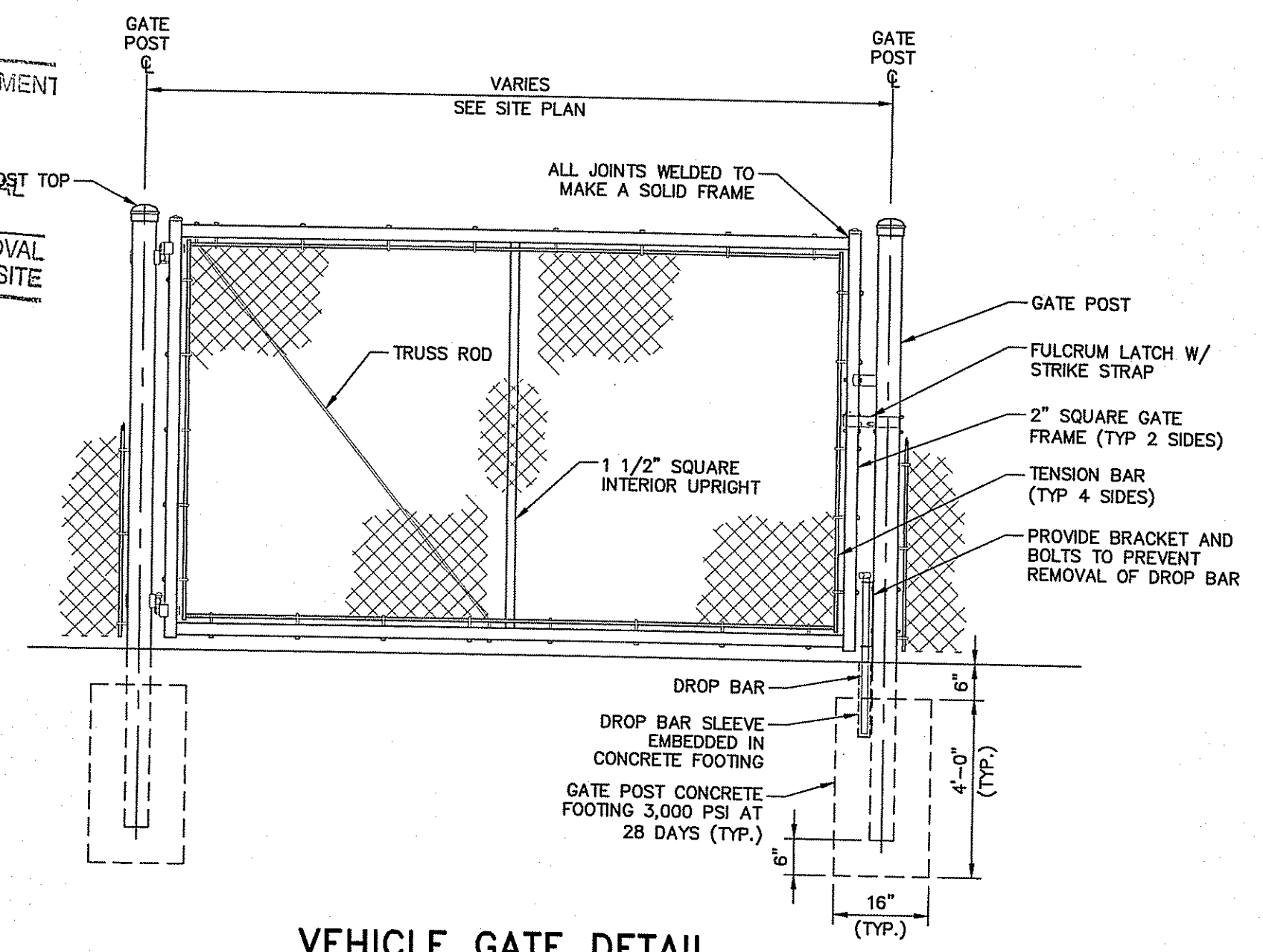
**GRAVEL ACCESS DETAIL**  
N.T.S.



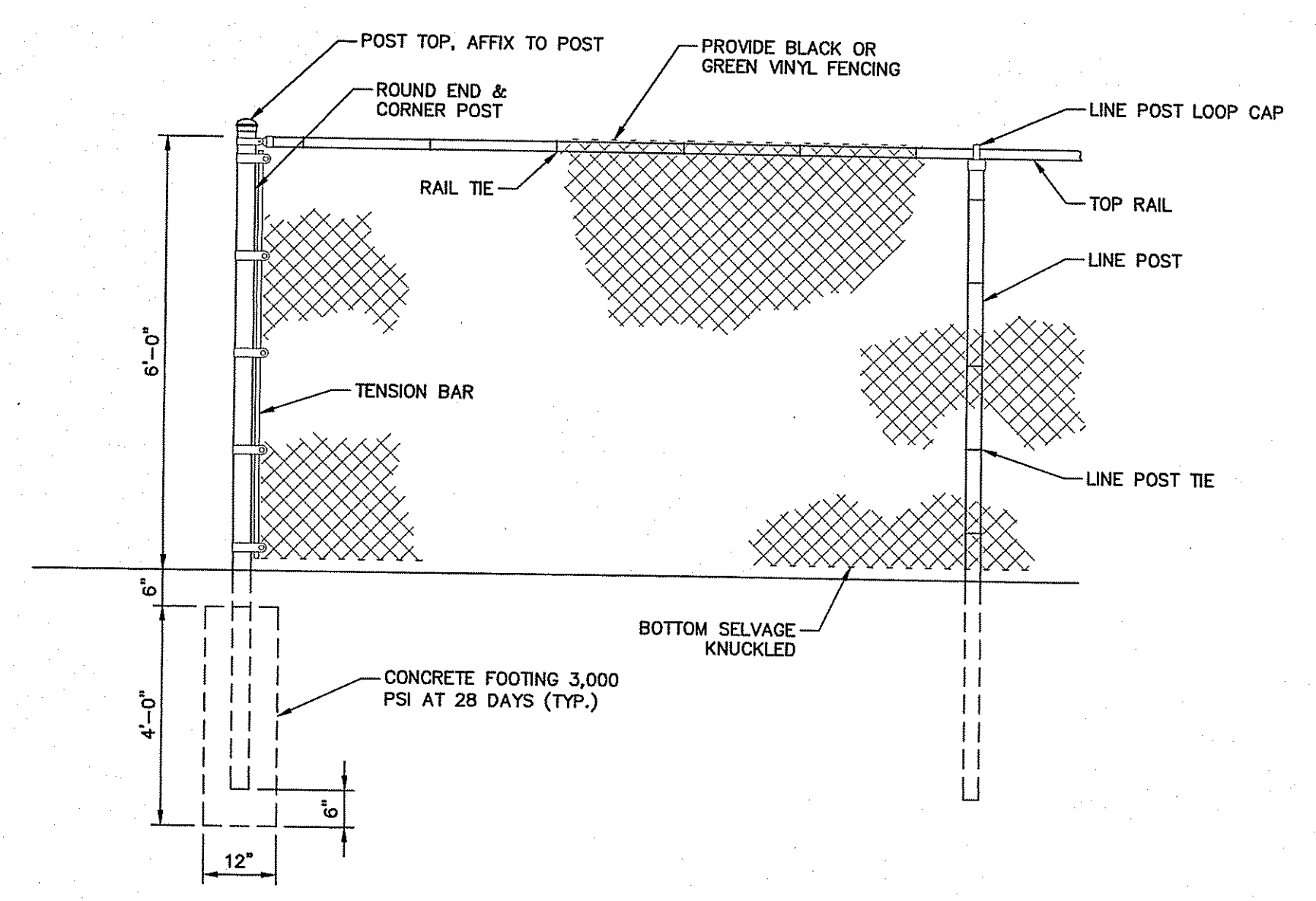
**TYPICAL SOLAR PANELS & RACK SCHEMATIC**  
N.T.S.  
(SEE RACKING DESIGN DRAWINGS)

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*Matthew D. Wencel*



**VEHICLE GATE DETAIL**  
N.T.S.



**CHAIN LINK FENCE DETAIL**  
N.T.S.

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ALAN A. BENEVIDES  
No. 6370  
REGISTERED PROFESSIONAL ENGINEER  
CIVIL

REV	DESCRIPTION	DATE
1	RESPONSE TO RIBA COMMENTS	6/21/2017

DESIGNED BY: AEA  
CHECKED BY: D.C.  
DRAWN BY: JBC  
2016/07/000.dwg

**CIVIL DETAILS - 1**

PORTSMOUTH SOLAR, LLC  
119 BRAINTREE STREET, SUITE 211  
ALLSTON, MA 02134

JEPSON LANE SOLAR DEVELOPMENT  
259 JEPSON LANE  
PORTSMOUTH, RI 02871

JOB NO: 230187-01  
DATE: APRIL 2017  
SCALE: AS NOTED  
SHEET: 3 OF 4

JUN 26 2017

NOT FOR CONSTRUCTION

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ALAN A. BENEVIDES  
 No. 6370  
 REGISTERED PROFESSIONAL ENGINEER  
 CIVIL

NO.	DESCRIPTION	DATE
1	RESPONSE TO RIBA COMMENTS	8/21/2017

CHECKED BY: D.L.C.  
 DESIGNED BY: AEA  
 DRAWN BY: JBC

CIVIL DETAILS - 2

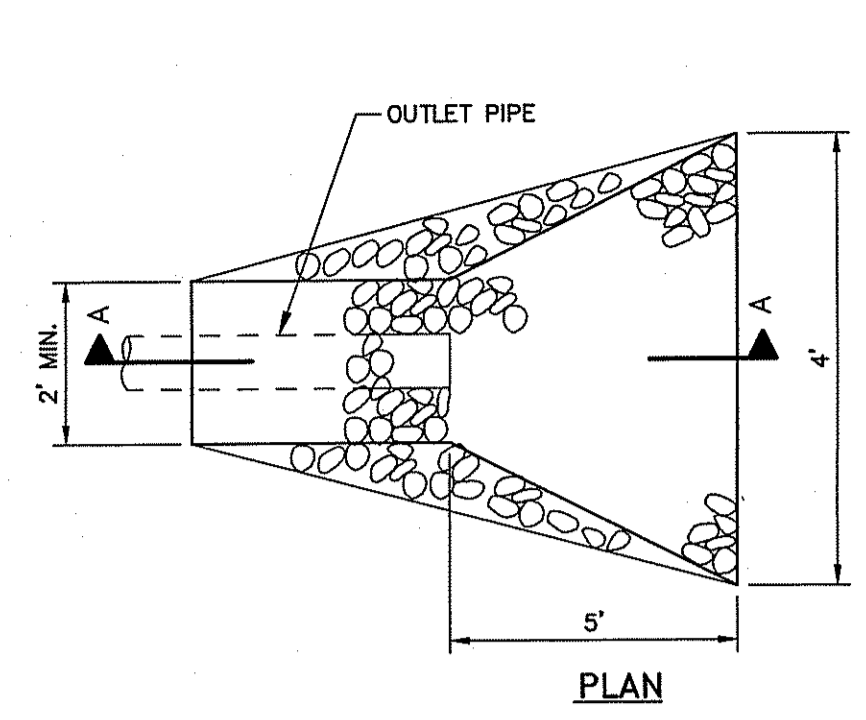
PORTSMOUTH SOLAR, LLC  
 119 GRANTREE STREET, SUITE 211  
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JEFFSON LANE SOLAR  
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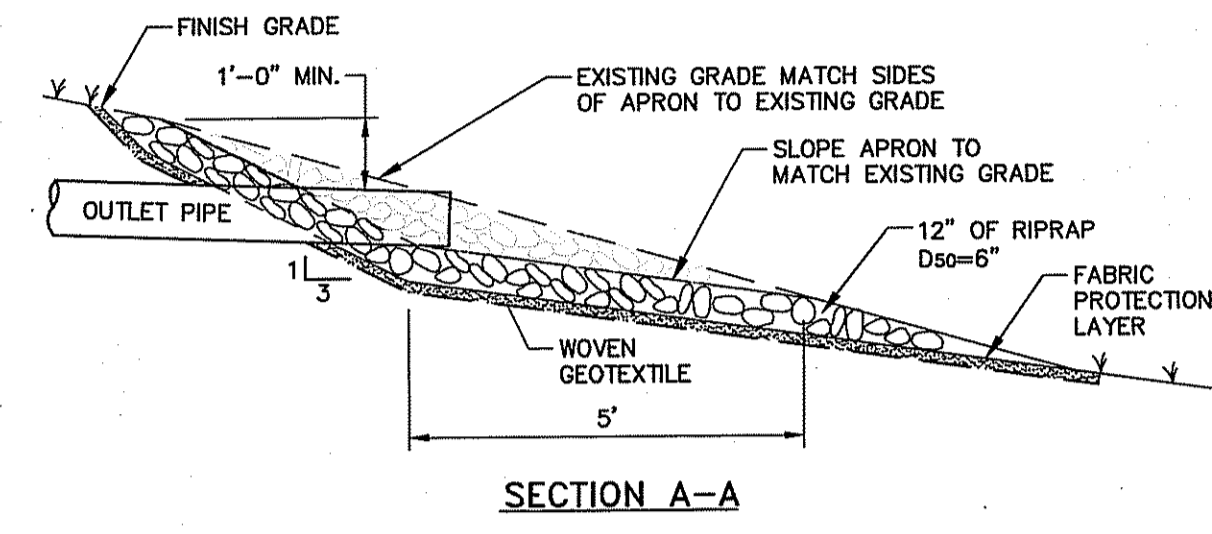
JOB NO.: 230187.01  
 DATE: APRIL 2017  
 SCALE: AS NOTED  
 SHEET: 4 OF 5

**EROSION & SEDIMENTATION CONTROL NOTES**

1. PROVIDE EROSION AND SEDIMENTATION CONTROL BMP'S PER RHODE ISLAND SOIL EROSION & SEDIMENTATION CONTROL HANDBOOK, AS AMENDED.
2. PHYSICAL MARKERS SUCH AS TAPE, SIGNS, OR ORANGE CONSTRUCTION FENCE SHALL BE UTILIZED TO MARK THE LIMITS OF NO LAND DISTURBANCE ON THE SITE; MARKERS SHALL BE INSPECTED DAILY.
3. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS AND GOOD ENGINEERING PRACTICES.
4. SEDIMENT SHALL BE REMOVED ONCE THE VOLUME REACHES 1/4 TO 1/2 THE HEIGHT OF THE SEDIMENT BARRIER, OR ONCE THE BARRIER SHOWS SIGNS OF FAILURE.
5. SEDIMENT SHALL BE REMOVED FROM SEDIMENT CONTROLS WHEN STORAGE CAPACITY HAS BEEN REDUCED BY AT LEAST 50 PERCENT.
6. OFF-SITE TRANSPORT OF SEDIMENT, INCLUDING OFF-SITE VEHICLE TRACKING, SHALL BE PREVENTED.
7. DUST AND DEBRIS SHALL BE CONTROLLED AT THE SITE.
8. SOIL STOCKPILES SHALL BE STABILIZED OR COVERED AT THE END OF EACH WORKDAY. STOCKPILE SIDE SLOPES SHALL NOT BE GREATER THAN 2:1. ALL STOCKPILES SHALL BE SURROUNDED BY SEDIMENT CONTROLS.
9. DISCHARGES OF WASTEWATER FROM WASHOUT OF CONCRETE, PAINT, FORM RELEASE OILS, CURING COMPOUNDS, AND OTHER CONSTRUCTION MATERIALS; FUELS, OILS, OR OTHER POLLUTANTS USED IN VEHICLE AND EQUIPMENT OPERATION AND MAINTENANCE; AND SOAPS OR SOLVENTS USED IN VEHICLE AND EQUIPMENT WASHING ARE PROHIBITED ON THE CONSTRUCTION SITE.
10. STABILIZATION MEASURES SHALL BE IMPLEMENTED ON DISTURBED AREAS AS SOON AS PRACTICABLE, BUT NO MORE THAN 14 DAYS AFTER CONSTRUCTION ACTIVITY HAS TEMPORARILY OR PERMANENTLY CEASED. DISTURBED SOIL AREAS RESULTING FROM THE REMOVAL OF TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE PERMANENTLY STABILIZED WITHIN 30 DAYS OF REMOVAL.
11. PERMANENT SEEDING SHALL BE UNDERTAKEN IN THE SPRING FROM MARCH THROUGH MAY, AND IN LATE SUMMER AND EARLY FALL FROM SEPTEMBER TO OCTOBER 15.
12. THE SEQUENCE AND TIMING OF ACTIVITIES SHALL BE AS FOLLOWS:
  - a. MARK LIMITS OF NO LAND DISTURBANCE ON THE SITE WITH TAPE, SIGNS, OR ORANGE CONSTRUCTION FENCE
  - b. INSTALL EROSION AND SEDIMENT CONTROL MEASURES
  - c. INSTALL SOLAR PHOTOVOLTAIC ARRAY AND ASSOCIATED INTERCONNECTION SYSTEM
  - d. STABILIZE SITE
  - e. REMOVE TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES
13. THE CONTRACTOR SHALL CONDUCT INSPECTIONS AT LEAST ON A 7 DAY INTERVAL AND WITHIN 24 HOURS AFTER ANY RAINFALL EVENT OF 0.25" OR MORE.
14. DURING CONSTRUCTION, THE INSTALLATION, MAINTENANCE AND OPERATION OF EROSION CONTROL MEASURES SHALL BE SUBJECT TO INSPECTION AND ENFORCEMENT BY THE TOWN PORTSMOUTH AND RIDEM.

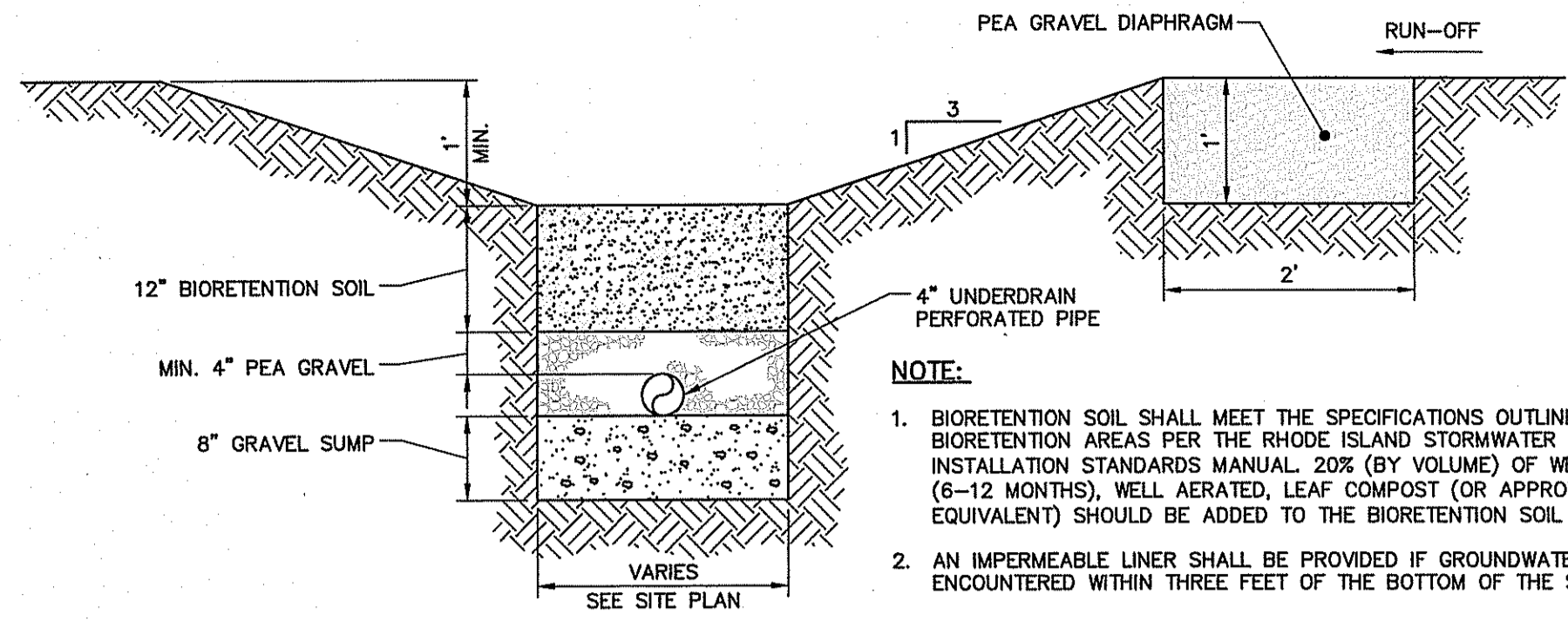


PLAN



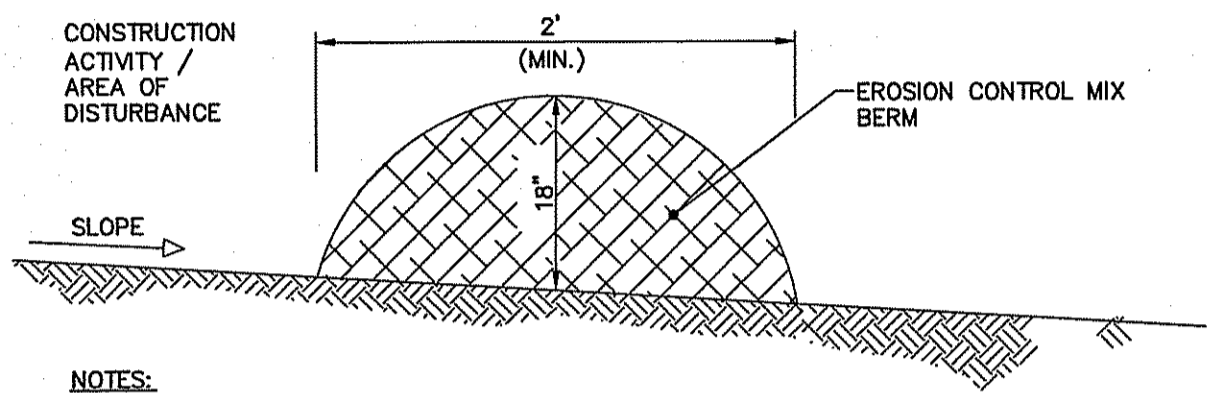
SECTION A-A

**RIPRAP INLET/OUTLET PROTECTION**  
N.T.S.



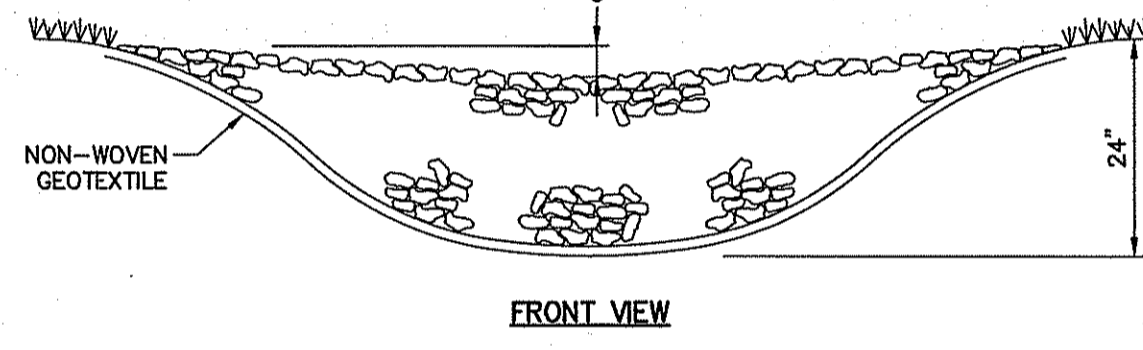
**DRY SWALE DETAIL**  
N.T.S.

- NOTE:
1. BIORETENTION SOIL SHALL MEET THE SPECIFICATIONS OUTLINED FOR BIORETENTION AREAS PER THE RHODE ISLAND STORMWATER DESIGN AND INSTALLATION STANDARDS MANUAL, 20% (BY VOLUME) OF WELL-AGED (6-12 MONTHS), WELL AERATED, LEAF COMPOST (OR APPROVED EQUIVALENT) SHOULD BE ADDED TO THE BIORETENTION SOIL MIXTURE.
  2. AN IMPERMEABLE LINER SHALL BE PROVIDED IF GROUNDWATER IS ENCOUNTERED WITHIN THREE FEET OF THE BOTTOM OF THE SYSTEM

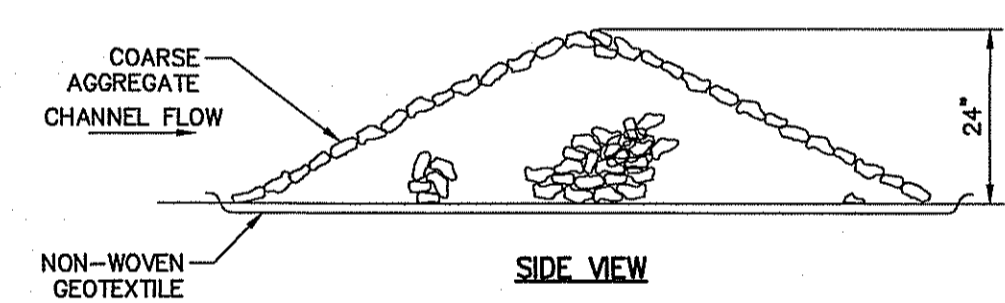


- NOTES:
- EROSION CONTROL MIX BERM MUST CONSIST PRIMARILY OF ORGANIC MATERIAL AND MAY INCLUDE: SHREDDED BARK, STUMP GRINDINGS, COMPOSTED BARK, OR ACCEPTABLE MANUFACTURED PRODUCTS. WOOD AND BARK CHIPS, GROUND CONSTRUCTION DEBRIS OR REPROCESSED WOOD PRODUCTS WILL NOT BE ACCEPTABLE AS THE ORGANIC COMPONENT OF THE MIX.
- COMPOSITION:
- EROSION CONTROL MIX SHALL CONTAIN A WELL-GRADED MIXTURE OF PARTICLE SIZES AND MAY CONTAIN ROCKS LESS THAN 4" IN DIAMETER. EROSION CONTROL MIX MUST BE FREE OF REFUSE, PHYSICAL CONTAMINANTS, AND MATERIAL TOXIC TO PLANT GROWTH. THE MIX COMPOSITION SHALL MEET THE FOLLOWING STANDARDS:
- THE ORGANIC MATTER CONTENT SHALL BE BETWEEN 80 AND 100% DRY WEIGHT BASIS.
  - PARTICLE SIZE BY WEIGHT SHALL BE 100% PASSING A 6" SCREEN AND A MINIMUM OF 70% MAXIMUM OF 85% PASSING A 0.75" SCREEN.
  - THE ORGANIC PORTION NEEDS TO BE FIBROUS AND ELONGATED.
  - LARGE PORTIONS OF SILTS, CLAYS OR FINE SANDS ARE NOT ACCEPTABLE IN THE MIX.
  - SOLUBLE SALTS CONTENT SHALL BE < 4.0 MMHOS/CM.
  - THE PH SHOULD FALL BETWEEN 5.0 AND 8.0.

**SEDIMENT BARRIER - EROSION CONTROL MIX BERM (OPTION)**  
N.T.S.

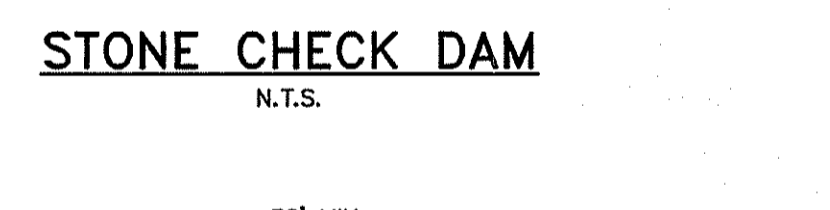


FRONT VIEW

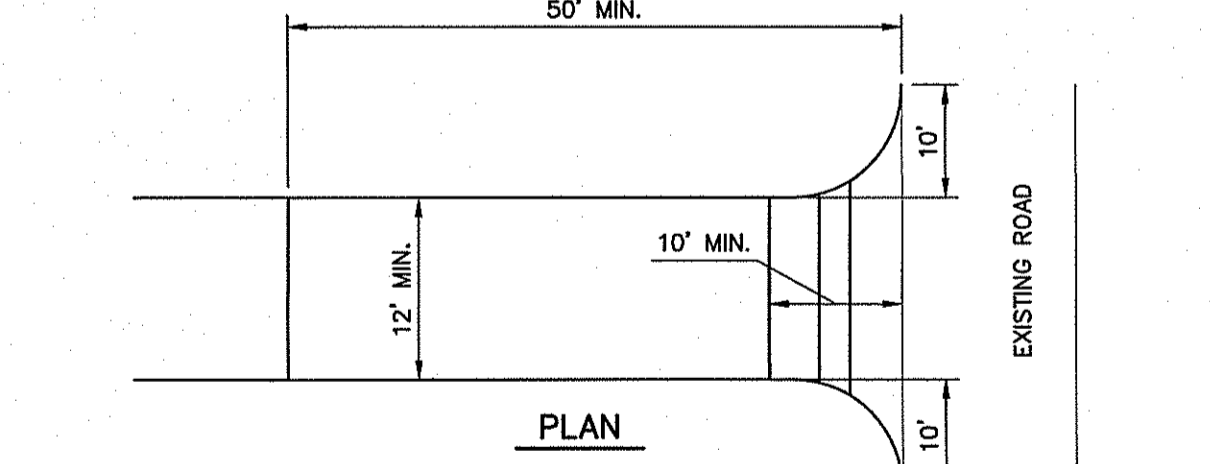


SIDE VIEW

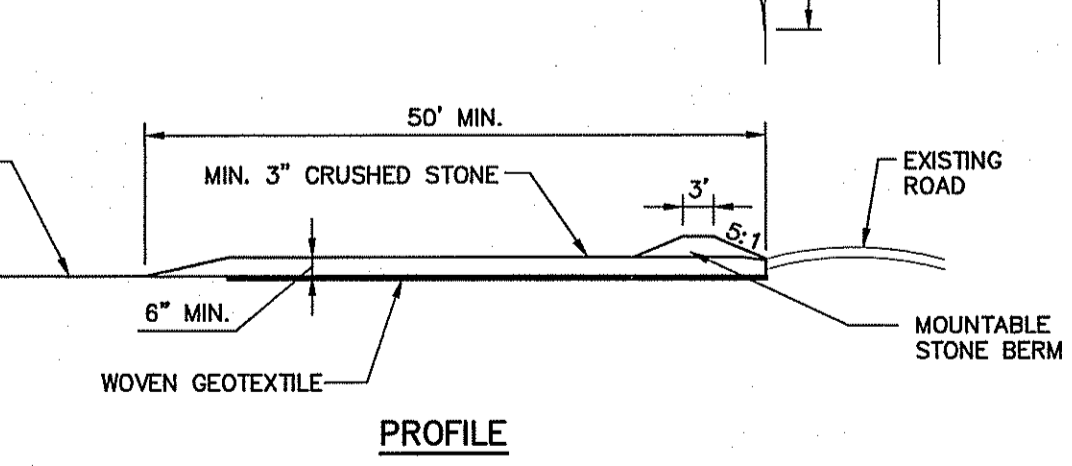
**STONE CHECK DAM**  
N.T.S.



PLAN



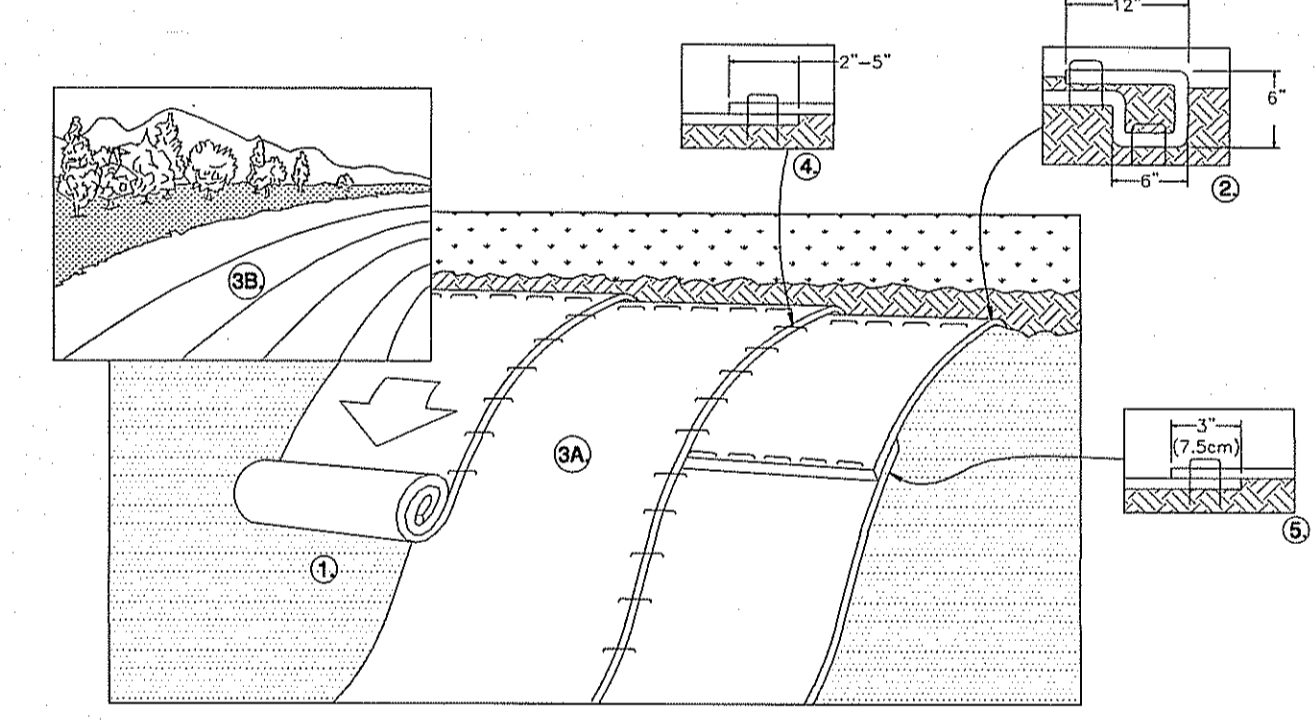
PROFILE



PLAN

- NOTES:
- CONSTRUCTION ENTRANCES MAY BE RELOCATED AS CONSTRUCTION PROGRESSES.
  - WHEEL WASH PITS MAY ALSO BE USED, IF APPROVED.
- MAINTENANCE: INSPECT FOR EFFECTIVE REMOVAL OF SOIL FROM VEHICLES PRIOR TO LEAVING THE SITE. SWEEP ANY SOIL FROM ADJACENT ROADWAYS.
- REMOVAL: AT LEAST ONE CONSTRUCTION ENTRANCE SHALL BE MAINTAINED UNTIL ALL AREAS OF THE SITE ARE STABILIZED.

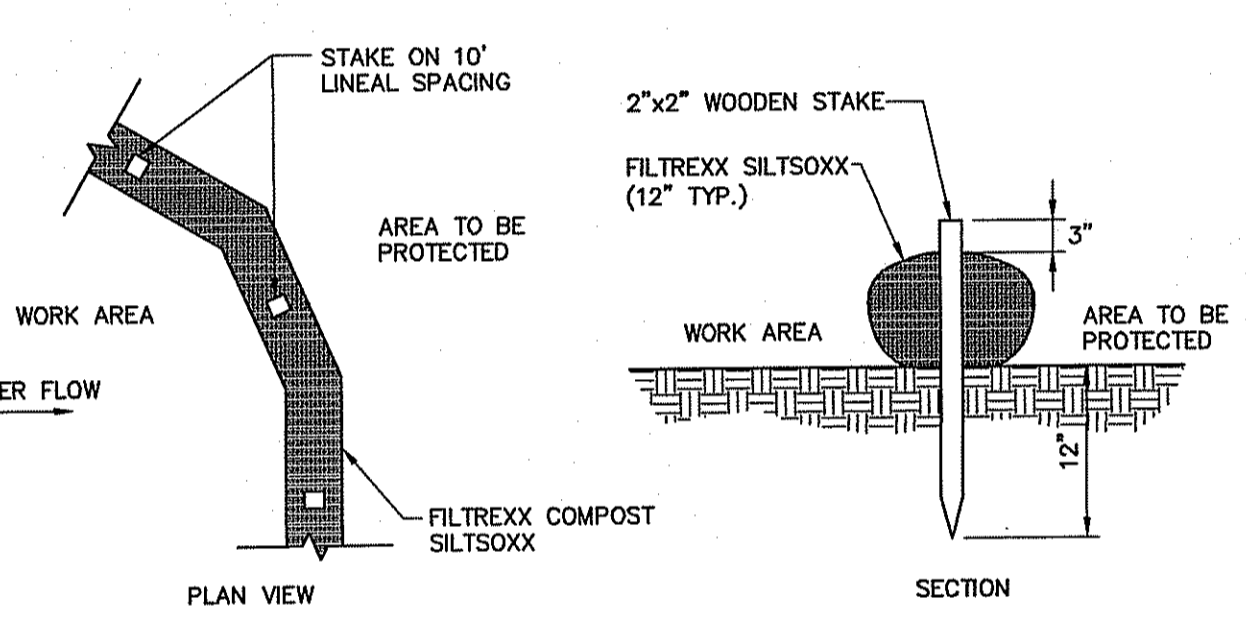
**STABILIZED CONSTRUCTION ENTRANCE DETAIL**  
N.T.S.



**ROLLED EROSION CONTROL BLANKET**  
N.T.S.

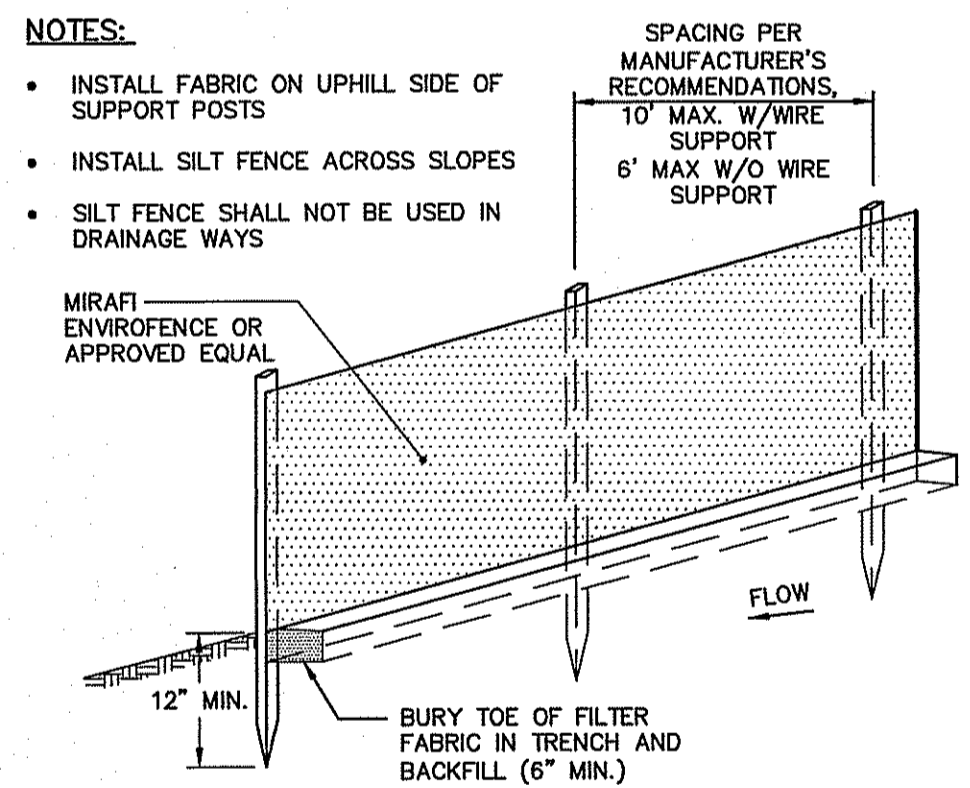
**ROLLED EROSION CONTROL BLANKET NOTES:**

1. PREPARE SOIL BEFORE INSTALLING ROLLED EROSION CONTROL PRODUCTS (RECP'S), INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED AS WELL AS REMOVING ANY PROTRUDING ROCKS, STUMPS OR ROOTS. DURING THE GROWING SEASON (APRIL 15 - SEPTEMBER 15) USE RECP'S ON THE BASE OF GRASSED WATERWAYS, SOIL SLOPES HAVING A GRADE GREATER THAN 15% OR ANYWHERE WHERE HAY MULCH HAS PROVEN TO BE INEFFECTIVE AT CONTROLLING SHEET EROSION. RECP'S ARE A MANUFACTURED COMBINATION OF MULCH AND NETTING DESIGNED TO PREVENT EROSION AND RETAIN SOIL MOISTURE.
2. FOR OVER WINTER PROTECTION, APPLY RECP'S ON THE BASE AND SIDE SLOPES OF GRASSED WATERWAYS AND ON SLOPES STEEPER THAN AN 8X GRADE.
3. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE RECP'S IN A 6" DEEP X 6" WIDE TRENCH WITH APPROXIMATELY 12" OF RECP'S EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE RECP'S WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" PORTION OF RECP'S BACK OVER SEED AND COMPACTED SOIL. SECURE RECP'S OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" APART ACROSS THE WIDTH OF THE RECP'S.
4. ROLL THE RECP'S (A.) DOWN OR (B.) HORIZONTALLY ACROSS THE SLOPE. RECP'S WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL RECP'S MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING THE DOT SYSTEM, STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
5. THE EDGES OF PARALLEL RECP'S MUST BE STAPLED WITH APPROXIMATELY 2" - 5" OVERLAP DEPENDING ON RECP'S TYPE.
6. CONSECUTIVE RECP'S SPICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" APART ACROSS ENTIRE RECP'S WIDTH. NOTE: \*IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" MAY BE NECESSARY TO PROPERLY SECURE THE RECP'S.
7. UNTIL GRASS IS ABUNDANT, INSPECT PERIODICALLY AND AFTER EACH RAINSTORM TO CHECK FOR EROSION. IMMEDIATELY REPAIR AND ADD MORE MULCH UNTIL GRASSES ARE FIRMLY ESTABLISHED.
8. DO NOT MOW THE FIRST YEAR.
9. DETAIL SHALL BE CONSIDERED GENERAL GUIDANCE FOR RECP INSTALLATION; CONTRACTOR SHALL INSTALL RECP IN ACCORDANCE WITH MANUFACTURER RECOMMENDATIONS.

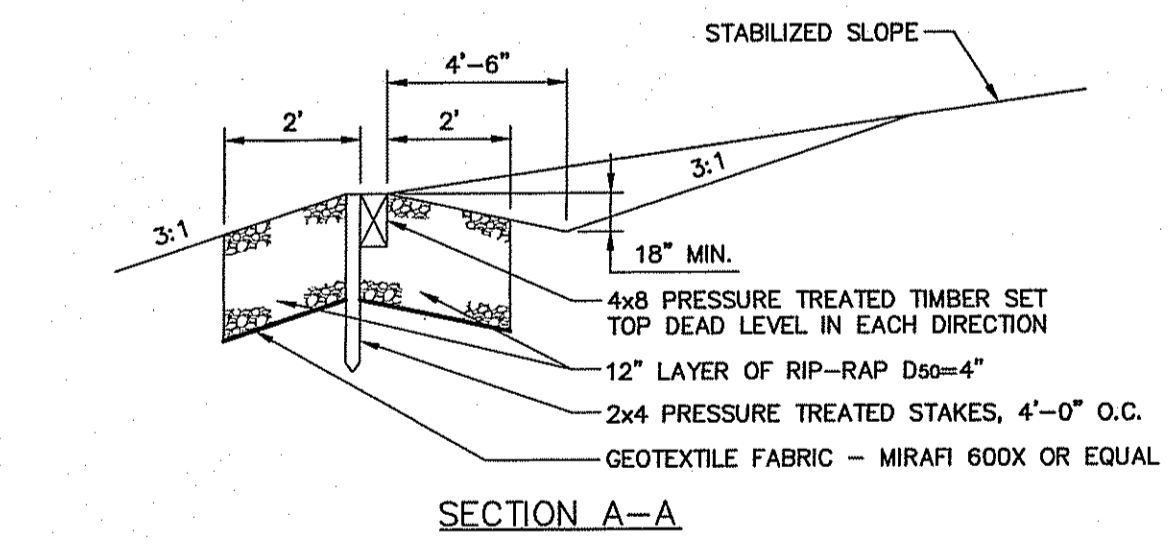


- NOTE:
- WHEN STAKING IS NOT POSSIBLE, HEAVY CONCRETE BLOCKS SHALL BE USED BEHIND THE SEDIMENT CONTROL TO HELP STABILIZE DURING RAINFALL/RUNOFF EVENTS.

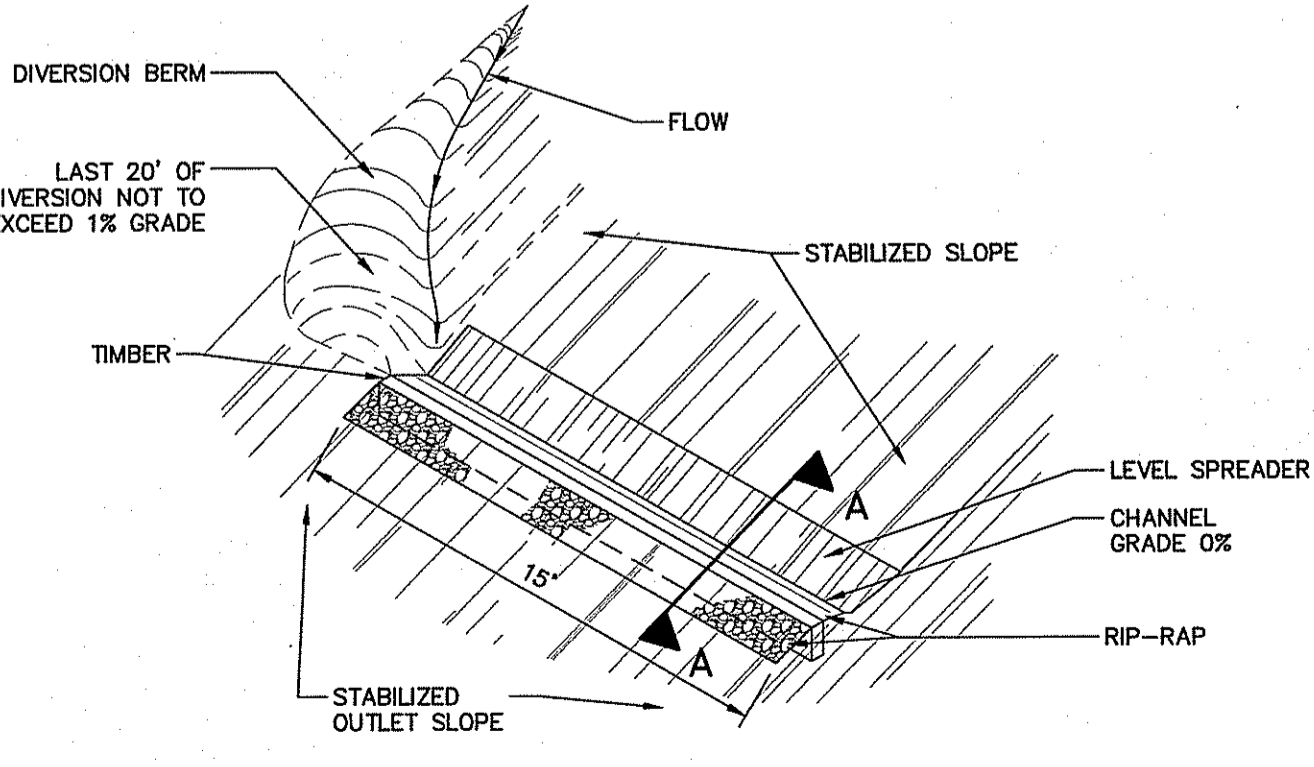
**SEDIMENT BARRIER - SILTSOXX (OPTION)**  
N.T.S.



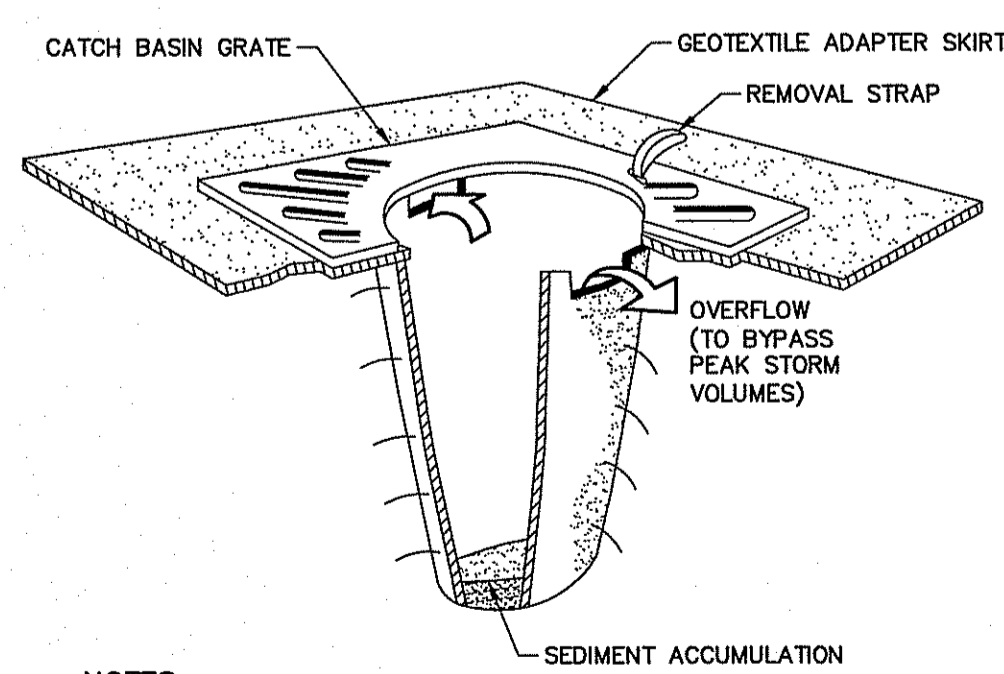
**SEDIMENT BARRIER - SILTATION FENCE DETAIL (OPTION)**  
N.T.S.



SECTION A-A



**LEVEL LIP SPREADER**  
N.T.S.



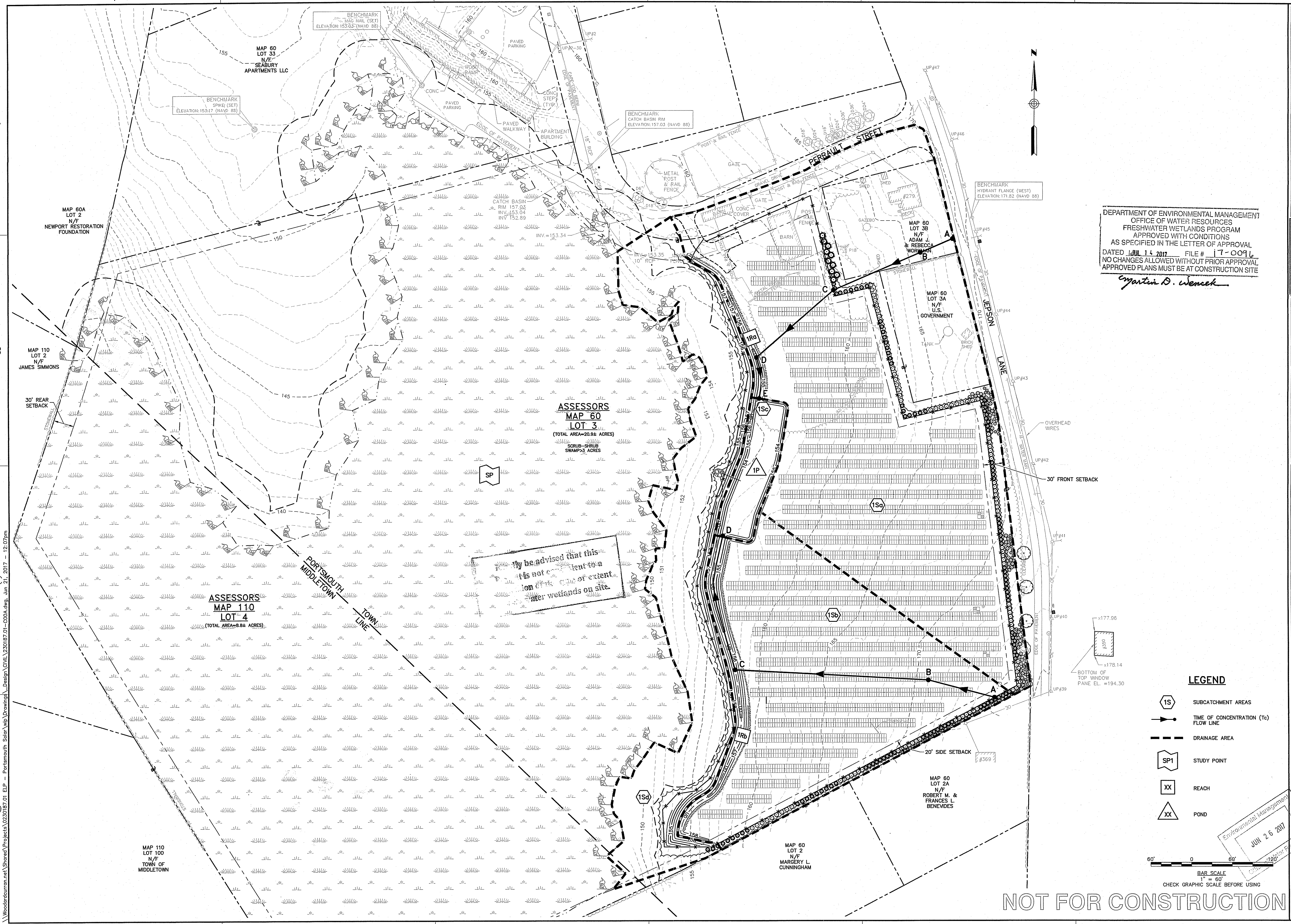
- NOTES:
- CATCH BASIN PROTECTION TO BE "SILTSTACK" (BY ACF ENVIRONMENTAL) OR "STREAM GUARD" (BY FOSS ENVIRONMENTAL SERVICES), OR APPROVED EQUAL.
  - INSERT TO BE EMPTIED IN AN APPROVED MANNER WHEN IT IS 1/2 FULL OF SEDIMENT.
  - INSPECT INSERT AFTER ALL RAINFALL EVENTS, REPAIR AND MAINTAIN AS REQUIRED.

**CATCH BASIN INLET PROTECTION**  
N.T.S.

NOT FOR CONSTRUCTION

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DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
 OFFICE OF WATER RESOURCES  
 FRESHWATER WETLANDS PROGRAM  
 APPROVED WITH CONDITIONS  
 AS SPECIFIED IN THE LETTER OF APPROVAL  
 DATED JUL 14 2017 FILE # 17-0096  
 NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL  
 APPROVED PLANS MUST BE AT CONSTRUCTION SITE

*Martin D. Wencsek*

33 Broad Street Floor 7  
 Providence, Rhode Island 02903  
 800.985.7897 | www.woodardcurran.com

**WOODARD & CURRAN**

COMMITMENT & INTEGRITY DRIVE RESULTS

ALAN A. BENEVIDES  
 No. 6370  
 REGISTERED PROFESSIONAL ENGINEER  
 CIVIL

REV	DESCRIPTION	DATE	CHECKED BY/DLC
1	RESPONSE TO RIDEM COMMENTS	6/21/2017	230187-01-000-049
	DESIGNED BY: AEA		
	DRAWN BY: JBC		

**POST-DEVELOPMENT STORMWATER PLAN**

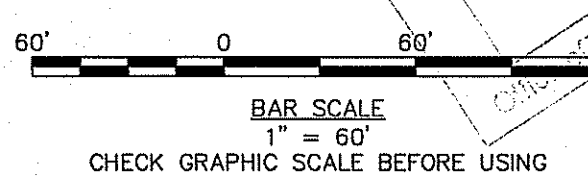
PORTSMOUTH SOLAR, LLC  
 119 BRAINTREE STREET, SUITE 211  
 ALLSTON, MA 02134

JEFFERSON LANE SOLAR DEVELOPMENT  
 259 JEFFERSON LANE  
 PORTSMOUTH, RI 02871

JOB NO.: 230187.01  
 DATE: APRIL 2017  
 SCALE: 1" = 60'  
 SHEET: 7 of 7

**LEGEND**

- 1S SUBCATCHMENT AREAS
- TIME OF CONCENTRATION (Tc) FLOW LINE
- DRAINAGE AREA
- SP1 STUDY POINT
- XX REACH
- XX POND



**NOT FOR CONSTRUCTION**

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