POMHAM SOLAR
PERMITTING PLANS

PROPERTY:
OFF IRON MINE HILL ROAD
NORTH SMITHFIELD, RI 02896
AP 16 LOTS 18 & 19

LOT 18 PROPERTY OWNER:
JOSEPH AND SANDRA AUTHIER
850 IRON MINE HILL ROAD
NORTH SMITHFIELD, RI 02896

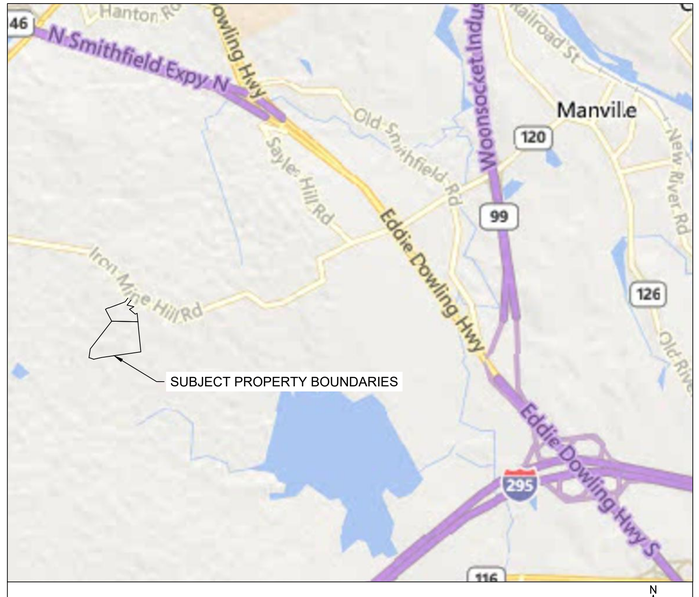
LOT 19 PROPERTY OWNER / PREPARED FOR:
ISLANDER SOLAR, LLC
396 SPRINGFIELD AVENUE, 2ND FLOOR
SUMMIT, NJ 07901

JANUARY 7, 2022

PREPARED BY:

ess group
environmental consulting
& engineering services

404 Wyman Street, Suite 375
Waltham, Massachusetts 02451
p 781.419.7696
www.essgroup.com



LOCATION MAP
SCALE 1"=2000'

JASON M. GOLD
No. 7788
REGISTERED PROFESSIONAL ENGINEER
CIVIL
2022.01.07 19:05:56 -05'00'

DRAWING INDEX

DRAWING NUMBER	Sheet Title
-	COVER
N-1	NOTES
N-2	NOTES
SO-1	SITE OVERVIEW PLAN
R-1	200-FT RADIUS MAP
C-1	LAYOUT AND MATERIALS PLAN
C-2	LAYOUT AND MATERIALS PLAN
C-3	GRADING AND DRAINAGE PLAN
C-4	GRADING AND DRAINAGE PLAN
C-5	EROSION AND SEDIMENT CONTROL PLAN
C-6	EROSION AND SEDIMENT CONTROL PLAN
D-1	DETAILS
D-2	DETAILS
D-3	DETAILS
D-4	DETAILS
D-5	DETAILS
ATTACHMENTS	
"LIMITED CONTENT BOUNDARY SURVEY", DATED DECEMBER 19, 2019, NORTHEAST ENGINEERS & CONSULTANTS.	
"ONE LINE DIAGRAM", DATED SEPTEMBER 11, 2018 AND REVISED DECEMBER 19, 2018 AND FEBRUARY 12, 2019, PURE POWER ENGINEERING.	

FOR PERMITTING ONLY

GENERAL NOTES:

1. BASE PLAN: "LIMITED CONTENT BOUNDARY SURVEY WITH EXISTING CONDITIONS AND TOPOGRAPHY", DATED DECEMBER 17, 2019, NORTHEAST ENGINEERS & CONSULTANTS.
2. ENGINEER'S ENDORSEMENT IS FOR PERMITTING PURPOSES ONLY. PLANS NOT INTENDED FOR CONSTRUCTION.
3. WETLANDS WERE DELINEATED BY TETRATECH IN 2019 AND SUBSEQUENTLY BY ESS IN AUGUST 2019.
4. PORTIONS OF EXISTING TRAIL SCALED FROM RIGIS WINTER 2019-2020 (LEAF-OFF) DIGITAL AERIAL PHOTOGRAPH.
5. A PORTION OF THE SITE IS LOCATED WITHIN A RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT NATURAL HERITAGE AREA. NATURAL HERITAGE AREA BOUNDARY OBTAINED FROM RHODEMAP, RIGIS, AND RIDEM DATED DECEMBER 2021. NATURAL HERITAGE AREA BOUNDARY LOCATIONS ARE APPROXIMATE.
6. SITE IS NOT LOCATED WITHIN A TOWN REGULATED GROUNDWATER PROTECTION OVERLAY DISTRICT.

CONSTRUCTION NOTES:

1. NO CHANGES ARE TO BE MADE UNLESS AUTHORIZED BY THE OWNER.
2. THE CONTRACTOR IS RESPONSIBLE FOR REVIEWING, UNDERSTANDING, AND COMPLYING WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL SAFETY CODES, REGULATIONS, LEGAL REQUIREMENTS, PERMIT CONDITIONS, ETC.
3. ALL PRODUCTS TO BE INSTALLED PER MANUFACTURER'S OR DISTRIBUTOR'S INSTRUCTIONS. NOTIFY ENGINEER OF DISCREPANCIES PRIOR TO INSTALLATION.
4. UNLESS OTHERWISE NOTED, ALL WORK SHALL CONFORM TO RIDOT'S STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, 2004 EDITION AMENDED 2018, WITH ALL REVISIONS AND R.I. STANDARD DETAILS, 1998 EDITION, WITH ALL REVISIONS.
5. REFER TO CONSTRUCTION RECOMMENDATIONS INCLUDED IN THE "GEOTECHNICAL ENGINEERING REPORT" PREPARED BY TERRACON CONSULTANTS, INC., DATED JANUARY 21, 2021 AS REVISED.
6. THE CONTRACTOR SHALL TAKE ADEQUATE PRECAUTIONS TO PROTECT ALL WALKS, STREETS, PAVEMENTS, HIGHWAY GUARDS, CURBING, EDGING, TREES AND PLANTINGS, ETC. ON OR OFF THE PREMISES, AND SHALL REPAIR AND REPLACE OR OTHERWISE MAKE GOOD AT THE CONTRACTOR'S EXPENSE ANY ITEMS DAMAGED AS A RESULT OF THE CONTRACTOR'S WORK.
7. IN THE EVENT THAT SUSPECTED CONTAMINATED SOIL, SEDIMENT, GROUNDWATER, OR OTHER MEDIA ARE ENCOUNTERED DURING EXCAVATION AND CONSTRUCTION ACTIVITIES BASED ON VISUAL, OLFACTORY, OR OTHER EVIDENCE, THE CONTRACTOR SHALL STOP WORK IN THE VICINITY OF THE SUSPECT MATERIAL AND SHALL NOTIFY THE OWNER IMMEDIATELY SO THAT THE APPROPRIATE TESTING AND SUBSEQUENT ACTION CAN BE TAKEN.
8. THE CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL EXISTING AND GENERATED RUBBLE, DEBRIS AND OTHER DELETERIOUS MATERIAL IN ACCORDANCE WITH THE SPECIFICATIONS AND ALL APPLICABLE CODES AND REGULATIONS.
9. THE CONTRACTOR SHALL MAINTAIN THE PROJECT SITE IN A SAFE AND CLEAN CONDITION FOR THE DURATION OF CONSTRUCTION.
10. CONTRACTOR SHALL BE RESPONSIBLE FOR SITE SECURITY AND JOB SAFETY. CONSTRUCTION ACTIVITIES SHALL BE IN ACCORDANCE WITH OSHA STANDARDS AND LOCAL REQUIREMENTS.
11. UPON AWARD OF CONTRACT, CONTRACTOR SHALL MAKE NECESSARY CONSTRUCTION NOTIFICATIONS AND APPLY FOR AND OBTAIN NECESSARY PERMITS, PAY FEES, AND POST BONDS ASSOCIATED WITH THE WORK INDICATED ON THE DRAWINGS, IN THE SPECIFICATIONS, AND IN THE CONTRACT DOCUMENTS. CONTRACTOR SHALL NOT CLOSE OR OBSTRUCT ROADWAYS, SIDEWALKS, OR FIRE HYDRANTS WITHOUT APPROPRIATE PERMITS.
12. AREAS OUTSIDE THE LIMITS OF THE PROPOSED WORK DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED BY THE CONTRACTOR TO THEIR ORIGINAL CONDITION AT THE CONTRACTOR'S EXPENSE AND NO ADDITIONAL COST TO THE OWNER.
13. DAMAGE RESULTING FROM CONSTRUCTION LOADS SHALL BE REPAIRED BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE AND NO ADDITIONAL COST TO THE OWNER.
14. THE CONTRACTOR SHALL USE DESIGNATED LOCATIONS WITHIN THE ESTABLISHED LIMITS OF DISTURBANCE TO ACCESS THE SITE.

CONSTRUCTION SEQUENCE NOTES:

1. PHASING AND CONSTRUCTION SEQUENCE SHALL BE IMPLEMENTED TO MINIMIZE THE AMOUNT OF EARTH DISTURBANCE AT ANY ONE TIME. EARTH DISTURBANCE ACTIVITIES DURING EACH PHASE OF CONSTRUCTION SHALL BE LIMITED TO A MAXIMUM OF 5 ACRES WITH A COMMON DRAINAGE LOCATION. INITIATE APPROPRIATE STABILIZATION PRACTICES ON ALL DISTURBED AREAS AS SOON AS POSSIBLE, BUT NOT MORE THAN FOURTEEN DAYS AFTER THE CONSTRUCTION ACTIVITY IN THE AREA HAS TEMPORARILY OR PERMANENTLY CEASED AND PRIOR TO INITIATING LAND DISTURBANCE IN SUBSEQUENT PHASES.
2. WORK ASSOCIATED WITH THE PROJECT IS EXPECTED TO OCCUR IN THE FOLLOWING GENERAL ORDER, THOUGH SOME TASKS MAY OCCUR SIMULTANEOUSLY OR IN A DIFFERENT ORDER BASED ON CONTRACTOR'S MEANS AND METHODS:

2.1. PHASE 1 SITE ACCESS

2.1.1. ERECT OR POST A TWELVE (12) INCH WIDE BY EIGHTEEN (18) INCH LONG WEATHER RESISTANT SIGN WHICH BOLDLY STATES THE RIDEM PERMIT NUMBER. SIGN SHALL NOT BE INSTALLED TO A LIVE TREE.

2.1.2. CLEARLY MARK LIMITS OF DISTURBANCE FOR ALL PHASES.

2.1.3. INSTALL ALL PERIMETER EROSION, RUNOFF, AND SEDIMENT CONTROLS AND TEMPORARY POLLUTION PREVENTION MEASURES THAT ARE REQUIRED TO BE IN PLACE AND FUNCTIONAL BEFORE ANY SITE WORK BEGINS. THIS SHALL BE DONE IN ACCORDANCE WITH THE RI SESC HANDBOOK. UPON ACCEPTABLE COMPLETION OF SITE PREPARATION AND INSTALLATION OF EROSION, RUNOFF, AND SEDIMENT CONTROLS AND TEMPORARY POLLUTION PREVENTION MEASURES, SITE CONSTRUCTION ACTIVITIES MAY COMMENCE.

2.1.4. MARK SHADE TREES TO BE CUT FOR APPROVAL.

2.1.5. CLEAR TREES AND SELECTIVELY CUT APPROVED SHADE TREES

2.1.6. CLEAR AND GRUB ONLY AREAS REQUIRED TO COMPLETE THE WORK INCLUDED IN PHASE 1.

2.1.7. INSTALL AND MAINTAIN CONSTRUCTION ENTRANCE AND LAYDOWN AREA.

2.2. PHASE 2 SITE STORMWATER CONTROLS

2.2.1. INSTALL INTERIOR EROSION AND SEDIMENT CONTROLS.

2.2.2. CLEAR AND GRUB ONLY AS NEEDED TO COMPLETE THE WORK INCLUDED IN PHASE 2.

2.2.3. INSTALL BASINS.

2.2.4. SPECIAL CARE SHALL BE TAKEN TO PREVENT SEDIMENT-LADEN RUNOFF FROM ENTERING THE BASINS. ANY SEDIMENT DEPOSITED WITHIN THE BASINS OR TRAPPED BY THE FILTER SOCK MUST BE PROMPTLY REMOVED. SEDIMENT-LADEN RUNOFF HAS THE POTENTIAL TO ADVERSELY AFFECT THE INFILTRATION CAPACITY OF UNDERLYING SOILS. IF SEDIMENT IS DEPOSITED INTO THE BASINS THE UNDERLYING SOILS MUST BE EXCAVATED TO REMOVE ANY DEPOSITED SEDIMENT AND SUPPLEMENTED TO RE-ESTABLISH THE INFILTRATION CAPACITY OF THE UNDERLYING SOILS TO THEIR PRE-CONSTRUCTION CONDITION.

2.3. PHASE 3 EQUIPMENT AND FENCE INSTALLATION

2.3.1. CLEAR AND GRUB ONLY AS NEEDED TO COMPLETE THE WORK INCLUDED IN PHASE 3.

2.3.2. INSTALL TEMPORARY SEDIMENT TRAPS.

2.3.3. GRADE AND PREPARE AREA WITHIN FENCE AS NECESSARY FOR SOLAR ARRAY INSTALLATION.

2.3.4. INSTALL TEMPORARY STABILIZATION.

2.3.5. RESTORE TEMPORARY SEDIMENT TRAPS.

2.3.6. INSTALL PERIMETER FENCE, SOLAR ARRAY, AND ASSOCIATED WORK.

2.3.7. REMOVE AND RESTORE TEMPORARY LAYDOWN AREA BY REMOVING CRUSHED STONE AND FILTER CLOTH AND SUITABLY TILLING AND AMENDING SOILS TO RESTORE INFILTRATION CAPACITY. AERATE ANY EXISTING TURF AREAS THAT HAVE BECOME COMPACTED DURING CONSTRUCTION.

2.4. PHASE 4 FINAL SITE STABILIZATION

2.4.1. PERMANENTLY STABILIZE SITE.

2.4.2. INSPECT, CLEAN, AND REPAIR ALL BASINS AND FOREBAYS.

2.4.3. REMOVE RIDEM PERMIT SIGN, LOD MARKINGS, TEMPORARY POLLUTION PREVENTION MEASURES, AND TEMPORARY EROSION AND SEDIMENT CONTROLS. INSPECT AND REPAIR OR REPLACE PERMANENT FILTER SOCK INSTALLED IN BASIN 1 SAND FILTER.

2.4.4. COMPLETE FINAL SITE STABILIZATION OF ALL REMAINING DISTURBED AREAS AFTER REMOVAL OF TEMPORARY EROSION, RUNOFF, AND SEDIMENT CONTROLS AND TEMPORARY POLLUTION PREVENTION MEASURES.

2.4.5. COMPLETE SITE CLEANUP AND RESTORATION.

EROSION & SEDIMENTATION CONTROL NOTES:

1. THE CONTRACTOR IS REQUIRED TO REVIEW AND IMPLEMENT THE SOIL EROSION AND SEDIMENT CONTROL PLAN THROUGHOUT CONSTRUCTION. THE PLAN MUST BE MAINTAINED AT THE SITE. IT IS THE OPERATOR'S RESPONSIBILITY TO MANAGE THE SITE DURING EACH CONSTRUCTION PHASE SO AS TO PREVENT POLLUTANTS FROM LEAVING THE SITE. THIS MAY REQUIRE THE CONTRACTOR TO REVISE AND AMEND THE SESC PLAN DURING CONSTRUCTION TO ADDRESS VARYING SITE AND/OR WEATHER CONDITIONS, SUCH AS BY ADDING OR REALIGNING EROSION OR SEDIMENT CONTROLS TO ENSURE THE SESC PLAN REMAINS COMPLIANT WITH THE RIPDES CONSTRUCTION GENERAL PERMIT.
2. EROSION CONTROL MEASURES SHALL BE INSTALLED AND MAINTAINED AS SHOWN HEREIN OR AS DIRECTED BY THE ENGINEER.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTING EROSION CONTROL MEASURES TO PREVENT OFF-SITE TRACKING OF EARTH, SEDIMENT AND DEBRIS. THE CONTRACTOR SHALL REMOVE ANY SEDIMENT TRACKED ONTO PUBLIC RIGHT OF WAYS AT THE END OF EACH DAY.
4. TEMPORARY CONSTRUCTION ENTRANCE SHALL BE INSTALLED PRIOR TO THE START OF CONSTRUCTION. THE ENTRANCE SHALL BE APPROXIMATELY 50 FEET LONG, AND SHALL BE MADE OF CRUSHED STONE CONSISTENT WITH RIDOT MATERIAL SPECIFICATION M.01.09 TABLE I, COLUMN II. THE WIDTH OF THE CONSTRUCTION ENTRANCE SHALL BE EQUAL TO THE WIDTH OF THE PROPOSED SITE ENTRANCE. THE CONSTRUCTION ENTRANCE SHALL BE MAINTAINED BY THE CONTRACTOR IN A CONDITION THAT SHALL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO ROADS. ALL SEDIMENT SPILLED, DROPPED, WASHED, OR TRACKED ONTO ROADS SHALL BE REMOVED. DURING WET WEATHER, IT MAY BE NECESSARY TO WASH VEHICLE TIRES AT THESE LOCATIONS PRIOR TO VEHICLES LEAVING THE SITE.
5. PERIMETER SOIL AND EROSION CONTROLS SHALL BE PLACED PRIOR TO ANY CONSTRUCTION ACTIVITIES. CONTRACTOR TO NOTIFY THE ENGINEER AT LEAST 48 HOURS PRIOR TO ANY CONSTRUCTION ACTIVITIES. ALL SOIL AND EROSION CONTROLS SHALL BE CHECKED AND REPAIRED AS NECESSARY.
6. ALL TEMPORARY EROSION, RUNOFF, SEDIMENT, AND POLLUTION PREVENTION CONTROL MEASURES SHALL BE INSTALLED BY THE TIME EACH PHASE OF EARTH DISTURBANCE HAS BEGUN.
7. EXISTING PLANTABLE SOIL SHALL BE PRESERVED TO THE MAXIMUM EXTENT FEASIBLE AND AS NECESSARY TO SUPPORT HEALTHY VEGETATION, PROMOTE SOIL STABILIZATION, AND INCREASE STORMWATER INFILTRATION RATES.
8. EROSION CONTROL MEASURES SHALL BE INSPECTED WEEKLY AND WITHIN 24 HOURS OF EACH STORM EVENT GREATER THAN 0.25 INCHES OF RAINFALL. ALL DAMAGED FILTER SOCKS SHALL BE REPLACED. ACCUMULATED SEDIMENT SHALL BE STOCKPILED FOR LATER REUSE.
9. INITIATE APPROPRIATE TEMPORARY OR PERMANENT STABILIZATION PRACTICES ON ALL DISTURBED AREAS AS SOON AS POSSIBLE, BUT NOT MORE THAN FOURTEEN (14) DAYS AFTER THE CONSTRUCTION ACTIVITY IN THE AREA HAS TEMPORARILY OR PERMANENTLY CEASED. ANY DISTURBED AREA THAT WILL NOT HAVE ACTIVE CONSTRUCTION ACTIVITY OCCURRING WITHIN 14 DAYS MUST BE STABILIZED IN ACCORDANCE WITH THE RI SESC HANDBOOK.
10. TEMPORARY STRAW MULCH, WOOD CHIP MULCH, OR TEMPORARY EROSION CONTROL BLANKETS SHALL BE USED WHERE NON-VEGETATIVE COVER IS REQUIRED FOR A PERIOD GREATER THAN 14 DAYS BUT LESS THAN SIX MONTHS. MULCH SHALL BE SPREAD UNIFORMLY BY HAND OR MACHINE RESULTING IN 100% COVERAGE OF THE DISTURBED SOIL. IF ANCHORING IS NECESSARY, TACKIFIERS AND/OR NETTING EITHER WITH THE MULCH OR IMMEDIATELY FOLLOWING MULCH APPLICATION SHALL BE USED.
11. TEMPORARY SEEDING SHALL BE USED WHERE VEGETATIVE COVER IS REQUIRED FOR A PERIOD GREATER THAN ONE MONTH BUT LESS THAN TWELVE MONTHS ON DISTURBED SOIL AREAS. RAPIDLY GROWING ANNUAL GRASSES WILL BE UNIFORMLY APPLIED AT THE RATE ASSOCIATED WITH HYDRAULIC APPLICATION (HYDORSEED). THE SITE SHALL BE CHECKED PERIODICALLY TO ASSESS THE GROWTH OF THE PLANTS. IF SEEDING FAILS TO GROW, THE AREA SHALL BE RE-ESTABLISHED TO PROVIDE ADEQUATE EROSION CONTROL. THE SEED MIXTURE SHALL BE RIDOT TEMPORARY SEED MIX (M18.10.5), OR APPROVED EQUIVALENT.
12. EROSION CONTROL MEASURES SHALL BE REMOVED WHEN THE DISTURBED AREA IS STABILIZED OR AS SPECIFIED BY THE ENGINEER. DISTURBED AREA RESULTING FROM THE FILTER SOCK REMOVAL OPERATION SHALL BE PERMANENTLY SEEDED. ALL ACCUMULATED SEDIMENT SHALL BE STOCKPILED FOR LATER REUSE.
13. ALL DISTURBED OR UNVEGETATED SOIL SHALL HAVE A MINIMUM OF SIX INCHES OF LOAM (RIDOT M.18.01) OR PLANTABLE SOIL (RIDOT M.18.02) PLACED BEFORE BEING PERMANENTLY SEEDED AND MULCHED AS APPLICABLE. LOAM OR PLANTABLE SOIL FROM AN OFF SITE BORROW SOURCE SHALL BE SAMPLED AND APPROVED FOR USE PRIOR TO ITS DELIVERY TO THE SITE.
14. PERMANENT SEEDING SHALL BE APPLIED WITH A HYDROMULCH APPROVED BY THE ENGINEER. APPROVED HYDRO-MULCH SHALL BE APPLIED AS PERMANENT SEEDING PRIOR TO INSTALLING EROSION CONTROL BLANKETS OR TURF REINFORCEMENT MATS. GROUNDWATER SEEPAGE OCCURRING AT CUT SLOPES SHALL BE ADDRESSED PRIOR TO INSTALLING HYDRO-MULCH AND EROSION CONTROL BLANKET/TURF REINFORCEMENT MAT.
15. PERMANENT SEEDING SHALL BE USED ON AREAS SHOWN AND WHERE PERMANENT VEGETATIVE COVER IS NEEDED TO STABILIZE THE SOIL AND REDUCE EROSION AND SEDIMENTATION. RAPIDLY GROWING ANNUAL GRASSES SHALL BE UNIFORMLY APPLIED AT THE RATE ASSOCIATED WITH HYDRAULIC APPLICATION (HYDROSEEDING). THE SEED MIXTURES TO BE USED FOR PERMANENT STABILIZATION ARE SHOWN HEREIN.
16. FULL ADVANTAGE SHALL BE TAKEN OF TIME AND WEATHER CONDITIONS BEST SUITED FOR SEEDING. THE NORMAL DATES FOR PERMANENT SEEDING SHALL BE FROM APRIL 1ST TO MAY 31ST OR AUGUST 15TH TO OCTOBER 15TH . AREAS THAT DO NOT HAVE ADEQUATE VEGETATIVE STABILIZATION BY NOVEMBER 15TH, MUST BE STABILIZED THROUGH THE USE OF NON- VEGETATIVE EROSION CONTROL MEASURES. AREAS SEEDED BETWEEN MAY 31ST AND AUGUST 15TH SHALL BE COVERED WITH STRAW MULCH. DURING THESE MONTHS, TEMPORARY AND PERMANENT SEEDED AREAS SHALL BE MULCHED IMMEDIATELY FOLLOWING SEEDING.
17. DUST FROM THE SITE SHALL BE CONTROLLED BY USING COVERED TRUCKS, WETTING EXPOSED SOIL AREAS, SEEDING, INSTALLING WIND SCREENS AND/OR BARRIERS, MINIMIZING UNNECESSARY TRANSFERS AND DISTURBANCES OF EARTH MATERIALS AND ON-GOING CONSTRUCTION CLEAN-UP. SEVERAL APPLICATIONS PER DAY MAY BE NECESSARY DEPENDING UPON WEATHER CONDITIONS AND WORK ACTIVITY. DUST CONTROL TREATMENT AGENTS SHALL NOT BE APPLIED.
18. CARE SHOULD BE TAKEN TO THE BEST OF THE OPERATOR'S ABILITY TO AVOID DISTURBING LARGE AREAS PRIOR TO ANTICIPATED PRECIPITATION EVENTS. AT A MINIMUM, STORM EVENTS MUST BE MONITORED AND TRACKED IN ORDER TO DETERMINE WHEN POST-STORM EVENT INSPECTIONS MUST BE CONDUCTED.
19. INSPECTIONS OF EROSION CONTROLS MUST BE CONDUCTED AND DOCUMENTED AT LEAST ONCE EVERY SEVEN (7) CALENDAR DAYS AND WITHIN TWENTY-FOUR (24) HOURS AFTER ANY STORM EVENT, WHICH GENERATES AT LEAST 0.25 INCHES OF RAINFALL PER TWENTY-FOUR (24) HOUR PERIOD AND/OR AFTER A SIGNIFICANT AMOUNT OF RUNOFF OR SNOWMELT. ALL DAMAGED FILTER SOCKS SHALL BE REPLACED. ACCUMULATED SEDIMENT SHALL BE STOCKPILED FOR LATER REUSE.
20. FILL MATERIAL SHALL BE FREE OF STUMPS, WOODS, ROOTS, AND OTHER DELETERIOUS MATERIAL.
21. SOIL AND MATERIAL STOCKPILES SHALL BE LOCATED AND MANAGED AS SHOWN HEREIN, AND AS SPECIFIED BY THE ENGINEER. ALL SOIL STOCKPILES SHALL BE SURROUNDED BY EROSION CONTROL BARRIERS REGARDLESS OF THEIR DURATION OF EXPOSURE UNTIL SUCH TIME AS THE MATERIAL IS RESPREAD AND STABILIZED OR TRANSPORTED OFF SITE. STOCKPILES THAT ARE NOT TO BE USED WITHIN 30 DAYS SHALL BE TEMPORARILY STABILIZED WITH SEED AND MULCH OR COVERED WITH POLYETHYLENE SHEETING.

TEMPORARY SEDIMENT TRAP NOTES

1. 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.
2. 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.
3. 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.
4. CARRY OUT CONSTRUCTION OPERATIONS IN SUCH A MANNER THAT EROSION AND WATER POLLUTION ARE MINIMIZED.
5. 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.
6. 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.
7. THE TEMPORARY SEDIMENT TRAP MAY BE REMOVED AFTER THE CONTRIBUTING DRAINAGE AREA IS STABILIZED.

ess group
environmental consulting & engineering services
404 Wyman Street, Suite 375
Waltham, Massachusetts 02451
p 781.419.7696
www.essgroup.com

ISLANDER SOLAR, LLC
396 SPRINGFIELD AVENUE, 2ND FLOOR
SUMMIT, NJ 07901

POMHAM SOLAR
AP 16 LOTS 18 & 19
OFF IRON MINE HILL ROAD
NORTH SMITHFIELD, RI 02896

JASON M. GOLD
No. 7788
REGISTERED PROFESSIONAL ENGINEER
CIVIL

2022.01.07 19:03:46 -05'00'

No.	REVISION	DATE	DRAWN	DESIGN	CHK

DRAWN BY: GJR | DESIGNED BY: JMG | CHECKED BY:

PERMITTING PLANS NOTES

FOR PERMITTING ONLY

DRAWING NO: **N-1**

PROJECT NO: P322-001
DATE OF ISSUE: 1/7/2022
SHEET NO: 2 OF 16

DATE: Jan 07, 2022 - 5:14PM
FILNAME: J:\P322-001 Iselander (Pomham) Solar - Design and Permitting\04 GRAPHICS\CAD\Drawing\Local Permitting\P322-001 Pomham Solar Permitting Notes.dwg

STORMWATER BASIN NOTES:

1. AREAS DESIGNATED FOR BORROW AREAS, EMBANKMENT AND STRUCTURAL WORKS SHALL BE CLEARED, GRUBBED AND STRIPPED OF PLANTABLE SOIL. ALL TREES, VEGETATION, ROOTS AND OTHER OBJECTIONABLE MATERIAL SHALL BE REMOVED. ALL GRADED AREAS SHALL BE NO STEEPER THAN 3:1. ALL TREES SHALL BE CLEARED AND GRUBBED WITHIN 15 FEET OF THE TOE OF THE EMBANKMENT, AND WITHIN 25 FEET OF THE PRINCIPAL SPILLWAY OUTLET. AREAS TO BE COVERED BY THE DETENTION BASIN WILL BE CLEARED OF ALL BOULDERS TREES, BRUSH, LOGS, FENCES, RUBBISH AND OTHER OBJECTIONABLE MATERIAL.

2. ALL WORK ON BASIN STRUCTURES SHALL BE CARRIED OUT IN AREAS FREE FROM WATER. THE CONTRACTOR SHALL CONSTRUCT AND MAINTAIN ALL TEMPORARY DIKES, LEVEES, COFFERDAMS, DRAINAGE CHANNELS, AND DIVERSION SWALES AS NECESSARY TO PROTECT THE AREAS TO BE OCCUPIED BY THE DETENTION BASINS.

3. THE CONTRACTOR SHALL ALSO FURNISH, INSTALL, OPERATE, AND MAINTAIN ALL NECESSARY PUMPING AND OTHER EQUIPMENT REQUIRED FOR REMOVAL OF WATER FROM VARIOUS PARTS OF THE WORK AND FOR MAINTAINING THE EXCAVATIONS, FOUNDATION, AND OTHER PARTS OF THE WORK FREE FROM WATER AS REQUIRED OR DIRECTED BY THE ENGINEER FOR CONSTRUCTING EACH PART OF THE WORK. AFTER HAVING SERVED THEIR PURPOSE, ALL TEMPORARY PROTECTIVE WORKS SHALL BE REMOVED OR LEVELED AND GRADED TO THE EXTENT REQUIRED TO PREVENT OBSTRUCTION IN ANY DEGREE WHATSOEVER OF THE FLOW OF WATER TO THE SPILLWAY OR OUTLET WORKS AND SO AS NOT TO INTERFERE IN ANY WAY WITH THE OPERATION OR MAINTENANCE OF THE STRUCTURE. THE REMOVAL OF WATER FROM THE REQUIRED EXCAVATION AND THE FOUNDATION SHALL BE ACCOMPLISHED IN A MANNER AND TO THE EXTENT THAT WILL MAINTAIN STABILITY OF THE EXCAVATED SLOPES AND BOTTOM REQUIRED EXCAVATIONS AND WILL ALLOW SATISFACTORY PERFORMANCE OF ALL CONSTRUCTION OPERATIONS. DURING THE PLACING AND COMPACTING OF MATERIAL IN REQUIRED EXCAVATIONS, THE WATER LEVEL AT THE LOCATIONS BEING REFILLED SHALL BE MAINTAINED BELOW THE BOTTOM OF THE EXCAVATION AT SUCH LOCATIONS WHICH MAY REQUIRE DRAINING THE WATER SUMPS FROM WHICH THE WATER SHALL BE PUMPED.

4. ALL EXCAVATED AREAS SHALL BE GRADED TO PROVIDE PROPER DRAINAGE AND LEFT IN A SIGHTLY CONDITION. ALL EXPOSED SURFACES OF THE EMBANKMENT, SPILLWAY, SPOIL AND BORROW AREAS, AND BERMS SHALL BE STABILIZED BY SEEDING, LIMING, FERTILIZING AND MULCHING.

5. THE OUTLET PIPE SHALL BE LAID IN A CONCRETE BEDDING / CRADLE FOR ITS ENTIRE LENGTH. THIS BEDDING / CRADLE SHALL CONSIST OF HIGH SLUMP CONCRETE PLACED UNDER THE PIPE AND UP THE SIDES OF THE PIPE AT LEAST 50% OF ITS OUTSIDE DIAMETER WITH A MINIMUM THICKNESS OF 6 INCHES. WHERE A CONCRETE CRADLE IS NOT NEEDED FOR STRUCTURAL REASONS, FLOWABLE FILL MAY BE USED AS DESCRIBED IN NOTE 6 BELOW. GRAVEL BEDDING IS NOT PERMITTED.

6. BACKFILL ADJACENT TO PIPES OR STRUCTURES SHALL BE OF THE TYPE AND QUALITY CONFORMING TO THAT SPECIFIED FOR THE ADJOINING FILL MATERIAL. THE FILL SHALL BE PLACED IN HORIZONTAL LAYERS NOT TO EXCEED FOUR INCHES IN THICKNESS AND COMPACTED BY HAND TAMPERS OR OTHER MANUALLY DIRECTED COMPACTION EQUIPMENT. THE MATERIAL NEEDS TO FILL COMPLETELY ALL SPACES UNDER AND ADJACENT TO THE PIPE. AT NO TIME DURING THE BACKFILLING OPERATION SHALL DRIVEN EQUIPMENT BE ALLOWED TO OPERATE CLOSER THAN FOUR FEET, MEASURED HORIZONTALLY, TO ANY PART OF A STRUCTURE. UNDER NO CIRCUMSTANCES SHALL EQUIPMENT BE DRIVEN OVER ANY PART OF A CONCRETE STRUCTURE OR PIPE, UNLESS THERE IS A COMPACTED FILL OF 24 INCHES OR GREATER OVER THE STRUCTURE OR PIPE. STRUCTURE BACKFILL MAY BE FLOWABLE FILL MEETING THE REQUIREMENTS OF THE FEDERAL HIGHWAY ADMINISTRATION STANDARDS. THE MIXTURE SHALL HAVE A 100-200 PSI; 28-DAY UNCONFINED COMPRESSIVE STRENGTH. THE FLOWABLE FILL SHALL HAVE A MINIMUM PH OF 4.0 AND A MINIMUM RESISTIVITY OF 2,000 OHM-CM. MATERIAL SHALL BE PLACED SUCH THAT A MINIMUM OF 6 INCHES (MEASURED PERPENDICULAR TO THE OUTSIDE OF THE PIPE) OF FLOWABLE FILL SHALL BE UNDER (BEDDING), OVER AND, ON THE SIDES OF THE PIPE. IT ONLY NEEDS TO EXTEND UP TO THE SPRING LINE FOR RIGID CONDUITS. AVERAGE SLUMP OF THE FILL SHALL BE 7 INCHES TO ASSURE FLOWABILITY OF THE MATERIAL. ADEQUATE MEASURES SHALL BE TAKEN (SAND BAGS, ETC.) TO PREVENT FLOATING THE PIPE. ANY ADJOINING SOIL FILL SHALL BE PLACED IN HORIZONTAL LAYERS NOT TO EXCEED 4 INCHES IN THICKNESS AND COMPACTED BY HAND TAMPERS OR OTHER MANUALLY DIRECTED COMPACTION EQUIPMENT. THE MATERIAL SHALL COMPLETELY FILL ALL VOIDS ADJACENT TO THE FLOWABLE FILL ZONE. AT NO TIME DURING THE BACKFILLING OPERATION SHALL DRIVEN EQUIPMENT BE ALLOWED TO OPERATE CLOSER THAN FOUR FEET, MEASURED HORIZONTALLY, TO ANY PART OF A STRUCTURE. UNDER NO CIRCUMSTANCES SHALL EQUIPMENT BE DRIVEN OVER ANY PART OF A STRUCTURE OR PIPE UNLESS THERE IS A COMPACTED FILL OF 24 INCHES OR GREATER OVER THE STRUCTURE OR PIPE. BACKFILL MATERIAL OUTSIDE THE STRUCTURAL BACKFILL (FLOWABLE FILL) ZONE SHALL BE OF THE TYPE AND QUALITY CONFORMING TO THAT SPECIFIED FOR THE CORE OF THE EMBANKMENT OR OTHER EMBANKMENT MATERIALS.

7. FILL MATERIAL - THE FILL MATERIAL SHALL BE TAKEN FROM APPROVED DESIGNATED BORROW AREAS. IT SHALL BE FREE OF ROOTS, STUMPS, WOOD, RUBBISH, STONES GREATER THAN 6 INCHES, FROZEN OR OTHER OBJECTIONABLE MATERIALS. FILL MATERIAL FOR THE CENTER OF THE EMBANKMENT SHALL CONFORM TO UNIFIED SOIL CLASSIFICATION GC, SC, CH, OR CL AND MUST HAVE AT LEAST 30% PASSING THE #200 SIEVE. MATERIALS USED IN THE OUTER SHELL OF THE EMBANKMENT MUST HAVE THE CAPABILITY TO SUPPORT VEGETATION OF THE QUALITY REQUIRED TO PREVENT EROSION OF THE EMBANKMENT.

8. PLACEMENT - AREAS ON WHICH FILL IS TO BE PLACED SHALL BE SCARIFIED PRIOR TO PLACEMENT OF FILL MATERIALS SHALL BE PLACED IN MAXIMUM 8-INCH THICK (BEFORE COMPACTION) LAYERS WHICH ARE TO BE CONTINUOUS OVER THE ENTIRE LENGTH OF THE FILL. THE MOST PERMEABLE BORROW MATERIAL SHALL BE PLACED IN THE DOWNSTREAM PORTIONS OF THE EMBANKMENT. THE PRINCIPAL SPILLWAY MUST BE INSTALLED CONCURRENTLY WITH FILL PLACEMENT AND NOT EXCAVATED INTO THE EMBANKMENT.

9. COMPACTION - THE MOVEMENT OF THE HAULING AND SPREADING EQUIPMENT OVER THE FILL SHALL BE CONTROLLED SO THAT THE ENTIRE SURFACE OF EACH LIFT SHALL BE TRAVERSED BY NOT LESS THAN ONE TREAD TRACK OF HEAVY EQUIPMENT OR COMPACTION SHALL BE ACHIEVED BY A MINIMUM OF FOUR COMPLETE PASSES OF A SHEEPSFOOT, RUBBER TIRED OR VIBRATORY ROLLER. FILL MATERIAL SHALL CONTAIN SUFFICIENT MOISTURE SUCH THAT THE REQUIRED DEGREE OF COMPACTION WILL BE OBTAINED WITH THE EQUIPMENT USED. THE FILL MATERIAL SHALL CONTAIN SUFFICIENT MOISTURE SO THAT IF FORMED INTO A BALL IT WILL NOT CRUMBLE, YET NOT BE SO WET THAT WATER CAN BE SQUEEZED OUT. WHEN REQUIRED BY THE APPROVING AGENCY THE MINIMUM REQUIRED DENSITY SHALL NOT BE LESS THAN 95% OF MAXIMUM DRY DENSITY WITH A MOISTURE CONTENT WITHIN 2% OF THE OPTIMUM. EACH LAYER OF FILL SHALL BE COMPACTED AS NECESSARY TO OBTAIN THAT DENSITY, AND IS TO BE CERTIFIED BY THE ENGINEER AT THE TIME OF CONSTRUCTION. ALL COMPACTION IS TO BE DETERMINED BY AASHTO METHOD T-99 (STANDARD PROCTOR).

UTILITIES NOTES:

1. THE CONTRACTOR SHALL CALL "DIG SAFE" AT 1-888-344-7233 AT LEAST 72 HOURS PRIOR TO EXCAVATION.

2. THE CONTRACTOR SHALL NOTIFY ALL APPROPRIATE AGENCIES AND UTILITY COMPANIES, IN WRITING, A MINIMUM OF 72 HOURS PRIOR TO ANY CONSTRUCTION WITHIN 15 FEET OF A UTILITY LINE.

3. EXISTING UNDERGROUND UTILITIES SHOWN ARE APPROXIMATE. ADDITIONAL UTILITIES MAY EXIST THAT ARE NOT SHOWN. THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL EXISTING DRAINAGE AND UTILITIES BOTH UNDERGROUND AND OVERHEAD BEFORE EXCAVATION BEGINS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT DIGSAFE, NOTIFY ALL NON-MEMBER UTILITY COMPANIES AND ENSURE THAT ALL UTILITIES HAVE BEEN MARKED PRIOR TO COMMENCING WORK. ANY DAMAGE TO EXISTING UTILITIES MARKED IN THE FIELD, OR AS A RESULT OF FAILING TO CONTACT THE APPROPRIATE UTILITY COMPANY, SHALL BE REPAIRED OR REPLACED AT NO ADDITIONAL COST TO THE OWNER.

4. BEFORE STARTING CONSTRUCTION, THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR MAKING ALL NECESSARY ARRANGEMENTS AND FOR PERFORMING ANY NECESSARY WORK INVOLVED IN CONNECTION WITH THE DISCONTINUANCE OR JURISDICTION OF THE UTILITY COMPANIES, SUCH AS ELECTRICITY, TELEPHONE, WATER, GAS AND ANY SYSTEM OR SYSTEMS WHICH WILL BE AFFECTED BY THE WORK TO BE PERFORMED UNDER THIS CONTRACT.

5. UNLESS OTHERWISE NOTED OR APPROVED BY THE ENGINEER, THE CONTRACTOR SHALL MAINTAIN ALL EXISTING UTILITIES.

6. IF REQUIRED, OVERHEAD LINES SHALL BE RELOCATED BY THE UTILITY COMPANY AT THE CONTRACTOR'S EXPENSE.

7. WHERE AN EXISTING UTILITY IS FOUND TO CONFLICT WITH THE PROPOSED WORK, THE LOCATION, ELEVATION AND SIZE OF THE UTILITY SHALL BE ACCURATELY DETERMINED WITHOUT DELAY BY THE CONTRACTOR AND THE INFORMATION FURNISHED TO THE ENGINEER FOR RESOLUTION OF THE CONFLICT.

8. THE CONTRACTOR SHALL EXERCISE EXTREME CARE WHEN EXCAVATING NEAR AND BACKFILLING IN THE VICINITY OF EXISTING UTILITIES, INCLUDING THE USE OF HAND EXCAVATION WHERE APPROPRIATE.

DOCUMENT USE:

1. THESE PLANS AND THE CORRESPONDING CAD DOCUMENTS ARE INSTRUMENTS OF PROFESSIONAL SERVICE PREPARED BY ESS GROUP, INC., AND SHALL NOT BE USED, IN WHOLE OR IN PART, FOR ANY PURPOSE OTHER THAN FOR WHICH IT WAS CREATED WITHOUT THE EXPRESSED WRITTEN CONSENT OF ESS GROUP, INC. ANY UNAUTHORIZED USE, REUSE, MODIFICATION, OR ALTERATION, INCLUDING AUTOMATED CONVERSION OF THIS DOCUMENT, SHALL BE AT THE USER'S SOLE RISK WITHOUT LIABILITY OR LEGAL EXPOSURE TO ESS GROUP, INC.

2. CONTRACTOR SHALL NOT RELY SOLELY ON ELECTRONIC VERSIONS OF PLANS, SPECIFICATIONS, OR DATA FILES THAT ARE OBTAINED FROM THE DESIGNERS OR OWNER, BUT SHALL VERIFY LOCATIONS OF PROJECT FEATURES IN ACCORDANCE WITH THE PAPER COPIES OF THE PLANS AND SPECIFICATIONS THAT ARE SUPPLIED AS PART OF THE CONTRACT DOCUMENTS.

3. SYMBOLS AND LEGENDS OF PROJECT FEATURES ARE GRAPHIC REPRESENTATIONS, AND ARE NOT NECESSARILY SCALED TO THEIR ACTUAL DIMENSIONS OR LOCATIONS ON THE DRAWINGS. THE CONTRACTOR SHALL REFER TO THE DETAIL SHEET DIMENSIONS, MANUFACTURER'S LITERATURE, SHOP DRAWINGS, AND FIELD MEASUREMENTS OF SUPPLIED PRODUCTS FOR LAYOUT OF THE PROJECT FEATURES.

GENERAL GROUND-MOUNTED SOLAR PHOTOVOLTAIC SYSTEM (SPS) NOTES:

1. THE CONSTRUCTION OF ALL PROPOSED SPS EQUIPMENT SHALL BE CONSISTENT WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL REQUIREMENTS.

2. UTILITY CONNECTIONS FOR THE SPS SYSTEM SHALL BE INSTALLED UNDERGROUND ON THE SUBJECT PROPERTY. ALL ELECTRICAL COMPONENTS OF THE SOLAR PHOTOVOLTAIC SYSTEM SHALL CONFORM TO ALL RELEVANT AND APPLICABLE LOCAL, STATE AND NATIONAL CODES, LAWS AND REGULATIONS.

3. THE SPS SHALL BE DESIGNED AND OPERATED TO ELIMINATE SOLAR REFLECTION FROM THE GROUND LEVEL UP TO 35 FEET UPON ALL NEIGHBORING PROPERTIES.

PROPOSED LEGEND

- OHW — OHW — OVERHEAD WIRES
- UGE — UGE — UNDERGROUND ELECTRIC
- X — X — CHAIN LINK FENCE
- LOD — LOD — LIMITS OF DISTURBANCE
- SLOD — SLOD — COMBINED LIMIT OF DISTURBANCE/ 12" FILTER SOCK
- SF — FILTER SOCK & SILT FENCE
- FS — FILTER SOCK
- LIMITS OF SHADE TREE CLEARING
- RIPRAP / GRAVEL ROAD
- SANDFILTER
- FOREBAY
- ERNST NORTHEAST SOLAR POLLINATOR 3-FT SEED MIX (ERNMX-612) OR APPROVED EQUAL
- SHADE TREE CLEARING LIMITS. SEED DISTURBED GROUND WITH NEW ENGLAND WETLAND PLANTS, INC. (NEWP) EROSION CONTROL / RESTORATION MIX FOR DRY SITES OR EQUAL
- SEED DISTURBED GROUND WITH NEW ENGLAND WETLAND PLANTS, INC. (NEWP) EROSION CONTROL / RESTORATION MIX FOR DRY SITES OR APPROVED EQUAL
- NEW ENGLAND WETLAND PLANTS, INC. (NEWP) RESTORATION MIX FOR DETENTION BASINS OR APPROVED EQUAL
- MAINTAIN EXISTING VEGETATION
- UTILITY POLE (CUSTOMER OWNED)
- UTILITY POLE (UTILITY OWNED)
- TP — APPROX. TEST PIT LOCATION

ess group
environmental consulting & engineering services
404 Wyman Street, Suite 375
Waltham, Massachusetts 02451
p 781.419.7696
www.essgroup.com

ISLANDER SOLAR, LLC
396 SPRINGFIELD AVENUE, 2ND FLOOR
SUMMIT, NJ 07901

POMHAM SOLAR
AP 16 LOTS 18 & 19
OFF IRON MINE HILL ROAD
NORTH SMITHFIELD, RI 02896

JASON M. GOLD
No. 7788
REGISTERED PROFESSIONAL ENGINEER
CIVIL

2022.01.07 19:01:43 -05'00'

No.	REVISION	DATE	DRAWN	DESIGN	CHK

DRAWN BY: GJR | DESIGNED BY: JMG | CHECKED BY:

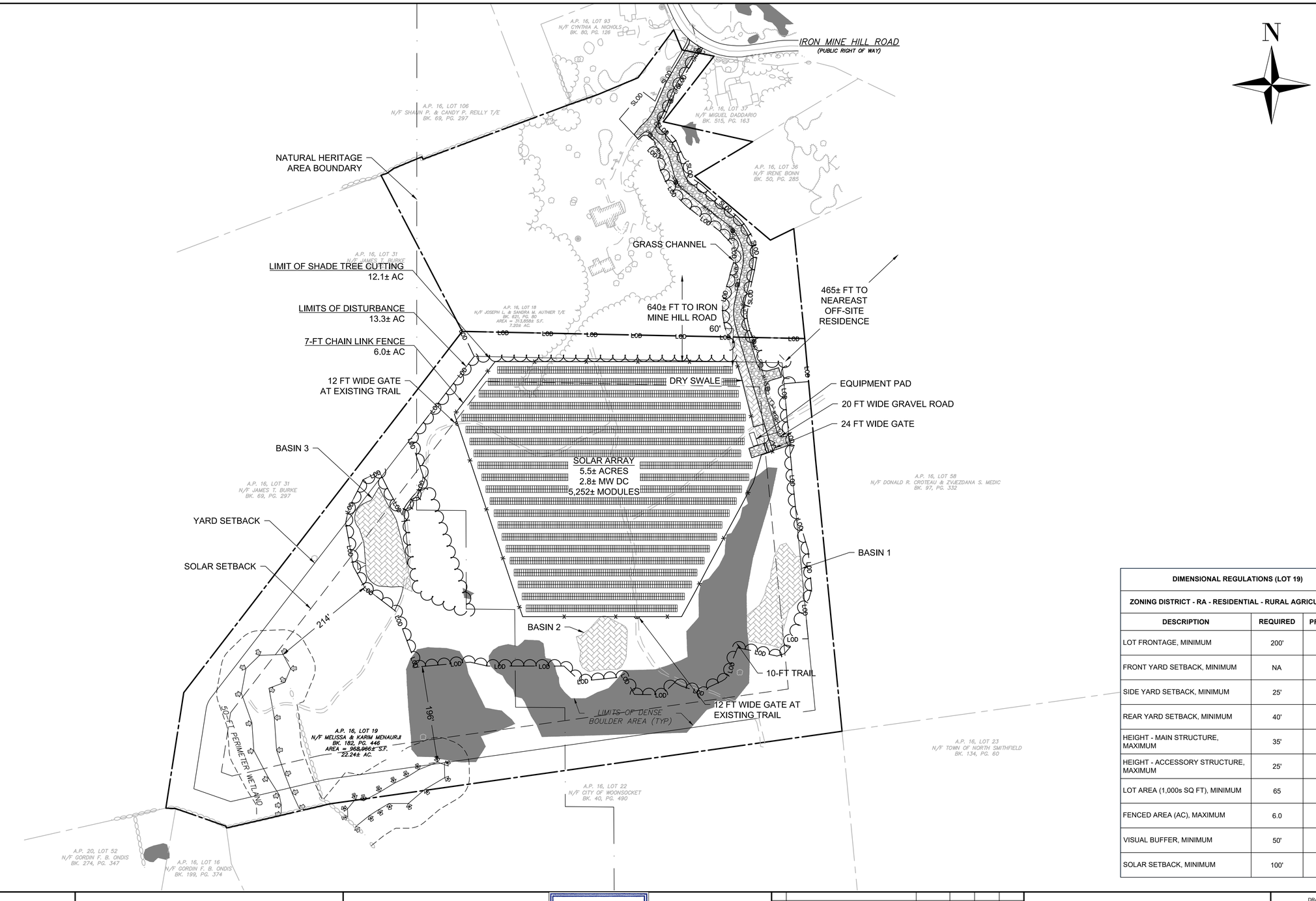
PERMITTING PLANS NOTES

FOR PERMITTING ONLY

DRAWING NO:
N-2

PROJECT NO: P322-001
DATE OF ISSUE: 1/7/2022
SHEET NO: 3 OF 16

DATE: Jan 07, 2022 - 5:14PM
DRAWING: J:\P322-001 Islander (Pomham) Solar - Design and Permitting\04 GRAPHICS\CAD\Drawing\Local Permitting\P322-001 Pomham Solar Permitting Notes.dwg



DIMENSIONAL REGULATIONS (LOT 19)		
ZONING DISTRICT - RA - RESIDENTIAL - RURAL AGRICULTURAL		
DESCRIPTION	**REQUIRED**	**PROPOSED**
LOT FRONTAGE, MINIMUM	200'	NA
FRONT YARD SETBACK, MINIMUM	NA	NA
SIDE YARD SETBACK, MINIMUM	25'	84'
REAR YARD SETBACK, MINIMUM	40'	275'
HEIGHT - MAIN STRUCTURE, MAXIMUM	35'	N/A
HEIGHT - ACCESSORY STRUCTURE, MAXIMUM	25'	N/A
LOT AREA (1,000s SQ FT), MINIMUM	65	1,283±
FENCED AREA (AC), MAXIMUM	6.0	6.0
VISUAL BUFFER, MINIMUM	50'	50'
SOLAR SETBACK, MINIMUM	100'	50'

ess group
environmental consulting & engineering services
404 Wyman Street, Suite 375
Waltham, Massachusetts 02451
p 781.419.7696
www.essgroup.com

ISLANDER SOLAR, LLC
396 SPRINGFIELD AVENUE, 2ND FLOOR
SUMMIT, NJ 07901

POMHAM SOLAR
AP 16 LOTS 18 & 19
OFF IRON MINE HILL ROAD
NORTH SMITHFIELD, RI 02896

JASON M. GOLD
No. 7788
REGISTERED PROFESSIONAL ENGINEER
CIVIL

0 100' 200'
SCALE: 1" = 100'

2022.01.07 19:00:27 -05'00'

No.	REVISION	DATE	DRAWN	DESIGN	CHK

DRAWN BY: GJR | DESIGNED BY: JMG | CHECKED BY:

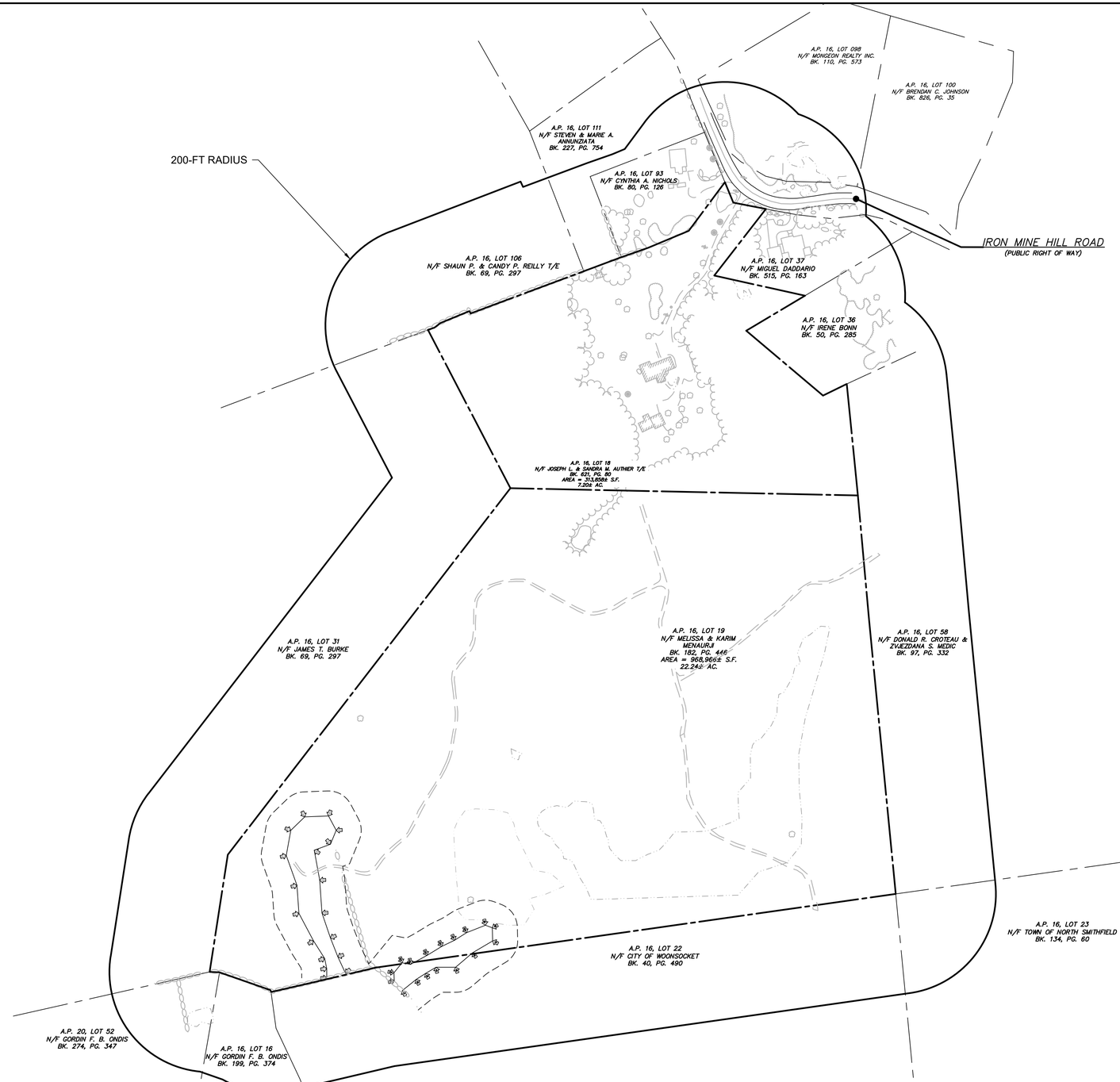
PERMITTING PLANS
SITE OVERVIEW PLAN

FOR PERMITTING ONLY

DRAWING NO:
SO-1

PROJECT NO: P322-001
DATE OF ISSUE: 1/7/2022
SHEET NO: 4 OF 16

DATE: Jan 07, 2022 - 5:14PM
FILE: K:\P322-001 Pomham\Design and Permitting\04 GRAPHICS\CAD\Drawings\Local Permitting\P322-001 Pomham Solar Permitting Site Overview.dwg



ess group
environmental consulting & engineering services
404 Wyman Street, Suite 375
Waltham, Massachusetts 02451
p 781.419.7696
www.essgroup.com

ISLANDER SOLAR, LLC
396 SPRINGFIELD AVENUE, 2ND FLOOR
SUMMIT, NJ 07901

POMHAM SOLAR
AP 16 LOTS 18 & 19
OFF IRON MINE HILL ROAD
NORTH SMITHFIELD, RI 02896

JASON M. GOLD
No. 7788
REGISTERED PROFESSIONAL ENGINEER
CIVIL

0 120' 240'
SCALE: 1" = 120'

2022.01.07 18:58:44 -05'00'

No.	REVISION	DATE	DRAWN	DESIGN	CHK

DRAWN BY: GJR | DESIGNED BY: JMG | CHECKED BY:

PERMITTING PLANS
200-FT RADIUS MAP

FOR PERMITTING ONLY

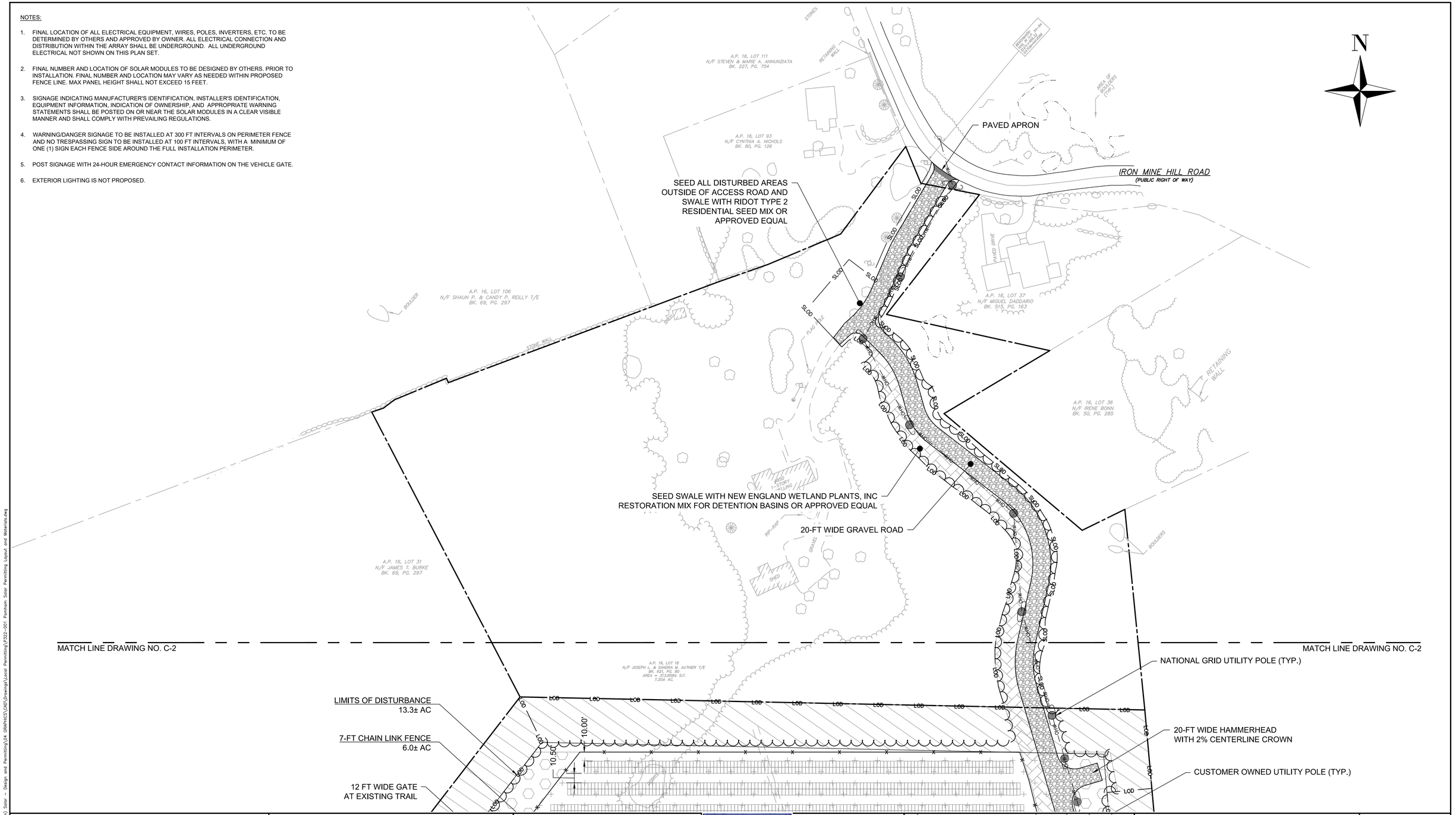
DRAWING NO:
R-1

PROJECT NO: P322-001
DATE OF ISSUE: 1/7/2022
SHEET NO: 5 OF 16

DATE: Jan 07, 2022 - 5:14PM
DRAWING: J:\P322-001 Islander (Pomham) Solar - Design and Permitting\04 GRAPHICS CAD\Drawing\Local Permitting\P322-001 Pomham Solar Permitting 200FT Radius Map.dwg

NOTES:

1. FINAL LOCATION OF ALL ELECTRICAL EQUIPMENT, WIRES, POLES, INVERTERS, ETC. TO BE DETERMINED BY OTHERS AND APPROVED BY OWNER. ALL ELECTRICAL CONNECTION AND DISTRIBUTION WITHIN THE ARRAY SHALL BE UNDERGROUND. ALL UNDERGROUND ELECTRICAL NOT SHOWN ON THIS PLAN SET.
2. FINAL NUMBER AND LOCATION OF SOLAR MODULES TO BE DESIGNED BY OTHERS. PRIOR TO INSTALLATION. FINAL NUMBER AND LOCATION MAY VARY AS NEEDED WITHIN PROPOSED FENCE LINE. MAX PANEL HEIGHT SHALL NOT EXCEED 15 FEET.
3. SIGNAGE INDICATING MANUFACTURER'S IDENTIFICATION, INSTALLER'S IDENTIFICATION, EQUIPMENT INFORMATION, INDICATION OF OWNERSHIP, AND APPROPRIATE WARNING STATEMENTS SHALL BE POSTED ON OR NEAR THE SOLAR MODULES IN A CLEAR VISIBLE MANNER AND SHALL COMPLY WITH PREVAILING REGULATIONS.
4. WARNING/DANGER SIGNAGE TO BE INSTALLED AT 300 FT INTERVALS ON PERIMETER FENCE AND NO TRESPASSING SIGN TO BE INSTALLED AT 100 FT INTERVALS, WITH A MINIMUM OF ONE (1) SIGN EACH FENCE SIDE AROUND THE FULL INSTALLATION PERIMETER.
5. POST SIGNAGE WITH 24-HOUR EMERGENCY CONTACT INFORMATION ON THE VEHICLE GATE.
6. EXTERIOR LIGHTING IS NOT PROPOSED.



ess group
environmental consulting & engineering services
404 Wyman Street, Suite 375
Waltham, Massachusetts 02451
p 781.419.7696
www.essgroup.com

ISLANDER SOLAR, LLC
396 SPRINGFIELD AVENUE, 2ND FLOOR
SUMMIT, NJ 07901

POMHAM SOLAR
AP 16 LOTS 18 & 19
OFF IRON MINE HILL ROAD
NORTH SMITHFIELD, RI 02896

JASON M. GOLD
No. 7788
REGISTERED PROFESSIONAL ENGINEER
CIVIL

0 50' 100'
SCALE: 1" = 50'

2022.01.07 18:55:15 -05'00'

No.	REVISION	DATE	DRAWN	DESIGN	CHK

DRAWN BY: GJR | DESIGNED BY: JMG | CHECKED BY: JMG

PERMITTING PLANS
LAYOUT AND MATERIALS PLAN

FOR PERMITTING ONLY

DRAWING NO:
C-1

PROJECT NO: P322-001
DATE OF ISSUE: 1/7/2022
SHEET NO: 6 OF 16

DATE: Jan 07, 2022 - 5:15PM
FILE: J:\P322-001 Islander (Pomham) Solar - Design and Permitting\04 GRAPHICS\CAD\Drawings\Local Permitting\P322-001 Pomham Solar Permitting Layout and Materials.dwg

MATCH LINE DRAWING NO. C-1

MATCH LINE DRAWING NO. C-1

NOTES:

1. FINAL LOCATION OF ALL ELECTRICAL EQUIPMENT, WIRES, POLES, INVERTERS, ETC. TO BE DETERMINED BY OTHERS AND APPROVED BY OWNER. ALL ELECTRICAL CONNECTION AND DISTRIBUTION WITHIN THE ARRAY SHALL BE UNDERGROUND. ALL UNDERGROUND ELECTRICAL NOT SHOWN ON THIS PLAN SET.
2. FINAL NUMBER AND LOCATION OF SOLAR MODULES TO BE DESIGNED BY OTHERS. PRIOR TO INSTALLATION. FINAL NUMBER AND LOCATION MAY VARY AS NEEDED WITHIN PROPOSED FENCE LINE. MAX PANEL HEIGHT SHALL NOT EXCEED 15 FEET.
3. SIGNAGE INDICATING MANUFACTURER'S IDENTIFICATION, INSTALLER'S IDENTIFICATION, EQUIPMENT INFORMATION, INDICATION OF OWNERSHIP, AND APPROPRIATE WARNING STATEMENTS SHALL BE POSTED ON OR NEAR THE SOLAR MODULES IN A CLEAR VISIBLE MANNER AND SHALL COMPLY WITH PREVAILING REGULATIONS.
4. WARNING/DANGER SIGNAGE TO BE INSTALLED AT 300 FT INTERVALS ON PERIMETER FENCE AND NO TRESPASSING SIGN TO BE INSTALLED AT 100 FT INTERVALS, WITH A MINIMUM OF ONE (1) SIGN EACH FENCE SIDE AROUND THE FULL INSTALLATION PERIMETER.
5. POST SIGNAGE WITH 24-HOUR EMERGENCY CONTACT INFORMATION ON THE VEHICLE GATE.
6. EXTERIOR LIGHTING IS NOT PROPOSED.

LIMITS OF DISTURBANCE
13.3± AC

7-FT CHAIN LINK FENCE
6.0± AC

12 FT WIDE GATE
AT EXISTING TRAIL

A.P. 16, LOT 18
N/F JOSEPH L. & SANDRA M. AUTHER T/E
BK. 621, PG. 80
AREA = 313,6556 S.F.
7.20± AC.

A.P. 16, LOT 31
N/F JAMES T. BURKE
BK. 69, PG. 297

SOLAR ARRAY
5.5± ACRES
2.8± MW DC
5,252± MODULES

A.P. 16, LOT 19
N/F MELISSA & KARIM MENAURI
BK. 182, PG. 446
AREA = 968,9662 S.F.
22.243 AC.

A.P. 16, LOT 58
N/F DONALD R. CROTEAU & ZVJEZDANA S. MEDIC
BK. 97, PG. 332

BASIN 3

BASIN 2

BASIN 1

BOLDER DISPOSAL AREA

BOLDER DISPOSAL AREA

STABILIZE DISTURBED AREAS WITH NEW ENGLAND WETLAND PLANTS, INC. EROSION CONTROL / RESTORATION MIX FOR DRY SITES (OR APPROVED EQUAL).

LIMIT OF SHADE TREE CLEARING

12 FT WIDE GATE AT EXISTING TRAIL

10-FT TRAIL

LIMITS OF DENSE BOULDER AREA (TYP)

NATIONAL GRID UTILITY POLE (TYP.)

20-FT WIDE HAMMERHEAD WITH 2% CENTERLINE CROWN

CUSTOMER OWNED UTILITY POLE (TYP.)

EQUIPMENT PAD

20 FT WIDE GRAVEL ROAD

24 FT WIDE GATE

MAINTAIN EXISTING VEGETATION

ERNST NORTHEAST SOLAR POLLINATOR 3-FT MIX (ERNMX-612) (OR APPROVED EQUAL).

SELECTIVELY CUT SHADE TREES.
STUMPS AND UNDERGROWTH TO REMAIN. STABILIZE DISTURBED AREAS WITH NEW ENGLAND WETLAND PLANTS, INC. EROSION CONTROL / RESTORATION MIX FOR DRY SITES (OR APPROVED EQUAL).

NEW ENGLAND WETLAND PLANTS, INC. RESTORATION MIX FOR DETENTION BASINS (OR APPROVED EQUAL).

N

SCALE: 1" = 50'

ess group
environmental consulting & engineering services
404 Wyman Street, Suite 375
Waltham, Massachusetts 02451
p 781.419.7696
www.essgroup.com

ISLANDER SOLAR, LLC
396 SPRINGFIELD AVENUE, 2ND FLOOR
SUMMIT, NJ 07901

POMHAM SOLAR
AP 16 LOTS 18 & 19
OFF IRON MINE HILL ROAD
NORTH SMITHFIELD, RI 02896

JASON M. GOLD
No. 7788
REGISTERED PROFESSIONAL ENGINEER
CIVIL

2022.01.07 18:54:01 -05'00'

No.	REVISION	DATE	DRAWN	DESIGN	CHK

DRAWN BY: GJR | DESIGNED BY: JMG | CHECKED BY: JMG

PERMITTING PLANS
LAYOUT AND MATERIALS PLAN

FOR PERMITTING ONLY

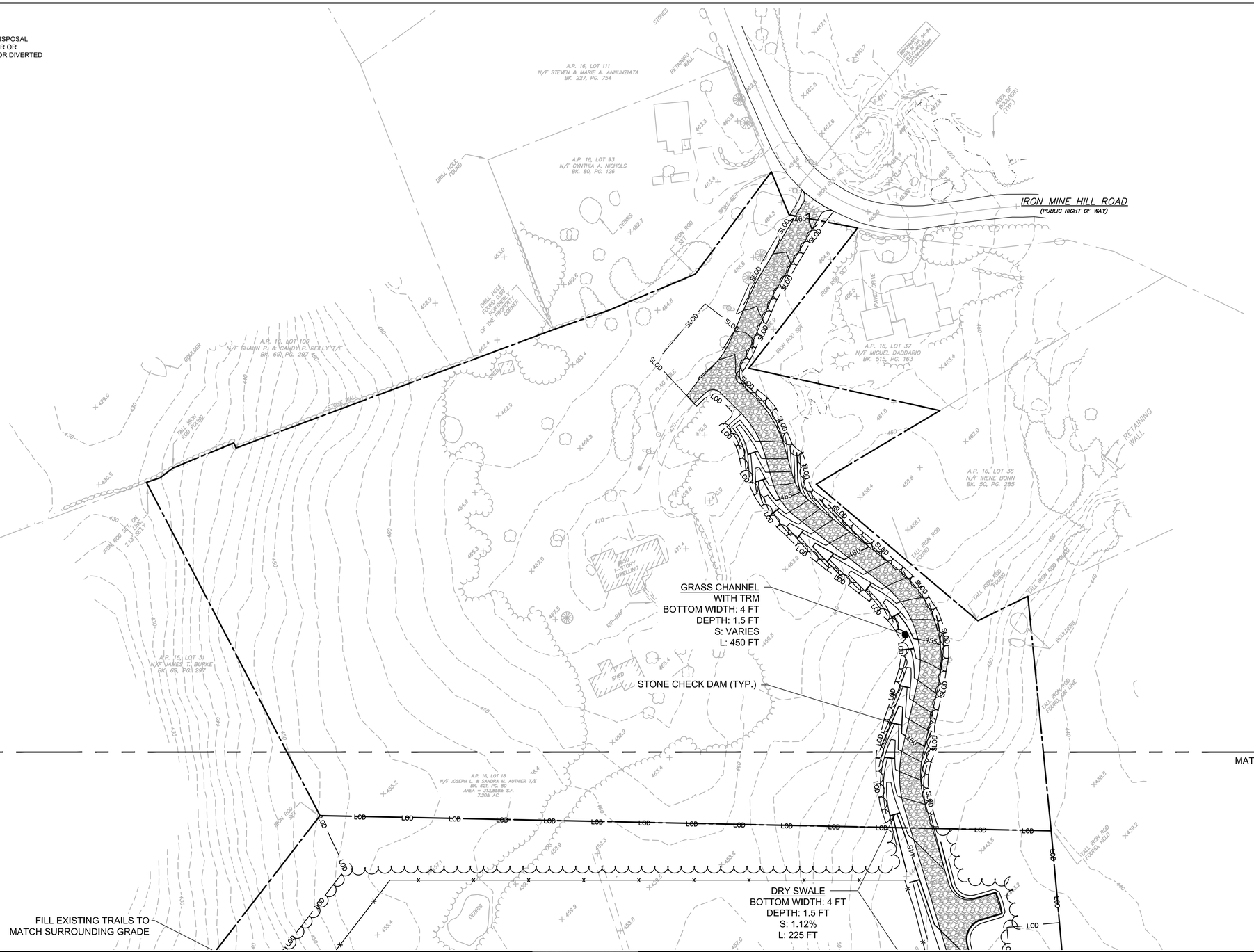
DRAWING NO:
C-2

PROJECT NO: P322-001
DATE OF ISSUE: 1/7/2022
SHEET NO: 7 OF 16

DATE: Jan 07, 2022 - 5:15PM
FILENAME: K:\P322-001 Islander (Pomham) Solar - Design and Permitting\04 GRAPHICS\CAD\Drawings\Local Permitting\P322-001 Pomham Solar Permitting Layout and Materials.dwg

NOTES:

1. RELOCATED BOULDERS SHALL BE PLACED WITHIN DESIGNATED BOULDER DISPOSAL AREAS OR OTHER AREAS WITHIN THE LOD PRE-APPROVED BY THE ENGINEER OR OWNER IN A STABLE MANNER THAT DOES NOT RESULT IN CONCENTRATED OR DIVERTED STORMWATER FLOW.



ess group
environmental consulting & engineering services
404 Wyman Street, Suite 375
Waltham, Massachusetts 02451
p 781.419.7696
www.essgroup.com

ISLANDER SOLAR, LLC
396 SPRINGFIELD AVENUE, 2ND FLOOR
SUMMIT, NJ 07901

POMHAM SOLAR
AP 16 LOTS 18 & 19
OFF IRON MINE HILL ROAD
NORTH SMITHFIELD, RI 02896

JASON M. GOLD
No. 7788
REGISTERED PROFESSIONAL ENGINEER
CIVIL

0 50' 100'
SCALE: 1" = 50'

2022.01.07 18:52:34 -05'00'

No.	REVISION	DATE	DRAWN	DESIGN	CHK

DRAWN BY: GJR | DESIGNED BY: JMG | CHECKED BY:

PERMITTING PLANS
GRADING AND DRAINAGE PLAN

FOR PERMITTING ONLY

DRAWING NO:
C-3

PROJECT NO: P322-001
DATE OF ISSUE: 1/7/2022
SHEET NO: 8 OF 16

DATE: Jan 07, 2022 - 5:15PM
FILENAME: K:\P322-001 Islander (Pomham) Solar - Design and Permitting\04 GRAPHICS\CAD\Drawings\Local Permitting\P322-001 Pomham Solar Permitting Grading and Drainage.dwg

MATCH LINE DRAWING NO. C-3

MATCH LINE DRAWING NO. C-3

NOTES:

1. RELOCATED BOULDERS SHALL BE PLACED WITHIN DESIGNATED BOULDER DISPOSAL AREAS OR OTHER AREAS WITHIN THE LOD PRE-APPROVED BY THE ENGINEER OR OWNER IN A STABLE MANNER THAT DOES NOT RESULT IN CONCENTRATED OR DIVERTED STORMWATER FLOW.

N

FILL EXISTING TRAILS TO MATCH SURROUNDING GRADE

DRY SWALE
BOTTOM WIDTH: 4 FT
DEPTH: 1.5 FT
S: 1.12%
L: 225 FT

TRENCH DRAIN
S = 1.0%

FOREBAY

BASIN 3
BOTTOM EL.: 415.00
BERM EL.: 419.00
BERM WIDTH: 5 FT

EMERGENCY SPILLWAY
LEVEL LIP EL: 418.00
CREST WIDTH: 6.0 FT

SAND FILTER

LEVEL SPREADER
LEVEL LIP ELEV: 412.6

GABION BASKET WEIR
CREST ELEV: 417.00
END ELEV: 418.00

OUTLET CONTROL STRUCTURE

12-IN RCP
INV. IN: 413.01
DAYLIGHT INV.: 412.6
S = 1.0%

BOLDER DISPOSAL AREA

LIMIT OF SHADE TREE CLEARING

FOREBAY

FORBAY SPILLWAY
CREST EL: 438.00
CREST WIDTH: 10.0 FT

BASIN 2
BOTTOM EL.: 436.00
BERM EL.: 440.00
BERM WIDTH: 5 FT

BOLDER DISPOSAL AREA

EMERGENCY SPILLWAY
LEVEL LIP EL: 438.70
CREST WIDTH: 15.0 FT
EXTEND RIP-RAP TO EXISTING 438.7

LIMITS OF DENSE BOULDER AREA (TYP)

OUTLET CONTROL STRUCTURE

BASIN 1
BOTTOM EL.: 426.00
BERM EL.: 430.25
BERM WIDTH: 5 FT

10 FT X 10 FT SAND FILTER
SURROUND WITH PERMANENT 8-IN FILTER SOCK

EMERGENCY SPILLWAY
LEVEL LIP EL: 428.80
CREST WIDTH: 6.0 FT

18-IN RCP
INV. IN: 424.47
DAYLIGHT INV.: 424.0
S = 1.0%

LEVEL SPREADER
LEVEL LIP ELEV: 422.5

A.P. 18, LOT 18
N/F JOSEPH L. & SANDRA M. AUTHIER T/E
BK. 621, PG. 80
AREA = 313,608± S.F.
7.20± AC.

A.P. 16, LOT 31
N/F JAMES T./ BURKE
BK. 69, PG. 297

A.P. 16, LOT 19
N/F MELISSA & KARIM MENAURI
BK. 182, PG. 446
AREA = 505,966± S.F.
22.24± AC.

A.P. 16, LOT 58
N/F DONALD R. CROTEAU & ZVEZDANA S. MEDIC
BK. 97, PG. 332

TP 1 TP 2 TP 3 TP 4 TP 5 TP 6

PROPERTY LINE

ess group
environmental consulting & engineering services
404 Wyman Street, Suite 375
Waltham, Massachusetts 02451
p 781.419.7696
www.essgroup.com

ISLANDER SOLAR, LLC
396 SPRINGFIELD AVENUE, 2ND FLOOR
SUMMIT, NJ 07901

POMHAM SOLAR
AP 16 LOTS 18 & 19
OFF IRON MINE HILL ROAD
NORTH SMITHFIELD, RI 02896

JASON M. GOLD
No. 7788
REGISTERED PROFESSIONAL ENGINEER
CIVIL

0 50' 100'
SCALE: 1" = 50'

2022.01.07 18:47:19 -05'00'

No.	REVISION	DATE	DRAWN	DESIGN	CHK

DRAWN BY: GJR | DESIGNED BY: JMG | CHECKED BY:

PERMITTING PLANS
GRADING AND DRAINAGE PLAN

FOR PERMITTING ONLY

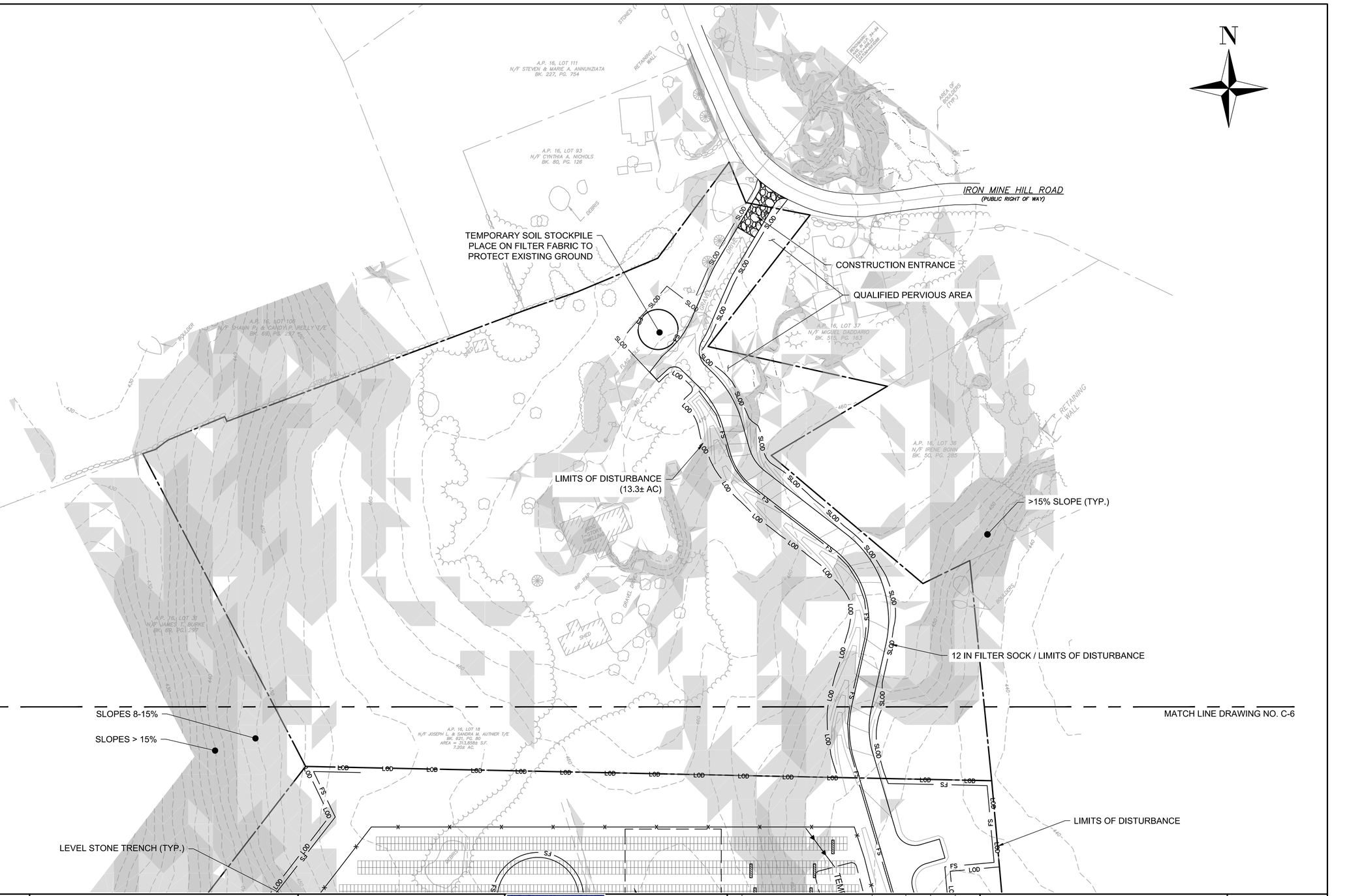
DRAWING NO:
C-4

PROJECT NO: P322-001
DATE OF ISSUE: 1/7/2022
SHEET NO: 9 OF 16

DATE: Jan 07, 2022 - 5:15PM
FILE NAME: C:\P322-001 Islander (Pomham) Solar – Design and Permitting\04 GRAPHICS\CAD\Drawings\Local Permitting\P322-001 Pomham Solar Permitting Grading and Drainage.dwg

NOTES:

1. ROLL-OFF CONTAINER AND CONCRETE WASHOUT AREA TO BE LOCATED WITHIN TEMPORARY LAYDOWN AREA. FINAL LOCATIONS OF TO BE DETERMINED BY CONTRACTOR AS APPROVED BY OWNER.



ess group
environmental consulting & engineering services

404 Wyman Street, Suite 375
Waltham, Massachusetts 02451
p 781.419.7696
www.essgroup.com

ISLANDER SOLAR, LLC
396 SPRINGFIELD AVENUE, 2ND FLOOR
SUMMIT, NJ 07901

POMHAM SOLAR
AP 16 LOTS 18 & 19
OFF IRON MINE HILL ROAD
NORTH SMITHFIELD, RI 02896

JASON M. GOLD
No. 7788
REGISTERED PROFESSIONAL ENGINEER
CIVIL

SCALE: 1" = 50'

2022.01.07 18:46:28 -05'00'

No.	REVISION	DATE	DRAWN	DESIGN	CHK

DRAWN BY: GJR | DESIGNED BY: JMG | CHECKED BY:

PERMITTING PLANS
EROSION AND SEDIMENT CONTROL PLAN

FOR PERMITTING ONLY

DRAWING NO:
C-5

PROJECT NO: P322-001
DATE OF ISSUE: 1/7/2022
SHEET NO: 10 OF 16

DATE: Jan 07, 2022 - 5:15PM
FILE: K:\P322-001 Islander (Pomham) Solar - Design and Permitting\04 GRAPHICS\CAD\Drawings\Local Permitting\P322-001 Pomham Solar Permitting ESC.dwg

MATCH LINE DRAWING NO. C-5

MATCH LINE DRAWING NO. C-5

NOTES:

1. ROLL-OFF CONTAINER AND CONCRETE WASHOUT AREA TO BE LOCATED WITHIN TEMPORARY LAYDOWN AREA. FINAL LOCATIONS OF TO BE DETERMINED BY CONTRACTOR AS APPROVED BY OWNER.

SLOPES 8-15%

SLOPES > 15%

LEVEL STONE TRENCH (TYP.)

TEMPORARY DIVERSION (TYP.)

FILTER SOCK (TYP.)

COMBINED SILT FENCE AND FILTER SOCK

LIMITS OF DISTURBANCE

CONSTRUCTION ENTRANCE

STOCKPILE

TEMP. LAYDOWN AREA

TEMP. SED TRAP

TEMP. SED TRAP

TEMP. SED TRAP

BOLDER DISPOSAL AREA

BOLDER DISPOSAL AREA

LIMITS OF DENSE BOULDER AREA (TYP)

A.P. 16, LOT 18
N/F JOSEPH L. & SANDRA M. AUTHER T/E
BK. 621, PG. 80
AREA = 313,656± S.F.
7.20± AC.

A.P. 16, LOT 19
N/F MELISSA & KARIM MENAURI
BK. 182, PG. 446
AREA = 968,966± S.F.
22.24± AC.

A.P. 16, LOT 58
N/F DONALD R. CROTEAU & ZVEZDANA S. MEDIC
BK. 97, PG. 332

A.P. 16, LOT 31
N/F JAMES TJ BURKE
BK. 69, PG. 209

PROPERTY LINE

PROPERTY LINE

N

0 50' 100'
SCALE: 1" = 50'

ess group
environmental consulting & engineering services
404 Wyman Street, Suite 375
Waltham, Massachusetts 02451
p 781.419.7696
www.essgroup.com

ISLANDER SOLAR, LLC
396 SPRINGFIELD AVENUE, 2ND FLOOR
SUMMIT, NJ 07901

POMHAM SOLAR
AP 16 LOTS 18 & 19
OFF IRON MINE HILL ROAD
NORTH SMITHFIELD, RI 02896

JASON M. GOLD
No. 7788
REGISTERED PROFESSIONAL ENGINEER
CIVIL

2022.01.07
18:45:32
-05'00'

No.	REVISION	DATE	DRAWN	DESIGN	CHK

DRAWN BY: GJR | DESIGNED BY: JMG | CHECKED BY:

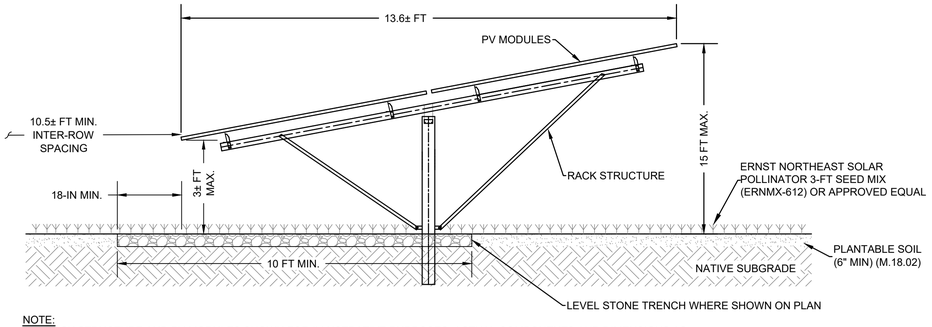
PERMITTING PLANS
EROSION AND SEDIMENT CONTROL PLAN

FOR PERMITTING ONLY

DRAWING NO:
C-6

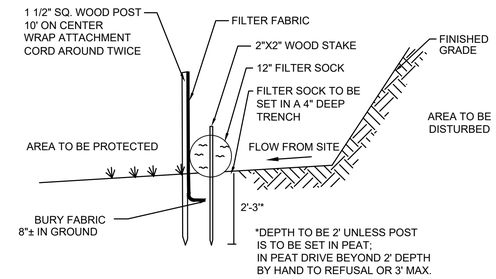
PROJECT NO: P322-001
DATE OF ISSUE: 1/7/2022
SHEET NO: 11 OF 16

DATE: Jan 07, 2022 - 5:15PM
FILE: K:\P322-001 Islander Solar - Design and Permitting (Pomham)\Solar - Design and Permitting\04 GRAPHICS\CAD\Drawings\Local Permitting\P322-001 Pomham Solar Permitting ESC.dwg

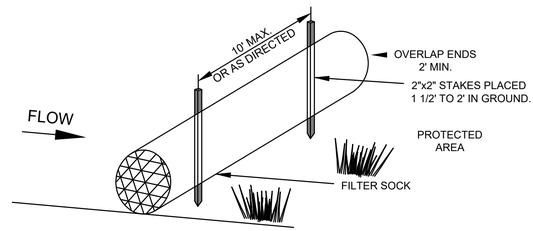


NOTE:
1. RACK STRUCTURE AND PV MODULES SHOWN FOR ILLUSTRATIVE PURPOSES. ACTUAL COMPONENTS AND DIMENSIONS AS APPROVED BY OWNER. FOUNDATION TYPE TO BE DETERMINED BY OTHERS. CONCRETE BALLASTS ARE NOT PERMITTED.

1/12 TYPICAL SOLAR PANEL AND RACK
SCALE: NTS



2/12 TYPICAL COMBINED SILT FENCE & FILTER SOCK
SCALE: NTS

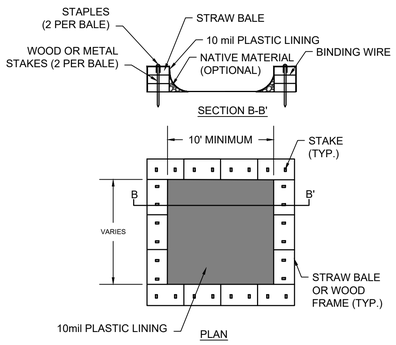


ANCHORING DETAIL

CONSTRUCTION SPECIFICATIONS

1. FILTER SOCKS SHALL BE FILTREXX SILTSOXX OR APPROVED EQUIVALENT. FILTER SOCK AND COMPOST MATERIALS SHALL BE IN ACCORDANCE WITH AASHTO MP 9-06, LATEST REVISION.
2. FILTER SOCKS SHALL BE 12 INCHES IN DIAMETER.
3. FILTER SOCKS SHALL BE PLACED IN ACCORDANCE WITH THIS PLAN SET AND IN A ROW WITH ENDS OVERLAPPING 2 FEET (MIN.).
4. FILTER SOCKS SHALL BE SECURELY ANCHORED IN PLACE BY WOOD STAKES, 10 FEET ON CENTER (MAX).
5. INSPECTION SHALL BE FREQUENT AND REPAIR AND/OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
6. FILTER SOCKS SHALL NOT BE MOVED TO OTHER LOCATIONS IN THE PROJECT ONCE PLACED.

3/12 TYPICAL FILTER SOCK
SCALE: NTS

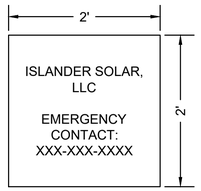


NOTES:
1. CONCRETE WASHOUT SHALL BE CONSTRUCTED AND MAINTAINED IN SUFFICIENT QUANTITY AND SIZE TO CONTAIN ALL LIQUID AND CONCRETE WASTE GENERATED BY WASHOUT OPERATIONS. PROVIDE 12 INCHES OF FREEBOARD.
2. PLASTIC LINING SHALL BE FREE OF HOLES, TEARS, OR OTHER DEFECTS.
3. WASHOUT SHALL BE CLEANED OR REPLACED ONCE 75% FULL.
4. ACTUAL DIMENSIONS TO BE DETERMINED BY THE CONTRACTOR.

4/12 TYPICAL CONCRETE WASHOUT
SCALE: NTS

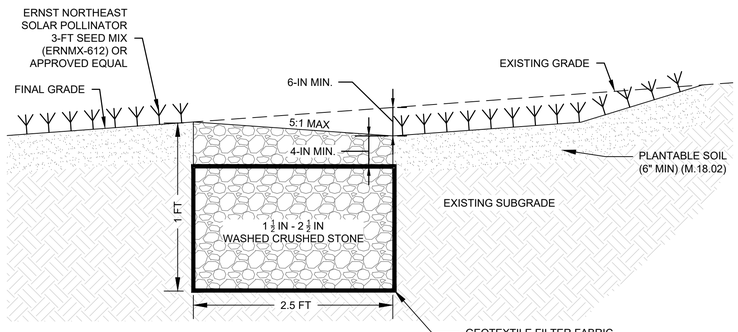
DANGER SIGN NOTES:
1. SIGN SHALL BE 0.040 IN. RUST FREE ALUMINUM.
2. SIGN SHALL COMPLY WITH ANSI Z535.
3. DANGER SIGN TO BE SPACED EVERY 300 FEET ALONG FENCE LINE.

NO TRESPASSING SIGN NOTES:
1. SIGN SHALL BE 0.040 IN. RUST FREE ALUMINUM.
2. SIGN SHALL COMPLY WITH ANSI Z535.
3. NO TRESPASSING SIGN TO BE SPACED EVERY 100 FEET ALONG FENCE LINE.



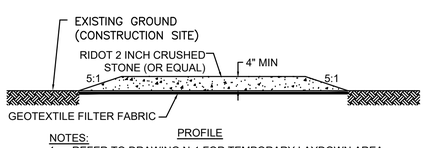
EMERGENCY CONTACT SIGN NOTES:
1. SIGN SHALL BE REFLECTIVE RUST FREE ALUMINUM.
2. EMERGENCY CONTACT TELEPHONE NUMBER TO BE PROVIDED BY OWNER.

5/12 TYPICAL SIGN DETAILS
SCALE: NTS



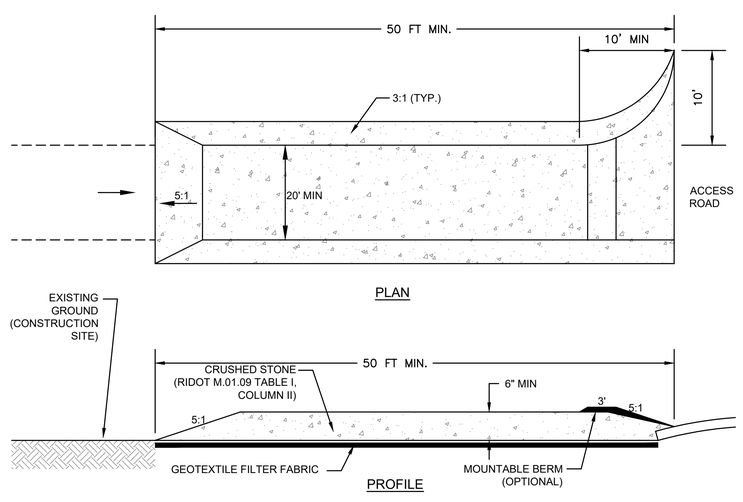
NOTES:
1. LEVEL STONE TRENCH SHALL RUN PARALLEL TO FINAL GRADE CONTOUR AT A CONSISTENT ELEVATION FOR A MINIMUM LENGTH OF 10 FEET.
2. GEOTEXTILE FABRIC: CLASS "C" APPARENT OPENING SIZE (ASTM D-4751).

7/12 TYPICAL LEVEL STONE TRENCH
SCALE: NTS



NOTES:
1. REFER TO DRAWING N-1 FOR TEMPORARY LAYDOWN AREA RESTORATION NOTES.

6/12 TYPICAL LAYDOWN AREA
SCALE: NTS



8/12 TYPICAL CONSTRUCTION ENTRANCE
SCALE: NTS

ess group
environmental consulting & engineering services
404 Wyman Street, Suite 375
Waltham, Massachusetts 02451
p 781.419.7696
www.essgroup.com

ISLANDER SOLAR, LLC
396 SPRINGFIELD AVENUE, 2ND FLOOR
SUMMIT, NJ 07901

POMHAM SOLAR
AP 16 LOTS 18 & 19
OFF IRON MINE HILL ROAD
NORTH SMITHFIELD, RI 02896

JASON M. GOLD
No. 7788
REGISTERED PROFESSIONAL ENGINEER
CIVIL

2022.01.07 18:43:47 -05'00'

No.	REVISION	DATE	DRAWN	DESIGN	CHK

DRAWN BY: GJR | DESIGNED BY: JMG | CHECKED BY:

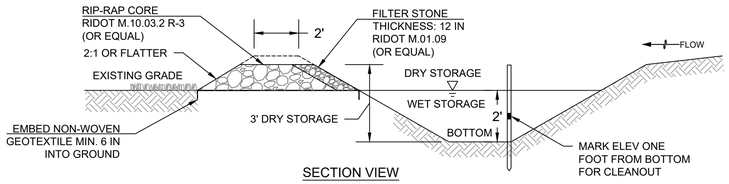
PERMITTING PLANS
DETAILS

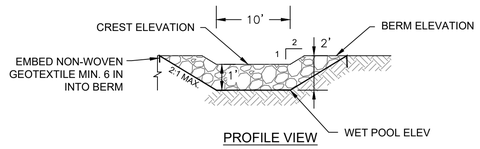
FOR PERMITTING ONLY

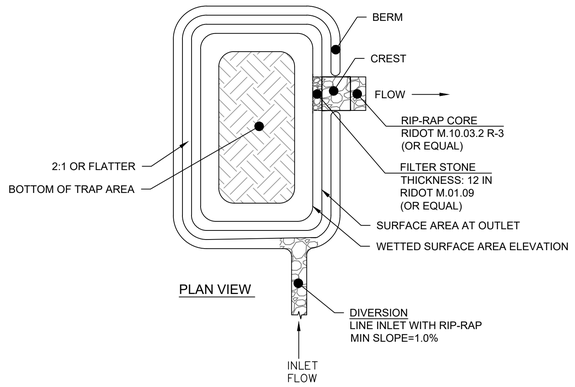
D-1

PROJECT NO: P322-001
DATE OF ISSUE: 1/7/2022
SHEET NO: 12 OF 16

DATE: Jan 07, 2022 - 5:15PM
DRAWING: J:\P322-001 Ironsides (Pomham) Solar – Design and Permitting\04 GRAPHICS\CAD\Drawings\Local Permitting\P322-001 Pomham Solar Permitting Details.dwg



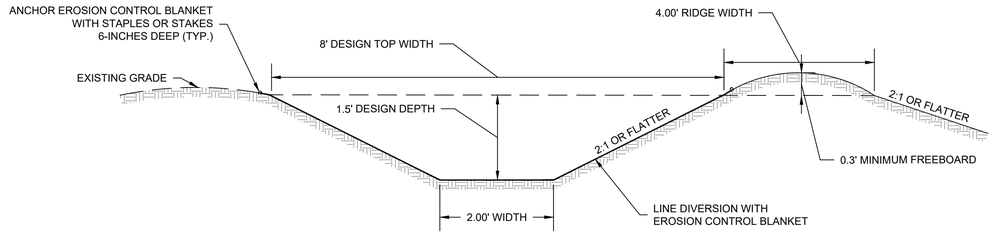




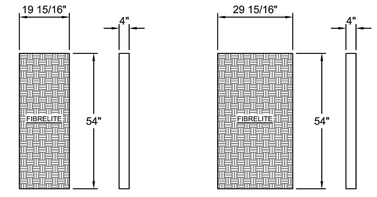
TEMPORARY SEDIMENT TRAPS SUMMARY TABLE

PARAMETER	TST-1	TST-2	TST-3
DRAINAGE AREA, AC	1.84	2.01	2.11
WET VOLUME RQD, CF	3,332	3,656	3,828
DRY VOLUME RQD, CF	3,332	3,656	3,828
MINIMUM DEPTHS (MEASURED FROM BOTTOM OF SEDIMENT TRAP)			
SEDIMENT REMOVAL	1'	1'	1'
BOTTOM OF FILTER STONE (WET STORAGE)	2'	2'	2'
WEIR CREST (DRY STORAGE)	3'	3'	3'
BERM	4'	4'	4'
MINIMUM AREAS (SQUARE FEET)			
WET STORAGE SURFACE AREA (AW)	1,960	2,151	2,252
DRY STORAGE SURFACE AREA (AD)	4,704	5,162	5,405

1/13 TYPICAL TEMPORARY SEDIMENT TRAPS
SCALE: NTS

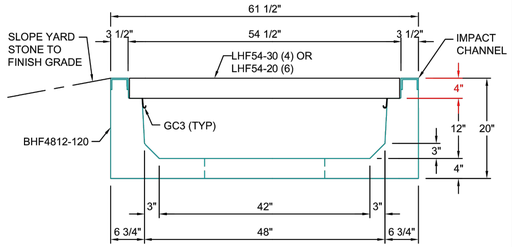


2/13 TYPICAL TEMPORARY DIVERSION
SCALE: NTS

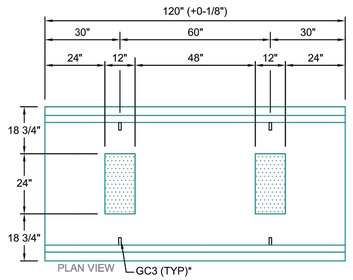


LHF54-20
SCALE: 1/2" = 1'-0"
WEIGHT: 90 #

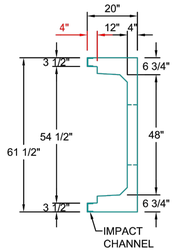
LHF54-30
SCALE: 1/2" = 1'-0"
WEIGHT: 108 #



TYPICAL ROAD CROSSING
SECTION WITH FIBRELITE LID
48"W x 12"D
SCALE: 1"=1'-0"



*GC3 (GROUND CLIPS) OPTIONAL

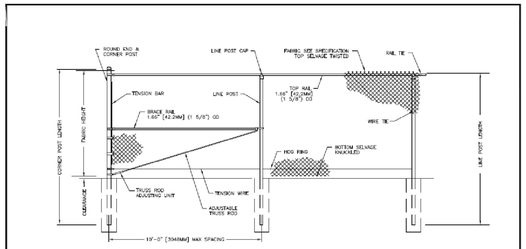


BHF4812-120
SCALE: 1/2" = 1'-0"
WEIGHT: 4267 #

AASHTO HS20 DESIGN
(32,000 LBS / AXLE)

Trenwa Inc.	
1419 ALEXANDRIA PIKE FORT THOMAS, KY 41075 859-781-0831	
TYPICAL ROAD CROSSING BASE, FIBRELITE LID & SECTION FOR 48" WIDE x 12" DEEP TRENCH	
Date: 1/26/17	Dwg. No. BHF4812-120

4/13 TYPICAL TRENCH DRAIN
SCALE: NTS



TYPICAL FENCE ELEVATION / SECTION

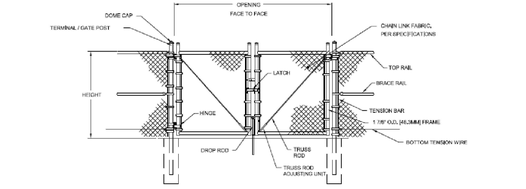
TOP RAIL / TRUSSED BRACE RAIL
BOTTOM TENSION WIRE

NOTES:
1. DESIGN AND SPECIFICATION SUBJECT TO CHANGE.
2. FOOTING AND POSTS AS REQUIRED BY SITE CONDITIONS & CODES.

Merchants Metals® the first name in fence solutions	CHAIN LINK TYPICAL FENCE ELEVATION / SECTION	
	BY: FJR 05.19.05	SCALE: NTS DWG #: CL10
	WWW.MerchantsMetals.com	COPYRIGHT ©

NOTES:
1. FINAL FENCE DETAIL TO BE SELECTED BY OWNER.
2. INSTALL FENCE PER MANUFACTURER INSTRUCTIONS.
3. FENCE POSTS TO BE PILE DRIVEN EXCEPT AT CORNERS AND GATES WHICH SHALL BE SET IN CONCRETE.
4. FENCE HEIGHT SHALL BE 7 FEET.
5. PROVIDE 6-8 INCH CLEARANCE BENEATH THE FENCE ALONG AT LEAST ONE THIRD OF EACH SIDE OF THE FENCE.

3/13 TYPICAL 7-FT CHAIN LINK FENCE
SCALE: NTS



TYPICAL DOUBLE SWING GATE ELEVATION / SECTION

TOP RAIL / TRUSSED BRACE RAIL
BOTTOM TENSION WIRE

NOTES:
DESIGN AND SPECIFICATION SUBJECT TO CHANGE
VERTICAL & HORIZONTAL MEMBERS MAXIMUM 8' O.C.
FOOTING AND POSTS AS REQUIRED BY SITE CONDITIONS & CODES

Merchants Metals® the first name in fence solutions	CHAIN LINK DOUBLE SWING GATE ELEVATION / SECTION	
	BY: ART 2.11.10	SCALE: NTS DWG #: CL12
	WWW.MerchantsMetals.com	COPYRIGHT ©

NOTES:
1. FINAL GATE DETAIL TO BE SELECTED BY OWNER.
2. INSTALL GATE PER MANUFACTURER INSTRUCTIONS.
3. GATE POSTS SHALL BE SET IN CONCRETE.
4. FENCE HEIGHT SHALL BE 7 FEET, GATE OPENING WIDTH PER PLAN.

5/13 TYPICAL VEHICLE GATE
SCALE: NTS

ess group
environmental consulting & engineering services
404 Wyman Street, Suite 375
Waltham, Massachusetts 02451
p 781.419.7696
www.essgroup.com

ISLANDER SOLAR, LLC
396 SPRINGFIELD AVENUE, 2ND FLOOR
SUMMIT, NJ 07901

POMHAM SOLAR
AP 16 LOTS 18 & 19
OFF IRON MINE HILL ROAD
NORTH SMITHFIELD, RI 02896

JASON M. GOLD
No. 7788
REGISTERED PROFESSIONAL ENGINEER
CIVIL

2022.01.07 18:43:01 -05'00'

No.	REVISION	DATE	DRAWN	DESIGN	CHK
DRAWN BY: GJR	DESIGNED BY: JMG	CHECKED BY:			

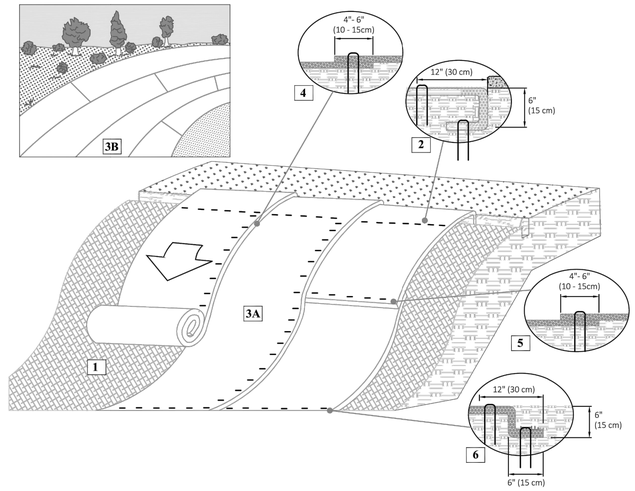
PERMITTING PLANS
DETAILS

FOR PERMITTING ONLY

D-2

PROJECT NO: P322-001
DATE OF ISSUE: 1/7/2022
SHEET NO: 13 OF 16

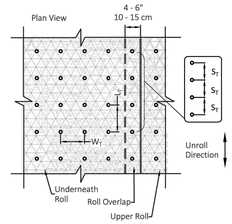
DATE: Jan 07, 2022 - 5:15PM
FILENAME: J:\P322-001 Islander (Pomham) Solar – Design and Permitting\04 GIS\PHCS\CAD\Drawings\Local Permitting\P322-001 Pomham Solar Permitting Details.dwg



Instructions

1. Prepare soil before installing rolled erosion control products (RECPs), including any necessary application of lime, fertilizer, and seed. Ground surface must be free of debris, rocks, clay clods and raked smooth sufficient to allow intimate contact of the RECP with the soil over the entirety of the installation.
2. Begin at the top of the slope by anchoring the RECPs in a 6" (15 cm) deep X 6" (15 cm) wide trench. Anchor the RECPs with a row of staples/stakes/pins spaced at S_T apart in the bottom of the trench. Backfill and compact the trench after stapling and fold the roll over downslope. Secure RECPs over compacted soil with a row of staples/stakes/pins spaced at S_T apart across the width of the RECPs.
3. Roll the RECPs (A) down or (B) horizontally across the slope. RECPs will unroll with appropriate side against the soil surface. All RECPs must be securely fastened to soil surface by placing staples/stakes/pins in appropriate locations as shown in the staple pattern guide. RollMax RECPs and ECBs should utilize Staple Pattern C, TRMs and VMax materials should utilize Staple Pattern D.
4. The edges of parallel RECPs must be stapled with approximately 4" - 6" (10 - 15 cm) overlap.
5. Consecutive RECPs spliced down the slope must overlapped with the upstream mat atop the downstream mat (shingle style). The overlap should be 4" - 6" (10 - 15 cm).
6. At the terminal end, secure each mat across the width with a row of staples/stakes/pins spaced at S_T. If exposed to flow, foot traffic, wind uplift or other disruption, trench the terminal end in as shown in detail.
7. Fasteners should provide a minimum of twenty pounds of pullout resistance. Six-inch (10 cm) X one-inch (2.5 cm) eleven gauge staples are typically adequate. In loose soils, longer staples may be necessary, twist pins can provide the greatest pullout resistance. In hard or rocky soils, straight pins may by used where staples or twist pins are refused, provided the minimum pullout requirements are met. Bio-degradable fasteners shall not be used with VMax (TRM) or TMax (HPTRM) materials.

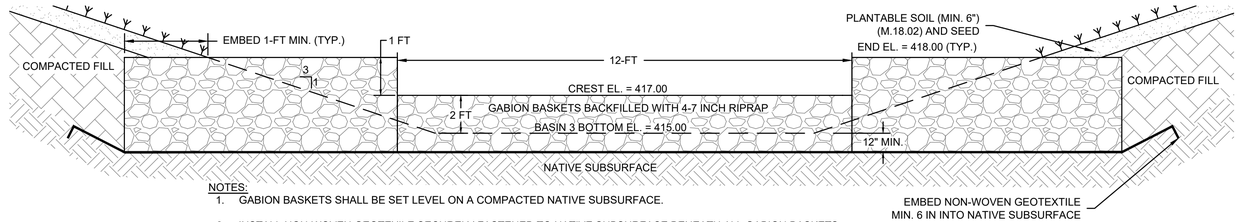
Staple Pattern Guide



- Pin / Staple / Twist Pin, as appropriate for field conditions

	Staple Pattern	
Dimension	C	D
W_T	30" (75 cm)	24" (60 cm)
L_T	30" (75 cm)	20" (50 cm)
S_T	18" (45 cm)	18" (45 cm)
Nominal Frequency	1.7 / SY	3.0 / SY
Application	ECB (Degradable)	TRM (Permanent)

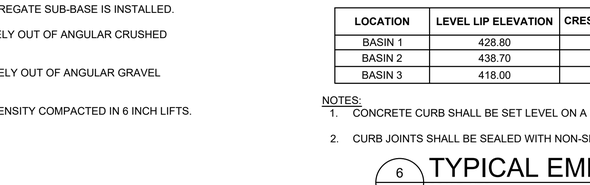
*Note: Staple Pattern A and B used prior to 8/2019 have been discontinued.



NOTES:
1. GABION BASKETS SHALL BE SET LEVEL ON A COMPACTED NATIVE SUBSURFACE.
2. INSTALL NON-WOVEN GEOTEXILE SECURELY FASTENED TO NATIVE SUBSURFACE BENEATH ALL GABION BASKETS.
3. GABION BASKET SHALL CONFORM TO ASTM A-974-97 AND US FEDERAL SPECIFICATION QQ-W-461H AND COATED IN ACCORDANCE WITH ASTM A641, FINISH 5, CLASS 3.
4. INSTALL GABIONS IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.

2/14 TYPICAL GABION SPILLWAY

SCALE: NTS



3/14 TYPICAL TRAIL REVEGETATION

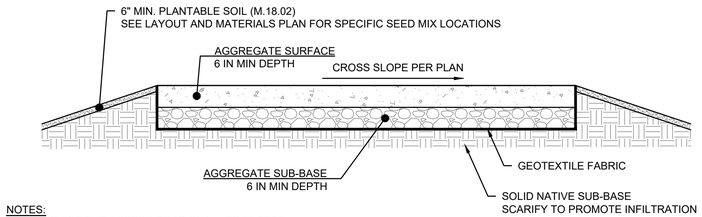
SCALE: NTS

CONSTRUCTION SPECIFICATIONS / NOTES:

1. THE FILTER FABRIC SHOULD BE A MINIMUM OF 6 FEET WIDE EXTENDING 12 INCHES OVER THE LIP AND BURIED 6 INCHES DEEP IN A VERTICAL TRENCH ON BOTH SIDES. THE FABRIC SHOULD BE SECURELY HELD IN PLACE WITH CLOSELY SPACED HEAVY DUTY WIRE STAPLES AT LEAST 12 INCHES IN LENGTH.
2. FILTER FABRIC SHALL BE EROSION RESISTANT MATERIAL OR MAT TO PREVENT EROSION AND ALLOW VEGETATION TO BECOME ESTABLISHED.
3. ENSURE THAT THE LIP IS LEVEL TO UNIFORMLY SPREAD STORMWATER DISCHARGE.
4. THE RUNOFF DISCHARGE WILL BE OUTLETED ONTO A STABILIZED VEGETATED SLOPE.
5. OUTLET PROTECTION AND LEVEL SPREADER RIPRAP SHALL BE RIDOT R-4 RIPRAP STONE 21 INCHES THICK FOR BASIN 1 AND RIDOT R-3 RIPRAP STONE 12 INCHES THICK FOR BASIN 3.

4/14 TYPICAL LEVEL SPREADER

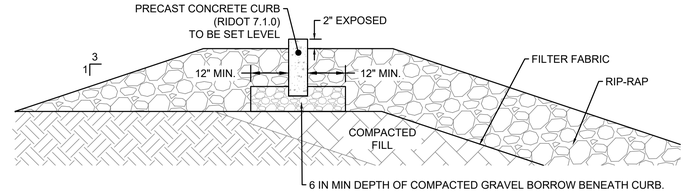
SCALE: NTS



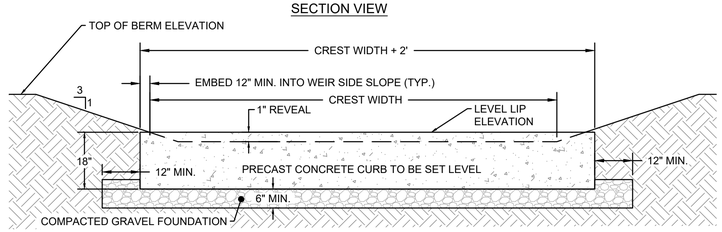
NOTES:
1. WIDTH OF THE ACCESS ROAD SHALL BE 20 FEET.
2. EXISTING PLANTABLE SOIL SHALL BE REMOVED UNTIL A SOLID NATIVE SUB-BASE HAS BEEN REACHED.
3. A GEOTEXTILE FABRIC SHALL BE INSTALLED ON TOP OF THE SOLID NATIVE SUB-BASE BEFORE THE AGGREGATE SUB-BASE IS INSTALLED.
4. THE AGGREGATE SURFACE SHALL BE A MINIMUM OF 6 INCHES IN DEPTH AND CONSTRUCTED COMPLETELY OUT OF ANGULAR CRUSHED STONE OR CRUSHED GRAVEL MEETING THE GRADATION OF RIDOT M.01.09 TABLE I, COLUMN II.
5. THE AGGREGATE SUB-BASE SHALL BE A MINIMUM OF 6 INCHES IN DEPTH AND CONSTRUCTED COMPLETELY OUT OF ANGULAR GRAVEL BORROW MEETING THE GRADATION OF RIDOT M.01.09 TABLE I, COLUMN I, TYPE IA .
6. AGGREGATE COMPACTION SHALL BE A MINIMUM OF 95% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY COMPACTED IN 6 INCH LIFTS.
7. MAXIMUM GRADE SHALL BE NO STEEPER THAN 8%.

5/14 TYPICAL GRAVEL ROAD

SCALE: NTS



SECTION VIEW



PROFILE VIEW

LOCATION	LEVEL LIP ELEVATION	CREST WIDTH (FT)	RIP RAP THICKNESS (IN)	RIP RAP GRADATION
BASIN 1	428.80	6.0	12	R-3
BASIN 2	438.70	15.0	12	R-3
BASIN 3	418.00	6.0	12	R-3

NOTES:
1. CONCRETE CURB SHALL BE SET LEVEL ON A COMPACTED GRAVEL BORROW SUBBASE BEDDING
2. CURB JOINTS SHALL BE SEALED WITH NON-SHRINK GROUT TO PROVIDE A CONTINUOUS FLAT TOP SURFACE.

6/14 TYPICAL EMERGENCY SPILLWAY

SCALE: NTS

ROLLMAX ROLLED EROSION CONTROL | NORTH AMERICAN GREEN

Project: Standard Slope Installation Recommendations RollMax RECPs, VMax TRMs
Shown: Perspective View, Some Fasteners and Vegetation Omitted for Clarity- NTS

Date: 3/24/20
Revision: 0
Drawings: 1/3

ess group
environmental consulting & engineering services
404 Wyman Street, Suite 375
Waltham, Massachusetts 02451
p 781.419.7696
www.essgroup.com

ISLANDER SOLAR, LLC
396 SPRINGFIELD AVENUE, 2ND FLOOR
SUMMIT, NJ 07901

POMHAM SOLAR
AP 16 LOTS 18 & 19
OFF IRON MINE HILL ROAD
NORTH SMITHFIELD, RI 02896

JASON M. GOLD
No. 7788
REGISTERED PROFESSIONAL ENGINEER
CIVIL

2022.01.07 18:41:58 -05'00'

No.	REVISION	DATE	DRAWN	DESIGN	CHK

DRAWN BY: GJR | DESIGNED BY: JMG | CHECKED BY:

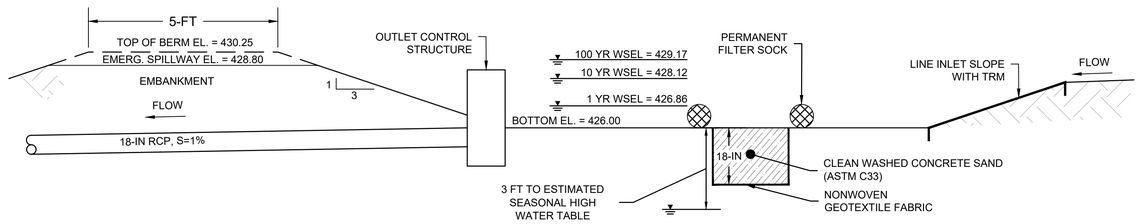
PERMITTING PLANS
DETAILS

FOR PERMITTING ONLY

D-3

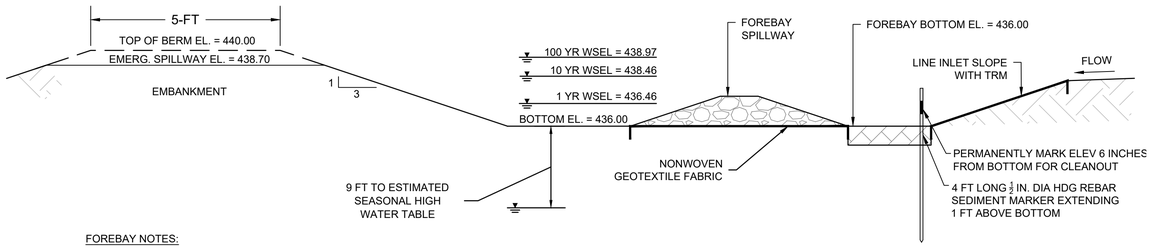
PROJECT NO: P322-001
DATE OF ISSUE: 1/7/2022
SHEET NO: 14 OF 16

DATE: Jan 07, 2022 - 5:16PM
DRAWING: J:\P322-001 Islander (Pomham) Solar - Design and Permitting\04 GRAPHICS\CAD\Drawings\Local Permitting\P322-001 Pomham Solar Permitting Details.dwg



1/15 BASIN 1 TYPICAL DETAIL

SCALE: NTS

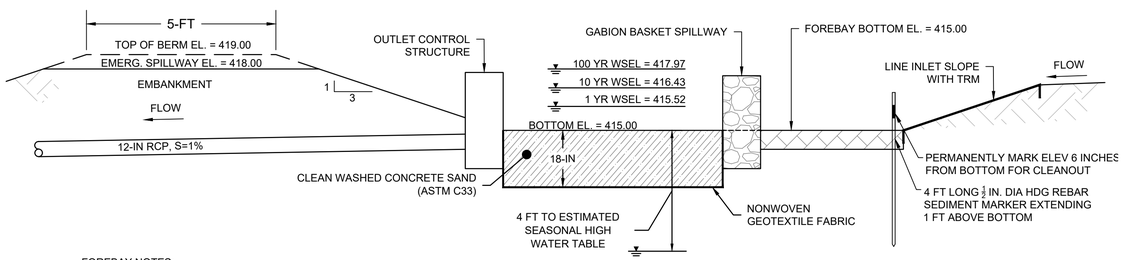


FOREBAY NOTES:

1. FOREBAY SHALL HAVE A HARD BOTTOM CONSTRUCTED OF PAVERS, GROUTED RIPRAP, CONCRETE OR APPROVED EQUAL.
2. A MINIMUM OF TWO 2.5-INCH DIA WEEP HOLES SHALL BE DRILLED FOR EVERY 25 SQUARE FEET OF CONCRETE OR GROUTED RIP-RAP SURFACE AREA.

2/15 BASIN 2 TYPICAL DETAIL

SCALE: NTS

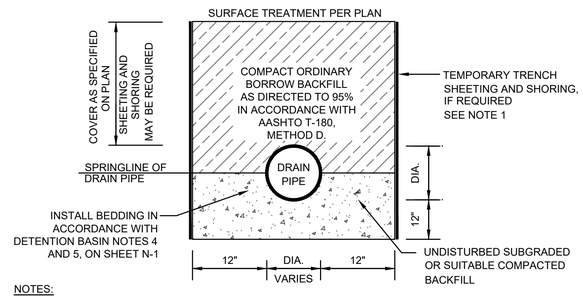


FOREBAY NOTES:

1. FOREBAY SHALL HAVE A HARD BOTTOM CONSTRUCTED OF PAVERS, GROUTED RIPRAP, CONCRETE OR APPROVED EQUAL.
2. A MINIMUM OF TWO 2.5-INCH DIA WEEP HOLES SHALL BE DRILLED FOR EVERY 25 SQUARE FEET OF CONCRETE OR GROUTED RIP-RAP SURFACE AREA.

3/15 BASIN 3 TYPICAL DETAIL

SCALE: NTS

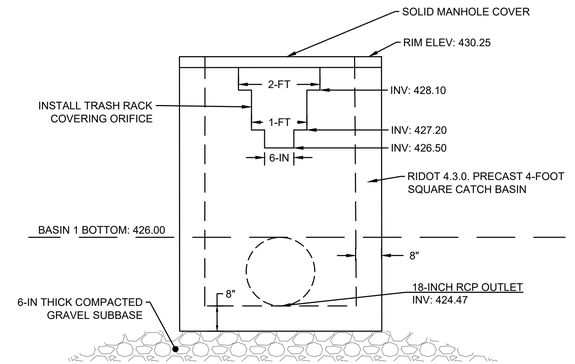


NOTES:

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SUBMITTING SHOP DRAWINGS TO THE ENGINEER FOR TEMPORARY SHEETING AND SHORING FOR ALL UTILITY TRENCH WORK REQUIRING STABILIZATION DURING CONSTRUCTION.
2. DRAIN PIPE INSTALLATION SHALL BE IN ACCORDANCE WITH SECTION 701 - CULVERTS AND STORM DRAINS AND SECTION 205 - TRENCH EXCAVATION OF THE MOST RECENT RIDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.

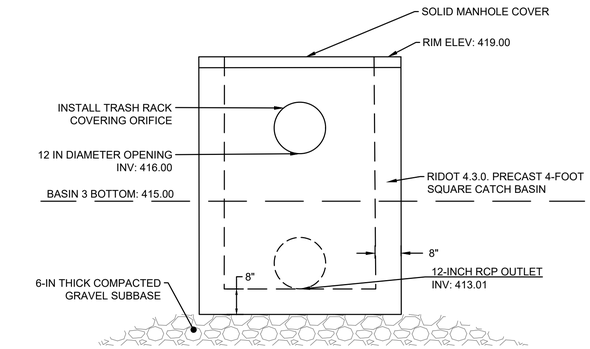
4/15 TYPICAL DRAIN PIPE TRENCH

SCALE: NTS



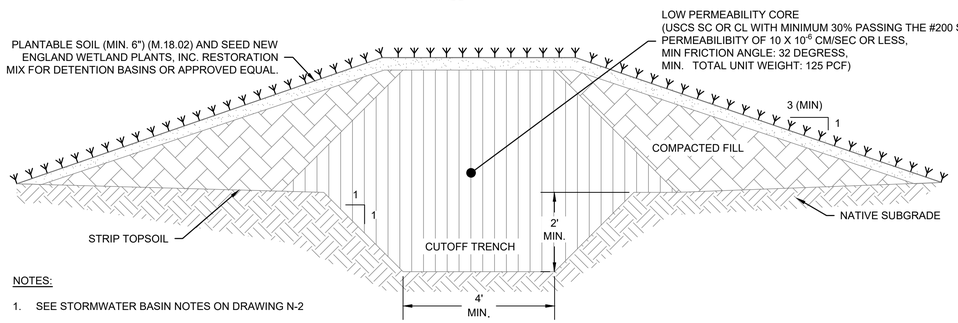
5/15 BASIN 1 OUTLET CONTROL STRUCTURE

SCALE: NTS



6/15 BASIN 3 OUTLET CONTROL STRUCTURE

SCALE: NTS



NOTES:

1. SEE STORMWATER BASIN NOTES ON DRAWING N-2
2. EMBANKMENT SHALL BE STABILIZED WITH A MINIMUM OF 6 INCHES OF PLANTABLE SOIL AND SEED OR FILTER FABRIC AND RIP-RAP AS SHOWN.

7/15 TYPICAL BASIN EMBANKMENT CROSS SECTION

SCALE: NTS

ess group
environmental consulting & engineering services
404 Wyman Street, Suite 375
Waltham, Massachusetts 02451
p 781.419.7696
www.essgroup.com

ISLANDER SOLAR, LLC
396 SPRINGFIELD AVENUE, 2ND FLOOR
SUMMIT, NJ 07901

POMHAM SOLAR
AP 16 LOTS 18 & 19
OFF IRON MINE HILL ROAD
NORTH SMITHFIELD, RI 02896

JASON M. GOLD
No. 7788
REGISTERED PROFESSIONAL ENGINEER
CIVIL

2022.01.07 18:40:10 -05'00'

No.	REVISION	DATE	DRAWN	DESIGN	CHK

DRAWN BY: GJR | DESIGNED BY: JMG | CHECKED BY:

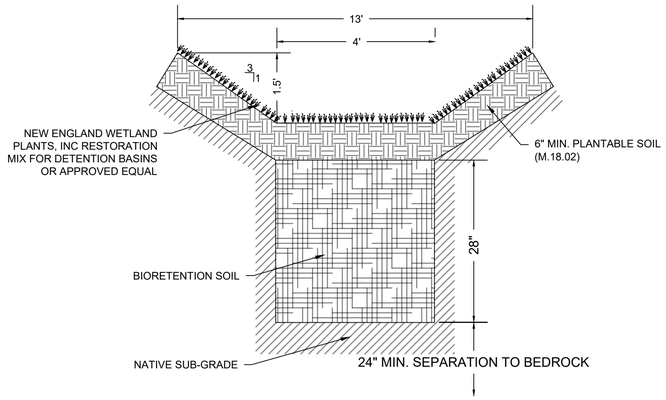
PERMITTING PLANS
DETAILS

FOR PERMITTING ONLY

D-4

PROJECT NO: P322-001
DATE OF ISSUE: 1/7/2022
SHEET NO: 15 OF 16

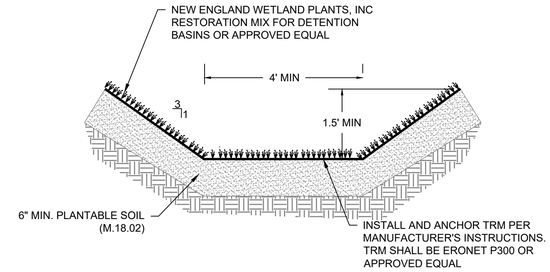
DATE: Jan 07, 2022 - 5:16PM
DRAWING: J:\P322-001 Islander (Pomham) Solar - Design and Permitting\04 GRAPHICS\CAD\Drawing\Local Permitting\P322-001 Pomham Solar Permitting Details.dwg



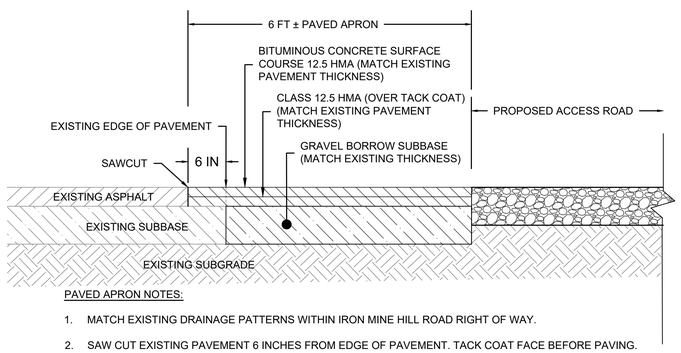
NOTES:

1. BIORETENTION SOIL MIX SHALL HAVE A LOAMY SAND TEXTURE PER USDA TEXTURAL TRIANGLE WITH A MAXIMUM CLAY CONTENT OF LESS THAN 2%. SOIL MIXTURE SHALL BE 85-88% SAND, 8-12% SOIL FINES (NO MORE THAN 2% CLAY), AND 3-5% ORGANIC MATTER.
2. ADD 20% (BY VOLUME) OF WELL AGED (6-12 MONTHS), WELL AERATED, LEAF COMPOST (OR APPROVED EQUIVALENT) TO THE ABOVE PLANTING SOIL MIXTURE. WHERE SOIL CONTENT IS LESS THAN 12% ADD A CORRESPONDING % OF LEAF COMPOST.
3. THE BIORETENTION SOIL SOIL SHALL BE UNIFORM MIX, FREE OF STONES, STUMPS, ROOTS, OR OTHER SIMILAR OBJECTS LARGER THAN TWO INCHES, SOIL SHALL BE FREE OF BERMUDA GRASS, QUACKGRASS, JOHNSON GRASS, MUGWORT, NUTSEDGE, POISON IVY, CANADIAN THISTLE, TEARTHUB, OR OTHER NOXIOUS WEEDS.
4. PRIOR TO INSTALLATION, BIORETENTION SOIL SOIL SHALL BE TESTED AND CONFORM TO THE FOLLOWING CRITERIA.
   - 4.1. PH RANGE: 5.7 - 7.0
   - 4.2. MAGNESIUM: NOT TO EXCEED 32 PPM
   - 4.3. PHOSPHORUS P205: NOT TO EXCEED 69 PPM
   - 4.4. POTASSIUM K20: NOT TO EXCEED 78 PPM
   - 4.5. SOLUBLE SALTS: NOT TO EXCEED 500 PPM

1/16 TYPICAL DRY SWALE
SCALE: NTS



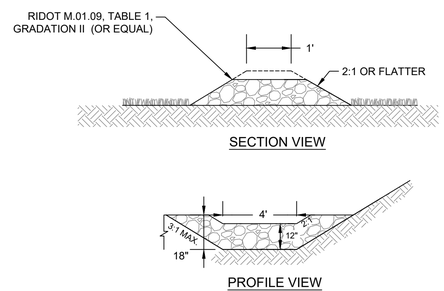
2/16 TYPICAL GRASS CHANNEL
SCALE: NTS



PAVED APRON NOTES:

1. MATCH EXISTING DRAINAGE PATTERNS WITHIN IRON MINE HILL ROAD RIGHT OF WAY.
2. SAW CUT EXISTING PAVEMENT 6 INCHES FROM EDGE OF PAVEMENT. TACK COAT FACE BEFORE PAVING.

3/16 TYPICAL PAVED APRON
SCALE: NTS



4/16 TYPICAL STONE CHECK DAM
SCALE: NTS

ess group
environmental consulting & engineering services
404 Wyman Street, Suite 375
Waltham, Massachusetts 02451
p 781.419.7696
www.essgroup.com

ISLANDER SOLAR, LLC
396 SPRINGFIELD AVENUE, 2ND FLOOR
SUMMIT, NJ 07901

POMHAM SOLAR
AP 16 LOTS 18 & 19
OFF IRON MINE HILL ROAD
NORTH SMITHFIELD, RI 02896

JASON M. GOLD
No. 7788
REGISTERED PROFESSIONAL ENGINEER
CIVIL

2022.01.07 18:38:09 -05'00'

No.	REVISION	DATE	DRAWN	DESIGN	CHK

DRAWN BY: GJR | DESIGNED BY: JMG | CHECKED BY:

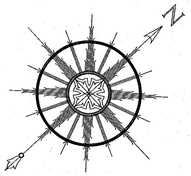
PERMITTING PLANS
DETAILS

FOR PERMITTING ONLY

D-5

PROJECT NO: P322-001
DATE OF ISSUE: 1/7/2022
SHEET NO: 16 OF 16

DATE: Jan 07, 2022 - 5:16PM
FILENAME: L:\P322-001 Pomham (Pomham) Solar – Design and Permitting\04 GRAPHICS\CAD\Drawings\Local Permitting\P322-001 Pomham Solar Permitting_Details.dwg



SEE GENERAL NOTES #4

LEGEND:

- PROPERTY LINE
- ABUTTER'S PROPERTY LINE
- TOPOGRAPHIC CONTOUR
- STONE WALL
- TREE LINE
- SHRUB LINE
- WETLANDS LINE
- WETLAND FLAG
- UTILITY POLE
- GUY
- ROCK
- DECIDUOUS TREE
- CONIFER
- BOUND
- DRILL HOLE
- IRON ROD/SPIKE
- SURVEY NAIL

GENERAL NOTES:

1. EXISTING CONDITIONS ARE THE RESULT OF A FIELD SURVEY BY NORTHEAST ENGINEERS & CONSULTANTS, INC. IN OCTOBER AND DECEMBER 2019.
2. TOPOGRAPHY PROVIDED BY BLUESKY GEOSPATIAL LTD. VIA AERIAL PHOTOGRAMMETRIC METHODS IN DECEMBER 2019.
3. VERTICAL DATUM IS NAVD88.
4. NORTH ARROW AND BASIS OF BEARING BASED ON RTK/GNSS OBSERVATION.

PLAN REFERENCES:

1. PLAN ENTITLED "DIVISION OF LAND FOR LOUIS A. & FLORENCE R. COULOMBE NORTH SMITHFIELD, R.I.", PREPARED BY BIBEAULT AND FLORENTZ ENGINEERING CO., INC., SCALE 1 INCH = 80 FEET, DATED JANUARY, 1990.
2. PLAN ENTITLED "REDIVISION OF LAND FOR LOUIS A. & FLORENCE R. COULOMBE NORTH SMITHFIELD, R.I.", PREPARED BY BIBEAULT AND FLORENTZ ENGINEERING CO., INC., SCALE 1 INCH = 80 FEET, DATED FEBRUARY, 1990.
3. PLAN ENTITLED "MINOR SUBDIVISION FOR LOUIS COULOMBE NORTH SMITHFIELD, R.I.", PREPARED BY BIBEAULT AND FLORENTZ ENGINEERING CO., INC., SCALE 1 INCH = 80 FEET, DATED FEBRUARY, 1999.
4. PLAN ENTITLED "OXFORD CREEK FINAL PLAN ADMINISTRATIVE SUBDIVISION & MINOR SUBDIVISION OF PLAT 16, LOTS 20, 21, 28 & PLAT 20, LOTS 16 & 35", PREPARED BY MARC N. NYBERG ASSOCIATES, INC., SCALE 1"=100', DATED JULY 17, 2000.

SURVEYOR'S CERTIFICATION:

THIS SURVEY HAS BEEN CONDUCTED AND THE PLAN HAS BEEN PREPARED PURSUANT TO 435-RICR-00-00-1.9 OF THE RULES AND REGULATIONS ADOPTED BY THE RHODE ISLAND STATE BOARD OF REGISTRATION FOR PROFESSIONAL LAND SURVEYORS ON APRIL 28, 2018, AS FOLLOWS:

TYPE OF BOUNDARY SURVEY:	MEASUREMENT SPECIFICATION:
LIMITED CONTENT BOUNDARY SURVEY	CLASS I
TOPOGRAPHIC SURVEY ACCURACY	CLASS T-3

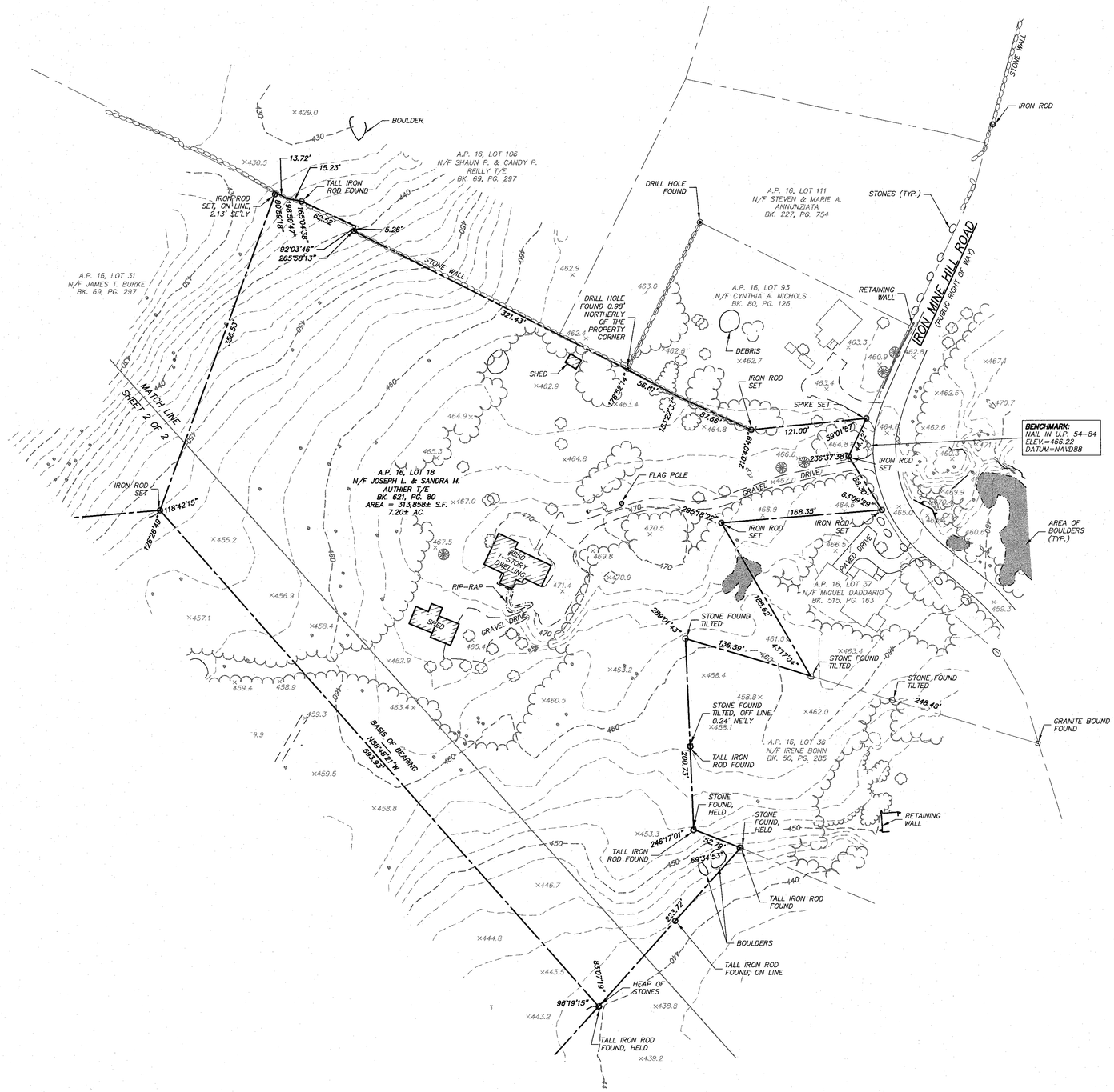
STATEMENT OF PURPOSE:

THE PURPOSE FOR THE CONDUCT OF THE SURVEY AND FOR THE PREPARATION OF THE PLAN IS AS FOLLOWS:

TO DETERMINE AND MONUMENT THE LOCATION OF THE PROPERTY BOUNDARIES OF A.P.16, LOTS 18 & 19 AND TO SHOW EXISTING CONDITIONS AT THE SITE.

BY: _____
MARC S. THAYER NO. 1889
COA NO. A356 12-17-2019

MARC S. THAYER
No. 1889
PROFESSIONAL LAND SURVEYOR



GRAPHIC SCALE

60 0 30 60 120 240

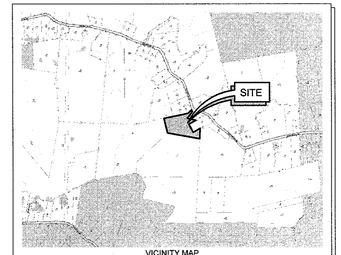
(in feet)
1 INCH = 60'

NORTHEAST ENGINEERS & CONSULTANTS, INC.

SITE/CIVIL
LAND PLANNING
WATERFRONT
SURVEYING
GEOTECHNICAL
ENVIRONMENTAL
TRANSPORTATION
STRUCTURAL
MATERIALS TESTING

A KNOWLEDGE CORPORATION®

55 JOHN CLARKE ROAD MIDDLETOWN RHODE ISLAND 02842
PHONE (401) 849-0810 FAX (401) 846-4169
WWW.NORTHEASTENGINEERS.COM



VICINITY MAP
NOT TO SCALE

No.	Revision	Date	App.

Designed By:	Drawn by: VAL	Checked by:	MST
Scale: 1"=60'	Date: 17DEC2019		

Project Title:

A.P. 16, LOTS 18 & 19
IRON MINE HILL ROAD
NORTH SMITHFIELD, RHODE ISLAND

Client/Owner:
ESS GROUP, INC., C/O BARBARA CABRAL
10 HEMINGWAY DR., 2ND FLOOR
EAST PROVIDENCE, RI 02915

Issued for:

Drawing Title:

LIMITED CONTENT BOUNDARY SURVEY
WITH EXISTING CONDITIONS AND TOPOGRAPHY

Drawing Number: L-1

Sheet 1 of 2

Project Number: 19178.0

Survey Index: 25 – 16 – 18 & 19

P:\Projects\2019\19178 ESS - N Smithfield\Drawings\Current\19178_L1b.dwg

SEE GENERAL NOTES #4

SHEET 1 OF 2
MATCH LINE

BOUNDARY SURVEY
WITH EXISTING CONDITIONS
AND TOPOGRAPHY

A.P. 16, LOT 31
N/F JAMES T. BURKE
BK. 69, PG. 297

A.P. 20, LOT 52
N/F GORDON F. B. ONDIS
BK. 274, PG. 347

A.P. 16, LOT 16
N/F GORDON F. B. ONDIS
BK. 199, PG. 374

A.P. 16, LOT 19
N/F MELISSA & KARIM MENAURA
BK. 182, PG. 446
AREA = 968,966± S.F.
22.24± AC.

A.P. 16, LOT 22
N/F CITY OF WOONSOCKET
BK. 40, PG. 490

A.P. 16, LOT 58
N/F DONALD R. CROTEAU & ZVJEZDANA S. MEDIC
BK. 97, PG. 332

A.P. 16, LOT 23
N/F TOWN OF NORTH SMITHFIELD
BK. 434, PG. 60

BOULDER
IRON ROD SET
FIELD STONE FOUND
SURVEY NAIL SET, IN WALL
IRON ROD SET IN PLACED STONE AT EXISTING PATH
DRILL HOLE FOUND
IRON ROD SET, ON LINE
TALL IRON ROD FOUND, HELD FOR LINE
BARWAY
APPROXIMATE TRAIL
TRAIL
STONE WALL
DEBRIS
AREA OF BOULDERS (TYP.)
SURVEY NAIL SET, IN STONE, ON LINE
IRON ROD SET, ON LINE
HEAP OF STONES
TALL IRON ROD FOUND, HELD

BASIS OF BEARING
N83°48'21"W
663.33'

671.83'	N15°09'57"E	
924.02'		
252.19'		
	S29°28'45"E	
	S18°42'15"E	
238.74'		
	S83°40'16"E	
19.64'		
	S96°47'38"W	
107.90'		
	S44°46'19"E	
4.17'		
	S03°01'02"E	
64.91'		
	S79°41'52"E	
129.73'		
	S85°10'28"E	
73.24'		
	S77°23'15"E	
112.37'		
	S75°14'34"E	
46.98'		
300.05'		
1048.27'		
211.38'		
198.14'		
360.73'		
92.29'	S10°01'13"E	
268.86'		
	S80°01'34"W	
298.50'		
	S80°25'34"W	
245.72'		
67.19'		
	S63°19'15"E	

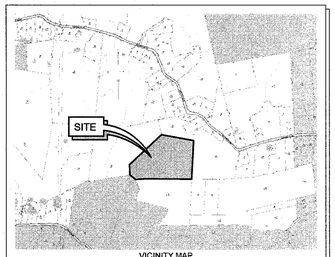
LEGEND:
- PROPERTY LINE
- ABUTTER'S PROPERTY LINE
- TOPOGRAPHIC CONTOUR
- STONE WALL
- TREE LINE
- SHRUB LINE
- WETLANDS LINE
- WETLAND FLAG
- UTILITY POLE
- GUY
- ROCK
- DECIDUOUS TREE
- CONIFER
- BOUND
- DRILL HOLE
- IRON ROD/SPIKE
- SURVEY NAIL

GRAPHIC SCALE
60 0 30 60 120 240
(in feet)
1 INCH = 60'

P:\Projects\2019\19178 ESS - N Smithfield\Drawings\Current\19178_L1b.dwg

NORTHEAST ENGINEERS & CONSULTANTS, INC.
A KNOWLEDGE CORPORATION®
55 JOHN CLARKE ROAD MIDDLETOWN RHODE ISLAND 02842
PHONE (401) 849-0810 FAX (401) 846-4169
WWW.NORTHEASTENGINEERS.COM

SITE/CIVIL
LAND PLANNING
WATERFRONT
SURVEYING
GEOTECHNICAL
ENVIRONMENTAL
TRANSPORTATION
STRUCTURAL
MATERIALS TESTING



VICINITY MAP
NOT TO SCALE

No.	Revision	Date	App.

Designed By: | Drawn by: VAL | Checked by: MST
Scale: 1"=60' | Date: 17DEC2019

Project Title:
A.P. 16, LOTS 18 & 19
IRON MINE HILL ROAD
NORTH SMITHFIELD, RHODE ISLAND

Client/Owner:
ESS GROUP, INC., C/O BARBARA CABRAL
10 HEMINGWAY DR., 2ND FLOOR
EAST PROVIDENCE, RI 02915

Issued for:

Drawing Title:
LIMITED CONTENT BOUNDARY SURVEY
WITH EXISTING CONDITIONS
AND TOPOGRAPHY

12-17-2019

Drawing Number: L-1
Sheet 2 of 2
Project Number: 19178.0
Survey Index: 25 - 16 - 18 & 19

PLOT DATE: 2/12/2019 1:29 PM

GENERATOR OWNED | UTILITY OWNED AND OPERATED

NOTE:
1. PER ESB756D A RELAY ALARM CONTACT SHALL BE INCLUDED AND WIRED TO TRIP THE GENERATOR UNDER 2 SECONDS WHEN THE RELAY FAILS, IS NOT IN SERVICE, OR SUPPLY VOLTAGE TO THE RELAY IS LOST.
2. RECLOSER RECONNECT SHALL ONLY BE ALLOWED AFTER 5 MINUTES OF STABLE GRID CONDITIONS.

CUSTOMER RECLOSER
TAVRIDA OSM25
630A LOAD RATED
15KV CLASS, 16KA SCCR, 95KV BIL

CUSTOMER POLE WITH RECLOSER

(3)100:1 C200 1% ACC
TRIP
52R
LEA CVT (3) 8789.75:1
LEA CVT (3) 8789.75:1
SEE DRAWING 4/E300
(3)SAs 15KV
DAS ENCL / RTU
SEL651R

CUSTOMER POLE WITH METER
CPT5KVA
1E 13.8KV 120V 20A
120VAC
BATTERY UPS 8HR RUN TIME
48VDC
100:1 RF=2.0 @ 30°C 0.3% ACCURACY
120:1
M
SEL 735
(3)SAs 15KV

SOLAR GENERATOR DISCONNECT SWITCH
HUBBELL MODEL D7HS1BLDU
HORIZONTAL POSITION
3PH POLE-MOUNTED
SERVICE ENTRANCE RATED
GANG-OPERATED AIR-BREAK
UTILITY LOCKABLE DISCONNECT
24/7 ACCESS
14.4KV MAX, 900A, 110KV BIL
25KA ASYM

GOAB POLE
(3)SAs 15KV
POINT OF COMMON COUPLING ON UTILITY SIDE OF SOLAR GENERATOR DISCONNECT SWITCH

UTILITY PRIMARY METER CLUSTER
M
NOTE: WIRELESS OR COPPER COMMUNICATION PROVIDED BY THE CUSTOMER

#1/0 ACSR
UTILITY RECLOSER
UTILITY GOAB POLE
(3)SAs 15KV
POI AT EXITING UTILITY POLE, 13.8KV FEEDER
EXISTING UTILITY SERVICE

GENERATOR OWNED | UTILITY OWNED AND OPERATED

[3#1/0 EPR MV105 133% AL – 5" SCH80 PVC] & 1#6 CU

3#2 AL MV-105 133% EPR, CU TAPE SHIELD INCLUDE #6 CU GND (600V) 5" PVC CONDUIT

GROUNDING TRANSFORMER BANK
PAD MOUNTED
FULLY INSULATED NEUTRAL
H0 BUSHING BROUGHT OUT
200KVA
PRI: 13.8Y/7.97KV
42.9 OHMS, 410 NEUTRAL AMPS @ 5 SECONDS
$X_0/R_0=4$, $Z_0\%=4.5\%$

THE GROUNDING TRANSFORMER BANK IS A HARDWIRED DEVICE AND IS THE FIRST TRANSFORMER IN LINE AFTER THE CUSTOMER OWNED RECLOSER ON THE MV CIRCUIT. DISCONNECTION OF ANY PHASE OF THE GROUNDING TRANSFORMER BANK WILL CAUSE THE INVERTER TO TRIP OFF LINE.

SOLAR XFMR
PAD MOUNTED
OIL FILLED KNAN
FULLY INSULATED NEUTRAL
H0 BUSHING BROUGHT OUT
(NOT INTERNALLY GROUNDED)
2750KVA
PRI: 13.8KV
SEC: 600V
Z%=5.75%
X/R=6.6

LOAD BREAK SWITCH 95KV BIL
(3)SAs
EXP
CL
STATIC SHIELDING

BRAIDED BUSS CONNECTION FROM INVERTER TO XFMR. BUSS IS RATED FOR 4000A AT 90°C, 600V, TWO PER EACH PHASE

INVERTER
SMA
SUNNY CENTRAL 2750-EV-US,
THE OUTPUT IS LIMITED TO 2500KW
600VAC, 2646A
1500VDC, NEGATIVELY GROUNDED
LISTED TO UL-1741

DC MOLDED CASE SWITCH
POWER STAGE CABINET
DC GFCI
AC CIRCUIT BREAKER
600VAC, 3ø, 3W
3600A

CABINET WITH DC FUSED DISCONNECTS
400A FUSE (TYP)

INVERTER/XFMR PAD
ARRAY

COMBINER BOX (TYP)
1500VDC
15A FUSES (TYPICAL)
28 INPUTS
1
2
3
23
24
15A
SPD
CB-1
24 STRINGS

CB-2 24 STRINGS
CB-3 24 STRINGS
CB-4 24 STRINGS
CB-12 24 STRINGS
CB-13 24 STRINGS
CB-14 24 STRINGS

INSTALL WITH A 3" DIAMETER LOOP IN COMBINER BOX TO FACILITATE CLAMP METER ACCESS DURING COMMISSIONING. ONLY ENTER BOTTOM OR SIDE OF ENCLOSURE USING HEYCO SOLAR MASTHEAD2 CONNECTOR.

#10 CU PV WIRE 1500V (TYPICAL)
PV MODULES 28 IN SERIES PER STRING
NEGATIVE RUN ALONG WITH THE POSITIVE WIRE, SECURED TO UNDERSIDE OF THE RACKING & MODULES USING CUSHIONED LOOP CLAMPS OR STAINLESS STEEL CLIPS. TRANSITION TO PVC OUTSIDE OF ARRAY.
INSTALL STRING # LABELS (TYPICAL) ON BOTH ENDS OF POSITIVE AND NEGATIVE HOMERUNS USING HEAT SHRINK LABELS SUITABLE FOR THE ENVIRONMENT
FIELD INSTALLED CONNECTOR, 1500V RATED, MATCH MODEL ON MODULE. (TYPICAL 2 PER STRING)

TYPICAL STRING WIRING

SEL-651R

LEA
LEA
27 59 81U
VOLTAGE INPUTS
PWR 48VDC
DC BATTERY UPS

DIGITAL INPUTS
COIL MONITOR
UPS FAILURE
IN1
IN2
5MIN 62
5MIN 2
79
86
DIGITAL OUTPUTS
OUT3
OUT4
OUT1
OUT2
ALARM
CLSE
TRIP
52R
PUSH BUTTON
OPEN
RESET
CLSE
FRONT PLATE
CURRENT INPUTS
50PG
51PG
74
TCP/IP
RJ45
DAS/SCADA
TRIP
CLOSE
RESET
FT-1 CT TS
CT Shorting Block
CT'S

74 ALARM WILL TRIP THE RECLOSER UNDER 2 SECONDS FOR FOLLOWING SCENARIOS
1. PROGRAM FAILURE
2. WATCHDOG TIMER FAILURE
3. CLOCK FAILURE
4. COIL MONITOR
5. UPS ALARM

4 E300 RELAY SCALE: NONE

NOTE: THE INVERTER OUTPUT IS LIMITED TO 2500KVA VIA FACTORY SETTING.

SYSTEM SUMMARY	
DC SYSTEM SIZE	3,393.04 KW
AC SYSTEM SIZE	2,500.00 KW
MODULE QTY	9,296
MODULE TYPE	TRINA SOLAR TSM-DE14A 365W
INVERTER	SMA SC2750-EV-US
INVERTER QTY	1
AZIMUTH/TILT	180° / 20°

SEL-651R							
ANSI ELEMENT #	Pickup	Real	Level	Delay (sec)*	Total Clear Time (sec)	Curve	Description
27	0.79V	7011.3V	88.0%	1.95	2.00		Slow UV
27	0.45V	3983.7V	50.0%	1.05	1.10		Fast UV
59	0.99V	8764.1V	110.0%	1.95	2.00		Slow OV
59	1.08V	9560.9V	120.0%	0.11	0.16		Fast OV
59N	0.11V	1035.7V	13.0%	1.95	2.00		Neutral Shift
81U-1	56.50	56.5Hz	94.3%	0.11	0.16		Fast UF
81U-2	58.50	58.5Hz	97.5%	299.95	300.00		Slow UF
81O-1	62.00	62Hz	103.4%	0.11	0.16		Fast OF
81O-2	61.20	61.2Hz	102.0%	299.95	300.00		Slow OF
51G	0.26A	26.1A	25.0%	1.95	2.00	C3	Timed Ground Overcurrent
79	0.86V	7569V	95.0%	299.95	300.00		Minimum Voltage Value
79	0.95V	8365.8V	105.0%	299.95	300.00		Maximum Voltage Value
79	59.50	59.5Hz	99.2%	299.95	300.00		Minimum Frequency Value
79	60.50	60.5Hz	100.8%	299.95	300.00		Maximum Frequency Value
74				1.90	1.95		Relay Alarm
104.71A USED FOR 50/51 ELEMENTS		7967.4V USED FOR 27/59 ELEMENTS					
CT RATIO FACTOR = 100		LEA RATIO FACTOR = 8789.75					

NOTE:
1. DER MUST CHECK FOR HEALTHY VOLTAGE AND FREQUENCY FOR 5 MINUTES BEFORE INTERCONNECTING PER IEEE 1547
2. THE DER SHALL NOT CONNECT OR RETURN TO SERVICE FOLLOWING A TRIP UNTIL DETECTING 5 MINUTES OF HEALTHY UTILITY VOLTAGE AND FREQUENCY AS DEFINED IN ESB756D TABLE 7.8.3-1.
3. RELAY WILL TRIP THE CUSTOMER RECLOSER ON LOSS OF DC POWER, HARDWARE FAULT AND PROGRAM FAULT UNDER 2 SECONDS.

2 E300 RELAY SETTINGS SCALE: NONE

INVERTER UL1741-SA Compliant							
ANSI ELEMENT #	Pickup	Real	Level		Total Clear Time (sec)	Curve	Description
27	304.83	304.832V	88.0%		2.00		Slow UV
27	173.20	173.2V	50.0%		1.10		Fast UV
59	381.04	381.04V	110.0%		2.00		Slow OV
59	415.68	415.68V	120.0%		0.16		Fast OV
81U-1	56.50	56.5Hz	94.3%		0.16		Fast UF
81U-2	58.50	58.5Hz	97.5%		300.00		Slow UF
81O-1	62.00	62Hz	103.4%		0.16		Fast OF
81O-2	61.20	61.2Hz	102.0%		300.00		Slow OF
PF Set Point		1.00					Power Factor Control
Var Control		OFF					Reactive Power Control
Ramp Rate		10%/1 sec					dkw / dt
Freq Control		OFF					Speed Control
Restart Delay	Inverter will wait for 5 minutes before restart once utility service is detected.						
Factory Settings							

3 E300 INVERTER SETTINGS SCALE: NONE

1 E300 ONE LINE DIAGRAM SCALE: NONE

RULER IN INCHES: 0 ½ 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18

DATE	REVISION DESCRIPTION	PM	ENG	CHK
02/12/2019	IC DOCS REV. 2	BX	RI	RI
12/19/2018	IC DOCS REV1	BX	RI	RI
09/11/2018	INTERCONNECTION DOCUMENTS	BX	RI	RI

PURE POWER ENGINEERING
5 MARINE VIEW PLAZA HOBOKEN, NJ
WWW.PUREPOWER.COM
RICHARD A. IVINS
RI LICENSE No. 10105

RICHARD A. IVINS — No. 10105 — REGISTERED PROFESSIONAL ENGINEER — STATE OF RHODE ISLAND

DEVELOPER
PINE GATE RENEWBLES, LLC.
1111 HAWTHORNE LANE, STE. 201
CHARLOTTE, NORTH CAROLINA 28205
WWW.PGRENEWABLES.COM
PINEGATE RENEWABLES

PAGE SIZE: 36" x 24"
PROJECT #: PPE 18.563.5

DC SYSTEM SIZE: 3.39 MW
AC SYSTEM SIZE: 2.50 MW
MODULE: TRINA DE14A(ii) 365W
MODULE QUANTITY: 9,296
STRING QUANTITY: 332
ORIENTATION: 20° TILT, 180° AZIMUTH

PROJECT: 3.39 MW SOLAR GROUND MOUNT SYSTEM AT ISLANDER SOLAR 41.952577, -71.521073 NORTH SMITHFIELD, RI 02896

DRAWING TITLE: ONE LINE DIAGRAM

OF –

DRAWING # E300