

RHODE ISLAND AIRPORT CORPORATION NEWPORT STATE AIRPORT PHOTOVOLTAIC ARRAY

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

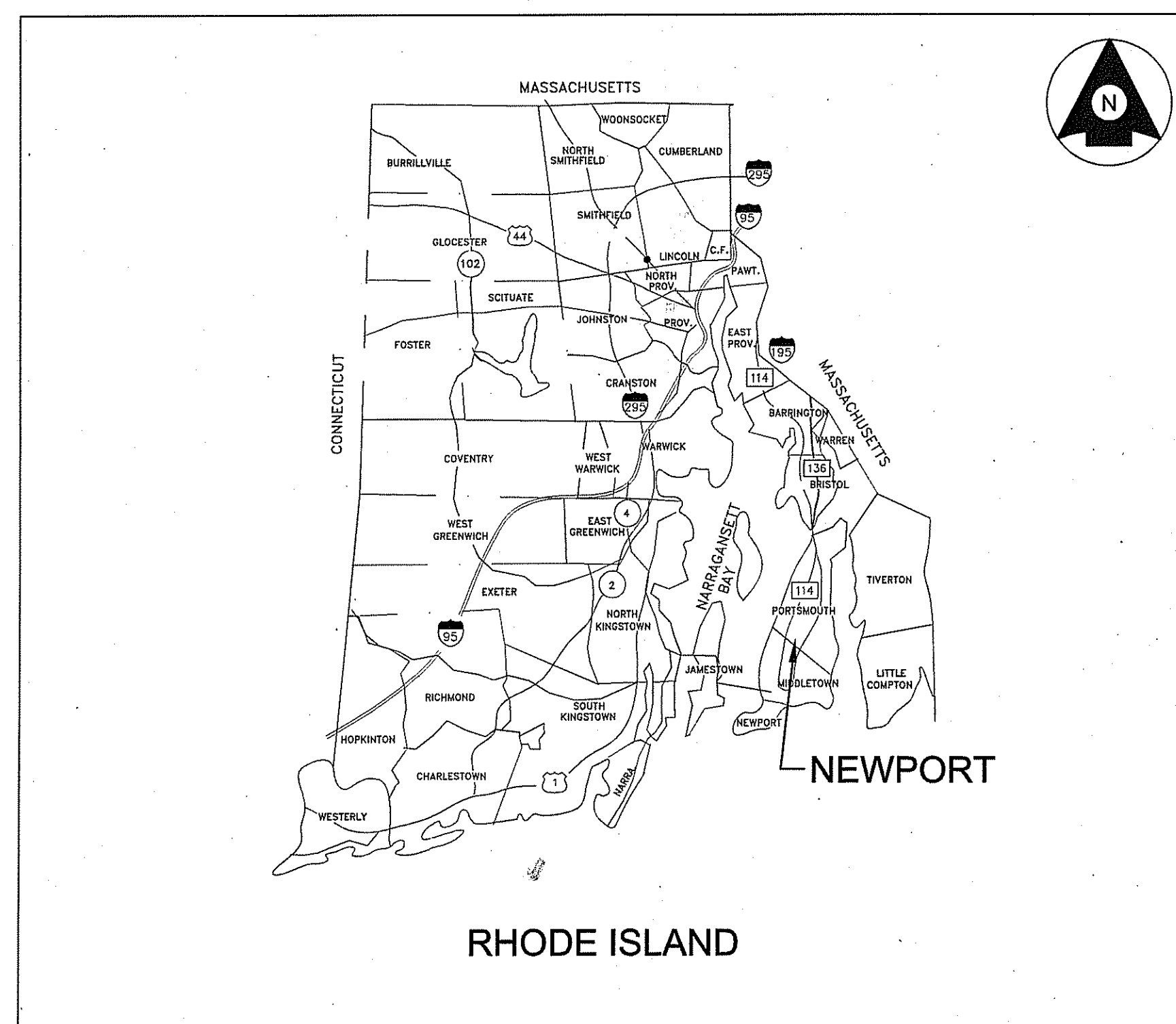
JANUARY 17, 2017⁰

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED MAR 27 2017 FILE # 17-0015
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

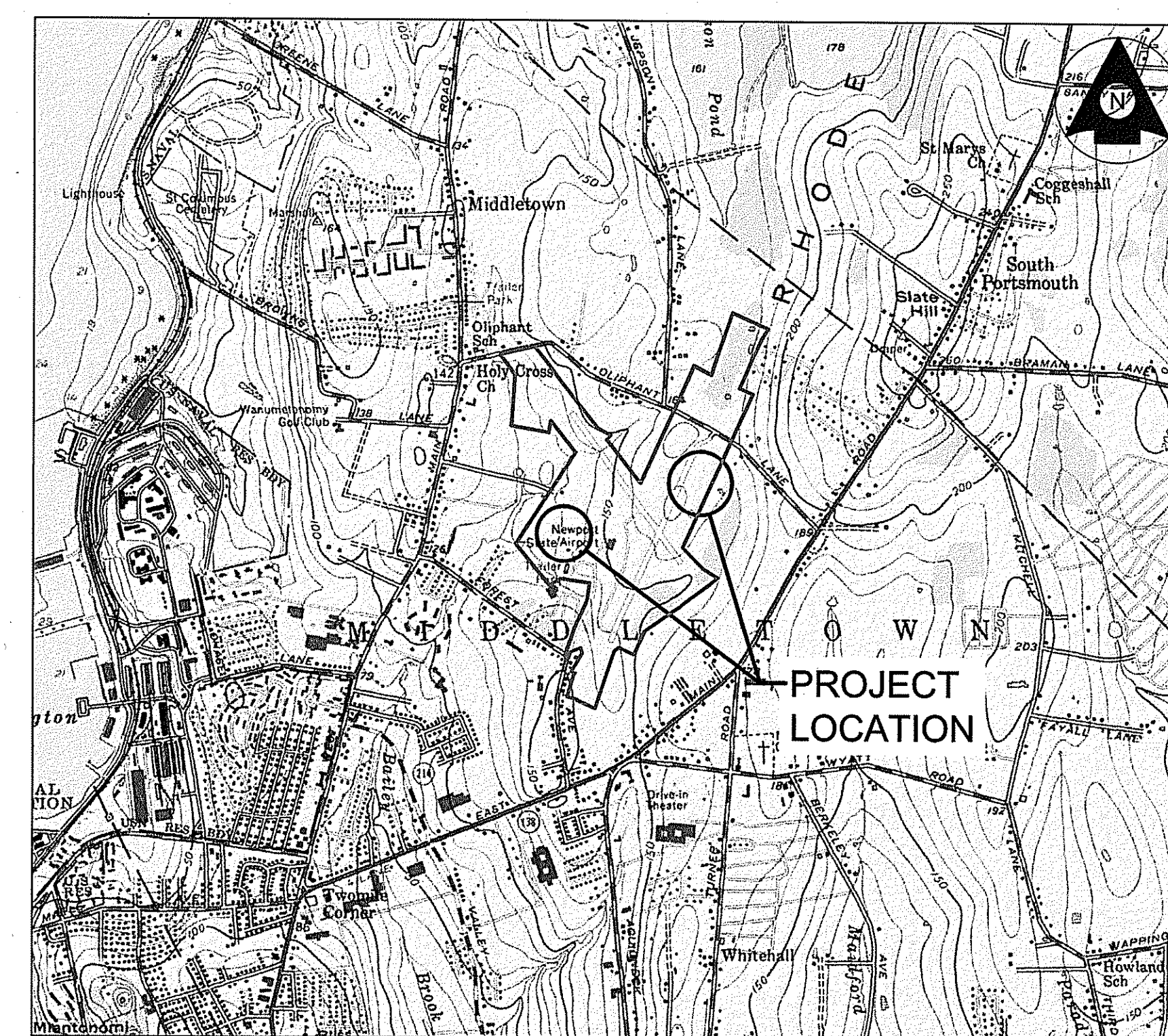
Matthew D. Wenczek

INDEX OF DRAWINGS


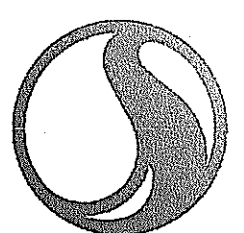
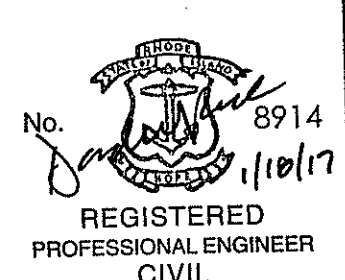

NUMBER	DESCRIPTION
1	TITLE SHEET
2	GENERAL SITE PLAN AND NOTES
3	LAYOUT PLAN SHEET 1 OF 2
4	LAYOUT PLAN SHEET 2 OF 2
5	WETLAND PLAN
6	EROSION CONTROL DETAILS
7	FENCE, CONCRETE PAD, AND TRENCH DETAILS
8	SOLAR RACK SYSTEM AND FOUNDATION DETAILS SHEET 1 OF 2
9	SOLAR RACK SYSTEM AND FOUNDATION DETAILS SHEET 2 OF 2



LOCATION MAP

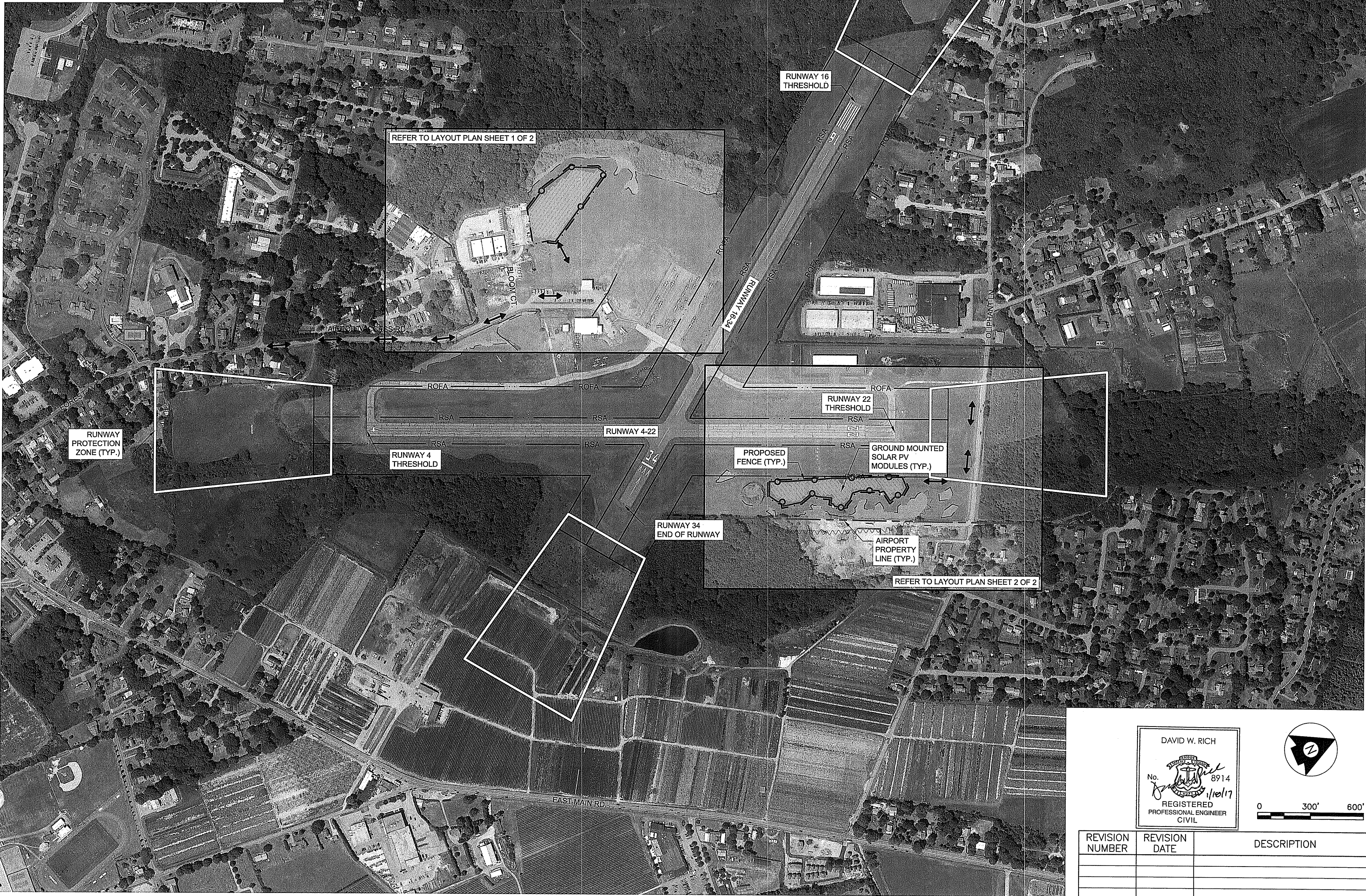


SITE MAP

 Rhode Island Airport Corporation	APPROVED _____ DATE _____ MANAGER OF ENGINEERING APPROVED _____ DATE _____ VICE PRESIDENT OF ENGINEERING APPROVED _____ DATE _____ PRESIDENT AND CEO	 Stantec <i>[Signature]</i> 1/10/17 APPROVED DATE	<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 0 auto;"> DAVID W. RICH  No. 8914 1/10/17 REGISTERED PROFESSIONAL ENGINEER CIVIL </div>	 <div style="border: 1px solid black; padding: 2px; width: fit-content; margin: 0 auto; transform: rotate(-15deg);"> JUN 27 2017 </div>
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LEGEND

- AIRPORT PROPERTY LINE
- RUNWAY PROTECTION ZONE
- RSA RUNWAY SAFETY AREA (RSA)
- ROFA RUNWAY OBJECT FREE AREA (ROFA)
- PROPOSED FENCE
- PROPOSED SOLAR MODULES
- ↔ CONTRACTOR ACCESS ROUTE
- ▨ EXISTING WETLANDS



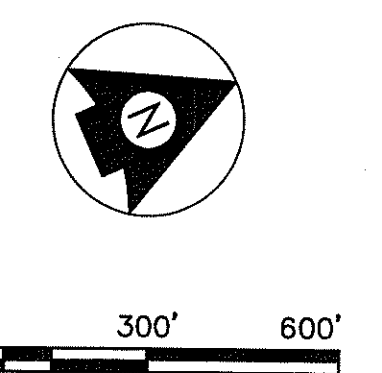
- GENERAL NOTES:**
1. RUNWAY 4-22 WILL BE OPEN FOR THE PROJECT DURATION. ALL WORK FOR THIS PROJECT IS OUTSIDE OF THE RUNWAY 4-22 RUNWAY OBJECT FREE AREA (ROFA).
 2. CONSTRUCTION VEHICLES SHALL BE PARKED WITHIN OR ADJACENT TO THE ACTIVE WORK AREAS. IN ADDITION, ALL CONTRACTOR'S VEHICLES SHALL HAVE FLASHING AMBER BEACONS AND THE COMPANY IDENTIFICATION PLAINLY VISIBLE ON BOTH SIDES OF THE VEHICLE. PARKING OF PERSONAL VEHICLES WITHIN THE SECURED AREA OF THE AIRPORT WILL NOT BE PERMITTED.
 3. LOCATIONS OF UNDERGROUND UTILITIES, WHERE SHOWN, WERE OBTAINED FROM RECORD PLANS. CONTRACTOR SHALL VERIFY THE ACTUAL LOCATIONS OF ALL UTILITIES IN THE FIELD PRIOR TO COMMENCING WITH EXCAVATION.
 4. THE CONTRACTOR SHALL KEEP THE CONSTRUCTION SITE FREE OF PAPER, BOXES, AND OTHER DEBRIS WHICH COULD BE BLOWN ONTO THE AIRPORT OPERATIONS AREA (AOA).
 5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THOROUGHLY CLEANING VEHICLE TIRES PRIOR TO THE VEHICLE LEAVING THE WORK AREA.
 6. AT THE COMPLETION OF THE CONTRACT, ALL CONTRACTOR'S AND SUBCONTRACTOR'S FACILITIES WILL BE REMOVED PROMPTLY AND THE AREA LEFT CLEAN AND FREE OF ALL DEBRIS OR SURPLUS MATERIAL.
 7. CONTRACTOR'S VEHICLES SHALL NOT BE ALLOWED ACCESS TO PORTIONS OF THE AIRPORT OTHER THAN THE WORK AND STAGING AREAS. ALL PAVED HAUL ROADS OR ACCESS ROUTES SHALL BE KEPT CLEAN AT ALL TIMES TO PREVENT THE ACCUMULATION OF DIRT AND MUD AND THE GENERATION OF DUST. THE ROADS SHALL BE KEPT CLEAN BY SWEEPING.
 8. CONTRACTOR SHALL PROVIDE A DEDICATED FULL-TIME GATE GUARD WHILE ANY GATE LEADING TO/FROM AIRPORT PROPERTY IS IN USE OR GATE SHALL BE CLOSED.

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 OFFICE OF WATER RESOURCES
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Matthew D. Seneck

DAVID W. RICH
 No. 8914
 REGISTERED PROFESSIONAL ENGINEER
 CIVIL



Rhode Island Airport Corporation
NEWPORT AIRPORT
 MIDDLETOWN, RHODE ISLAND

REVISION NUMBER	REVISION DATE	DESCRIPTION

GENERAL SITE PLAN & NOTES

DESIGNED SC DRAWN LRK CHECKED GAC APPROVED DWR

PROJECT NO. 195210912
 DATE: JAN. 2017 SHEET 2

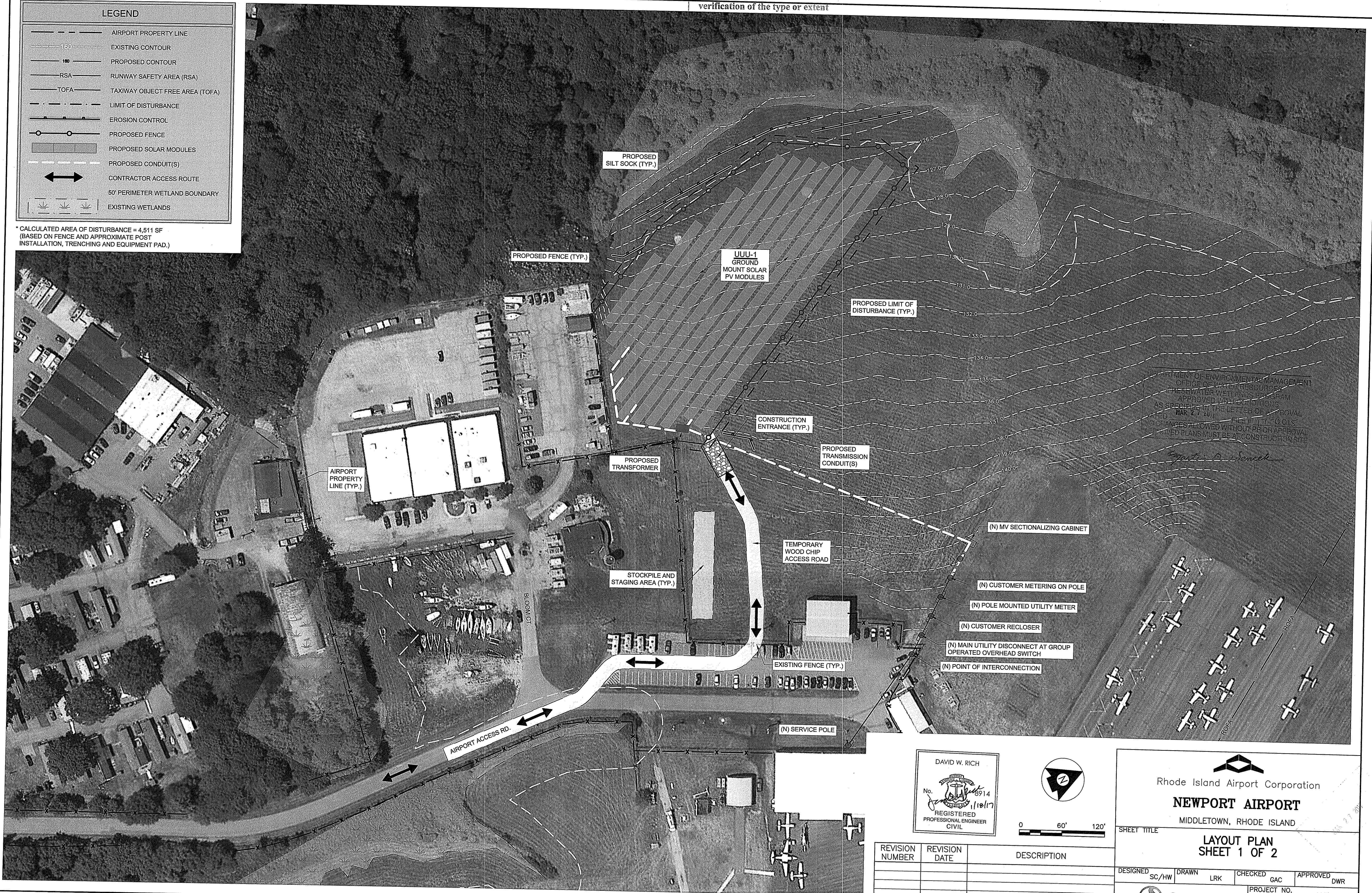
Stantec

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verification of the type or extent

LEGEND

- AIRPORT PROPERTY LINE
- EXISTING CONTOUR
- PROPOSED CONTOUR
- RUNWAY SAFETY AREA (RSA)
- TAXIWAY OBJECT FREE AREA (TOFA)
- LIMIT OF DISTURBANCE
- EROSION CONTROL
- PROPOSED FENCE
- PROPOSED SOLAR MODULES
- PROPOSED CONDUIT(S)
- CONTRACTOR ACCESS ROUTE
- 50' PERIMETER WETLAND BOUNDARY
- EXISTING WETLANDS

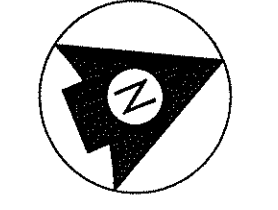
* CALCULATED AREA OF DISTURBANCE = 4,511 SF
(BASED ON FENCE AND APPROXIMATE POST
INSTALLATION, TRENCHING AND EQUIPMENT PAD.)



DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESH WATER WETLANDS PROGRAM
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REVISED PLANS MUST BE AT CONSTRUCTION SITE

Robert B. Senek

DAVID W. RICH
No. 11017
REGISTERED
PROFESSIONAL ENGINEER
CIVIL



0 60' 120'

Rhode Island Airport Corporation
NEWPORT AIRPORT
MIDDLETOWN, RHODE ISLAND

SHEET TITLE

**LAYOUT PLAN
SHEET 1 OF 2**

DESIGNED	DRAWN	CHECKED	APPROVED
SC/HW	LRK	GAC	DWR
PROJECT NO.			195210913
DATE:			JAN. 2017
SHEET			3

REVISION NUMBER	REVISION DATE	DESCRIPTION



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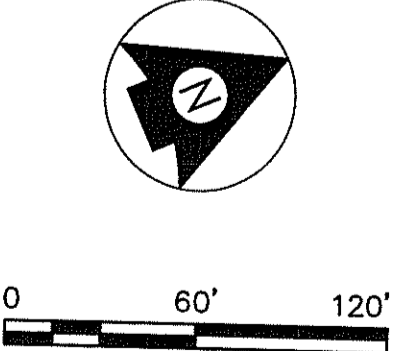
LEGEND

- AIRPORT PROPERTY LINE
- 160 EXISTING CONTOUR
- 100 PROPOSED CONTOUR
- RSA RUNWAY SAFETY AREA (RSA)
- TOFA TAXIWAY OBJECT FREE AREA (TOFA)
- LIMIT OF DISTURBANCE
- EROSION CONTROL
- PROPOSED FENCE
- PROPOSED SOLAR MODULES
- PROPOSED CONDUIT(S)
- CONTRACTOR ACCESS ROUTE
- 50' PERIMETER WETLAND BOUNDARY
- EXISTING WETLANDS

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NEWPORT AIRPORT
MIDDLETOWN, RHODE ISLAND

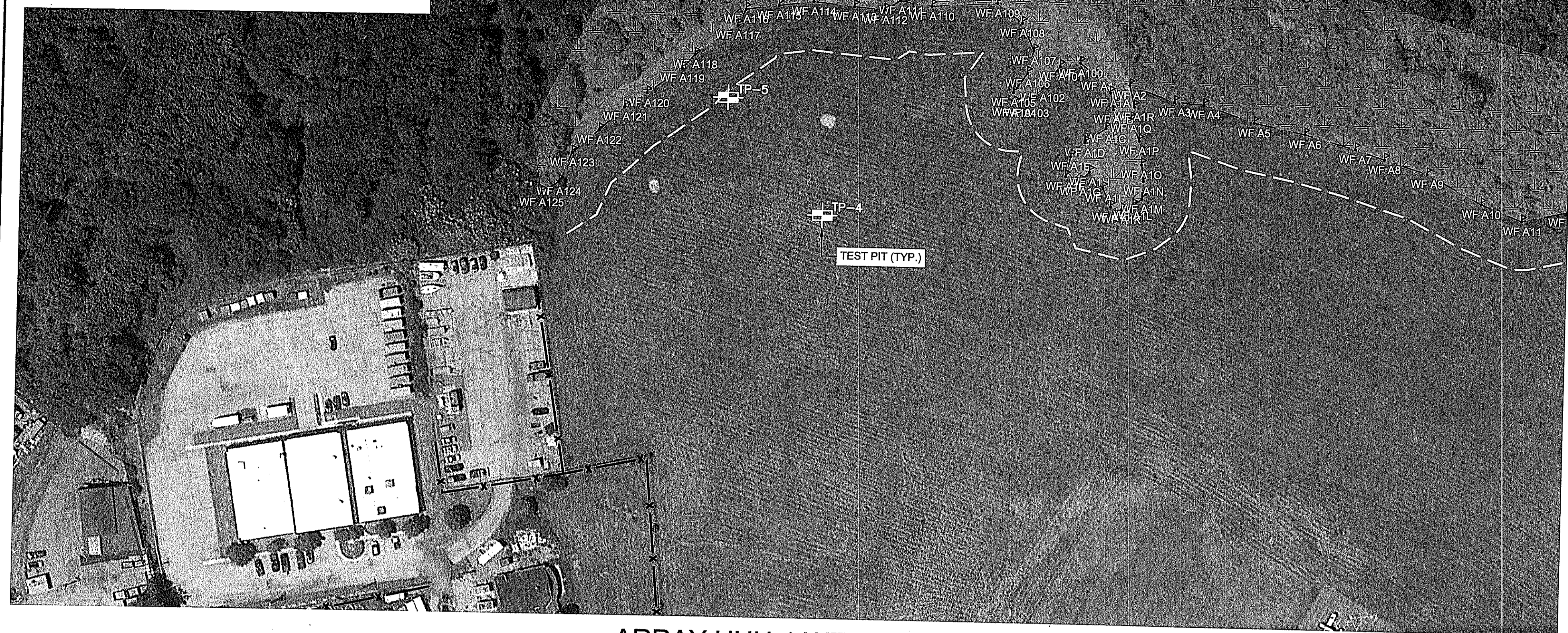
SHEET TITLE: **LAYOUT PLAN SHEET 2 OF 2**

DESIGNED	SC/HW	DRAWN	LRK	CHECKED	GAC	APPROVED	DWR
PROJECT NO. 195210913						DATE: JAN. 2017 SHEET 4	

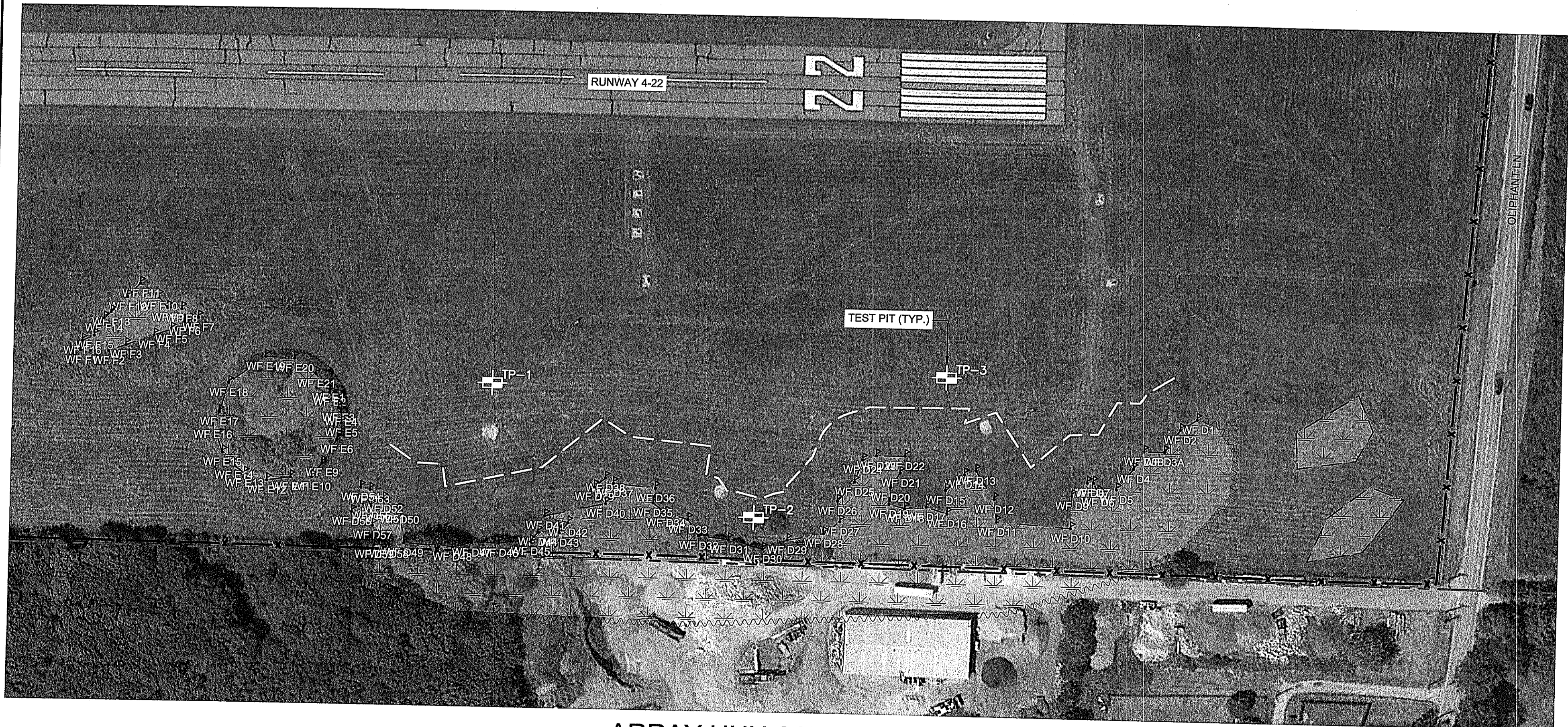
REVISION NUMBER	REVISION DATE	DESCRIPTION



LEGEND	
	AIRPORT PROPERTY LINE
	50' PERIMETER WETLAND BOUNDARY
	EXISTING WETLANDS

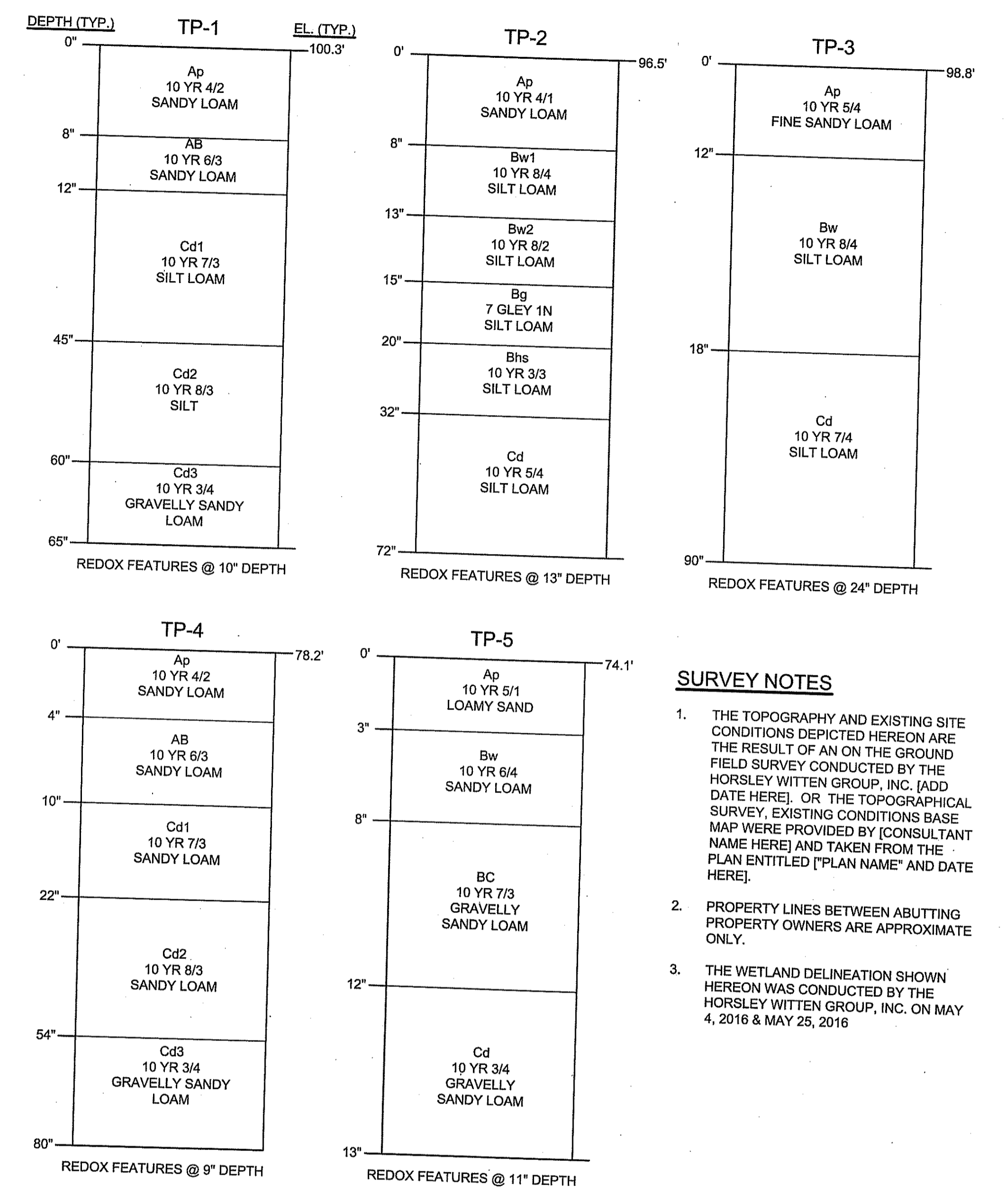


ARRAY UUU-1 WETLANDS



ARRAY UUU-3 WETLANDS

PERFORMED BY: H HENDERSON, HORSLEY WITTEN GROUP, INC
DATE: AUGUST 3, 2016



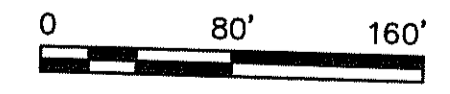
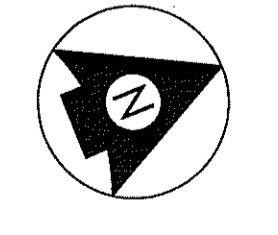
- SURVEY NOTES**
1. THE TOPOGRAPHY AND EXISTING SITE CONDITIONS DEPICTED HEREON ARE THE RESULT OF AN ON THE GROUND FIELD SURVEY CONDUCTED BY THE HORSLEY WITTEN GROUP, INC. [ADD DATE HERE], OR THE TOPOGRAPHICAL SURVEY, EXISTING CONDITIONS BASE MAP WERE PROVIDED BY [CONSULTANT NAME HERE] AND TAKEN FROM THE PLAN ENTITLED "[PLAN NAME]" AND DATE [DATE HERE].
 2. PROPERTY LINES BETWEEN ABUTTING PROPERTY OWNERS ARE APPROXIMATE ONLY.
 3. THE WETLAND DELINEATION SHOWN HEREON WAS CONDUCTED BY THE HORSLEY WITTEN GROUP, INC. ON MAY 4, 2016 & MAY 25, 2016

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Rhode Island Airport Corporation
NEWPORT AIRPORT
MIDDLETOWN, RHODE ISLAND

SHEET TITLE
WETLAND PLAN

DESIGNED HW	DRAWN LRK	CHECKED GAC	APPROVED DWR
PROJECT NO. 195210913			DATE: JAN. 2017
SHEET 5			

Stantec

REVISION NUMBER	REVISION DATE	DESCRIPTION

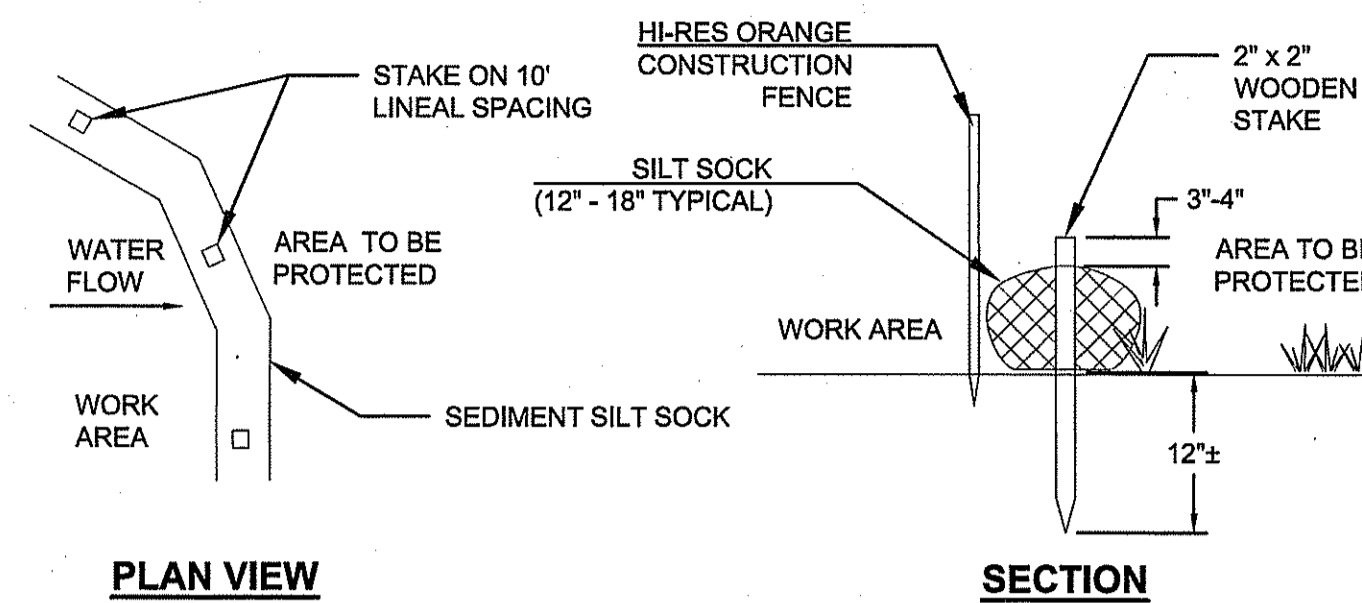
EROSION & SEDIMENT CONTROL NOTES

1. THE CONTRACTOR SHALL INSTALL ALL EROSION AND SEDIMENT CONTROL (ESC) MEASURES AS SHOWN ON THE DESIGN PLANS, AND AS DETERMINED NECESSARY IN THE FIELD BY THE ENGINEER BEFORE ANY CONSTRUCTION ACTIVITIES ARE TO BEGIN. THESE MEASURES SHALL BE CHECKED, MAINTAINED/REPLACED AS NECESSARY DURING THE ENTIRE CONSTRUCTION PERIOD OF THE PROJECT. SUCH MEASURES SHALL REPRESENT THE LIMIT OF WORK. WORKERS SHALL BE INFORMED THAT NO CONSTRUCTION ACTIVITY IS TO OCCUR BEYOND THE LIMIT OF WORK AT ANY TIME THROUGH THE CONSTRUCTION PERIOD.
2. A MINIMUM SURPLUS OF 100 FEET OF PERIMETER EROSION CONTROL BARRIER (SILT FENCE, STRAWBALE, &/OR SILT SOCK) SHALL BE STOCKPILED ON-SITE AT ALL TIMES.
3. THE CONTRACTOR SHALL PROTECT THE ADJACENT RESOURCE AREA FROM SEDIMENTATION DURING PROJECT CONSTRUCTION UNTIL ACCEPTANCE BY THE OWNER AND AS SHOWN ON PLANS AND DETAILS.
4. A CONSTRUCTION EXIT SHALL BE CONSTRUCTED AS SHOWN IN THE DETAILS TO SHED DIRT FROM CONSTRUCTION VEHICLE TIRES. THE CRUSHED STONE PAD WILL BE REPLACED/CLEANED AS NEEDED TO MAINTAIN ITS EFFECTIVENESS.
5. ESC MEASURES SHALL BE INSPECTED AND MAINTAINED ON A WEEKLY BASIS AND AFTER EACH RAINFALL EVENT OF 0.25 INCH OR GREATER DURING CONSTRUCTION TO ENSURE THAT THE EROSION AND SEDIMENTATION CONTROL MEASURES ARE INTACT AND FUNCTIONING PROPERLY. IDENTIFIED DEFICIENCIES SHALL BE CORRECTED IMMEDIATELY NO LATER THAN 24 HOURS AFTER IDENTIFICATION.
6. SOIL STOCKPILES LEFT OVERNIGHT SHALL BE SURROUNDED ON THEIR PERIMETERS WITH SILT SOCK, SILT FENCE, STRAWBALES, OR A COMBINATION OF SILT FENCE WITH STRAWBALE, AS DETERMINED NECESSARY.
7. DISTURBED AREAS AND SLOPES SHALL NOT BE LEFT UNATTENDED OR EXPOSED FOR EXCESSIVE PERIODS OF TIME SUCH AS THE INACTIVE WINTER SEASON. THE CONTRACTOR SHOULD PROVIDE APPROPRIATE STABILIZATION PRACTICES ON ALL DISTURBED AREAS AS SOON AS POSSIBLE BUT NOT MORE THAN 14 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT AREA HAS TEMPORARILY OR PERMANENTLY CEASED. TEMPORARY AREAS HAVING A SLOPE GREATER THAN 4:1 SHALL BE REINFORCED WITH EROSION BLANKETS OR APPROVED EQUAL UNTIL THE SITE IS PROPERLY STABILIZED. TEMPORARY SWALES MAY ALSO BE REQUIRED IF DETERMINED NECESSARY IN THE FIELD BY THE ENGINEER.
8. THE CONTRACTOR SHALL INSTALL A SILT SACK OR APPROVED EQUIVALENT IN EACH EXISTING CATCHBASIN RECEIVING RUNOFF FROM THE SITE. UPON THE INSTALLATION OF EACH CATCH BASIN, THE CONTRACTOR SHALL INSTALL A SILT SACK OR APPROVED EQUIVALENT. THESE ARE TO BE INSPECTED AFTER EACH SIGNIFICANT STORM EVENT AND REMOVED AND EMPTIED AS NEEDED DURING THE ENTIRE CONSTRUCTION PERIOD.
9. THE CONTRACTOR SHALL CONTAIN ALL SEDIMENT ON-SITE. ALL EXITS FROM THE SITE WILL BE SWEEP AS NECESSARY INCLUDING ANY SEDIMENT TRACKING. PAVED AREAS SHALL BE SWEEP AS NEEDED TO REMOVE SEDIMENT AND POTENTIAL POLLUTANTS WHICH MAY ACCUMULATE DURING SITE WORK.
10. ACCUMULATED SEDIMENT SHALL BE REMOVED FROM ALL TEMPORARY PRACTICES AND DISPOSED OF IN A PRE-APPROVED LOCATION BY THE CONTRACTOR AS DIRECTED BY THE ENGINEER.
11. THE CONTRACTOR SHALL PROVIDE ON-SITE OR MAKE READILY AVAILABLE THE NECESSARY EQUIPMENT AND SITE PERSONNEL DURING CONSTRUCTION HOURS FOR THE DURATION OF THE PROJECT TO ENSURE ALL ESC DEVICES ARE PROPERLY MAINTAINED AND REPAIRED IN A TIMELY AND RESPONSIBLE MANNER. IF SITE WORK IS SUSPENDED DURING THE WINTER MONTHS THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE PERSONNEL AND EQUIPMENT EITHER ON-SITE OR MAKE READILY AVAILABLE TO ENSURE ALL ESC DEVICES ARE PROPERLY MAINTAINED AND REPAIRED IN A TIMELY AND RESPONSIBLE MANNER.
12. PROPER MEASURES SHALL BE IMPLEMENTED BY THE CONTRACTOR IF DEWATERING IS NECESSARY DURING CONSTRUCTION. THESE MEASURES SHALL INCLUDE DEWATERING BAGS, TEMPORARY STRAWBALES, SILT FENCES, SILT SOCKS AND/OR OTHER APPROVED DEVICES. THE DEWATERING SETUP SHALL BE APPROVED BY THE ENGINEER.
13. ALL SEDIMENT COLLECTED IN THE BMP AREAS WILL BE REMOVED AND DISPOSED OF PROPERLY PRIOR TO FILTER FABRIC AND MEDIA INSTALLATION. PARTIALLY CONSTRUCTED BMP AREAS WILL HAVE A SURFACE ELEVATION AT A MINIMUM 1-FOOT ABOVE THE BOTTOM OF MEDIA ELEVATION AS SHOWN IN THE DETAILS. THIS WILL ALLOW AN OVER-DIG OF THE COLLECTED SEDIMENT FROM WITHIN THE BMP AREA PRIOR TO MEDIA/FABRIC INSTALLATION.
14. DUST SHALL BE CONTROLLED BY WATERING OR OTHER APPROVED METHODS AS NECESSARY, OR AS DIRECTED BY THE ENGINEER AT NO EXTRA COST TO THE OWNER.
15. THE CONTRACTOR IS RESPONSIBLE FOR THE INSPECTION AND MAINTENANCE DURING CONSTRUCTION OF ALL STORMWATER FACILITIES INSTALLED OR AFFECTED BY THE PROJECT. ANY SEDIMENT OR DEBRIS COLLECTED WITHIN THESE FACILITIES FROM THE PROJECT WORK SHALL BE REMOVED PRIOR TO THE OWNER'S ACCEPTANCE.

GENERAL STORMWATER AND EROSION CONTROL CONSTRUCTION SEQUENCE

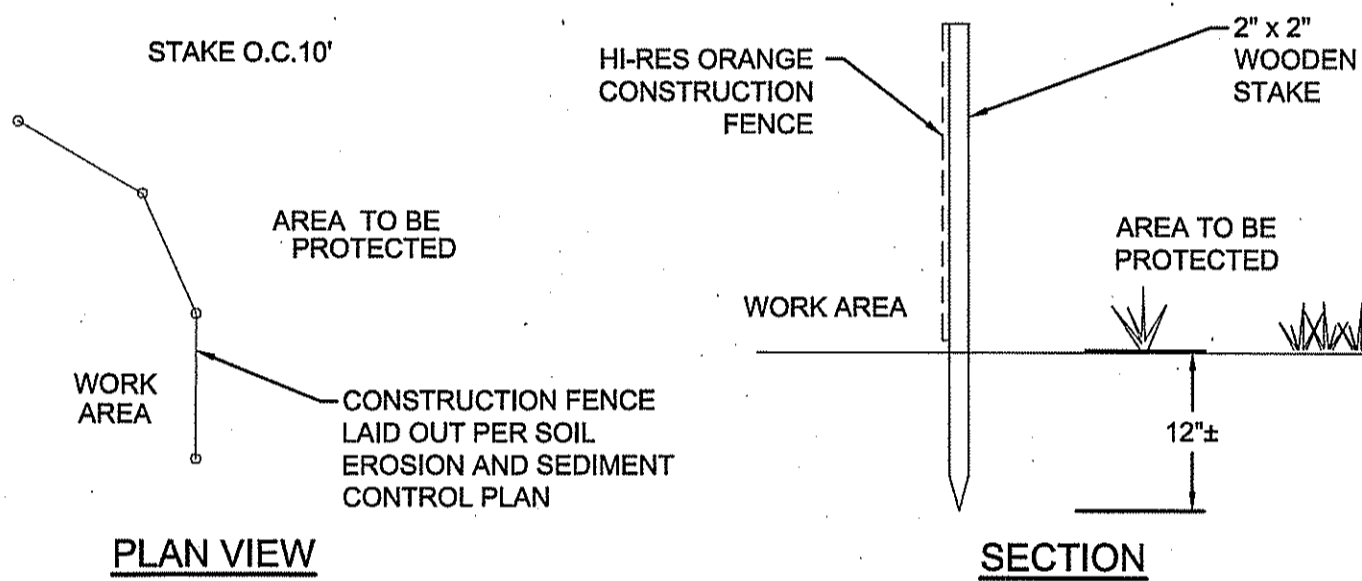
1. THE ENGINEER AND CONTRACTOR SHALL CONDUCT A PRE-CONSTRUCTION MEETING.
2. THE PROPOSED SITES SHALL BE CHECKED FOR EXISTING UTILITIES PRIOR TO ANY EXCAVATION.
3. INSTALL CONSTRUCTION ENTRANCES AT AREAS WHERE CONSTRUCTION WILL BEGIN (SEE EROSION AND SEDIMENT CONTROL PLAN).
4. INSTALL SILT SOCK, INLET PROTECTION, AND CONSTRUCTION FENCING AROUND PROPOSED LIMIT OF WORK TO PREVENT ANY FURTHER DISTURBANCE AFTER CONSTRUCTION HAS STARTED.
5. INSTALL PHOTOVOLTAIC PANEL ARRAYS AND ASSOCIATED ELECTRICAL EQUIPMENT OUTSIDE THE AREA OF THE SEDIMENT TRAP.
6. STABILIZE ALL REMAINING DISTURBED AREAS AND SIDE SLOPES WITH SEEDING, HYDROSEEDING, AND/OR EROSION CONTROL BLANKETS AS SPECIFIED IN THE CONSTRUCTION PLANS.
7. CONDUCT FINAL CONSTRUCTION INSPECTION WITH ENGINEER.
8. REMOVE REMAINING EROSION AND SEDIMENT CONTROLS ONLY AFTER SURROUNDING DISTURBED AREAS HAVE BEEN PROPERLY STABILIZED.

- NOTES:
- (1) SEE GENERAL CONSTRUCTION NOTES FOR OVERALL CONSTRUCTION SEQUENCE.
 - (2) SEE GENERAL NOTES/SPECIFICATIONS/CONSTRUCTION DETAILS FOR DETAILED CONSTRUCTION REQUIREMENTS.



- NOTES:
1. SILT SOCK MANUFACTURER TO BE SILT SOCK OR ENGINEER APPROVED EQUAL.
 2. ALL MATERIAL TO MEET MANUFACTURER'S SPECIFICATIONS.
 3. SEDIMENT SILT SOCK TO BE FILLED WITH LEAF COMPOST AND/OR WOODY MULCH PER MANUFACTURER'S REQUIREMENTS.
 4. FOLLOWING CONSTRUCTION AND SITE STABILIZATION, COMPOST MATERIAL TO BE REMOVED OR DISPERSED ON SITE, AS APPROVED BY THE ENGINEER.
 5. WHEN SILT SOCK CROSSES A PAVED SURFACE, DO NOT INCLUDE STAKE OR HI-RES ORANGE CONSTRUCTION FENCE DURING INSTALLATION.

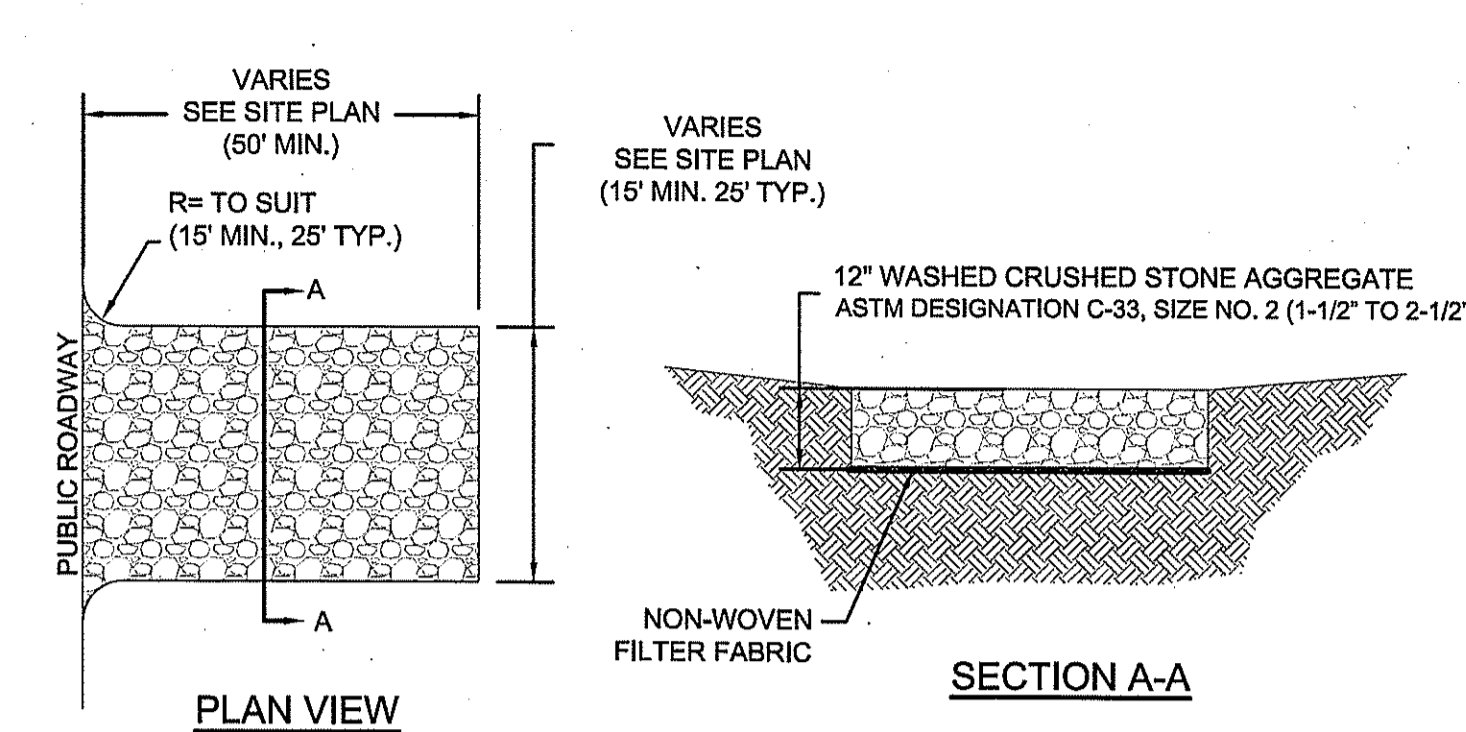
SEDIMENT SILT SOCK DETAIL
NOT TO SCALE



- NOTES:
1. ALL MATERIAL TO MEET MANUFACTURER'S SPECIFICATIONS.

CONSTRUCTION FENCE
NOT TO SCALE

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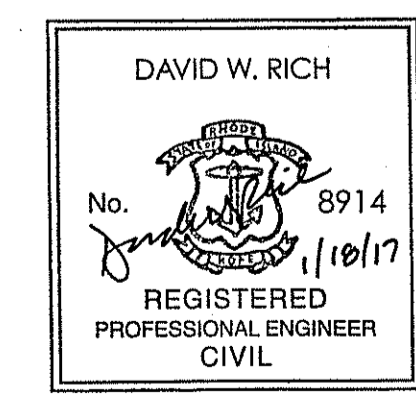


- NOTE:
1. STONE CONSTRUCTION ENTRANCE(S) TO REMAIN UNTIL INSTALLATION OF PAVEMENT SUB-BASE IS TO BEGIN.
 2. SEE SITE PLAN FOR LOCATION & ACTUAL DIMENSIONS.

STONE CONSTRUCTION ENTRANCE DETAIL
NOT TO SCALE

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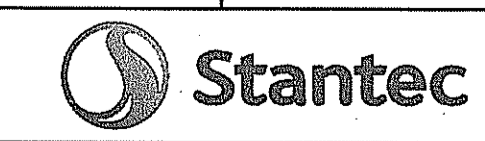
Martin D. Jensen

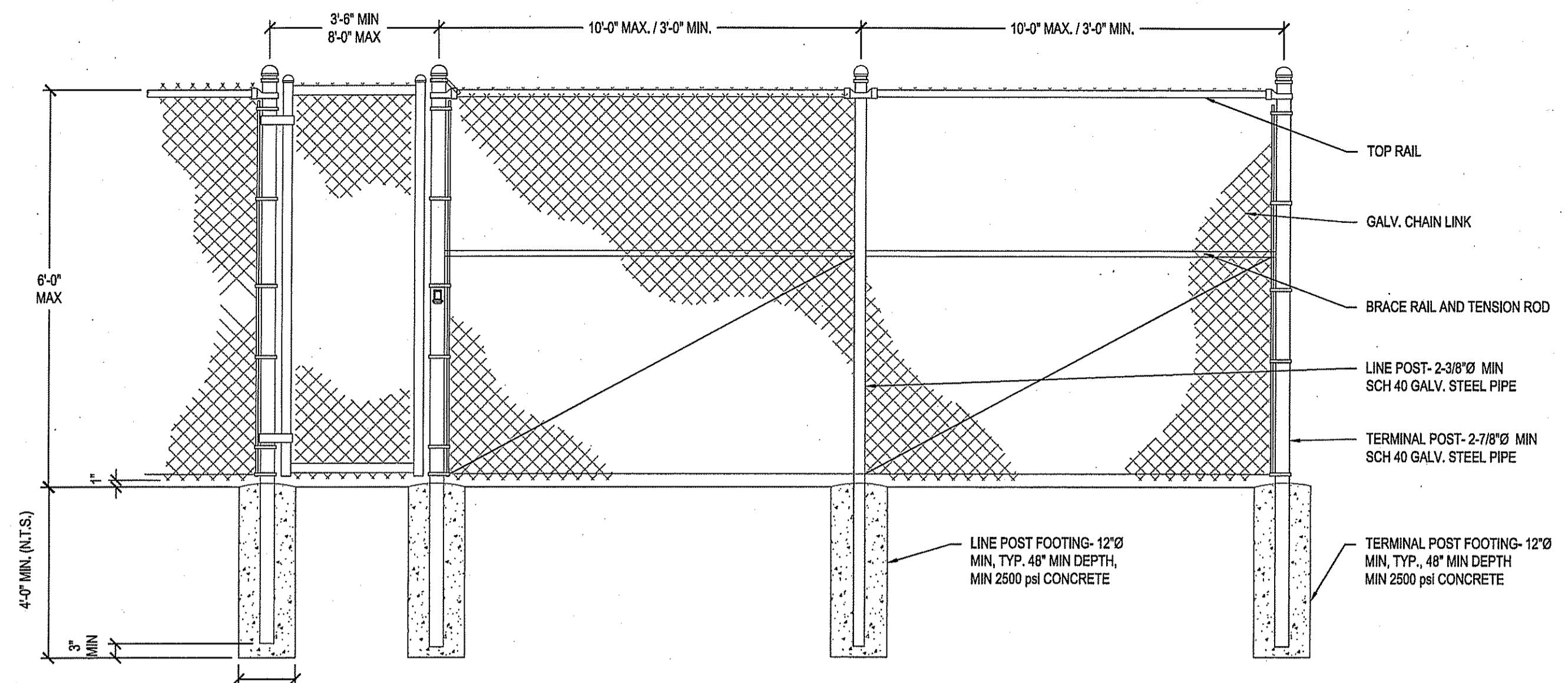


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NEWPORT AIRPORT
MIDDLETOWN, RHODE ISLAND
SHEET TITLE
EROSION CONTROL DETAILS

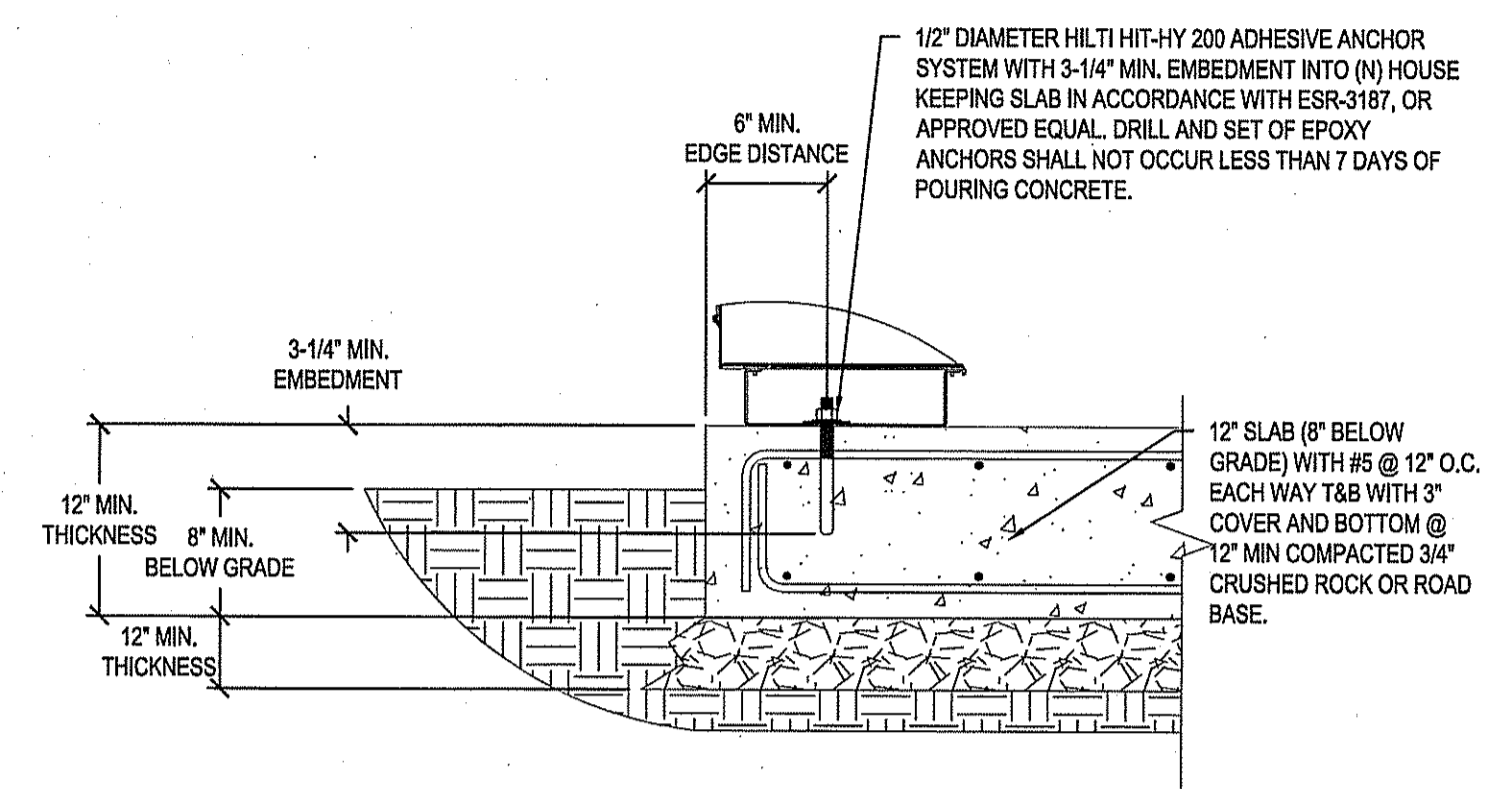
REVISION NUMBER	REVISION DATE	DESCRIPTION	DESIGNED	DRAWN	CHECKED	APPROVED
			HW	LRK	GAC	DWR

PROJECT NO. 195210913
DATE: JAN. 2017 SHEET 6

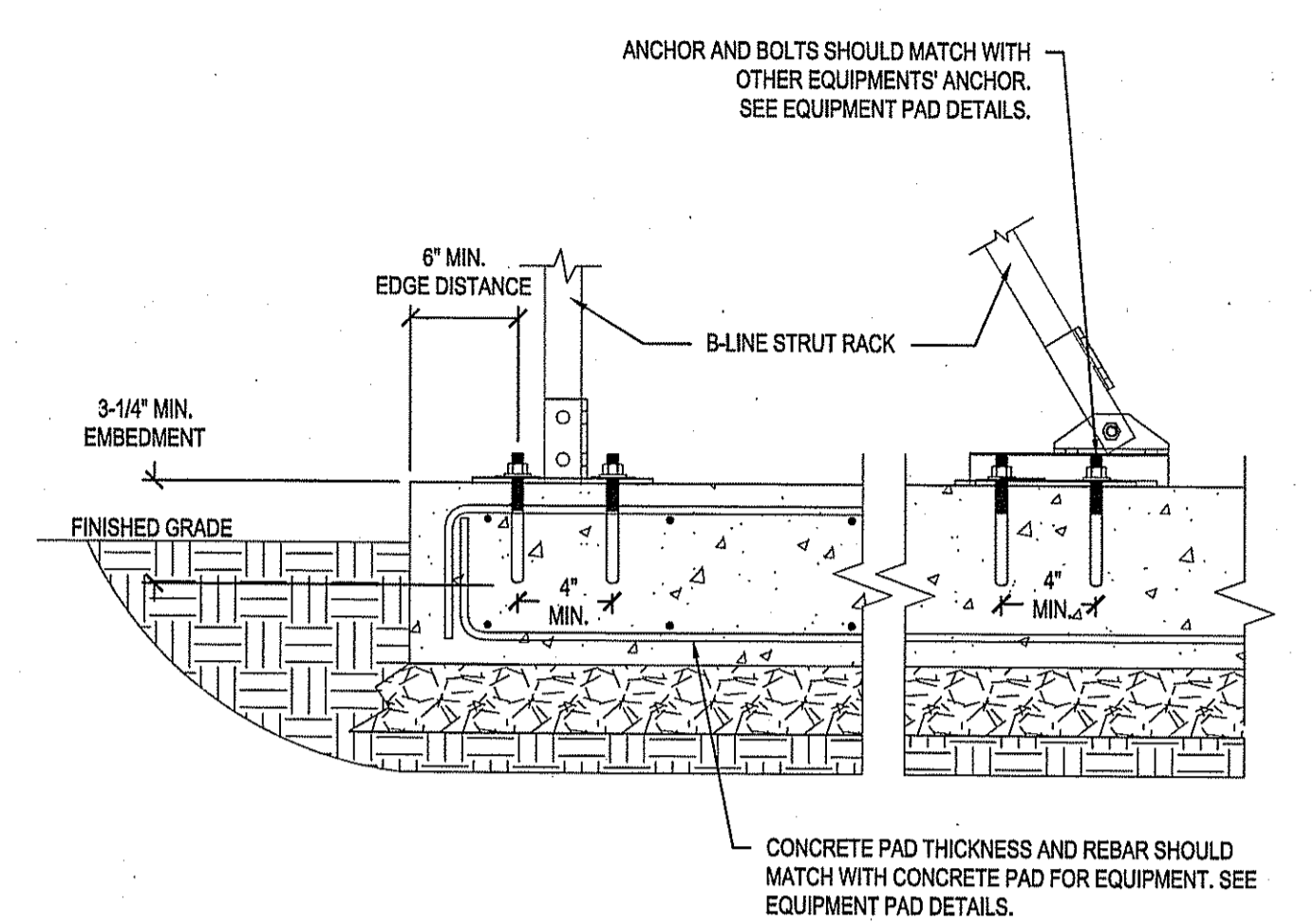




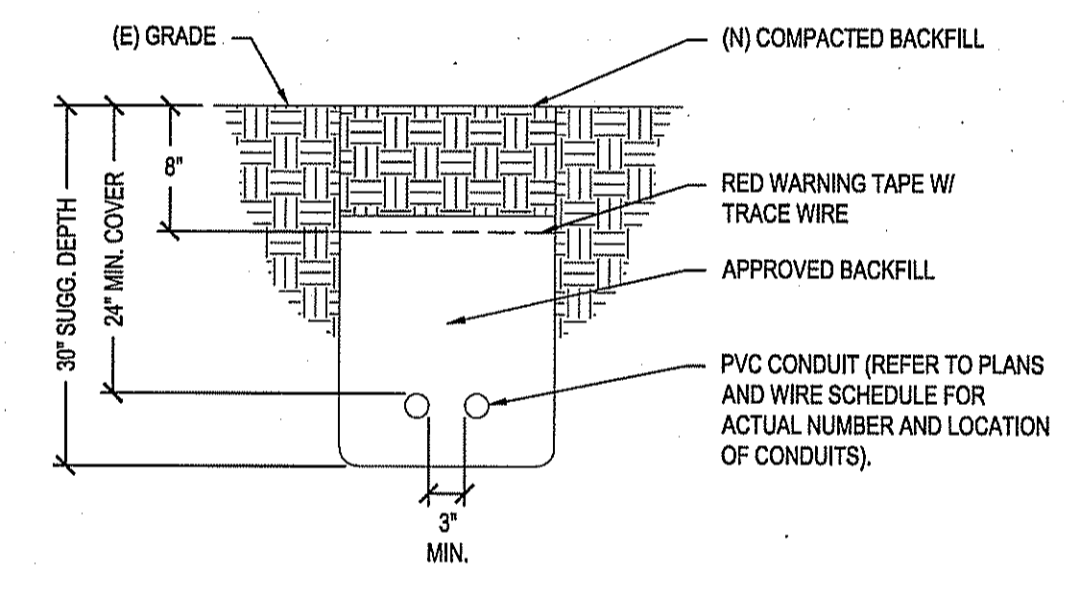
(A) FENCE DETAIL
65001 FENCE DETAIL SA NTS



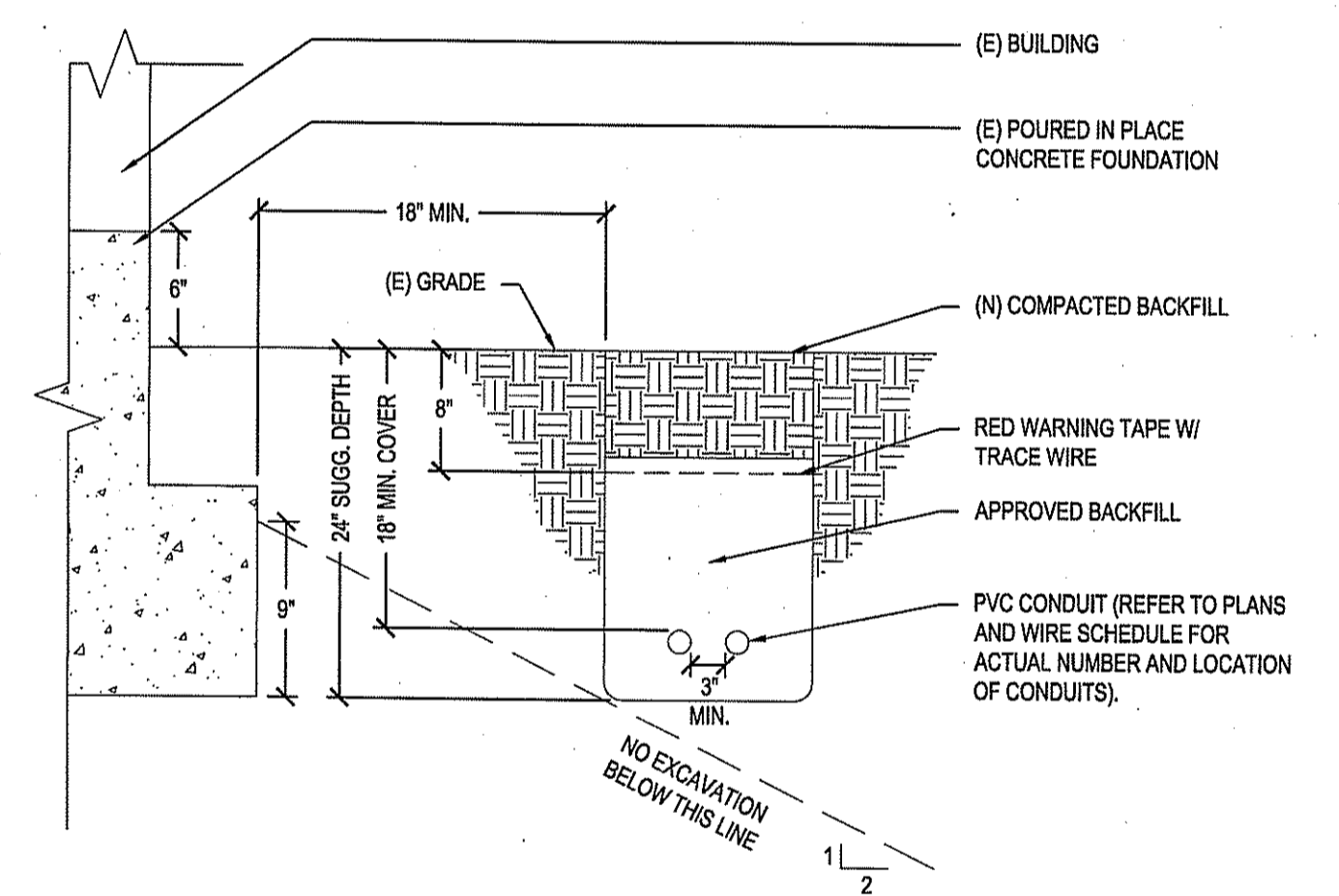
(B) CONCRETE PAD ANCHOR
51001 CONCRETE PAD ANCHOR BA NTS



(C) CONCRETE PAD STRUT ANCHOR
51002 CONCRETE PAD STRUT ANCHOR BA NTS



(D) TRENCH THROUGH SOIL TRAFFIC DETAIL
71001 TRENCH THROUGH SOIL TRAFFIC BA NTS



(E) TRENCH THROUGH SOIL NON-TRAFFIC DETAIL
71002 TRENCH THROUGH SOIL NON-TRAFFIC BA NTS

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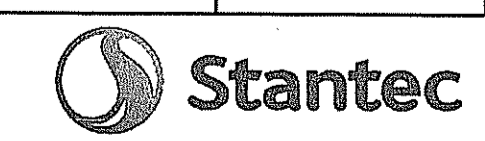
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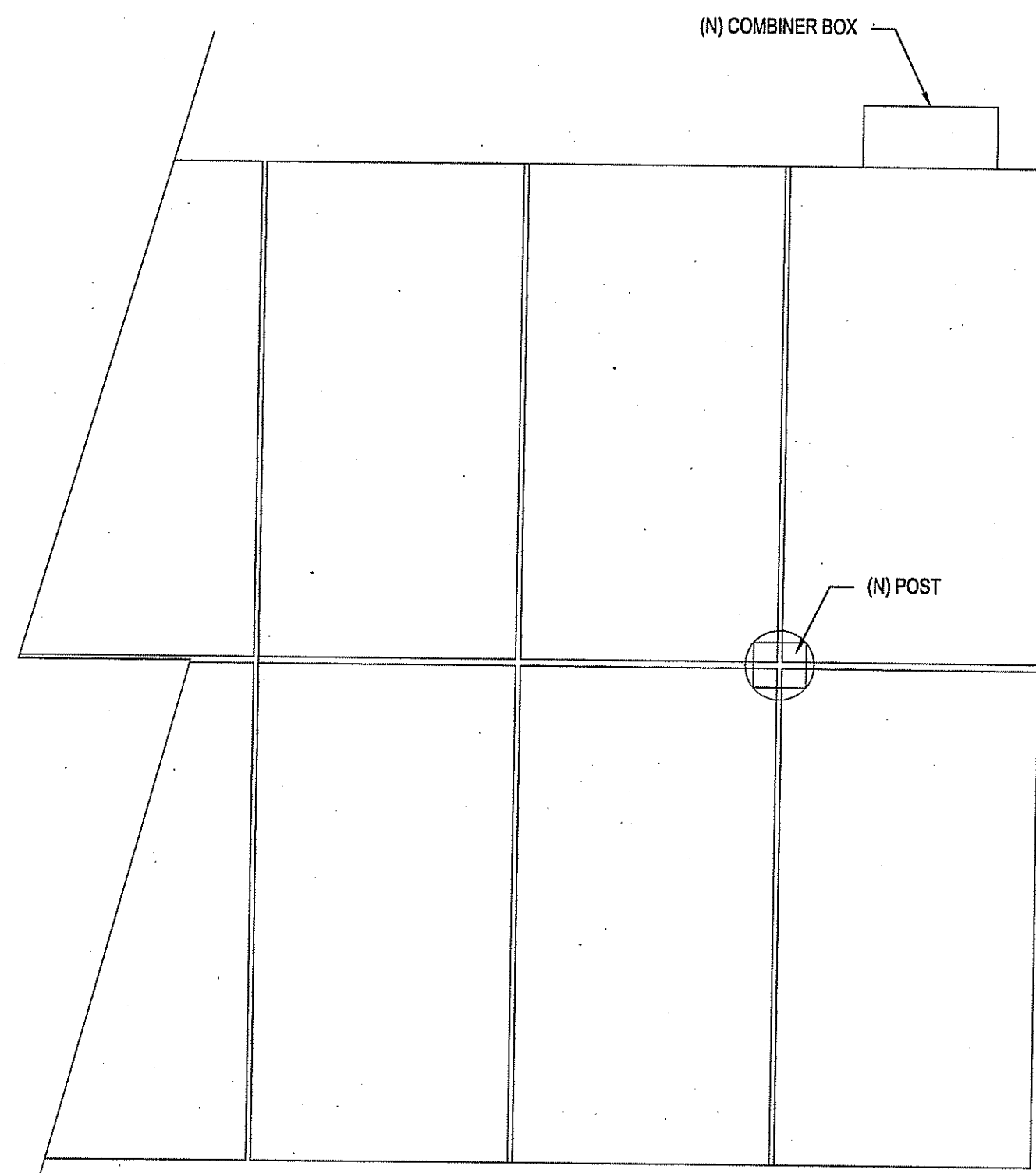
SHEET TITLE
FENCE, CONCRETE PAD, AND TRENCH DETAILS

JAN 27 2017

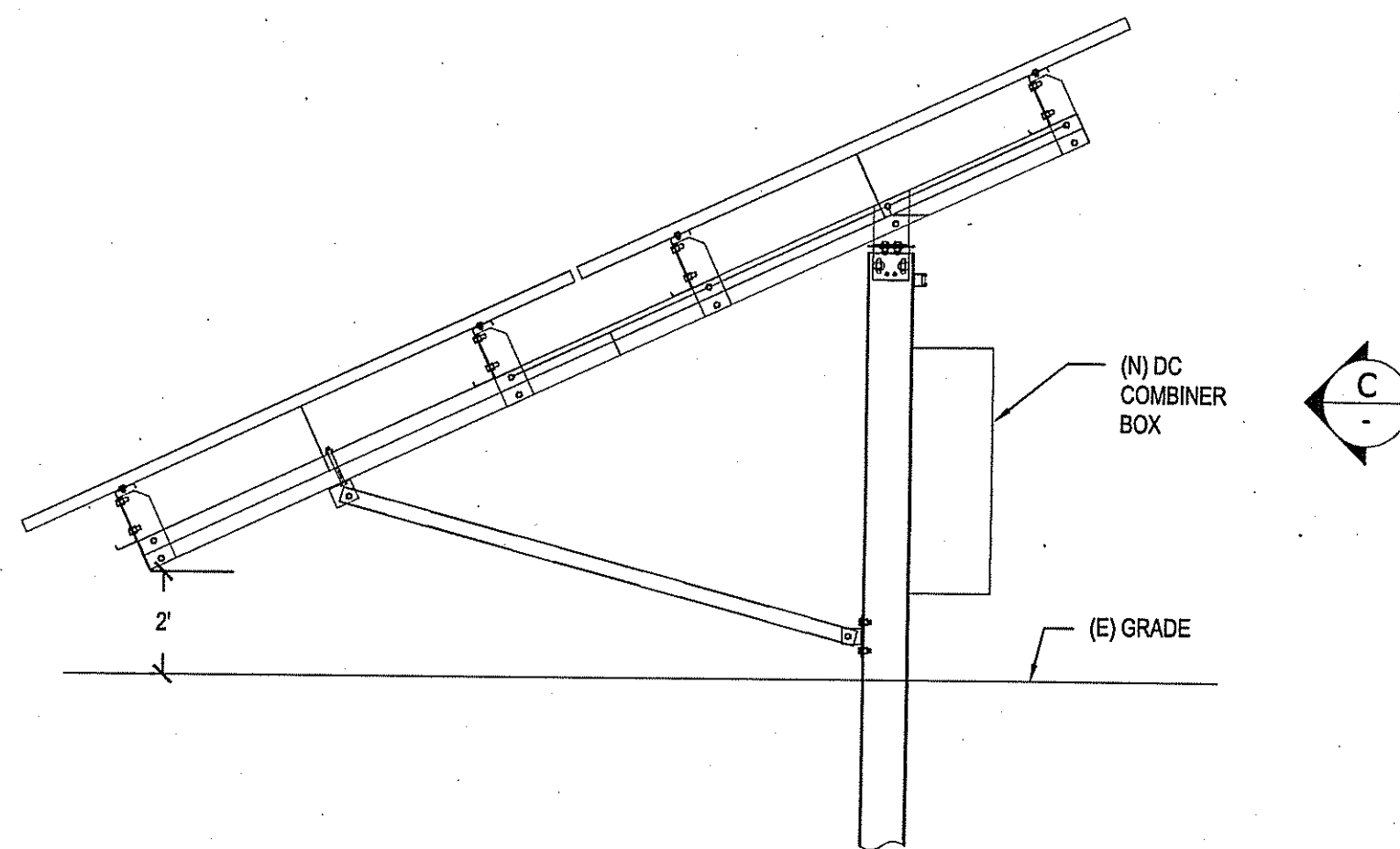
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DESIGNED	HW	DRAWN	LRK	CHECKED	GAC	APPROVED	DWR
PROJECT NO.						195210913	
DATE:						JAN. 2017	
SHEET						7	

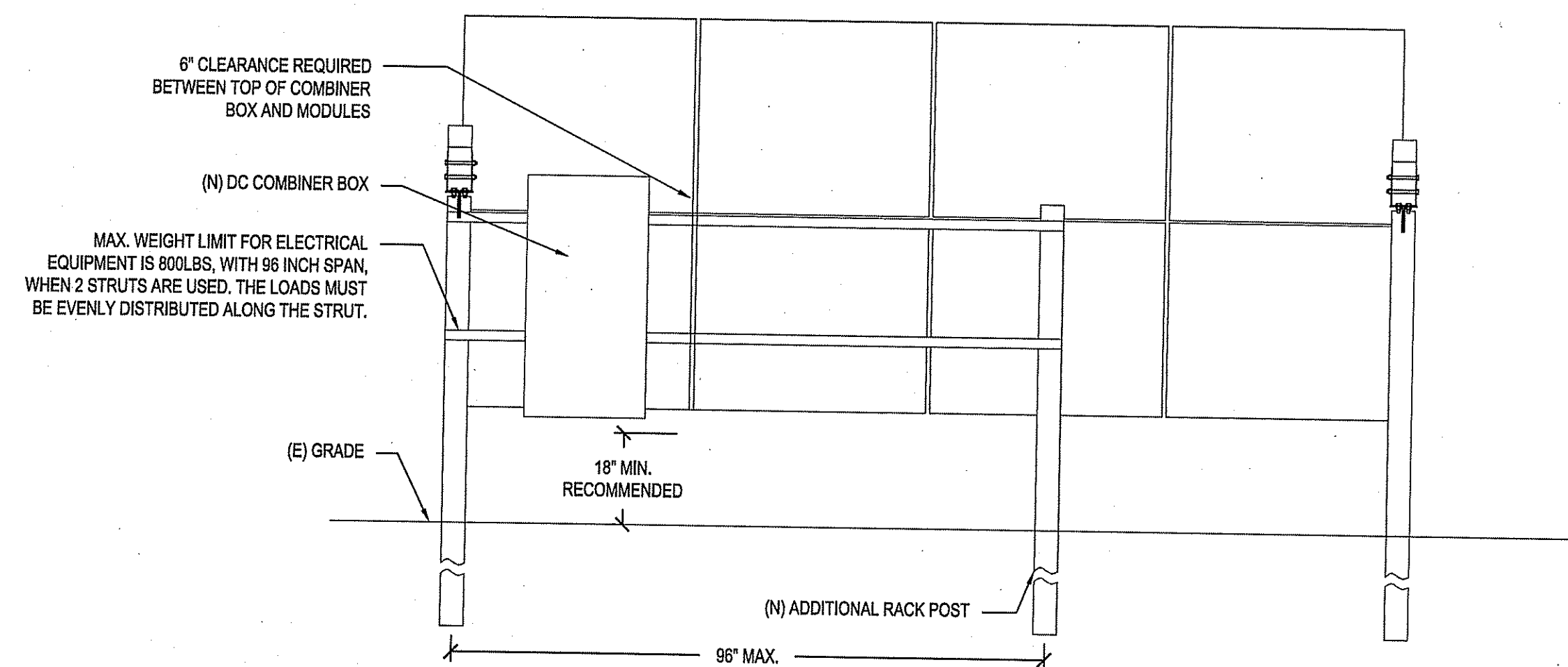




A RBI EQUIPMENT RACK (TOP ELEVATION)



B RBI EQUIPMENT RACK (SIDE ELEVATION)



C RBI EQUIPMENT RACK (REAR ELEVATION)

GENERAL/CONSTRUCTION/SAFETY:

1. ALL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE APPLICABLE CONSTRUCTION CODE AND THE PROJECT SPECIFICATIONS.
2. LOCATION OF UNDERGROUND UTILITIES SHALL BE VERIFIED PRIOR TO COMMENCEMENT OF CONSTRUCTION.
3. DIMENSIONS SHOWN ON PLAN SHALL BE VERIFIED IN FIELD.
4. LAYOUT IS SUBJECT TO CHANGE PER REQUEST AND/OR EXISTING CONDITIONS IN THE FIELD.
5. ENGINEER SHALL NOT BE RESPONSIBLE FOR THE MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES OF CONSTRUCTION SELECTED BY CONTRACTOR.
6. CONTRACTOR SHALL FIELD MEASURE AND VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS. ANY UNEXPECTED CONDITIONS OR DISCREPANCIES WITH THE DESIGN DOCUMENTS SHALL BE REPORTED TO THE ENGINEER PRIOR TO INSTALLATION OR ERECTION OF MATERIALS.
7. THE CONTRACTOR WILL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS OF THE JOB SITE INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. WHEN ON SITE, THE ENGINEER IS RESPONSIBLE FOR HIS OWN SAFETY BUT HAS NO RESPONSIBILITY FOR THE SAFETY OF OTHER PERSONNEL OR SAFETY CONDITIONS AT THE SITE.
8. NO PERSONNEL SHALL STEP OR STAND ON PHOTOVOLTAIC (PV) MODULES (SOLAR PANELS) AT ANY TIME. RACK STRUCTURE AND PV MODULES ARE NOT DESIGNED FOR LIVE LOADS AND MAY VOID WARRANTY.

SPECIAL FIELD INSPECTION:

1. ALL SPECIAL INSPECTORS SHALL BE RETAINED BY OWNER/CUSTOMER. THE EXTENT OF THE INSPECTION SHALL COMPLY WITH THE CONTRACT DOCUMENTS, THE BUILDING CODE REQUIREMENTS, AND LOCAL JURISDICTION. IT IS THE OWNER/CUSTOMER'S RESPONSIBILITY TO GIVE PROPER NOTIFICATION TO THE SPECIAL INSPECTOR AND PROCEED WITH THE WORK ONLY AFTER THE SPECIAL INSPECTOR'S APPROVAL.
2. FAILURE TO NOTIFY THE SPECIAL INSPECTOR MAY RESULT IN OWNER/CUSTOMER HAVING TO REMOVE WORK FOR THE PURPOSE OF INSPECTION AT THE OWNER'S/CUSTOMER'S EXPENSE.
3. PREMATURE NOTIFICATION FOR INSPECTION WILL RESULT IN AN ADDITIONAL INSPECTION WITH ALL EXPENSES AND FEES PAID BY THE OWNER/CUSTOMER.
4. SPECIAL INSPECTORS SHALL KEEP RECORDS OF ALL INSPECTIONS. RECORDS SHALL BE FURNISHED TO THE OWNER, ENGINEER OF RECORD, AND LOCAL JURISDICTION AS REQUIRED. ANY AND ALL DISCREPANCIES SHALL IMMEDIATELY BE BROUGHT TO THE ATTENTION OF THE CONTRACTOR. CORRECTIONS SHALL BE MADE AND A FINAL REPORT OF INSPECTIONS SHALL BE PROVIDED NOTING COMPLETION OF INSPECTIONS AND CORRECTIONS OF DISCREPANCIES. FAILURE TO CORRECT DISCREPANCIES SHALL BE REPORTED TO THE ENGINEER OF RECORD AND THE LOCAL JURISDICTION AND MAY RESULT IN REMOVAL OF COMPLETED WORK AND ADDITIONAL WORK TO CORRECT DISCREPANCIES AT THE CONTRACTOR'S EXPENSE.
5. SPECIAL INSPECTION NOT REQUIRED BY RBI SOLAR, AS REQUIRED BY OWNER/CUSTOMER AND/OR AUTHORITY HAVING JURISDICTION, MINIMUM INSPECTION SHALL INCLUDE:

IBC TABLE 1705		
STRUCTURAL STEEL/ALUMINUM FABRICATION	CONTINUOUS	PERIODIC
MATERIAL IDENTIFICATION		X
HIGH STRENGTH BOLTS - MATERIAL IDENTIFICATION OF BOLTS, NUTS AND WASHERS		X
WELD FILLER MATERIALS - IDENTIFICATION AND CONFIRMATION OF COMPLIANCE WITH DESIGN DOCUMENTS		X
STRUCTURAL STEEL/ALUMINUM ERECTION		X
MATERIAL IDENTIFICATION		X
INSTALLATION OF HIGH STRENGTH BOLTS		X
WELDED CONNECTIONS		X
MEMBER SIZES AND PLACEMENT		X
GENERAL CONFORMANCE WITH DESIGN DOCUMENTS		X
CONCRETE CONSTRUCTION		X
MATERIAL IDENTIFICATION		X
MIX DESIGN VERIFICATION		X
SIZE AND PLACEMENT OF REINFORCING STEEL		X
PLACEMENT OF CONCRETE USING PROPER TECHNIQUES		X
CONCRETE SAMPLES FOR SLUMP, AIR CONTENT, TEMPERATURE, STRENGTH TESTS, ETC. IN ACCORDANCE WITH ACI 318		X
PROPER MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES		X
FOUNDATIONS		X
SIZE AND LOCATION OF FOUNDATION EXCAVATIONS		X
PLACEMENT OF REINFORCING STEEL AS REQUIRED		X

FOUNDATION/CONCRETE NOTES:

1. CONCRETE SPECIFICATIONS:
CONCRETE STRENGTH: 2800 PSI @ 28 DAYS
MINIMUM COVER: AS NOTED OR 3" ADJACENT TO EARTH
AIR CONTENT: 4-6%
AGGREGATE SIZE: 3/4" MAXIMUM
2. CUSTOMER IS RESPONSIBLE FOR VERIFYING SOIL CONDITIONS ARE CONSISTENT WITH FINDINGS INCLUDED IN GEOTECHNICAL REPORT, IF APPLICABLE, AND/OR FIELD TESTS PERFORMED BY RBI SOLAR. VARIATIONS IN SOIL CONDITIONS SHALL BE REPORTED TO GEOTECHNICAL ENGINEER AND/OR ENGINEER OF RECORD RESPONSIBLE FOR FOUNDATION DESIGN PRIOR TO INSTALLATION OF ANY FOUNDATION MATERIALS.
3. CUSTOMER IS RESPONSIBLE FOR VERIFYING CORROSION COMPATIBILITY WITH FOUNDATIONS AND/OR DRIVEN POSTS.
4. INSTALLER/CONTRACTOR SHALL COORDINATE PLACEMENT OF FOUNDATIONS AND/OR ANCHOR BOLTS PER DESIGN DRAWINGS AND/OR MANUFACTURER'S SPECIFICATIONS.
5. RBI SOLAR, INC. DESIGNS DRIVEN-PILE AND ALTERNATE FOUNDATIONS BASED ON SOIL PROPERTIES OUTLINED IN CERTIFIED GEOTECHNICAL REPORTS AND/OR DATA FROM FIELD TESTING. ALL DESIGNS ASSUME UNDISTURBED SOIL CONDITIONS, AND DO NOT TAKE INTO ACCOUNT TRENCHING NEAR FOUNDATIONS. FOR CASES WHERE TRENCHING FOR ELECTRICAL WORK IS AT OR NEAR A FOUNDATION FOR NORMAL GOOD SOIL CONDITIONS, IN CASES OF "POOR SOIL" CONDITIONS, RBI SOLAR RECOMMENDS A MINIMUM CLEAR DISTANCE EQUAL TO OR GREATER THAN THE DEPTH OF THE FOUNDATION. IF IN DOUBT OF SOIL CONDITIONS, RBI SOLAR RECOMMENDS CONSULTING A QUALIFIED GEOTECHNICAL ENGINEER TO ASSESS SOIL CONDITIONS AT THE SITE.

NOTE: TRENCHING/EXCAVATION WITHIN 3'-0" OF ANY RACK SUPPORT POST REQUIRES REPLACING THE ORIGINAL SOIL AND COMPACTION TO 95% STANDARD PROCTOR DENSITY. FOR FURTHER CLARIFICATION ON COMPACTION REQUIREMENTS, RBI SOLAR RECOMMENDS CONSULTING A QUALIFIED GEOTECHNICAL ENGINEER.

DRIVEN POST REFUSAL NOTES:

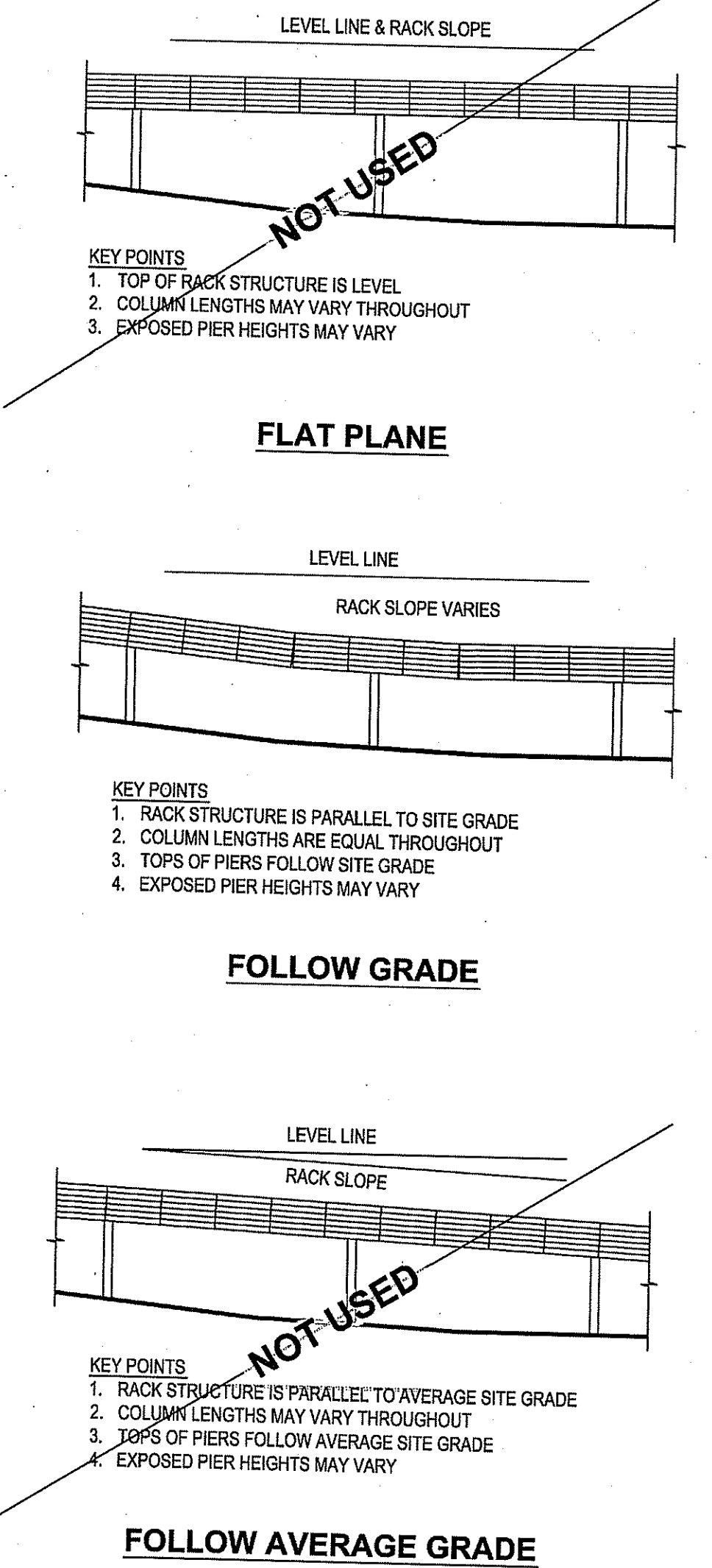
NOTE: WHEN REFUSAL IS ENCOUNTERED WHILE INSTALLING DRIVEN-POST FOUNDATIONS, FOLLOW THIS PROCEDURE:

1. ATTEMPT TO DRIVE POST TO DEPTH SHOWN ON DESIGN DOCUMENTS - REFERENCE DETAIL A1/S-301.
2. IF REFUSAL IS ENCOUNTERED, EFFORTS TO DRIVE THE POST FURTHER SHOULD BE STOPPED.
3. DEPTH AND LOCATION OF ANY POST THAT DOES NOT MEET DESIGN EMBEDMENT SHALL BE RECORDED FOR ENGINEERING REVIEW AND RECORD DRAWINGS.
4. POSTS MAY BE FIELD TESTED FOR UPLIFT CAPACITY PROVIDED A MINIMUM EMBEDMENT OF 5 FT. IS ACHIEVED PRIOR TO REFUSAL. EMBEDMENT LESS THAN 5 FT. SHALL REQUIRE AN ALTERNATE FOUNDATION.
5. VERTICAL PULL TEST ON POSTS THAT DO NOT REACH DESIGN EMBEDMENT SHALL RESIST A MINIMUM UPLIFT FORCE OF 3900 LBS. IF POSTS DO NOT MEET THIS MINIMUM, AN ALTERNATE FOUNDATION IS REQUIRED.
6. LATERAL TEST ON POSTS THAT DO NOT REACH DESIGN EMBEDMENT SHALL RESIST A MINIMUM LATERAL FORCE OF 2850 LBS & THE POST SHALL REBOUND WITHIN 1/4" OF ORIGINAL LOCATION. IF POSTS DO NOT MEET THIS MINIMUM REQUIREMENT AN ALTERNATE FOUNDATION IS REQUIRED.
7. POSTS THAT PASS THE FIELD TESTS SHALL BE CUT DOWN TO APPROPRIATE HEIGHT AND HOLES FOR POST-TOP MOUNTING BRACKETS DRILLED IN THE TOP OF POST.
8. ALL CUT SURFACES SHALL BE PAINTED WITH BRUSH-ON GALVANIZING PAINT. RBI SOLAR DOES NOT RECOMMEND SPRAY GALVANIZING FOR REPAIR AND PAINTING OF CUT SURFACES.

STRUCTURAL STEEL:

1. ALL STRUCTURAL STEEL SHALL BE DESIGNED, FABRICATED AND ERECTED IN ACCORDANCE WITH THE LATEST VERSION OF AISC "MANUAL OF STEEL CONSTRUCTION" LIGHT GAGE COLD-FORMED SECTIONS SHALL CONFORM TO LATEST VERSION OF AISI SPECIFICATIONS FOR COLD-FORMED STEEL STRUCTURAL MEMBERS.
2. MATERIALS:
 - A. ROLLED SHAPES: ASTM A992 OR A572 GRADE 50, F_y = 50 KSI MINIMUM
 - B. PLATES: ASTM A36
 - C. TUBULAR SHAPES: ASTM A500 GRADE B, F_y = 50 KSI MINIMUM
 - D. FIELD BOLTS (TYP. U.N.O.): SAE J429 GRADE 5
 - E. SCREWS: #12 TEK-S GALVANIZED
3. TEK SCREWS ARE TO BE INSTALLED USING A 2800 RPM MAX. NON-IMPACTING VARIABLE SPEED DRILL WITH CLUTCH OUT.
4. REFER TO THE RBI SOLAR MANUAL "GROUND MOUNT SYSTEM MODEL GM-I ASSEMBLY INSTRUCTIONS", VERSION 11, FOR STRUCTURAL CONNECTION TORQUE VALUES.
5. ALL WELDING OF STEEL SHALL BE DONE IN ACCORDANCE WITH THE LATEST VERSION OF THE AMERICAN WELD SOCIETY'S SPECIFICATIONS - AWS D1.1. ELECTRODES SHALL BE E70 SERIES UNLESS NOTED OTHERWISE.
6. GALVANIZING SPECIFICATIONS - GALVANIZING SHALL BE PER CONTRACT DOCUMENTS
 - A. HOT-DIPPED GALVANIZING SHALL BE PER ASTM A123.
 - B. PRE-GALVANIZED MATERIALS SHALL COMPLY WITH ASTM A653 - G90 MINIMUM.
 - C. ALL STRUCTURAL HARDWARE (NOT MODULE MOUNTING HARDWARE) SHALL BE GALVANIZED.

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



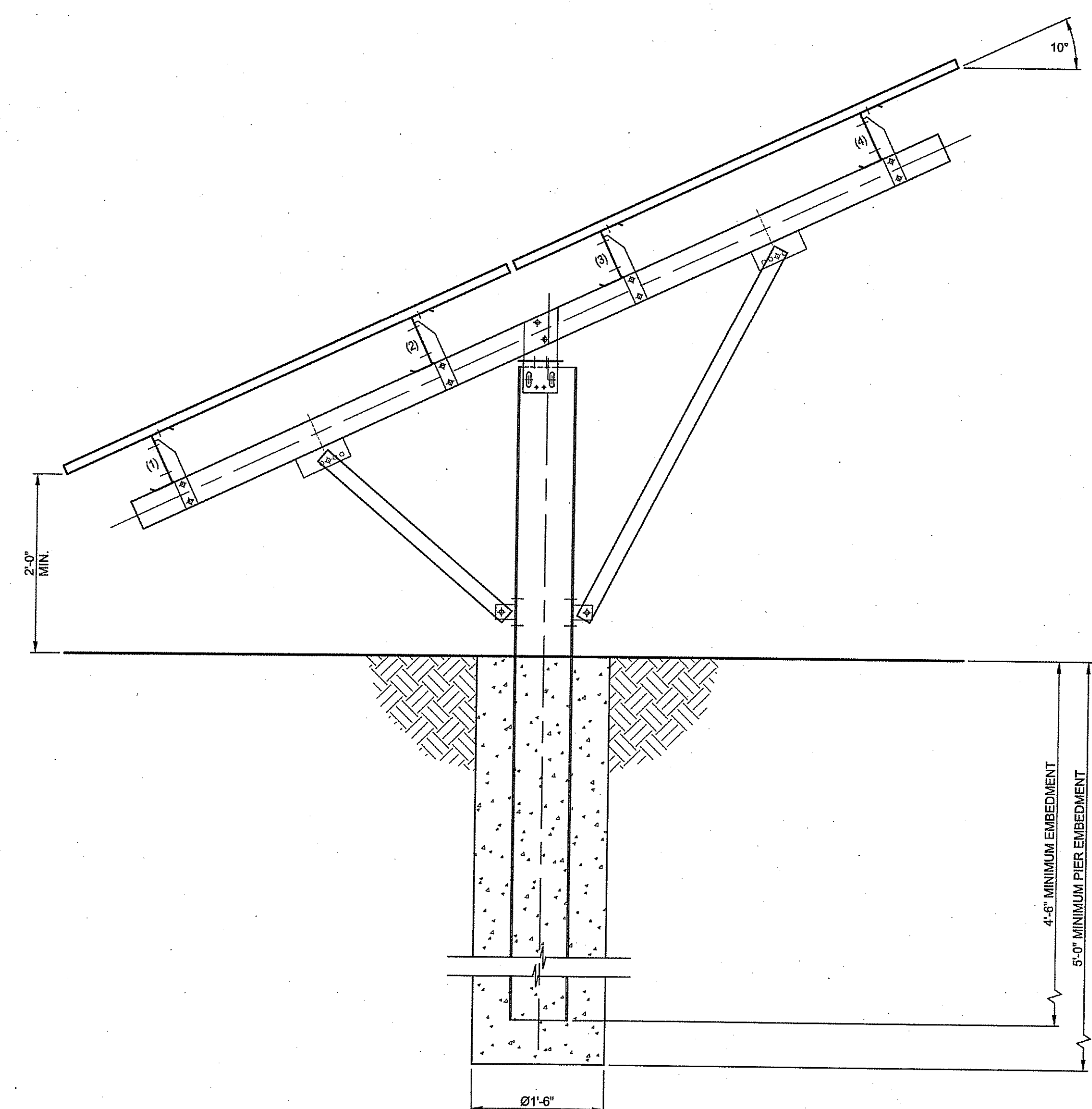
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED MAR 27 2017 FILE # 17-0016
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE
captain D. Wencel

DAVID W. RICH
No. 8914
REGISTERED PROFESSIONAL ENGINEER
CIVIL

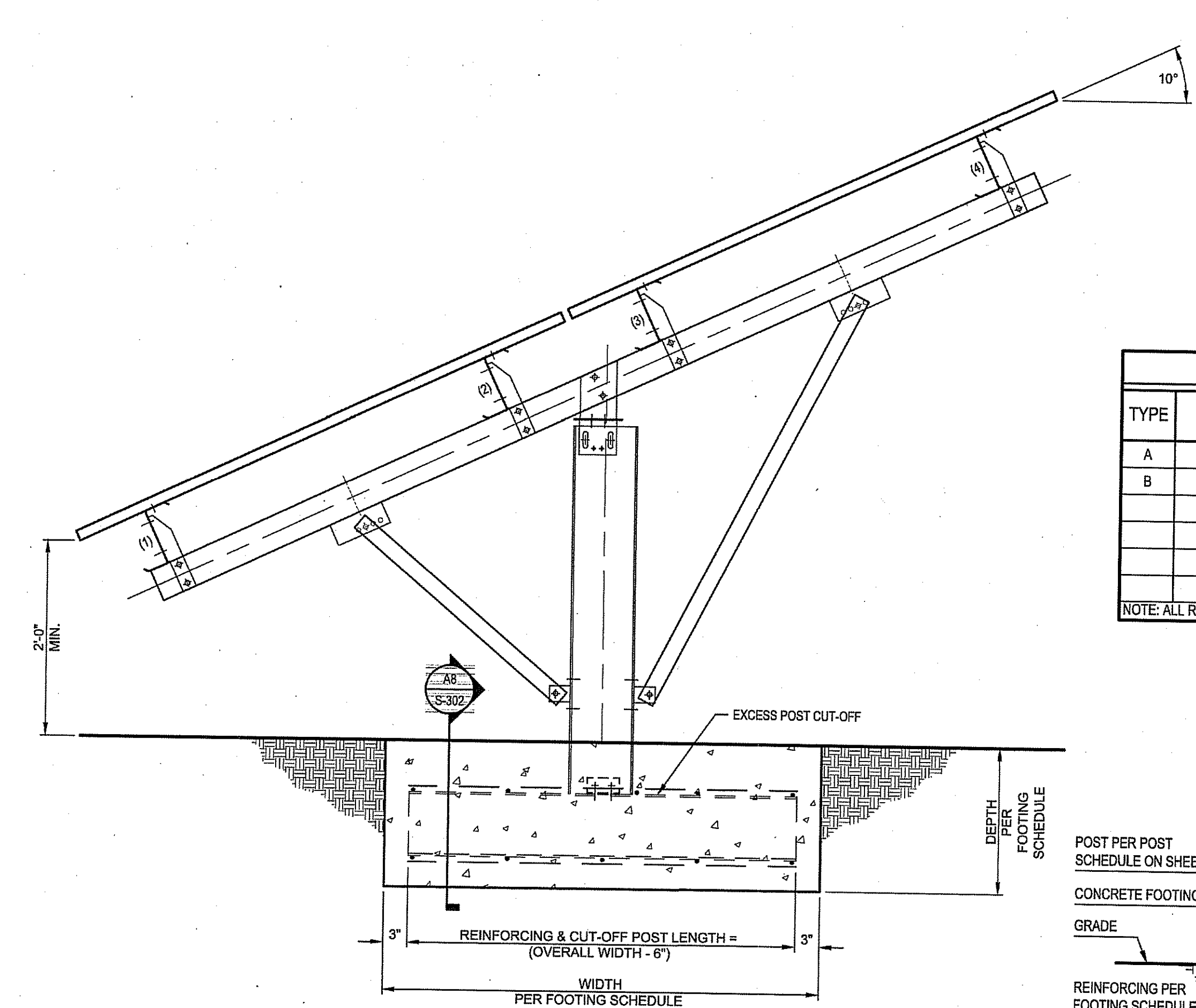
Rhode Island Airport Corporation
NEWPORT AIRPORT
MIDDLETOWN, RHODE ISLAND
SHEET TITLE
SOLAR RACK SYSTEM AND FOUNDATION DETAILS
SHEET 1 OF 2
DESIGNED SC DRAWN LRK CHECKED GAC APPROVED DWR
PROJECT NO. 195210913
DATE: JAN. 2017 SHEET 8
Stantec

REVISION NUMBER	REVISION DATE	DESCRIPTION

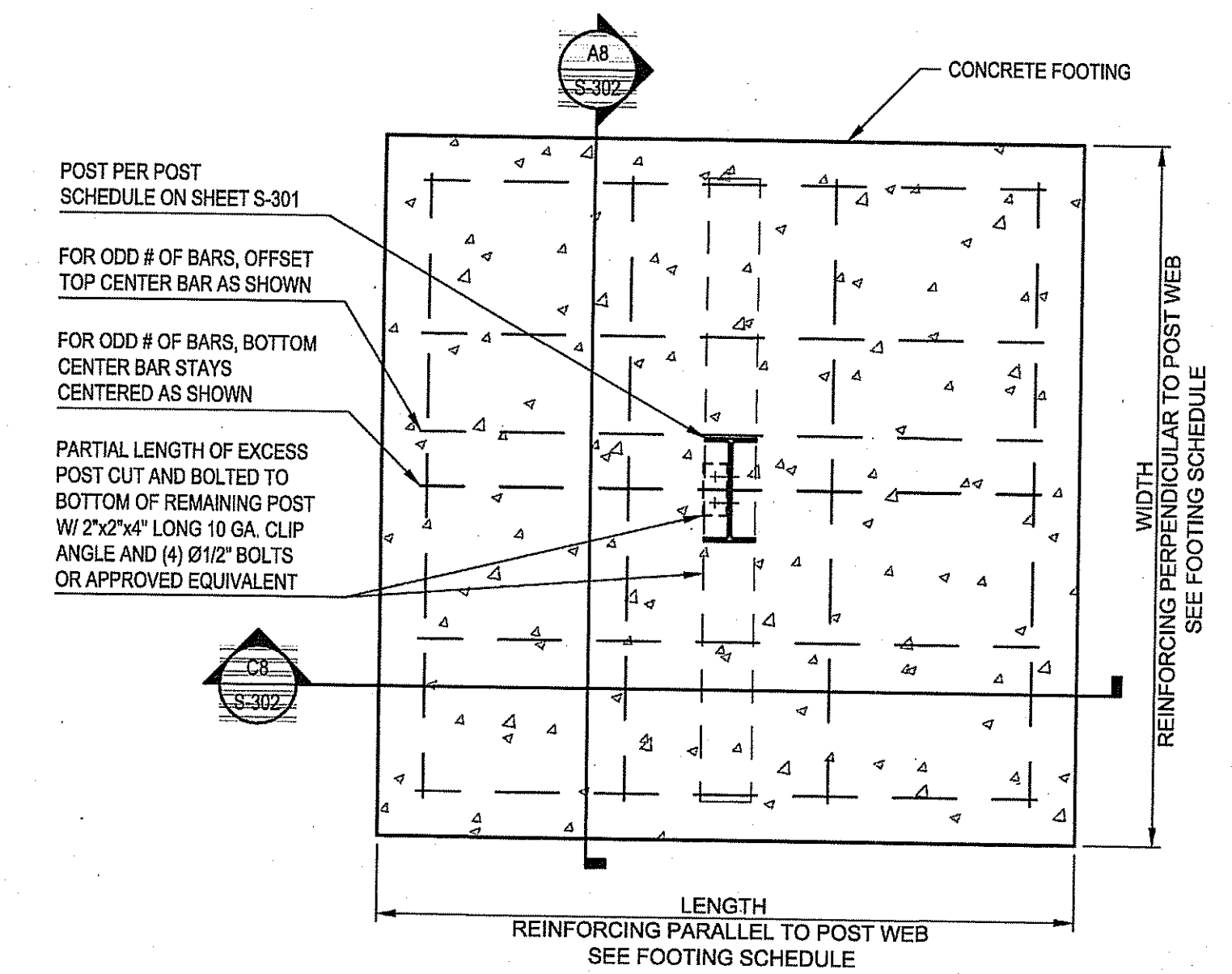
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ALTERNATE CONCRETE FOUNDATION
NOT TO SCALE



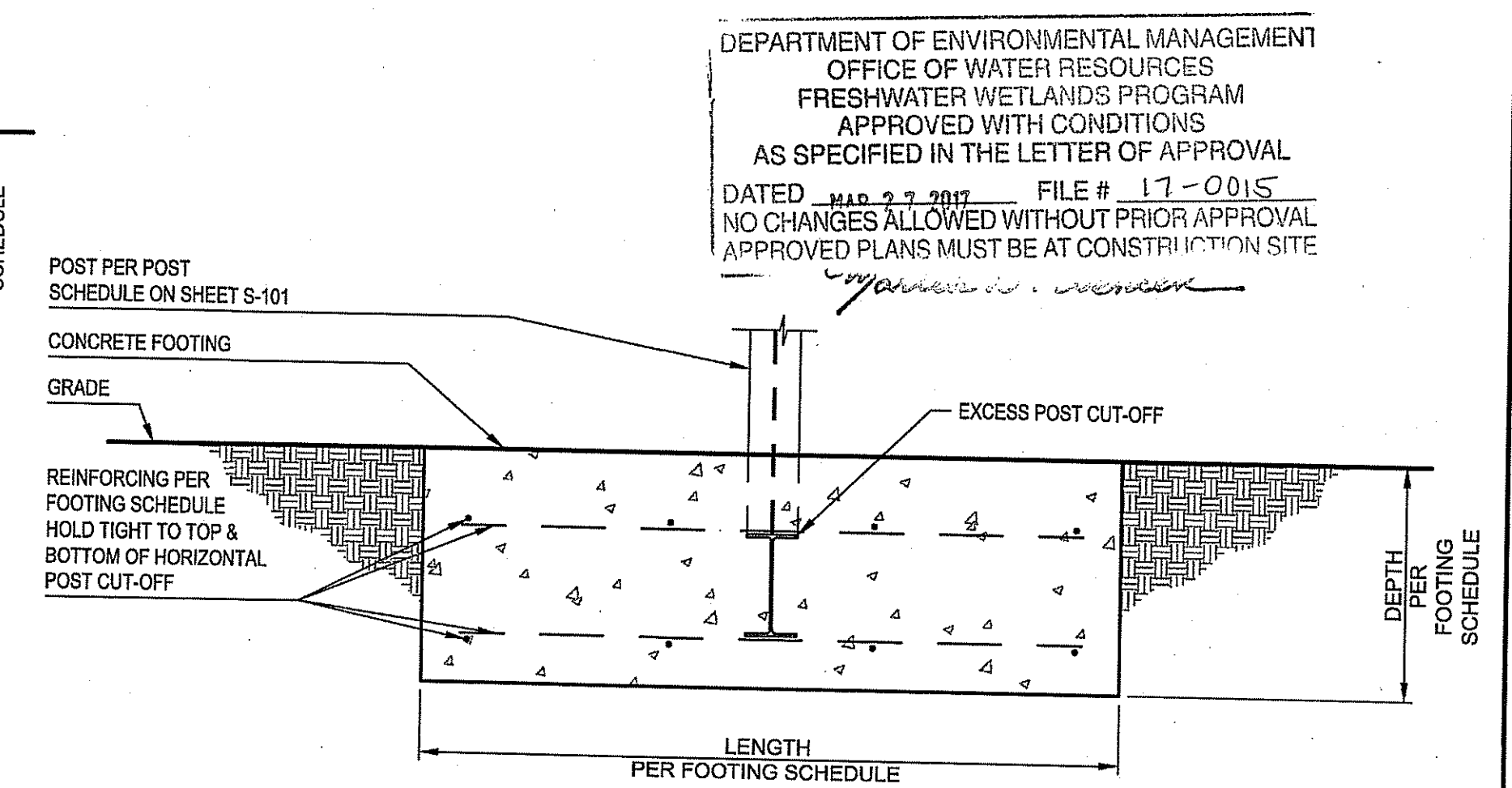
ALTERNATE SPREAD FOOTER DETAIL
NOT TO SCALE



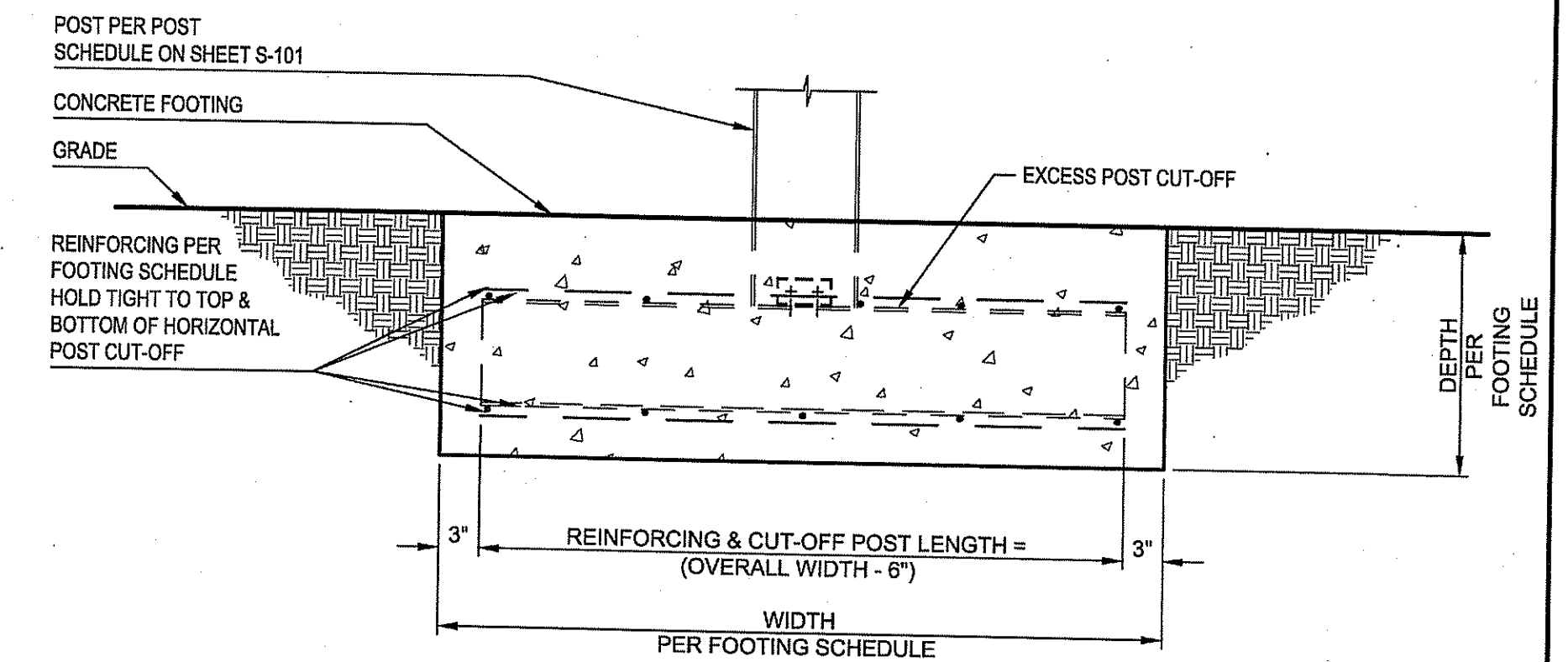
ALTERNATE FOUNDATION PLAN
NOT TO SCALE

FOOTING SCHEDULE				
TYPE	LENGTH x WIDTH	DEPTH	REINFORCING PARALLEL TO POST WEB AND POST CUT-OFF	REINFORCING PERPENDICULAR TO POST WEB AND POST CUT-OFF
A	5'-9" x 5'-9" (PERIMETER)	1'-6"	(4) #4 BARS T&B OR (4) #5 BARS T&B	(5) #4 BARS T&B OR (4) #5 BARS T&B
B	4'-8" x 4'-8" (INTERIOR)	1'-6"	(4) #4 BARS T&B OR (4) #5 BARS T&B	(5) #4 BARS T&B OR (4) #5 BARS T&B

NOTE: ALL REINFORCING TO HAVE 3" MINIMUM COVER



ALTERNATE FOUNDATION SECTION
NOT TO SCALE



ALTERNATE FOUNDATION SECTION
NOT TO SCALE

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
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Rhode Island Airport Corporation
NEWPORT AIRPORT
MIDDLETOWN, RHODE ISLAND
SHEET TITLE
SOLAR RACK SYSTEM AND FOUNDATION DETAILS
SHEET 2 OF 2

REVISION NUMBER	REVISION DATE	DESCRIPTION

DESIGNED SC	DRAWN LRK	CHECKED GAC	APPROVED DWR
PROJECT NO. 195210913			DATE: JAN. 2017
SHEET 9			

