BERGMANN
ARCHITECTS ENGINEERS PLANNERS

280 East Broad Street // Suite 200 // Rochester, NY 14604
585.232.5135 / 585.232.4652 fax

www.bergmannpc.com

OWNER: JUSTIN, ALLISON, & BONNIE SNYDER
APPLICANT: DELAWARE RIVER SOLAR, LLC. AND ITS AFFILIATE: NY ALFRED I, LLC.

5568 JERICHO HILL ROAD
ALFRED, NY 14803

NY ALFRED I, LLC. COMMUNITY SOLAR FARM PROJECT PRELIMINARY SITE PLAN

PROJECT CONTACT LIST

OWNER:
- JUSTIN, ALLISON, & BONNIE SNYDER
- 5568 JERICHO HILL ROAD
ALFRED, NY 14803

APPLICANT:
- DELAWARE RIVER SOLAR, LLC.
AND ITS AFFILIATE:
NY ALFRED I, LLC.
- 140 EAST 45TH STREET
SUITE 32B-1
NEW YORK, NY 10017
- CONTACT: PETER DOLGOS
- PHONE: 646.998.6495

STRUCTURAL ENGINEER:
- TBD

ARCHITECT:
- TBD

MECHANICAL ENGINEER:
- TBD

CIVIL ENGINEER:
- BERGMANN
- 280 EAST BROAD STREET
SUITE 200
ROCHESTER, NY 14604
- CONTACT: DAVID PLANTE
- PHONE: 585.498.7877

ELECTRICAL ENGINEER:
- TBD

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DATE	DESCRIPTION
07/01/2021	REVISED PER TOWN COMMENTS
09/03/2021	REVISED PER TOWN COMMENTS
10/11/2021	REVISED PER TOWN COMMENTS

PROJECT LOCATION MAP: 1" - 1000'

PROJECT TOPOGRAPHIC MAP: 1" - 1000'

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PRELIMINARY
05/28/21
012773.46

SEQUENCE OF CONSTRUCTION:

1. PRE-CONSTRUCTION MEETING HELD TO INCLUDE PROJECT MANAGER, OPERATOR'S ENGINEER, CONTRACTOR, AND SUB-CONTRACTORS PRIOR TO LAND DISTURBING ACTIVITIES.
2. CONSTRUCT CONSTRUCTION ENTRANCE/EXIT AT LOCATIONS DESIGNATED ON PLANS.
3. INSTALL PERIMETER SILT SOCK.
4. HAVE A QUALIFIED PROFESSIONAL CONDUCT AN ASSESSMENT OF THE SITE PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
5. BEGIN CLEARING AND GRUBBING OPERATIONS. CLEARING AND GRUBBING SHALL BE DONE ONLY IN AREAS WHERE EARTHWORK WILL BE PERFORMED AND ONLY IN AREAS WHERE CONSTRUCTION IS PLANNED TO COMMENCE WITHIN 14 DAYS AFTER CLEARING AND GRUBBING. NO MORE THAN 5 ACRES WILL BE DISTURBED AT ANY ONE GIVEN TIME.
6. STRIP TOPSOIL AND STOCKPILE IN A LOCATION ACCEPTABLE TO CONSTRUCTION MANAGER. WHEN STOCKPILE IS COMPLETE, INSTALL PERIMETER SILT FENCE, SEED SURFACE WITH 100% PERENNIAL RYEGRASS MIXTURE AT A RATE OF 2-4 LBS. PER 1000 SF. APPLY 90-100 LBS PER 1000 SF OF MULCH.
7. COMMENCE EARTHWORK CUT AND FILLS. THE WORK SHALL BE PROGRESSED TO ALLOW A REASONABLE TRANSFER OF CUT AND FILL EARTH FOR ROUGH GRADING AND EARTH MOVING. THE CONTRACTOR WILL BE GIVEN SOME LATITUDE TO VARY FROM THE FOLLOWING SCHEDULE IN ORDER TO MEET THE FIELD CONDITIONS ENCOUNTERED. CONTRACTOR SHALL REVIEW VARIATIONS TO SWPPP WITH DESIGN ENGINEER AND QUALIFIED PROFESSIONAL PRIOR TO IMPLEMENTATION. NO MORE THAN 5 ACRES WILL BE DISTURBED AT ANY ONE GIVEN TIME.
8. INSTALL TEMPORARY CONSTRUCTION ROAD, AS NEEDED, AND IMMEDIATELY STABILIZE WITH CRUSHED STONE (OR EQUIVALENT) TO PREVENT EROSION AS SOON AS PRACTICABLE.
9. STABILIZE ALL AREAS AS SOON AS PRACTICABLE, IDLE IN EXCESS OF 7 DAYS AND IN WHICH CONSTRUCTION WILL NO RECOMMENCE WITHIN 14 DAYS.
10. INSTALL PERIMETER FENCE, SOLAR PANELS, UTILITIES, AND APPURTENANCES. TRENCH EXCAVATION/BACKFILL AREAS SHOULD BE STABILIZED PROGRESSIVELY AT THE END OF EACH WORKDAY WITH SEED AND STRAW MULCH AT A RATE OF 100% PERENNIAL RYE GRASS AT 2-4 LBS./1000 SF MULCHED AT 90-100 LBS./1000 SF.
11. STABILIZE ALL AREAS IDLE IN EXCESS OF 7 DAYS IN WHICH CONSTRUCTION WILL NOT RECOMMENCE WITHIN 14 DAYS.
12. REMOVE TEMPORARY CONSTRUCTION EXIT(S) AND PERIMETER SILT SOCK ONCE THE SITE HAS REACHED 80% UNIFORM STABILIZATION.
13. REMOVE TEMPORARY CONSTRUCTION ROAD AND CONSTRUCT THE PROPOSED LIMITED-USE PERVIOUS GRAVEL DRIVEWAY. THE SUB-GRADE MATERIAL WHERE THE DRIVEWAY IS TO BE INSTALLED SHALL BE DECOMPACTED PER NYSDEC'S "DEEP-RIPPING AND DECOMPACTION" MANUAL, DATED APRIL 2008. CONTRACTOR SHALL AVOID FREQUENT HEAVY TRAFFIC ON THE LIMITED-USE PERVIOUS GRAVEL.

GENERAL NOTES:

1. THE UNDERGROUND STRUCTURES AND UTILITIES SHOWN ON THIS MAP HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS AND RECORD MAPS, THEY ARE NOT CERTIFIED TO THE ACCURACY OF THEIR LOCATION AND/OR COMPLETENESS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE LOCATION AND EXTENT OF ALL UNDERGROUND STRUCTURES AND UTILITIES PRIOR TO ANY DIGGING OR CONSTRUCTION ACTIVITIES IN THEIR VICINITY. THE CONTRACTOR SHALL HAVE ALL EXISTING UTILITIES FIELD STAKED BEFORE STARTING WORK BY CALLING 1-800-962-7962.
2. THE CONTRACTOR SHALL PERFORM ALL WORK IN COMPLIANCE WITH TITLE 29 OF FEDERAL REGULATIONS, PART 1926, SAFETY AND HEALTH REGULATIONS FOR CONSTRUCTION (OSHA).
3. HIGHWAY DRAINAGE ALONG ALL ROADS AND PRIVATE DRIVES SHALL BE KEPT CLEAN OF MUD, DEBRIS ETC. AT ALL TIMES.
4. THE CONTRACTOR SHALL CONSULT THE DESIGN ENGINEER BEFORE DEVIATING FROM THESE PLANS.
5. IN ALL TRENCH EXCAVATIONS, CONTRACTOR MUST LAY THE TRENCH SIDE SLOPES BACK TO A SAFE SLOPE, USE A TRENCH SHIELD OR PROVIDE SHEETING AND BRACING.
6. IF SUSPICIOUS AND/OR HAZARDOUS MATERIAL IS ENCOUNTERED DURING DEMOLITION/CONSTRUCTION, ALL WORK SHALL STOP AND THE ALLEGANY COUNTY DEPARTMENT OF HEALTH AND THE NEW YORK STATE DEPARTMENT OF CONSERVATION SHALL BE NOTIFIED IMMEDIATELY. WORK SHALL NOT RESUME UNTIL THE DEVELOPER HAS OUTLINED APPROPRIATE ACTION FOR DEALING WITH THE WASTE MATERIAL AND THE DEVELOPMENT PLANS ARE MODIFIED AS MAY BE NECESSARY.
7. EXCAVATED WASTE MATERIAL REMOVED FROM THE SITE SHALL BE PLACED AT A LOCATION ACCEPTABLE TO THE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION.
8. AREAS DISTURBED OR DAMAGED AS PART OF THIS PROJECTS CONSTRUCTION THAT ARE OUTSIDE OF THE PRIMARY WORK AREA SHALL BE RESTORED, AT THE CONTRACTORS EXPENSE, TO THE SATISFACTION OF THE OWNER'S REPRESENTATIVE.
9. UNLESS COVERED BY THE CONTRACT SPECIFICATIONS OR AS NOTED ON THE PLANS, ALL WORK SHALL CONFORM TO THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS DATED MAY 1, 2008 AND ANY SUBSEQUENT APPENDICES.

WASTE/HAZARDOUS MATERIAL PRACTICES:

1. WHENEVER POSSIBLE COVERED TRASH CONTAINERS SHOULD BE USED.
2. DAILY SITE CLEANUP IS REQUIRED TO REDUCE DEBRIS AND POLLUTANTS IN THE ENVIRONMENT.
3. CONTRACTOR SHALL PROVIDE A SAFE STORAGE SPACE FOR ALL PAINTS, STAINS AND SOLVENTS INSIDE A COVERED STORAGE AREA.
4. ALL FUELS, OILS, AND GREASE MUST BE KEPT IN CONTAINERS AT ALL TIMES.

EROSION & SEDIMENT CONTROL NOTES:

1. INSTALL EROSION CONTROL MEASURES AS INDICATED ON THE PLAN PRIOR TO THE START OF ANY EXCAVATION WORK. EROSION CONTROL MEASURES WILL BE IMPLEMENTED IN ACCORDANCE WITH THE NEW YORK STATE GUIDELINES FOR URBAN EROSION SEDIMENT CONTROL MANUAL, NEW YORK STATE HEALTH DEPARTMENT, AND THE GOVERNING MUNICIPAL REQUIREMENTS.
2. REMOVE AND STOCKPILE TOPSOIL AS DIRECTED BY THE CONSTRUCTION MANAGER REPLACE TOPSOIL TO A MINIMUM 4" DEPTH WITH TOPSOIL OR AMENDED SOIL. ALL DISTURBED AREAS TO BE SEEDED TO PROMOTE VEGETATION AS SOON AS PRACTICABLE.
3. IF THE SEASONS PROHIBITS TEMPORARY SEEDING, THE DISTURBED AREAS WILL BE MULCHED WITH STRAW HAY OR EQUIVALENT AND ANCHORED IN ACCORDANCE WITH THE "STANDARDS", NETTING OR LIQUID MULCH BINDER.
4. CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE AND REMOVAL OF TEMPORARY SEDIMENTATION CONTROLS. EROSION CONTROL MEASURES SHALL NOT BE REMOVED BEFORE 80% UNIFORM VEGETATION HAS BEEN ACHIEVED.
5. ALL EROSION CONTROL MEASURES ARE TO BE REPLACED WHENEVER THEY BECOME CLOGGED OR INOPERABLE AND SHALL BE REPLACED AT A MINIMUM OF EVERY 3 MONTHS.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORATION OF TOPSOIL OR AMENDED TO ALL DISTURBED AREAS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN EROSION CONTROL MEASURES AT ALL TIMES.
7. THE CONTRACTOR SHALL DESIGNATE A MEMBER OF HIS/HER FIRM TO BE RESPONSIBLE TO MONITOR EROSION CONTROL, EROSION CONTROL STRUCTURES, TREE PROTECTION AND PRESERVATION THROUGHOUT CONSTRUCTION.
8. ALL DISTURBED AREAS SHALL BE FINISH GRADED TO PROMOTE VEGETATION ON ALL EXPOSED AREAS AS SOON AS PRACTICABLE. STABILIZATION PRACTICES (TEMPORARY/PERMANENT SEEDING, MULCHING, GEOTEXTILES, ETC.) MUST BE IMPLEMENTED WITHIN SEVEN (7) DAYS WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED, AND NOT EXPECTED TO RESUME WITHIN FOURTEEN (14) DAYS.
9. PAVED ROADWAYS MUST BE KEPT CLEAN AT ALL TIMES. ALL CONSTRUCTION DEBRIS AND SEDIMENT SPOILS, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHT-OF-WAYS MUST BE REMOVED IMMEDIATELY.
10. DUST SHALL BE CONTROLLED BY WATERING.
11. ADJOINING PROPERTY SHALL BE PROTECTED FROM EXCAVATION AND FILLING OPERATIONS ON THE PROPOSED SITE.
12. SLOPE TRACKING SHALL BE IMPLEMENTED ON ALL SLOPE 1 ON 3 OR GREATER AT THE END OF EACH WORK DAY AND PRIOR TO FINAL SLOPE GRADING AND STABILIZATION.

SITE STABILIZATION:

1. WHEN FINAL GRADE IS ACHIEVED DURING NON-GERMINATING MONTHS, THE AREA SHOULD BE MULCHED UNTIL THE BEGINNING OF THE NEXT PLANTING SEASON.
2. MULCHES SHOULD BE APPLIED AT THE RATES SHOWN IN THE MULCH APPLICATION RATES TABLE. VERY LITTLE BARE GROUND SHOULD BE VISIBLE THROUGH THE MULCH.
3. STRAW AND HAY MULCH SHOULD BE ANCHORED OR TACKIFIED IMMEDIATELY AFTER APPLICATION TO PREVENT BEING WINDBLOWN. A TRACTOR-DRAWN IMPLEMENT MAY BE USED TO "CRIMP" THE STRAW OR HAY INTO THE SOIL - ABOUT 3 INCHES. THIS METHOD SHOULD BE LIMITED TO SLOPES NO STEEPER THAN 3H:1V. THE MACHINERY SHOULD BE OPERATED ALONG THE CONTOUR. NOTE: CRIMPING OF HAY OR STRAW BY RUNNING OVER IT WITH TRACKED MACHINERY IS NOT RECOMMENDED.
4. BEFORE SEEDING IS APPLIED THE CONTRACTOR SHALL SPREAD SOIL TO PREVENT PONDING AND CONFIRM THAT SOIL WILL SUSTAIN THE SEED GERMINATION AND ESTABLISHMENT OF VEGETATION.
5. GRADED AREAS SHOULD BE SCARIFIED OR OTHERWISE LOOSENED TO A DEPTH OF 3 TO 5 INCHES TO PERMIT BONDING OF THE TOPSOIL TO THE SURFACE AREAS AND TO PROVIDE A ROUGHENED SURFACE TO PREVENT TOPSOIL FROM SLIDING DOWN SLOPE. COMPACTED SOILS SHOULD BE SCARIFIED TO A DEPTH OF 6 TO 12 INCHES, ALONG CONTOUR WHEREVER POSSIBLE, PRIOR TO SEEDING.
6. TOPSOIL OR AMENDED SOIL SHOULD BE UNIFORMLY DISTRIBUTED ACROSS THE DISTURBED AREA TO A MINIMUM DEPTH OF 6 INCHES. SPREADING SHOULD BE DONE IN SUCH A MANNER THAT SODDING OR SEEDING CAN PROCEED WITH A MINIMUM OF ADDITIONAL PREPARATION OR TILLAGE. IRREGULARITIES IN THE SURFACE RESULTING FROM TOPSOIL PLACEMENT SHOULD BE CORRECTED IN ORDER TO PREVENT FORMATION OF DEPRESSIONS.
7. TOPSOIL SHOULD NOT BE PLACED WHILE THE TOPSOIL OR SUBSOIL IS IN A FROZEN OR MUDDY CONDITION, WHEN THE SUBSOIL IS EXCESSIVELY WET, OR IN A CONDITION THAT MAY OTHERWISE BE DETRIMENTAL TO PROPER GRADING AND SEEDBED PREPARATION.
8. WHEN USED AS A MULCH REPLACEMENT, THE APPLICATION RATE (THICKNESS) OF THE COMPOST SHOULD BE ½" TO ¾". COMPOST SHOULD BE PLACED EVENLY AND SHOULD PROVIDE 100% SOIL COVERAGE. NO SOIL SHOULD BE VISIBLE.
9. POLYMERIC AND GUM TACKIFIERS MIXED AND APPLIED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS MAY BE USED TO TACK MULCH. AVOID APPLICATION DURING RAIN AND ON WINDY DAYS. A 24-HOUR CURING PERIOD AND A SOIL TEMPERATURE HIGHER THAN 45° F ARE TYPICALLY REQUIRED. APPLICATION SHOULD GENERALLY BE HEAVIEST AT EDGES OF SEEDED AREAS AND AT CRESTS OF RIDGES AND BANKS TO PREVENT LOSS BY WIND. THE REMAINDER OF THE AREA SHOULD HAVE BINDER APPLIED UNIFORMLY. BINDERS MAY BE APPLIED AFTER MULCH IS SPREAD OR SPRAYED INTO THE MULCH AS IT IS BEING BLOWN ONTO THE SOIL. APPLYING STRAW AND BINDER TOGETHER IS GENERALLY MORE EFFECTIVE.
10. SYNTHETIC BINDERS, OR CHEMICAL BINDERS, MAY BE USED AS RECOMMENDED BY THE MANUFACTURER TO ANCHOR MULCH PROVIDED SUFFICIENT DOCUMENTATION IS PROVIDED TO SHOW THEY ARE NON-TOXIC TO NATIVE PLANT AND ANIMAL SPECIES.
11. MULCH ON SLOPES OF 8% OR STEEPER SHOULD BE HELD IN PLACE WITH NETTING. LIGHTWEIGHT PLASTIC, FIBER, OR PAPER NETS MAY BE STAPLED OVER THE MULCH ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
12. SHREDDED PAPER HYDROMULCH SHOULD NOT BE USED ON SLOPES STEEPER THAN 5%. WOOD FIBER HYDROMULCH MAY BE APPLIED ON STEEPER SLOPES PROVIDED A TACKIFIER IS USED. THE APPLICATION RATE FOR ANY HYDROMULCH SHOULD BE 2,000 LB/ACRE AT A MINIMUM.
13. LIME, FERTILIZER, SEED, AND MULCH DISTURBED AREAS PER THE EROSION AND SEDIMENT CONTROL PLANS. IN AREAS OF STEEP SLOPES OR OBVIOUS AREAS WHERE POTENTIAL EROSION MAY OCCUR, AN EROSION CONTROL MAT OR FLEXIBLE GROWTH MEDIUM (FGM) SHALL BE USED. FGM SHALL BE APPLIED PER MANUFACTURER SPECIFICATIONS.
14. ONCE A SECTION OF THE ALIGNMENT HAS BEEN STABILIZED, NO CONSTRUCTION TRAFFIC SHALL OCCUR TO REMOVE ANY BMPS UNTIL THE SECTION HAS ACHIEVED 80% PERENNIAL VEGETATIVE COVER. AN AREA SHALL BE CONSIDERED TO HAVE ACHIEVED FINAL STABILIZATION WHEN IT HAS A MINIMUM 80% PERENNIAL VEGETATIVE COVER OR OTHER PERMANENT NONVEGETATIVE COVER WITH A DENSITY SUFFICIENT TO RESIST ACCELERATED EROSION AND SUBSURFACE CHARACTERISTICS SUFFICIENT TO RESIST SLIDING OR OTHER MOVEMENTS.

STORMWATER POLLUTION PREVENTION PLAN NOTES:

1. THE CONTRACTOR SHALL PROVIDE A QUALIFIED INSPECTOR TO INSPECT THE PROJECT AT THE END OF EACH WORK WEEK AND PROVIDE A REPORT AT LEAST ONCE PER WEEK.
2. EROSION CONTROL MEASURES WILL BE IMPLEMENTED IN ACCORDANCE WITH THE NEW YORK STATE GUIDELINES FOR URBAN EROSION SEDIMENT CONTROL MANUAL, ALLEGANY COUNTY HEALTH DEPARTMENT, AND THE TOWN OF ALFRED REQUIREMENTS.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE BEST MANAGEMENT PRACTICES (BMP'S) UNTIL GROUND COVER IS ESTABLISHED.
4. REMOVE AND STOCKPILE TOPSOIL AS DIRECTED BY THE CONSTRUCTION MANAGER. REPLACE TOPSOIL TO A MINIMUM 4" DEPTH. ALL DISTURBED AREAS TO BE HYDROSEEDED AS DIRECTED BY THE CONSTRUCTION MANAGER TO PROMOTE VEGETATION AS SOON AS PRACTICABLE.
5. IF THE SEASONS PROHIBIT TEMPORARY SEEDING, THE DISTURBED AREAS WILL BE MULCHED WITH STRAW HAY OR EQUIVALENT AND ANCHORED IN ACCORDANCE WITH THE "STANDARDS", NETTING OR LIQUID MULCH BINDER.
6. CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE AND REMOVAL OF TEMPORARY SEDIMENTATION CONTROLS. EROSION CONTROL MEASURES SHALL NOT BE REMOVED BEFORE 80% UNIFORM VEGETATION HAS BEEN ACHIEVED.
7. ALL EROSION CONTROL MEASURES ARE TO BE REPLACED WHENEVER THEY BECOME CLOGGED OR INOPERABLE AND SHALL BE REPLACED WHEN THEY HAVE REACHED THE DESIGN LIFE INDICATED IN THE NYS GUIDELINES FOR URBAN EROSION SEDIMENT CONTROL DESIGN MANUAL OR EVERY THREE MONTHS.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORATION OF TOPSOIL TO ALL DISTURBED AREAS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN EROSION CONTROL MEASURES AT ALL TIMES.
9. THE CONTRACTOR SHALL DESIGNATE A MEMBER OF HIS/HER FIRM TO BE RESPONSIBLE TO MONITOR EROSION CONTROL AND EROSION CONTROL STRUCTURES THROUGHOUT CONSTRUCTION.
10. ALL DISTURBED AREAS SHALL BE FINISH GRADED TO PROMOTE VEGETATION ON ALL EXPOSED AREAS AS SOON AS PRACTICABLE. STABILIZATION PRACTICES (TEMPORARY/PERMANENT SEEDING, MULCHING, GEOTEXTILES, ETC.) MUST BE IMPLEMENTED WITHIN SEVEN (7) DAYS WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED, AND NOT EXPECTED TO RESUME WITHIN FOURTEEN (14) DAYS.
11. PAVED ROADWAYS MUST BE KEPT CLEAN AT ALL TIMES. ALL CONSTRUCTION DEBRIS AND SEDIMENT SPOILS, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHT-OF-WAYS MUST BE REMOVED IMMEDIATELY.
12. DUST SHALL BE CONTROLLED BY WATERING.
13. ADJOINING PROPERTIES SHALL BE PROTECTED FROM EXCAVATION AND FILLING OPERATIONS ON THE PROPOSED SITE.
14. EROSION CONTROL MEASURES SHOULD BE RELOCATED INWARD AS PERIMETER SLOPE CONSTRUCTION PROGRESSES AND RECONSTRUCTED TO NYS STANDARDS & SPECIFICATION AT THE END OF EACH DAY.
15. PERIMETER AREAS SHALL BE TEMPORARILY STABILIZED WITH SEED AND MULCH PROGRESSIVELY AT MINIMUM AT THE END OF EACH WEEK WITH 100% PERENNIAL RYEGRASS MIX AT A RATE OF 2-4 LBS PER 1000 SF AND MULCH 90-100 LBS PER 1000 SF OF WEED FREE STRAW.
16. SLOPE TRACKING SHALL BE IMPLEMENTED ON ALL SLOPE 1 ON 3 OR GREATER AT THE END OF EACH WORK DAY AND PRIOR TO FINAL SLOPE GRADING AND STABILIZATION.

TABLE 1. NY ALFRED I, LLC. COMMUNITY SOLAR FARM: WETLAND IMPACTS

WETLAND TYPE	JURISDICTION	WETLAND AREA (SQ. FT./AC)	AREA OF IMPACT (SQ. FT./AC)	
			TEMPORARY	PERMANENT
BERGMANN DELINEATED WETLAND 1A - PFO	USACE	2,927 SQ. FT./ 0.067 AC	0 SQ. FT./ 0 AC	0 SQ. FT./ 0 AC
BERGMANN DELINEATED WETLAND 1B - PFO	USACE	5,711 SQ. FT./ 0.13 AC	0 SQ. FT./ 0 AC	0 SQ. FT./ 0 AC
TOTAL	----	8,638 SQ. FT./ 0.19 AC	0 SQ. FT./ 0 AC	0 SQ. FT./ 0 AC

NOTES:
1. PFO - PALUSTRINE FORESTED

TABLE 2. NY ALFRED I, LLC. COMMUNITY SOLAR FARM: STREAM 1 IMPACTS

LINEAR FEET OF IMPACT (FT.)		AREA OF IMPACT (SQ. FT.)	
TEMPORARY	PERMANENT	TEMPORARY	PERMANENT
76	0	151	0

TABLE 3. NY ALFRED I, LLC. COMMUNITY SOLAR FARM: STREAM 2 IMPACTS

LINEAR FEET OF IMPACT (FT.)		AREA OF IMPACT (SQ. FT.)	
TEMPORARY	PERMANENT	TEMPORARY	PERMANENT
27	0	54	0

TABLE 4. NY ALFRED I, LLC. COMMUNITY SOLAR FARM: STREAM 3 IMPACTS

LINEAR FEET OF IMPACT (FT.)		AREA OF IMPACT (SQ. FT.)	
TEMPORARY	PERMANENT	TEMPORARY	PERMANENT
0	0	0	0

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Project Manager	Discipline Lead
DJP	DJP
Designer	Reviewer
JL	ECR
Date Issued	Project Number
05/28/2021	12773.46

Sheet Name

GENERAL NOTES

Drawing Number

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SOW SUMMARY:

1. THE PROJECT CONSISTS IN THE INSTALLATION OF A SOLAR PROJECT SYSTEM. THE SOLAR PROJECT SYSTEM WILL OPERATE WITH CRYSTALLINE MODULES INSTALLED ON GROUND MOUNT FIXED TILT RACKING SYSTEM. PV DIRECT CURRENT POWER WILL BE TURNED TO AC POWER BY MEANS OF GRID TIES INVERTER.
2. INVERTER OUTPUT TO BE STEPPED TO UTILITY VOLTAGE VIA CUSTOMER OWNED TRANSFORMER AT EQUIPMENT PAD.

RACKING SYSTEM ISSUES:

1. PV MODULES WILL BE SUPPORTED BY A FIXED STRUCTURE.
2. THE FIXED STRUCTURE SHALL MEET THE DEAD LOAD, WIND LOAD AND SEISMIC STANDARDS. STRUCTURAL STABILITY AND THE MEANS OF ATTACHMENT WILL BE CERTIFIED BY A LICENSED ENGINEER.
3. SEE RACKING DRAWINGS FOR MORE DETAILS AND SPECIFICATIONS.

SIGNS AND LABELING:

1. ACCORDING TO NEC ARTICLE 690.56, GRID-TIED SYSTEMS ARE REQUIRED TO HAVE PERMANENT PLAQUES OR DIRECTIONS.
2. THE AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI) Z535 SERIES AND OSHA STANDARD 1910.145 OFFER THE LABELING GUIDELINES FOR A PV SYSTEM.
3. REQUIRED SAFETY SIGNS AND LABELS SHALL BE ETCHED PLACARDS PERMANENTLY ATTACHED BY ADHESIVE, OR OTHER MECHANICAL MEANS. LABELS SHALL COMPLY WITH ARTICLE 690 OF THE NEC OR OTHER APPLICABLE STATE AND LOCAL CODES. SEE LABELS AND MARKING DRAWINGS FOR MORE INFORMATION.
4. ALL INTERACTIVE SYSTEM POINTS OF INTERCONNECTION WITH OTHER SOURCES SHALL BE MARKED AT AN ACCESSIBLE LOCATION AT THE DISCONNECTION MEANS.
5. A PERMANENT ETCHED PLAQUE OR DIRECTORY SHALL BE PROVIDED IDENTIFYING THE LOCATION OF THE SERVICE DISCONNECTION MEANS AND THE PHOTOVOLTAIC SYSTEM DISCONNECTION MEANS, IF NOT LOCATED AT THE SAME LOCATION.
6. ALL REQUIRED EQUIPMENT SHALL BE NRTL LISTED AND LABEL ACCORDINGLY.

WIRING SPECIFICATIONS:

1. ALL WIRING DESIGN AND INSTALLATION PROCEDURES SHALL BE NATIONAL ELECTRIC CODE COMPLIANT, LOCAL STATE CODES, AND OTHER APPLICABLE LOCAL CODES.
2. ALL WIRING OF A PV SYSTEM SHOULD BE DONE BY A PROFESSIONAL ELECTRICIAN WHO KNOWS HOW TO INSTALL THE VARIOUS WIRING METHODS ALLOWED TO USE WITH A PV SYSTEM.
3. ALL CONDUCTORS SHALL BE COPPER OR ALUMINUM INSULATED SINGLE CONDUCTOR, SUNLIGHT-RESISTANT, DIRECT BURIAL PHOTOVOLTAIC WIRE WET OR DRY, FOR INTERCONNECTION WIRING OR GROUNDED AND UNGROUNDED PHOTOVOLTAIC POWER SYSTEMS AS DESCRIBED IN SECTION 690.31(A) AND OTHER APPLICABLE PARTS OF THE NATIONAL ELECTRICAL CODE (NEC), NFPA 70.
4. WIRING SHALL MEET ALL THE INDUSTRY COMPLIANCES, TESTS AND EPA AND OSHA REGULATIONS.
5. EXPOSED PV SOLAR MODULE WIRING WILL BE PV WIRE OR APPROVED EQUIVALENT, 90 DEGREE C, WET RATED AND UV RESISTANT.
6. DC WIRING SHALL BE FLAME-RETARDANT CROSS-LINKED POLYETHYLENE (XLPE).
7. ALL EXPOSED CABLES, SUCH AS MODULE LEADS SHALL BE SECURED BY CORROSION AND SUNLIGHT RESISTANT MECHANICAL MEANS APPROPRIATE FOR THE SITE CONDITIONS. THE USE OF PLASTIC ZIP TIES IS NOT AN APPROVED METHOD SUPPORT OR ATTACH WIRE TO A STRUCTURE.
8. WIRING COLOR SPECIFICATIONS:

DC CONDUCTORS	
POLE/LINE	COLOR CODE
POSITIVE	
NEGATIVE	
EARTH	

AC CONDUCTORS 120/208 V	
POLE/LINE	COLOR CODE
L1	
L2	
L3	
NEUTRAL	
EARTH	

AC CONDUCTORS 277/480 V	
POLE/LINE	COLOR CODE
L1	
L2	
L3	
NEUTRAL	
EARTH	

DISCONNECTING MANNERS:

1. DISCONNECTION OF ALL CURRENT CARRYING CONDUCTORS OF THE PHOTOVOLTAIC POWER SOURCE FROM ALL OTHER EXISTING CONDUCTORS SHALL BE POSSIBLE.
2. GROUND-MOUNTED PV ARRAYS WITH NOT MORE THAN TWO PARALLELED SOURCE CIRCUITS AND WITH ALL DC SOURCE AND DC OUTPUT CIRCUITS ISOLATED FROM BUILDINGS SHALL BE PERMITTED WITHOUT GROUND-FAULT PROTECTION.
3. WHERE A CIRCUIT GROUNDING CONNECTION IS NOT DESIGNED TO BE AUTOMATICALLY INTERRUPTED AS PART OF THE GROUND-FAULT PROTECTION SYSTEM REQUIRED BY SECTION 690.5, A SWITCH OR CIRCUIT BREAKER USED AS A DISCONNECTING MEANS SHALL NOT HAVE A POLE IN THE GROUNDED CONDUCTOR.
4. THE GROUNDED CONDUCTOR MAY HAVE A BOLTED OR TERMINAL DISCONNECTING MEANS TO ALLOW MAINTENANCE OR TROUBLESHOOTING BY QUALIFIED PERSONNEL.
5. UNLESS DISCONNECT IS SERVICING A LINE-SIDE TAP, THE DISCONNECTING MEANS SHALL NOT BE REQUIRED TO BE SUITABLE AS SERVICE EQUIPMENT AND SHALL BE RATED IN ACCORDANCE WITH SECTION 690.17.
6. OCPD EQUIPMENT FOR PHOTOVOLTAIC DC CIRCUITS ARE OVER CURRENT DEVICES SUCH AS FUSES OR CIRCUIT BREAKERS.
7. MEANS SHALL BE PROVIDED TO DISCONNECT EQUIPMENT SUCH AS INVERTERS AND THE LIKE FROM ALL UNGROUNDED CONDUCTORS OF ALL SOURCES. IF THE EQUIPMENT IS ENERGIZED FROM MORE THAN ONE SOURCE, THE DISCONNECTING MEANS SHALL BE GROUPED AND IDENTIFIED.
8. A SINGLE DISCONNECTING MEANS SHALL BE PERMITTED FOR THE COMBINED AC OUTPUT OF ONE OR MORE INVERTERS IN AN INTERACTIVE SYSTEM - PROVIDED EACH INVERTER ASSOCIATED WITH THE DISCONNECT HAS ITS OWN INTERNAL AC DISCONNECT.
9. ALL DISCONNECTS AND COMBINERS SHALL BE SECURED FROM UNAUTHORIZED AND UNQUALIFIED PERSONNEL BY EITHER LOCK OR LOCATION.

EQUIPMENT LISTINGS:

1. ELECTRICAL EQUIPMENT USED IN THE PV SYSTEM SHALL BE LISTED BY A RECOGNIZED NRTL. ELECTRICAL COMPONENTS AND MATERIALS SHALL BE LISTED FOR ITS PURPOSE AND PROPERLY INSTALLED.
2. EQUIPMENT SHALL ACHIEVE THE NEMA 3R OR HIGHER VALUE.

SYSTEM INTERCONNECTION REQUIREMENTS:

1. THIS PROPOSED PV SYSTEM WILL OPERATE IN PARALLEL WITH THE UTILITY SERVICE PROVIDER POWER DISTRIBUTION CIRCUIT LINES.
2. THIS PV SYSTEM WILL CONNECT WITH THE EXISTING ELECTRICAL SYSTEM AT ONE LOCATION SPECIFIED BY THE LOCAL UTILITY NAMED POINT OF COMMON COUPLING (PCC).
3. INTERCONNECTION IS UTILITY DIRECT TIE IN AT PONE ADJACENT TO THE SOLAR ARRAY.
4. PERMISSION TO OPERATE THE SYSTEM IS NOT AUTHORIZED UNTIL THE FINAL INSPECTIONS AND APPROVALS ARE OBTAINED FROM THE LOCAL AUTHORITY HAVING JURISDICTION (AHJ) AND THE LOCAL UTILITY SERVICE PROVIDER (NYSEG).
5. ALL SOURCE CIRCUITS SHALL HAVE INDIVIDUAL SOURCE CIRCUIT PROTECTION FOR TESTING AND ISOLATION.
6. PV STRING HOME RUNS SHALL BE LABELED ON BOTH ENDS, AT ARRAY, BETWEEN ARRAY AND PARALLEL HARNESS AND AT COMBINER. COMBINER OUTPUT CONDUCTORS SHALL BE LABELED AT BOTH ENDS, AT COMBINER AND AT DISCONNECT.
7. PV SOURCE CIRCUITS AND PV OUTPUT CIRCUITS SHALL NOT BE CONTAINED IN THE SAME RACEWAY CABLE TRAY, CABLE, OUTLET BOX, JUNCTION BOX, OR SIMILAR FITTING AS FEEDERS OR BRANCH CIRCUITS OF OTHER SYSTEMS UNLESS THE CONDUCTORS OF THE DIFFERENT SYSTEMS ARE SEPARATED BY A PARTITION OR ARE CONNECTED TOGETHER.
8. PVC CONDUIT INSTALLED IN DIRECT SUNLIGHT SHALL BE MARKED AS UV RESISTANT. SCH 80 WILL BE USED FOR ABOVE GROUND PVC CONDUIT.
9. LONG STRAIGHT EXPOSED CONDUIT RUNS, 100 FEET OR MORE, SHALL HAVE EXPANSION FITTINGS INSTALLED PER NEC 300.7(B). EXPANSION FITTINGS SHALL ALSO BE USED WHEN CONDUIT SPANS AN EXPANSION JOINT.
10. FUSES AND WIRES SUBJECT TO TRANSFORMER INRUSH CURRENT SHALL BE SIZED ACCORDINGLY.
11. WHEN TRANSITIONING UNDERGROUND PVC CONDUIT TO ABOVE GROUND RMC, IMC OR EMT CONDUIT, USE 20 MIL PIPE WRAP TAPE HALF-LAPPED FROM 6" PAST TRANSITION POINT ON PVC TO 6" ABOVE GROUND CONDUIT. AN EXPANSION JOINT SHALL BE USED IN THE TRANSITION TO ABOVE GROUND CONDUIT WHERE REQUIRED BY THE NEC 300.5(J).
12. ANY METAL SHAVINGS RESULTING FROM SITE WORK SHALL BE CLEANED FROM ENCLOSURE INTERIORS, TOP SURFACES OF ENCLOSURE, ROOF SURFACE, AND ANY ADDITIONAL AREAS WHERE OXIDATION OR CONDUCTIVE METAL SHAVINGS MAY CAUSE RUST, ELECTRICAL SHORT CIRCUIT OR OTHER DAMAGE.
13. WHEN TRANSITIONING FROM FREE AIR TO CONDUCTORS IN CONDUIT A LISTED FITTING SHALL BE USED TO PREVENT THE ENTRY OF MOISTURE.
14. ALL COPPER TERMINATION AC AND DC SHALL HAVE KOPR-SHIELD APPLIE. IN CASE OF ALUMINUM TERMINATION, ALMA-SHIELD (OR SIMILAR) SHALL BE USED.
15. INSULATION RESISTANCE TESTING WILL BE PERFORMED AT 1500 VDC FOR DC CIRCUITS IN 1500 VDC SYSTEMS. A MINIMUM OF 1 MEGOHMS RESISTANCE TO GROUND IS REQUIRED.
16. BENDS SHALL NOT DAMAGE THE RACEWAY OR SIGNIFICANTLY CHANGE THE INTERNAL DIAMETER OF RACEWAY.
17. SUPPORT CONDUCTORS IN VERTICAL CONDUITS IN ACCORDANCE WITH THE REQUIREMENT OF NEC 300.19.
18. CONNECTORS TO BE TORQUED PER DEVICE LISTING, OR MANUFACTURERS RECOMMENDATIONS. CONNECTORS ARE TO BE MARKED WITH PREEMINENT MARKING PAINT, AFTER TORQUING.
19. SPLICES/CONNECTORS AND PARALLEL HARNESS SHALL BE INSULATED AND WILL REQUIRE PROJECT ENGINEER APPROVAL.
20. NRTL LISTED ELECTRICAL TAPE ALONE IS NOT SUITABLE AS THE ONLY INSULATION MEANS. FOLLOW MANUFACTURERS INSTRUCTIONS FOR INSTALLATION, AND APPLICATION OF INSULATING PRODUCT.
21. ALL LV AC WIRING SHALL BE TYPE XHHW-2 RATED AT 90 DEGREES C. THIS NOTE WILL BE SUPERCEDED BY ANY INVERTER SPECIFICATIONS REQUIRING LV AC WIRE TO MEET HIGHER VOLTAGE OR INSULATION STANDARDS.
22. USE MYERS (OR EQUIVALENT) HUB LISTED TO PROVIDE MOISTURE PROTECTION FOR CONDUIT ENTRANCES IN ALL APPLICABLE DAMP OR WET LOCATIONS AS REQUIRED BY NEC 314.15.
23. PROTECT WIRE FROM SHARP EDGES WITH UV RATED SPIRAL WRAP, EDGEGUARD, OR SPLIT LOOM.
24. MODULE LEAD CONNECTORS SHALL BE INSTALLED SUCH THAT THEY ARE EASILY ACCESSIBLE AND PROTECTED FROM EXPOSURE TO DIRECT SUNLIGHT OR RAIN, THEY SHALL NOT BE INSTALLED WITHIN TUBING, CONDUIT OR MODULE GAPS.
25. MV WIRING SHALL BE ALUMINUM. VOLTAGE RATING SHALL BE EQUAL OR HIGHER THAN THE OPERATING VOLTAGE OF THE CIRCUIT LINE. NEC, UL, IEEE AND OTHER COMPLIANCES ARE NEEDED. AT LEAST RATED 90° FOR CONTINUOUS OPERATION AND SUNLIGHT RESISTANT. PRIMARY DISTRIBUTION CABLES ARE SUITABLE FOR USE ABOVE GROUND IN OPEN AIR, IN CABLE TRAY, IN CONDUIT IN AIR, AND EITHER DIRECTLY BURIED OR IN DUCT.
26. MV WIRING GROUND CONDUCTOR (IF NEEDED) SHALL BE SIZED ACCORDING TO PHASE CONDUCTORS.

INVERTER NOTES:

1. OPEN SKID PLATFORM INTEGRATES ALL THE COMPONENTS IN A COMPACT OUTDOOR ASSEMBLY.
2. RECOMBINER BOX CONFIGURATION AND FUSES DEPENDS ON THE DC OUTPUT CIRCUITS PARAMETERS.
3. CONDUITS AND CONDUCTORS: ALL INTERCONNECT WIRING AND POWER CONDUCTORS INTERFACING THE UNIT MUST BE IN ACCORDANCE WITH THE NEC ANSI/NFPA 70 AND ANY APPLICABLE LOCAL CODES. LARGE GAUGE WIRE MUST CONFORM TO THE MINIMUM BEND RADIUS SPECIFIED IN THE NEC, ARTICLE 300.34, NINTH EDITION.
4. KEEP ALL WIRE BUNDLES AWAY FROM ANY SHARP EDGES TO AVOID DAMAGE TO WIRE INSULATION. ALL CONDUCTORS SHOULD BE RATED FOR 90 DEGREE C MINIMUM.
5. FOR OUTDOOR INSTALLATIONS, ALL INTERCONNECT CONDUITS AND FITTINGS MUST BE NEMA-4 RATED AS REQUIRED BY THE NEC. FOR WIRE GAUGE, BOLT SIZE, AND TORQUE VALUES FOR THE DC & AC TERMINALS, SEE THE INSTALLATION MANUAL.
6. OPERATOR INTERFACE CONTROLS: OPERATOR INTERFACE CONTROLS ARE LOCATED ON THE FRONT OF THE MAIN INVERTER ENCLOSURE. CONSULT THE OPERATIONS AND MAINTENANCE MANUAL FOR INSTRUCTION AND CODE REFERENCES.
7. INVERTER COMES WITH INTERNAL AC DISCONNECTING UNIT AND A DC DISCONNECTING UNIT. THESE DISCONNECT SWITCHES ARE TO BE USED FOR ISOLATING THE SOLAR ARRAY PANELS FROM THE UNIT FOR MAINTENANCE PURPOSES.
8. INVERTERS ARE EQUIPPED WITH ANTI-ISLANDING CIRCUITRY. THE ANTI-ISLANDING TRIP TIME IS LESS THAN TWO (2) SECONDS AS PER UL 1741 STANDARDS. THE INVERTER UNIT WILL AUTOMATICALLY SHUT DOWN WHEN LOSS OF GRID POWER IS DETECTED.
9. THE MV PADMOUNT TRANSFORMER INCLUDES MV SWITCHGEAR ENCLOSURE FOR THE MV OUTPUT TO UTILITY.
10. THE PV SYSTEM SHOULD BE SOLIDLY SYSTEM-GROUNDED. TO ACHIEVE THAT THE NEGATIVE CONDUCTOR IS GROUNDED VIA THE GFDI IN THE PV INVERTER DC ENTRANCE. PHOTOVOLTAIC INVERTERS SHALL BE EQUIPPED WITH DC GROUND FAULT PROTECTION TO REDUCE FIRE HAZARDS.

GROUNDING SPECIFICATIONS:

1. GROUNDING METHOD: A GROUND RING THROUGH TRENCH THE SYSTEM, IN DIRECT CONTACT WITH THE EARTH, CONSISTING OF AT LEAST 328 FT, OF BARE COPPER CONDUCTOR NOT SMALLER THAN 1/0 AWG, SEE ELECTRICAL DIAGRAM AND ELECTRICAL DETAILS FOR MORE GROUNDING INFORMATION.
2. EARTH RESISTANCE VALUE DEPENDS ON THE SURFACE RESISTIVITY AND THE GROUNDING METHOD USED. THE FINAL VALUE CHECK ON SITE MUST BE <5 OHMS.
3. SYSTEM TO BE BONDED AND GROUNDED IN ACCORDANCE WITH ARTICLES 250 AND 690 OF NEC.
4. EQUIPMENT GROUNDING CONDUCTORS (EGC) SMALLER THAN #4 AWG SHALL BE BARE OR HAVE CONTINUOUS GREEN INSULATION. EGC'S LARGER THAN OR EQUAL TO #4 AWG SHALL BE MARKED AS EGC (GREEN) WHEREVER ACCESSIBLE.
5. EQUIPMENT GROUNDING CONDUCTORS (EGC) SHALL BE SIZED ACCORDING TO 250.122.
6. AC AND DC GROUNDING CIRCUIT SHALL BE REFERENCED TO THE SAME POINT.
7. EQUIPMENT GROUNDING CONDUCTORS AND SYSTEM GROUNDING CONDUCTORS WILL HAVE THE SHORTEST DISTANCE TO GROUND AS POSSIBLE AND A MINIMUM NUMBER OF TURNS.
8. NON-CURRENT CARRYING METAL PARTS SHALL BE CHECKED FOR PROPER GROUNDING; NOTING THAT TERMINAL LUGS BOLTED ON AN ENCLOSURE'S FINISHED SURFACE MAY BE INSULATED BECAUSE OF PAINT/FINISH. PAINT/FINISH AT POINT OF CONTACT SHALL BE PROPERLY REMOVED.

GROUNDING SPECIFICATIONS (CONTINUED):

9. RACKING COMPONENTS AND STRUCTURAL SUPPORTS MUST BE ELECTRICALLY BONDED TOGETHER BY AN ACCEPTABLE MEANS FOR UL 2703 COMPLIANCE. MODULES SHALL BE BONDED TO A LOCATION APPROVED BY THE MANUFACTURER WITH A MEANS OF BONDING LISTED FOR THIS PURPOSE. IT WILL BE ACCORDING TO RACKING MANUFACTURER BEST PRACTICES.
10. THE CONNECTION TO THE MODULE OR PANEL OF THIS PROPOSED SOLAR ELECTRIC SYSTEM SHALL BE SO ARRANGED THAT REMOVAL OF A MODULE OR A PANEL FROM THE PHOTOVOLTAIC SOURCE CIRCUIT DOES NOT INTERRUPT A GROUNDED CONDUCTOR TO ANOTHER PHOTOVOLTAIC SOURCE CIRCUIT.
11. GROUNDING SYSTEM COMPONENTS SHALL BE LISTED FOR THEIR PURPOSE, INCLUDING BUT NOT LIMITED TO GROUNDS RODS, GROUNDING LUGS, GROUNDING CLAMPS, ECT.
12. ALL GROUNDING CONNECTIONS SHALL BE RATED FOR DIRECT BURIAL (DB RATED), CONTRACTOR IS TO SUPPLY DOCUMENTATION PROVING THIS DURING PRODUCT SUBMITTALS.
13. ALL EQUIPMENT GROUNDING CONDUCTORS INSTALLED SHALL BE COPPER ONLY.

HEALTH AND SAFETY ISSUES:

1. THE CONTRACTOR SHALL MAKE EFFORT TO PRODUCE AS LITTLE DISTURBANCE TO THE FACILITY DURING CONSTRUCTION. AFFECTED AREAS SHALL BE RETURNED TO THEIR PRE-CONSTRUCTION CONDITION.
2. CONTRACTORS MUST COMPLY WITH FEDERAL, STATE, AND LOCAL REGULATIONS RELATED TO THE ENVIRONMENT.
3. ALL WORK MUST COMPLY WITH THEIR SAFETY MANUALS, OSHA REQUIREMENTS AND STANDARDS.
4. THE CONTRACTOR IS RESPONSIBLE FOR THE SAFETY OF ON-SITE PERSONNEL. AN UNSAFE CONDITION IS A REASON FOR STOPPING THE WORK. ACCIDENT REPORT FORMS (OSHA FORM 301 OR 300) WILL BE SUBMITTED FOR EACH REPORTABLE OCCUPATIONAL INJURY, ILLNESS, OR LOST TIME ACCIDENT. THE CONTRACTOR IS RESPONSIBLE FOR NOTIFYING OSHA IN THE EVENT OF A SERIOUS EMPLOYEE ILLNESS OR INJURY.
5. ALL CONDUCTORS AND EQUIPMENT SHALL BE CONSIDERED ENERGIZED UNLESS CHECKED, TAGGED, GROUNDED, AND CHECKED AGAIN.
6. THE CONTRACTOR SHALL APPLY JOB SAFETY MEETINGS COVERING THE PERSONAL PROTECTIVE EQUIPMENT (PPE), ACCESS AND CLEANLINESS OF THE SITE, ELECTRICAL SAFETY, POTENTIAL HAZARDS RECOGNITION AND MINIMIZATION.
7. THE CONTRACTOR SHALL CONDUCT THE FUELING AND LUBRICATING OF EQUIPMENT AND MOTOR VEHICLES IN A MANNER THAT PROTECTS AGAINST SPILLS AND EVAPORATION. ALL USED OIL GENERATED ON SITE WILL BE MANAGED IN ACCORDANCE WITH 40CFR 279.
8. THE CONTRACTOR SHALL TAKE PRECAUTIONS TO PREVENT RELEASES/SPILLS OF OIL AND HAZARDOUS MATERIALS. IN THE EVENT OF ANY RELEASES, NOTIFY THE LOCAL FIRE DEPARTMENT. THE CONTRACTOR SHALL COLLECT AND PROVIDE INFORMATION AND WRITTEN NOTIFICATIONS AS NEEDED BY THE INVESTIGATING AUTHORITY. CONTRACTOR SHALL CONTAIN AND CLEAN UP THESE SPILLS WITHOUT COST TO THE OWNER.
9. AN EMERGENCY ACTION PLAN SHOULD BE CREATED THAT INCLUDES AN INITIAL SITE SPECIFIC COMMUNICATION ASSESSMENT TO SURE THAT ADEQUATE RADIO OR CELL PHONE RECEPTIONS IS AVAILABLE ACROSS THE ENTIRE SITE.
10. ELECTRICAL APPLICABLE SAFETY REGULATIONS SUCH AS OSHA 1910.269, THE NESC, AND NFPA 70E ARE USED AT PV FACILITIES TO PROVIDE GUIDANCE IN DEVELOPING SAFETY POLICIES AND PROCEDURES.
11. TO ENSURE THE SAFETY OF WORKERS AT A PV FACILITY, A ROBUST SYSTEM OF SAFETY TRAINING, POLICIES AND PROCEDURES MUST BE ESTABLISHED. TRAINING CLASSES INCLUDE OSHA STANDARDS, NESC AND NFPA 70E ELECTRICAL AND ARC FLASH SAFETY, LOCKOUT/TAGOUT, FIRST AID AND CPR, HUMAN PERFORMANCE IMPROVEMENT AND PROJECT-SPECIFIC SAFE WORK RULES.
12. ADDITIONALLY, EQUIPMENT TECHNICAL TRAINING SHOULD ALSO BE CONDUCTED TO ENSURE THAT WORKERS HAVE A THOROUGH UNDERSTANDING OF THE OPERATIONS, MAINTENANCE AND SAFETY HAZARDS ASSOCIATED WITH EACH PIECE OF EQUIPMENT THEY WORK WITH.

DAMAGE AVOIDANCE:

1. THE ELECTRICAL CONTRACTOR SHALL CONSIDER THE WEATHERING OF EQUIPMENT OVER TIME AND ELIMINATE THE POSSIBILITY OF DEGRADATION DUE TO CORROSION, WATER ENTRY AND UV EXPOSURE. AS A RESULT, THE USE OF UNISTRUT OR SIMILAR MOUNTING SYSTEMS IS REQUIRED TO MOUNT ENCLOSURES, PULL BOXES, LOAD CENTERS, FUSE BOXES, OR OTHER EQUIPMENT.
2. WIRING SHALL RUN IN CONDUIT ENSURING LIFESPAN OF THE SYSTEM.
3. ALL NEMA 3/4 BOXES SHALL BE EQUIPPED WITH LISTED DRAIN PLUGS INSTALLED TO ALLOW WATER TO DRAIN. ANY MODIFICATION TO AS-MANUFACTURED EQUIPMENT SHOULD BE DONE IN SUCH A WAY AS TO MAINTAIN ALL LISTED RATINGS.
4. ALL CIRCUIT BREAKERS INSTALLED THAT ARE SUBJECT TO REVERSE POWER FLOW SHALL BE LISTED AS BACKFEED COMPATIBLE.
5. PADLOCK PROVISIONS ON ENCLOSURE DOOR SHALL BE CONSIDERED.
6. PV SOLAR PROJECT SHALL BE FENCED AVOIDING VANDALISM AND OTHER POSSIBLE DAMAGE. WARNING LABELS WILL BE PLACED AND ONLY CERTIFIED AND QUALIFIED INDIVIDUALS ARE ALLOWED TO ENTRY.

GENERAL NOTES:

1. THESE DRAWINGS MATCH THE INSCRIPTION DRAWINGS SUBMITTED BUT NOT LIMITED TO THE CORRESPONDING MUNICIPALITY.
2. THE TERM "WORK" SHALL MEAN ALL LABOR, TRANSPORTATION MATERIAL, EQUIPMENT, TOOLS, INSTALLATIONS, SYSTEMS, SUPERVISION AND ANY OTHER INCIDENTAL ITEMS OR SERVICES NECESSARY FOR THE PROPER EXECUTION OF THE PROJECT. "WORK" SHALL ALSO INCLUDE ANY REPAIR OR IMPROVEMENT REQUIRED AS A PROCESS OF THE CONSTRUCTION.
3. THE TERM "PROVIDE" SHALL MEAN FURNISH AND INSTALL. MAKE ALL FINAL CONNECTIONS AND LEAVE IN AN APPROVED COMPLETE OPERATION CONDITION.
4. THE TERM "SUMMARY DOCUMENTS" SHALL MEAN ALL DRAWINGS AND SPECIFICATIONS OR CORRESPONDENCE ISSUED BY THE DESIGNER OR AUTHORIZED REPRESENTATIVES.
5. ALL GENERAL CONDITIONS, SPECIAL REQUIREMENTS OR GENERAL REQUIREMENTS OF THE EQUIPMENT OF MATERIAL MANUFACTURERS ARE MADE PART OF SUMMARY DOCUMENTS AND HAVE THE SAME EFFECT AS IF COMPLETELY REPRODUCED.
6. AHJ SHALL REPORT ANY DISCREPANCIES BETWEEN CURRENT CODE AND THE DRAWINGS OR SPECIFICATIONS TO THE DESIGNER PRIOR TO WORK.
7. ALL WORKS SHALL BE IN ACCORDANCE WITH INDUSTRY STANDARDS. INDUSTRY STANDARDS SHALL BE DETERMINED BY MANUAL OR HANDBOOK OF THE PRIMARY ASSOCIATION OF EACH TRADE OR THE AHJ.
8. AS-BUILT DRAWING SHALL INCLUDE ALL TRADES OR SPECIALTY DRAWINGS. THESE DRAWINGS SHALL BE UPDATED AS THE PROJECT PROGRESSES FOR READY REFERENCE.
9. AS-BUILT DRAWINGS SHALL BE GIVEN TO THE OWNER AT SUBSTANTIAL COMPLETION. THESE DRAWINGS SHALL BE STAMPED AND SIGNED BY THE CONTRACTOR AND PRIVATE ENGINEER INSPECTOR.
10. THE DRAWINGS, ARRANGEMENTS, ANNOTATIONS AND GRAPHICAL PRESENTATION ON THE SUMMARY DOCUMENTS ARE THE PROPERTY OF THE DESIGNER WHO RETAINS OWNERSHIP AND AUTHORSHIP OF THE DOCUMENTS IN ITS ENTIRETY. THE DOCUMENTS ARE INSTRUMENTS OF SERVICE AND ARE THE INTELLECTUAL AND PHYSICAL PROPERTY OF THE DESIGNER. AUTHORIZED USE OF THE DOCUMENTS ARE GRANTED SOLELY FOR THIS PROJECT.
11. THE CONTRACTOR SHALL CAREFULLY EXAMINE ALL DOCUMENTS, SPECIALTY DRAWINGS AND MATERIAL SPECIFICATIONS. ANY DEVIATIONS OR INCONSISTENCIES SHALL BE BROUGHT TO ATTENTION OF THE DESIGNER PRIOR TO CONTINUATION OF PROCESS.
12. ALL DRAWINGS ARE DIAGRAMMATIC AND SCHEMATIC IN NATURE. WORK INCLUDES CERTAIN COMPONENTS, APPURTENANCES AND RELATED SPECIALTIES THAT MAY NOT BE SHOWN.
13. CONSTRUCTION MEANS AND METHODS ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. THE DESIGNER HAS ACCOUNTED FOR THE MOST COMMON OF TECHNIQUES USED IN THE DESIGN OF THIS PROJECT.
14. ALL ELECTRICAL WORK TO BE PERFORMED BY PROPERLY LICENSED AND CERTIFIED ELECTRICIANS PER STATE AND LOCAL REQUIREMENTS.
15. ALL FABRICATION AND MANUFACTURING SHALL BE PERFORMED BY CERTIFIED INDIVIDUALS IN APPROVED ASSEMBLY AND FABRICATION SHOPS.
16. PRIOR STARTING ANY WORK, THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DISAGREEMENT ABOUT SITE CONDITIONS, MANUFACTURER RECOMMENDATIONS OR AHJ.
17. CONTRACTOR INITIATED CHANGES SHALL BE SUBMITTED IN THE FORM OF A REQUEST FOR INFORMATION (RFI) FOR APPROVAL. CHANGES ACCEPTED WILL BE INCLUDED IN AS-BUILT DRAWINGS.
18. CONTRACTOR SHALL FOLLOW ALL EQUIPMENT MANUFACTURER'S MANUAL INSTRUCTIONS AND DATA SHEET. ALL COMPONENT MANUALS ARE TO BE READ AND UNDERSTOOD PRIOR TO INSTALLATION.
19. THE CONTRACTOR SHALL TURN ALL SWITCHES IN THE "OFF" POSITION AND FUSES REMOVED PRIOR TO INSTALLATION OF COMPONENTS.
20. THE CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS ON THE DRAWINGS, INCLUDING EXISTING STRUCTURES, AND ADVISE OF ANY DISCREPANCY BEFORE STARTING THE WORK.
21. THE CONTRACTOR SHALL COORDINATE ALL OPERATIONS WITH THE OWNER.
22. THE CONTRACTOR SHALL COORDINATE ALL OPERATIONS WITH ANY EQUIPMENT AND ITS INSTALLER.
23. PROVIDE ALL WORKING CLEARANCES AT NEW AND EXISTING EQUIPMENT PER NEC 110.26.
24. ALL DISCONNECTING SWITCH AT COMBINER BOX SHALL BE SECURED FROM UNAUTHORIZED PERSONNEL BY LOCK.
25. CONDUITS AND CABLES SHALL NOT ENTER THE TOP OF ANY OUTDOOR ENCLOSURE WITHOUT WRITTEN APPROVAL FROM PROJECT ENGINEER.

BERGMANN
ARCHITECTS ENGINEERS PLANNERS

280 East Broad Street, Suite #200
Rochester, NY 14604
www.bergmannpc.com
office: 585.232.5135

NY ALFRED I, LLC.

COMMUNITY SOLAR FARM PROJECT

5568 JERICHO HILL ROAD
ALFRED, NY 14803

Date Revised	Description
07/01/2021	REVISED PER TOWN COMMENTS
09/03/2021	REVISED PER TOWN COMMENTS
10/11/2021	REVISED PER TOWN COMMENTS

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Project Manager	Discipline Lead
DJP	DJP
Designer	Reviewer
JL	ECR
Date Issued	Project Number
05/28/2021	12773.46

Sheet Name

SPECIFICATION NOTES

Drawing Number

C002

10/11/2021 1:57 PM M:\Delaware River Solar\012773.46 Delaware River Solar-5568 Jericho Hill\4.0 Dwgs\4.1 Civil\001-General Notes.dwg

NUMBER	TAX ID	PARCEL OWNER
1	164.-1-54	TODD LARSEN & SCOTT LARSEN
2	164.-1-62	JOHN E. GRADONI
3	164.-1-9	CHARLES D. ELLIOTT & CAROL A. ELLIOTT
4	164.-1-8.3	JUSTIN SNYDER & ALLISON SNYDER
5	164.15-2-7.2	MEREDITH L. TERRY
6	164.15-2-42	BILLY R. CARSTENS & SHAWN E. CARSTENS
7	164.15-2-7.3	HYOJIN LEE & SEONYOUNG HAN

0 300 600 900 FT

1" = 300' SCALE BAR

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Project Manager	Discipline Lead
DJP	DJP
Designer	Reviewer
JL	ECR
Date Issued	Project Number
05/28/2021	12773.46

Sheet Name

AREA PARCEL PLAN

Drawing Number

C003

ARCH D 24x36
M:\Delaware River Solar\012773.46 Delaware River Solar-5568 Jericho Hill\4.0 Dwgs\4.1 Civil\002-Overall.dwg
10/11/2021 1:57 PM

NOTES

1. PROPERTY IS KNOWN AS TAX MAP ID # 164.-1-8.1 THE TOWN OF ALFRED, ALLEGANY COUNTY, NEW YORK.
2. LOT AREA = 7,061,076 S.F. OR 162.1 AC.
3. NO CHANGES IN STREET RIGHT OF WAY LINES EITHER COMPLETED OR PROPOSED KNOWN TO THIS SURVEYOR. NO OBSERVABLE EVIDENCE OF RECENT STREET OR SIDEWALK CONSTRUCTION OR REPAIRS.
4. VERTICAL DATUM = NAVD88.
5. LOCATION OF ALL UNDERGROUND UTILITIES ARE APPROXIMATE. ALL LOCATIONS AND SIZES ARE BASED ON UTILITY MARK-OUTS, ABOVE GROUND STRUCTURES THAT WERE VISIBLE & ACCESSIBLE IN THE FIELD, AND THE MAPS LISTED IN THE REFERENCES AVAILABLE AT THE TIME OF THE SURVEY. AVAILABLE AS-BUILT PLANS AND UTILITY MARK-OUT DOES NOT ENSURE MAPPING OF ALL UNDERGROUND UTILITIES AND STRUCTURES. BEFORE ANY EXCAVATION IS TO BEGIN, ALL UNDERGROUND UTILITIES SHOULD BE VERIFIED AS TO THEIR LOCATION, SIZE AND TYPE BY THE PROPER UTILITY COMPANIES.
6. THIS PLAN WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT. THIS PROPERTY MAY BE SUBJECT TO RESTRICTIONS, COVENANTS AND/OR EASEMENTS, WRITTEN OR IMPLIED.
7. THE EXISTENCE OF UNDERGROUND STORAGE TANKS, IF ANY, WAS NOT KNOWN AT THE TIME OF THIS SURVEY.
8. TOPOGRAPHIC INFORMATION SHOWN HEREON TAKEN FROM GROUND SURVEY PERFORMED BY BERGMANN ON MAY 3, 2021 AND MAY 12, 2021.

LEGEND

LEGEND

- MONUMENT FOUND
- REBAR FOUND
- PIPE FOUND
- ONE POST SIGN
- TWO POST SIGN
- BOL BOLLARD/POST
- DS DOWNSPOUT
- ELECTRICAL BOX
- ELECTRIC METER
- TRANSFORMER
- GV GAS VALVE
- GAS METER
- LIGHTPOLE (ONE HEAD)
- LIGHT POLE (TWO HEAD)
- LIGHT POLE (THREE HEAD)
- LIGHT POLE (FOUR HEAD)
- LIGHT POLE (PEDESTAL)
- WASH LIGHT
- TELEPHONE JUNCTION BOX
- FLM FIBER OPTIC LINE MARKER
- UTILITY POLE
- GW GUY WIRE
- SP SIGNAL POLE
- TRAFFIC CONTROL CABINET
- HH RECTANGULAR HANDHOLE
- HH ROUND HANDHOLE
- HH SQUARE HANDHOLE
- HYD HYDRANT
- WV WATER VALVE
- FDC FIRE DEPARTMENT CONNECTION
- CO CLEAN OUT
- CB CATCH BASIN
- DMHI INLET DRAINAGE MANHOLE
- SMH SANITARY MANHOLE
- EMH ELECTRIC MANHOLE
- CONIFEROUS BUSH OR TREE
- DECIDUOUS BUSH OR TREE
- MB PB MAILBOX OR PAPER BOX
- INV INVES INVERT OR INVERT WITH END SECTION
- EDGE OF WOODS
- EDGE OF WATER
- SWLE SWLE CENTERLINE OF SWALE/DITCH
- X X X X X CHAIN LINK FENCE
- GUIDE RAIL
- SAN SAN SANITARY SEWER LINE
- ST ST ST STORM/DRAINAGE LINE
- DW DW DW UNDERGROUND DOMESTIC WATER LINE
- FW FW FW UNDERGROUND FIRE WATER LINE
- G G G UNDERGROUND GAS LINE
- UT UT UT UNDERGROUND TELEPHONE LINE
- UE UE UE UNDERGROUND ELECTRIC LINE
- T/E T/E UNDERGROUND TELEPHONE & ELECTRIC LINE
- FO FO FO UNDERGROUND FIBER OPTIC LINE
- OH OH OH OVERHEAD UTILITY WIRE
- LEASE LINE
- ADJOINING PROPERTY LINE
- EASEMENT LINE
- RIGHT OF WAY LINE
- RIGHT OF WAY LINE
- L3R L3R DELINEATED WETLAND - PFO
- SCHEDULE "B-II" TITLE EXCEPTION NUMBER

0 100 200 300 FT

1" = 100' SCALE BAR

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Project Manager	Discipline Lead
DJP	DJP
Designer	Reviewer
JL	ECR
Date Issued	Project Number
05/28/2021	12773.46

Sheet Name

EXISTING CONDITIONS PLAN

Drawing Number

C004

ARCH D 24x36
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10/11/2021 1:57 PM

SITE PLAN DATA TABLE

SITE IS LOCATED IN THE "AG" AGRICULTURAL ZONING DISTRICT

PROPOSED USE: SOLAR - PERMITTED USE BY SPECIAL USE PERMIT AND SITE PLAN APPROVAL

PARCEL 164.-1-8.1
TOWN OF ALFRED, COUNTY OF ALLEGANY
STATE OF NEW YORK

APPLICANT:
DELAWARE RIVER SOLAR, LLC.
AND ITS AFFILIATE:
NY ALFRED I, LLC.
140 EAST 45TH STREET
SUITE 32B-1
NEW YORK, NY 10017
(646) 998-6495

OWNER(S) OF RECORD:
JUSTIN, ALLISON, & BONNIE SNYDER
5568 JERICHO HILL ROAD
ALFRED, NY 14803

PLANS PREPARED BY:
BERGMANN
280 EAST BROAD STREET, SUITE 200
ROCHESTER, NY 14604
(585) 232-5135

DESCRIPTION	REQUIRED	PROPOSED	
MIN. LOT AREA	10 AC	162.1 AC	
FRONT YARD SETBACK	100 FT	308 FT	
SIDE YARD SETBACK	100 FT	193 FT/413 FT	
REAR YARD SETBACK	100 FT	760 FT	
MAX. HEIGHT OF PANELS	20 FT	15 FT	
MAX. LOT COVERAGE	35%	5.32%	
AREA OF BRUSH/TREE REMOVAL	N/A	10.56 AC	
AREA OF BRUSH/TREE CUTTING	N/A	1.62 AC	
LIMIT OF DISTURBANCE	N/A	30.9 AC	

ARRAY INFORMATION	
SYSTEM SIZE	6.235 MW-DC, 4.988 MW-AC
MODULE	LONGI LR5-72HBD 545Wp, 11,440 UNITS

FARMLAND DISTURBANCE TABLE

FARMLAND CLASSIFICATION	EXISTING LOT AREA (ACRES)	PERMANENT DISTURBANCE	PROJECT FOOTPRINT AREA (ACRES)	PROJECT FOOTPRINT AREA (%)
FARMLAND OF STATEWIDE IMPORTANCE	81.5±	320,012± SF (7.34± AC.)	21.7±	26.62%
PRIME FARMLAND IF DRAINED	20.3±	196,892± SF (4.52± AC.)	5.64±	27.78%
NOT PRIME FARMLAND	60.3±	218± SF (0.005 AC.)	0.01±	0.016%
TOTAL	162.1±	517,122± SF (11.865± AC.)	27.35±	16.87%

NOTES

1. PLEASE SEE SHEET C013 FOR SEED MIX DETAIL TO BE USED IN ALL DISTURBED AREAS OF PRIME FARMLAND OR FARMLAND OF STATEWIDE IMPORTANCE.
2. ALTHOUGH THE LIMIT OF DISTURBANCE IS STATED TO BE 30.9 ACRES, PHYSICAL GROUND DISTURBANCE WILL ONLY INVOLVE 14.5 ACRES AS INDICATED ON THE SWPPP/NOI. THE 14.5 ACRES OF PHYSICAL GROUND DISTURBANCE WILL INCLUDE CONSTRUCTION OF THE DRIVEWAY, EQUIPMENT PAD, FENCE, PANEL POST, LAND GRADING, UNDERGROUND ELECTRICAL TRENCHING, AND THE AREA OF TREE/BRUSH REMOVAL. DURING THE STAGE OF CONSTRUCTION, THE CUMULATIVE PHYSICAL GROUND DISTURBANCE WILL NOT EXCEED 14.5 ACRES. THE LIMIT OF DISTURBANCE, AS STATED TO BE 30.9 ACRES, IS A REPRESENTATION OF THE TOTAL PROJECT AREA AND DOES NOT REPRESENT THE ACREAGE OF PHYSICAL GROUND DISTURBANCE.

LEGEND

- PROPOSED SOLAR PANELS
- PROPOSED PERIMETER FENCE
- PROPOSED UNDERGROUND ELECTRIC
- PROPOSED OVERHEAD ELECTRIC
- STREAM
- PROPOSED STORM PIPE
- PROPOSED LIMITED USE PERVIOUS GRAVEL DRIVEWAY
- AREA OF PROPOSED BRUSH/TREE CUTTING
- AREA OF PROPOSED BRUSH/TREE REMOVAL
- PROPOSED STAGING AND LAYDOWN AREA
- PROPOSED GRASS FILTER STRIP
- DELINEATED WETLAND - PFO (PALUSTRINE FORESTED)
- SETBACK LINE
- EXISTING TREELINE
- PROPOSED TREELINE
- LIMIT OF DISTURBANCE

SPECIAL PERMIT STANDARDS FOR TIER 3, AGRICULTURAL /RESIDENTIAL USAGE DISTRICT

1. MINIMUM LOT SIZE REQUIREMENTS: 10.0 ACRES
2. PARCEL LINE SETBACK REQUIREMENTS: FRONT/SIDE/REAR = 100'
3. MAXIMUM HEIGHT REQUIREMENTS: 20'
4. MAXIMUM LOT COVERAGE: 35% (INCLUSIVE OF FOUNDATION/POLES, ALL MECHANICAL EQUIPMENT/PAD MOUNTED STRUCTURES AND PAVED ACCESS ROADS)
5. FENCE HEIGHT: 7' REQUIRED
6. TIER 3 SOLAR ENERGY SYSTEMS LOCATED ON PRIME SOILS OR SOILS OF STATEWIDE IMPORTANCE CANNOT EXCEED 50% OF THE ENTIRE LOT AND WILL BE REQUIRED TO SEED ATLEAST 20% OF THE TOTAL SURFACE AREA OF THE PANELS ON THE LOT WITH NATIVE PERENNIAL VEGETATION DESIGNED TO ATTRACT POLLINATORS.
7. UTILITIES SHOULD BE UNDERGROUND TO THE MAXIMUM EXTENT PRACTICABLE.

*NOTE: PLEASE SEE SITE PLAN DATA TABLE AND FARMLAND DISTURBANCE TABLE FOR DETAIL.

0 100 200 300 FT
1" = 100' SCALE BAR

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ARCHITECTS ENGINEERS PLANNERS

280 East Broad Street, Suite #200
Rochester, NY 14604
www.bergmannpc.com
office: 585.232.5135

NY ALFRED I, LLC.

COMMUNITY SOLAR FARM PROJECT

5568 JERICHO HILL ROAD
ALFRED, NY 14803

Date Revised	Description
07/01/2021	REVISED PER TOWN COMMENTS
09/03/2021	REVISED PER TOWN COMMENTS
10/11/2021	REVISED PER TOWN COMMENTS

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Project Manager	Discipline Lead
DJP	DJP
Designer	Reviewer
JL	ECR
Date Issued	Project Number
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Sheet Name

SITE PLAN

Drawing Number

C005

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LEGEND

- PROPOSED SOLAR PANELS
- PROPOSED PERIMETER FENCE
- PROPOSED UNDERGROUND ELECTRIC
- PROPOSED OVERHEAD ELECTRIC
- STREAM
- PROPOSED STORM PIPE
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- PROPOSED GRASS FILTER STRIP
- DELINEATED WETLAND - PFO (PALUSTRINE FORESTED)
- SETBACK LINE
- EXISTING TREELINE
- PROPOSED TREELINE
- LIMITS OF DISTURBANCE
- DRIVEWAY SECTION ALIGNMENT
- PROPOSED SILT SOCK
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR

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OVERALL GRADING PLAN

Drawing Number

C006

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LEGEND

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GRADING & EROSION CONTROL PLAN

Drawing Number

C007

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LEGEND

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GRADING & EROSION CONTROL PLAN

Drawing Number

C008

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DRIVEWAY SECTION 1 (STA. 0+00 TO 10+50)

DRIVEWAY SECTION 1 (STA. 10+50 TO 16+54)

DRIVEWAY SECTION 2 (STA. 0+00 TO 3+70)

LIMITED USE PERVIOUS ACCESS ROAD - 0% TO 10% SLOPES

NO SCALE

GEOGRID MATERIAL NOTES:

1. THE GEOGRID, OR COMPARABLE PRODUCT, IS INTENDED FOR USE IN ALL CONDITIONS, IN ORDER TO ASSIST IN MATERIAL SEPARATION FROM NATIVE SOILS AND PRESERVE ACCESS LOADS.
2. GRAVEL FILL MATERIAL SHALL CONSIST OF 1-4" CLEAN, DURABLE, SHARP ANGLED CRUSHED STONE OF UNIFORM QUALITY, MEETING THE SPECIFICATION OF NYSDOT 703-02. SIZE DESIGNATION 3-5 OF THABLE 703-4. STONE MAY BE PLACED IN FRONT OF AND SPREAD WITH A TRACKED VEHICLE. GRAVEL SHALL NOT BE COMPACTED.
3. GEOGRID SHALL BE MIRAFI BXG110 OR APPROVED EQUAL. GEOGRID SHALL BE DESIGNED BASED ON EXISTING SOIL CONDITIONS AND PROPOSED HAUL ROAD SLOPES.
4. IF MORE THAN ONE ROLL WIDTH IS REQUIRED, ROLLS SHOULD OVERLAP A MINIMUM OF SIX INCHES.
5. REFER TO MANUFACTURER'S SPECIFICATION FOR PROPER TYING AND CONNECTIONS.
6. LIMITED USE PERVIOUS ACCESS ROAD SHALL BE DRESSED AS REQUIRED WITH ONLY 1-4" CRUSHED STONE MEETING NYSDOT 703-02 SPECIFICATIONS.

BASIS OF DESIGN: TENCATE MIRAFI BXG110 GEOGRIDS; 365 SOUTH HOLLAND DRIVE, PENDERGRASS, GA; 800-685-9990 OR 706-693-2226; WWW.MIRAFI.COM

WOVEN GEOTEXTILE MATERIAL NOTES:

1. SPECIFIED GEOTEXTILE WILL ONLY BE UTILIZED IN PLACID SOILS. PLACID SOILS CONSIST OF POORLY DRAINED SOILS COMPOSED OF FINELY TEXTURED PARTICLES AND ARE PRONE TO RUTTING. PLACID SOILS ARE TYPICALLY PRESENT IN LOW-LYING AREAS WITH HYDROLOGIC SOILS GROUP (HSG) OF C OR D OR AS SPECIFIED FROM AN ENVIRONMENTAL SCIENTIST, SOIL SCIENTIST OR GEOTECHNICAL DATA.
2. THE CONCERN OF POTENTIAL REDUCTION OF NATIVE INFILTRATION RATES DIE TO THE GEOTEXTILE MATERIAL WOULD NOT BE A SIGNIFICANT CONCERN IN POORLY DRAINED SOILS WHERE SEGREGATION OF PERVIOUS STONE AND NATIVE MATERIALS IS CRUCIAL FOR LONG TERM OPERATION AND MAINTENANCE.

BASIS OF DESIGN: TENCATE MIRAFI RSI-SERIES WOVEN GEOSYNTHETICS; 365 SOUTH HOLLAND DRIVE, PENDERGRASS, GA; 800-685-9990 OR 706-693-2226; WWW.MIRAFI.COM

GENERAL NOTES:

1. USE OF THIS DETAIL/CRITERION IS LIMITED TO ACCESS ROADS USED ON AN OCCASIONAL BASIS ONLY (I.E. PROVIDE ACCESS FOR MOWING, EQUIPMENT REPAIR OR MAINTENANCE)
2. LIMITED USE PERVIOUS ACCESS ROAD IS LIMITED TO LOW IMPACT IRREGULAR MAINTENANCE ACCESS ASSOCIATED WITH RENEWABLE ENERGY PROJECTS IN NEW YORK STATE.
3. REMOVE STUMPS, ROCKS AND DEBRIS AS NECESSARY, FILL VOIDS TO MATCH EXISTING NATIVE SOILS AND COMPACTION LEVEL.
4. REMOVED TOPSOIL MAY BE SPREAD IN ADJACENT AREAS AS DIRECTED BY THE PROJECT ENGINEER, COMPACT TO THE DEGREE OF THE NATIVE IN SITU SOIL. DO NOT PLACE IN AN AREA THAT IMPEDES STORM WATER DRAINAGE.
5. GRADE ROADWAY. WHERE NECESSARY, TO NATIVE SOILS AND DESIRED ELEVATION. MINOR GRADING FOR CROSS SLOPE CUT AND FILL MAY BE REQUIRED.
6. REMOVE REFUSE SOILS AS DIRECTED BY THE PROJECT ENGINEER. DO NOT PLACE IN AN AREA THAT IMPEDES STORM WATER DRAINAGE.
7. ROADWAY WIDTH TO BE DETERMINED BY CLIENT.
8. THE LIMITED USE PERVIOUS ACCESS ROAD CROSS SLOPE SHALL BE 1.5% IN MOST CASES AND SHOULD NOT EXCEED 6%. THE LONGITUDINAL SLOPE OF THE ACCESS DRIVE SHOULD NOT EXCEED 15%.
9. LIMITED USE PERVIOUS ACCESS ROAD IS NOT INTENDED TO BE UTILIZED FOR CONSTRUCTION WHICH MAY SUBJECT THE ACCESS TO SEDIMENT TRACKING. THIS SPECIFICATION IS TO BE DEVELOPED FOR POST-CONSTRUCTION USE. SOIL RESTORATION PRACTICES MAY BE APPLICABLE TO RESTORE CONSTRUCTION RELATED COMPACTION TO PRE-EXISTING CONDITIONS AND SHOULD BE VERIFIED BY SOIL PENETROMETER READINGS. THE PENETROMETER READINGS SHALL BE COMPARED TO THE RESPECTIVE RECORDED READINGS TAKEN PRIOR TO CONSTRUCTION, EVERY 100 LINEAR FEET ALONG THE PROPOSED ROADWAY.
10. TO ENSURE THAT SOIL IS NOT TRACKED ONTO THE LIMITED USE PERVIOUS ACCESS ROAD, IT SHALL NOT BE USED BY CONSTRUCTION VEHICLES TRANSPORTING SOIL, FILL MATERIAL, ETC. IF THE LIMITED USE PERVIOUS ACCESS IS COMPLETED DURING THE INITIAL PHASES OF CONSTRUCTION AND UTILIZED TO REMOVE SEDIMENT FROM CONSTRUCTION VEHICLES AND EQUIPMENT PRIOR TO ENTERING THE LIMITED USE PERVIOUS ACCESS ROAD FROM ANY LOCATION ON, OR OFF SITE, MAINTENANCE OF THE PERVIOUS ACCESS ROAD WILL BE REQUIRED IF SEDIMENT IS OBSERVED WITHIN THE CLEAN STONE.
11. THE LIMITED USE PERVIOUS ACCESS ROAD SHALL NOT BE CONSTRUCTED OR USED UNTIL ALL AREAS SUBJECT TO RUNOFF ONTO THE PERVIOUS ACCESS HAVE ACHIEVED FINAL STABILIZATION.
12. PROJECTS SHOULD AVOID INSTALLATION OF THE LIMITED USE PERVIOUS ACCESS ROAD IN POORLY DRAINED ARES, HOWEVER IF NO ALTERNATIVE LOCATION IS AVAILABLE, THE PROJECT SHALL UTILIZE WOVEN GEOTEXTILE MATERIAL AS DETAILED IN FOLLOWING NOTES.
13. THE DRAINAGE DITCH IS OFFERED IN THE DETAIL FOR CIRCUMSTANCES WHEN CONCENTRATED FLOW COULD NOT BE AVOIDED , THE INTENTION OF THE DESIGN IS TO MINIMIZE ALTERATIONS TO HYDROLOGY, HOWEVER WHEN DEALING WITH 5%-15% GRADES NOT PARALLEL TO THE CONTOUR, A ROADSIDE DITCH MAY BE REQUIRED. THE NYS STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROLS FOR GRASSED WATERWAYS AND VEGETATED WATERWAYS ARE APPLICABLE FOR SIZING AND STABILIZATION. DIMENSIONS FOR THE GRASSED WATERWAY SPECIFICATION WOULD BE DESIGNED FOR PROJECT SPECIFIC HYDROLOGIC RUNOFF CALCULATIONS, AND A SEPARATE DETAIL FOR THE SPECIFIC GRASSED WATERWAY WOULD BE INCLUDED IN THIS PRACTICE. RUNOFF DISCHARGE WILL BE SUBJECT TO THE OUTLET REQUIREMENTS OF THE REFERENCED STANDARD. INCREASED POST-DEVELOPMENT RUNOFF FROM THE ASSOCIATED ROADSIDE DITCH MAY REQUIRE ADDITIONAL PRACTICES TO ATTENUATE RUNOFF TO PRE-DEVELOPMENT CONDITIONS.
14. IF A ROADSIDE DITCH IS NOT UTILIZED TO CAPTURE RUNOFF FROM THE ACCESS ROAD, THE PERVIOUS ACCESS ROAD WILL HAVE A WELL-ESTABLISHED PERENNIAL VEGETATIVE COVER, WHICH SHALL CONSIST OF UNIFORM VEGETATION (I.E. BUFFER), 20 FEET WIDE AND PARALLEL TO THE DOWN GRADIENT SIDE OF THE ACCESS ROAD. POST-CONSTRICTION OPERATION AND MAINTENANCE PRACTICES WILL MAINTAIN THIS VEGETATIVE COVER TO ENSURE FINAL STABILIZATION FOR THE LIFE OF THE ACCESS ROAD.
15. THE DESIGN PROFESSIONAL MUST ACCOUNT FOR THE LIMITED USED PERVIOUS ACCESS ROAD IN THEIR SITE ASSESSMENT / HYDROLOGY ANALYSIS. IF THE HYDROLOGY ANALYSIS SHOWS THAT THE HYDROLOGY HAS BEEN ALTERED FROM PRE- TO POST-DEVELOPMENT CONDITIONS (SEE APPENDIX A OF GP-0-15-002 FOR THE DEFINITION OF "ALTER THE HYDROLOGY…"), THE DESIGN MUST INCLUDE THE NECESSARY DETENTION/RETENTION PRACTICES TO ATTENUATE THE RATES (10 AND 100 YEAR EVENTS) TO PRE-DEVELOPMENT CONDITIONS.

BERGMANN
ARCHITECTS ENGINEERS PLANNERS

280 East Broad Street, Suite #200
Rochester, NY 14604
www.bergmannpc.com
office: 585.232.5135

NY ALFRED I, LLC.

COMMUNITY SOLAR FARM PROJECT

5568 JERICHO HILL ROAD
ALFRED, NY 14803

Date Revised	Description
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Project Manager	Discipline Lead
DJP	DJP
Designer	Reviewer
JL	ECR
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Sheet Name

GRADING PLAN DETAILS

Drawing Number

C009

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PLANT LIST

Key	Qty.	Botanical Name	Common Name	Mature Size Height	Mature Size Spread	Installed Size	Condition	Spacing
Evergreen Trees								
JV -	18	Juniperus Virginiana	Eastern Red Cedar	40'-50'	8'-20'	8' Ht.	B&B	11'
PG -	18	Picea Glauca	White Spruce	40'-50'	20'-25'	8' Ht.	B&B	11'
AC -	58	Abies Concolor	White Fir	40'-50'	20'-30'	8' Ht.	B&B	11'
PS -	50	Pinus Strobus	Eastern White Pine	50'-80'	20'-40'	8' Ht.	B&B	11'
Evergreen Shrubs								
PA -	108	Juniperus Virginia	Burkii	10'-25'	4'-10'	8' Ht.	B&B	11'

LEGEND

- PROPOSED SOLAR PANELS
- PROPOSED PERIMETER FENCE
- PROPOSED UNDERGROUND ELECTRIC
- PROPOSED OVERHEAD ELECTRIC
- STREAM
- PROPOSED LIMITED USE PERVIOUS GRAVEL DRIVEWAY
- AREA OF PROPOSED BRUSH/TREE CUTTING
- AREA OF PROPOSED BRUSH/TREE REMOVAL
- DELINEATED WETLAND - PFO
- SETBACK LINE
- EXISTING TREELINE
- PROPOSED TREELINE

NOTES

1. THE TOTAL AREA OF TREE CLEARING THAT IS PROPOSED FOR THE NY ALFRED I, LLC, COMMUNITY SOLAR FARM IS 10.56 ACRES.
2. THE TOTAL AREA OF TREE CUTTING THAT IS PROPOSED FOR THE NY ALFRED I, LLC, COMMUNITY SOLAR FARM IS 1.62 ACRES.
4. THERE NO ARE IMPACTS TO THE DELINEATED WETLANDS DUE TO TREE CLEARING OR TREE CUTTING.
5. 1,133 LINEAR FEET OF EVERGREEN SHRUB LANDSCAPING (0.46 ACRES TOTAL) IS PROPOSED ALONG THE WESTERN SIDE OF THE PROJECT SITE TO PROVIDE ADDITIONAL VISUAL SCREENING FROM JERICHO HILL ROAD. REFER TO THE PLANT LIST ON THIS SHEET.
6. 187 LINEAR FEET OF EVERGREEN TREE LANDSCAPING (0.08 ACRES TOTAL) IS PROPOSED ALONG THE NORTHERN SIDE OF THE PROJECT SITE TO PROVIDE ADDITIONAL VISUAL SCREENING FROM NEIGHBORING RESIDENTIAL PROPERTIES. REFER TO THE PLANT LIST ON THIS SHEET.

0 100 200 300 FT
1" = 100' SCALE BAR

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DJP	DJP
Designer	Reviewer
JL	ECR
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Sheet Name

LANDSCAPE PLAN

Drawing Number

C010

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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.

CRITICAL POINTS
A. Overlaps and Seams
B. Projected Water Line
C. Channel Bottom/Side Slope Vertices

NOTES:
*Horizontal staple spacing should be altered if necessary to allow staples to secure the critical points along the channel surface.

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 channel by anchoring the RECPs in a 6" (15 cm) deep X 6" (15 cm) wide trench with approximately 12" (30 cm) of RECPs extended beyond the up-slope portion of the trench. Use ShoreMax mat at the channel/culvert outlet as supplemental scour protection as needed. Anchor the RECPs with a row of staples/stakes/pins approximately 12" (30 cm) apart in the bottom of the trench. Backfill and compact the trench after stapling. Apply seed to the compacted soil and fold the remaining 12" (30 cm) portion of RECPs back over the seed and compacted soil. Secure RECPs over compacted soil with a row of staples/stakes/pins spaced approximately 12" (30 cm) apart across the width of the RECPs.
3. Roll center RECPs in direction of water flow in bottom of channel. 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.
4. Place consecutive RECPs end-over-end (Shingle style) with a 4"- 6" (10 - 15 cm) overlap. Use a double row of staples staggered 4" apart and 4" on center to secure RECPs.
5. Full length edge of RECPs at top of side slopes must be anchored with a row of staples/stakes/pins spaced at S_T apart in a 6" (15 cm) deep X 6"(15 cm) wide trench. Backfill and compact the trench after stapling.
6. Adjacent RECPs must be overlapped approximately 4"- 6" (10 - 15 cm) and secured with staples/stakes/pins at S_T.
7. In high flow channel applications a staple check slot is recommended at 30 to 40 foot (9 -12m) intervals. Use a double row of staples staggered 6" (15 cm) apart and 12" (30 cm) on center over entire width of the channel.
8. The terminal end of the RECPs must be anchored with a row of staples/stakes/pins spaced at S_T apart in a 6" (15 cm) deep X 6" (15 cm) wide trench. Backfill and compact the trench after stapling.
9. 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	E
W_T	20" (50 cm)
L_T	20" (50 cm)
S_T	18" (45 cm)
Nominal Frequency	3.8 / SY

EROSION CONTROL BLANKET
STAPLE PATTERN

NO SCALE

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280 East Broad Street, Suite #200
Rochester, NY 14604
www.bergmannpc.com
office: 585.232.5135

NY ALFRED I, LLC.

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ALFRED, NY 14803

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DJP	DJP
Designer	Reviewer
JL	ECR
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Sheet Name

DETAILS I

Drawing Number

C011

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LIMITED USE PERVIOUS ACCESS ROAD - 10% SLOPES AND GREATER

NO SCALE

GEOWEB SYSTEM

NO SCALE

Instructions

1. For easier installation, lower water level from Level A to Level B before installation.
2. 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.
3. Begin at the top of the shoreline 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.
4. Roll RECPs either (A) down the shoreline for long banks (top to bottom) or (B) horizontally across the shoreline slope. RECPs will unroll with appropriate side against the soil surface. VMax TRMs should always be installed parallel to flow. All RECPs must be securely fastened to soil surface by placing staples/stakes/pins in appropriate locations as shown in the staple pattern guide.
5. The edges of all horizontal and vertical seams must be stapled with approximately 4" - 6" (10 - 15 cm) overlap. Note: *In streambank applications, seam overlaps should be shingled in the predominant flow direction.
6. The edges of the RECPs at or below normal water level must be anchored by placing the RECP's in a 12" (30 cm) deep X 6" (15 cm) wide anchor trench. Anchor the RECPs with a row of staples/stakes/pins spaced approximately 12"(30cm) apart in the trench. Backfill and compact the trench after stapling (stone or soil may be used as backfill). For installation at or below normal water level, use of ShoreMax mat on top of the RECP or geotextile underneath is likely required for sections below the normal water line.
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	E
W_T	20" (50 cm)
L_T	20" (50 cm)
S_T	18" (45 cm)
Nominal Frequency	3.8 / SY

EROSION CONTROL BLANKET STAPLE PATTERN

NO SCALE

GENERAL NOTES:

1. USE OF THIS DETAIL/CRITERION IS LIMITED TO ACCESS ROADS USED ON AN OCCASIONAL BASIS ONLY (I.E. PROVIDE ACCESS FOR MOWING, EQUIPMENT REPAIR OR MAINTENANCE)
2. LIMITED USE PERVIOUS ACCESS ROAD IS LIMITED TO LOW IMPACT IRREGULAR MAINTENANCE ACCESS ASSOCIATED WITH RENEWABLE ENERGY PROJECTS IN NEW YORK STATE.
3. REMOVE STUMPS. ROCKS AND DEBRIS AS NECESSARY, FILL VOIDS TO MATCH EXISTING NATIVE SOILS AND COMPACTION LEVEL.
4. REMOVED TOPSOIL MAY BE SPREAD IN ADJACENT AREAS AS DIRECTED BY THE PROJECT ENGINEER. COMPACT TO THE DEGREE OF THE NATIVE IN SITU SOIL. DO NOT PLACE IN AN AREA THAT IMPEDES STORM WATER DRAINAGE.
5. GRADE ROADWAY, WHERE NECESSARY, TO NATIVE SOILS AND DESIRED ELEVATION. MINOR GRADING FOR CROSS SLOPE CUT AND FILL MAY BE REQUIRED.
6. REMOVE REFUSE SOILS AS DIRECTED BY THE PROJECT ENGINEER. DO NOT PLACE IN AN AREA THAT IMPEDES STORM WATER DRAINAGE.
7. ROADWAY WIDTH TO BE DETERMINED BY CLIENT.
8. THE LIMITED USE PERVIOUS ACCESS ROAD CROSS SLOPE SHALL BE 1.5% IN MOST CASES AND SHOULD NOT EXCEED 6%. THE LONGITUDINAL SLOPE OF THE ACCESS DRIVE SHOULD NOT EXCEED 15%.
9. LIMITED USE PERVIOUS ACCESS ROAD IS NOT INTENDED TO BE UTILIZED FOR CONSTRUCTION WHICH MAY SUBJECT THE ACCESS TO SEDIMENT TRACKING. THIS SPECIFICATION IS TO BE DEVELOPED FOR POST-CONSTRUCTION USE. SOIL RESTORATION PRACTICES MAY BE APPLICABLE TO RESTORE CONSTRUCTION RELATED COMPACTION TO PRE-EXISTING CONDITIONS AND SHOULD BE VERIFIED BY SOIL PENETROMETER READINGS. THE PENETROMETER READINGS SHALL BE COMPARED TO THE RESPECTIVE RECORDED READINGS TAKEN PRIOR TO CONSTRUCTION, EVERY 100 LINEAR FEET ALONG THE PROPOSED ROADWAY.
10. TO ENSURE THAT SOIL IS NOT TRACKED ONTO THE LIMITED USE PERVIOUS ACCESS ROAD, IT SHALL NOT BE USED BY CONSTRUCTION VEHICLES TRANSPORTING SOIL, FILL MATERIAL, ETC. IF THE LIMITED USE PERVIOUS ACCESS IS COMPLETED DURING THE INITIAL PHASES OF CONSTRUCTION AND UTILIZED TO REMOVE SEDIMENT FROM CONSTRUCTION VEHICLES AND EQUIPMENT PRIOR TO ENTERING THE LIMITED USE PERVIOUS ACCESS ROAD FROM ANY LOCATION ON, OR OFF SITE, MAINTENANCE OF THE PERVIOUS ACCESS ROAD WILL BE REQUIRED IF SEDIMENT IS OBSERVED WITHIN THE CLEAN STONE.
11. THE LIMITED USE PERVIOUS ACCESS ROAD SHALL NOT BE CONSTRUCTED OR USED UNTIL ALL AREAS SUBJECT TO RUNOFF ONTO THE PERVIOUS ACCESS HAVE ACHIEVED FINAL STABILIZATION.
12. PROJECTS SHOULD AVOID INSTALLATION OF THE LIMITED USE PERVIOUS ACCESS ROAD IN POORLY DRAINED ARES, HOWEVER IF NO ALTERNATIVE LOCATION IS AVAILABLE, THE PROJECT SHALL UTILIZE WOVEN GEOTEXTILE MATERIAL AS DETAILED IN FOLLOWING NOTES.
13. THE DRAINAGE DITCH IS OFFERED IN THE DETAIL FOR CIRCUMSTANCES WHEN CONCENTRATED FLOW COULD NOT BE AVOIDED . THE INTENTION OF THE DESIGN IS TO MINIMIZE ALTERATIONS TO HYDROLOGY, HOWEVER WHEN DEALING WITH 5%-15% GRADES NOT PARALLEL TO THE CONTOUR, A ROADSIDE DITCH MAY BE REQUIRED. THE NYS STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROLS FOR GRASSED WATERWAYS AND VEGETATED WATERWAYS ARE APPLICABLE FOR SIZING AND STABILIZATION. DIMENSIONS FOR THE GRASSED WATERWAY SPECIFICATION WOULD BE DESIGNED FOR PROJECT SPECIFIC HYDROLOGIC RUNOFF CALCULATIONS, AND A SEPARATE DETAIL FOR THE SPECIFIC GRASSED WATERWAY WOULD BE INCLUDED IN THIS PRACTICE. RUNOFF DISCHARGE WILL BE SUBJECT TO THE OUTLET REQUIREMENTS OF THE REFERENCED STANDARD. INCREASED POST-DEVELOPMENT RUNOFF FROM THE ASSOCIATED ROADSIDE DITCH MAY REQUIRE ADDITIONAL PRACTICES TO ATTENUATE RUNOFF TO PRE-DEVELOPMENT CONDITIONS.
14. IF A ROADSIDE DITCH IS NOT UTILIZED TO CAPTURE RUNOFF FROM THE ACCESS ROAD, THE PERVIOUS ACCESS ROAD WILL HAVE A WELL-ESTABLISHED PERENNIAL VEGETATIVE COVER, WHICH SHALL CONSIST OF UNIFORM VEGETATION (I.E. BUFFER), 20 FEET WIDE AND PARALLEL TO THE DOWN GRADIENT SIDE OF THE ACCESS ROAD. POST-CONSTRICTION OPERATION AND MAINTENANCE PRACTICES WILL MAINTAIN THIS VEGETATIVE COVER TO ENSURE FINAL STABILIZATION FOR THE LIFE OF THE ACCESS ROAD.
15. THE DESIGN PROFESSIONAL MUST ACCOUNT FOR THE LIMITED USED PERVIOUS ACCESS ROAD IN THEIR SITE ASSESSMENT / HYDROLOGY ANALYSIS. IF THE HYDROLOGY ANALYSIS SHOWS THAT THE HYDROLOGY HAS BEEN ALTERED FROM PRE- TO POST-DEVELOPMENT CONDITIONS (SEE APPENDIX A OF GP-0-20-001 FOR THE DEFINITION OF "ALTER THE HYDROLOGY..."), THE DESIGN MUST INCLUDE THE NECESSARY DETENTION/RETENTION PRACTICES TO ATTENUATE THE RATES (10 AND 100 YEAR EVENTS) TO PRE-DEVELOPMENT CONDITIONS.

GEOGRID MATERIAL NOTES:

1. THE GEOGRID, OR COMPARABLE PRODUCT, IS INTENDED FOR USE IN ALL CONDITIONS, IN ORDER TO ASSIST IN MATERIAL SEPARATION FROM NATIVE SOILS AND PRESERVE ACCESS LOADS.
2. GRAVEL FILL MATERIAL SHALL CONSIST OF 1-4" CLEAN, DURABLE, SHARP ANGLED CRUSHED STONE OF UNIFORM QUALITY, MEETING THE SPECIFICATION OF NYSDOT 703-02, SIZE DESIGNATION 3-5 OF TABLE 703-4. STONE MAY BE PLACED IN FRONT OF AND SPREAD WITH A TRACKED VEHICLE. GRAVEL SHALL NOT BE COMPACTED.
3. GEOGRID SHALL BE MIRAFI BXG110 OR APPROVED EQUAL. GEOGRID SHALL BE DESIGNED BASED ON EXISTING SOIL CONDITIONS AND PROPOSED HAUL ROAD SLOPES.
4. IF MORE THAN ONE ROLL WIDTH IS REQUIRED, ROLLS SHOULD OVERLAP A MINIMUM OF SIX INCHES.
5. REFER TO MANUFACTURER'S SPECIFICATION FOR PROPER TYING AND CONNECTIONS.
6. LIMITED USE PERVIOUS ACCESS ROAD SHALL BE DRESSED AS REQUIRED WITH ONLY 1-4" CRUSHED STONE MEETING NYSDOT 703-02 SPECIFICATIONS.

BASIS OF DESIGN: TENCATE MIRAFI BXG110 GEOGRIDS; 365 SOUTH HOLLAND DRIVE, PENDERGRASS, GA; 800-685-9990 OR 706-693-2226; WWW.MIRAFI.COM

GEOWEB MATERIAL NOTES:

1. THE GEOWEB, OR COMPARABLE PRODUCT, IS SUGGESTED FOR USE ON ROAD PROFILES EXCEEDING 10%. THE GEOWEB PRODUCT IS INTENDED TO LIMIT SHIFTING STONE MATERIAL DURING USE.
2. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
3. WHERE REQUIRED, A NATIVE SOIL WEDGE SHALL BE PLACED TO ACCOMMODATE ROAD CROSS SLOPE OF 1.5%. NATIVE SOIL SHALL BE COMPACTED TO MATCH EXISTING SOIL CONDITIONS.
4. GRAVEL FILL MATERIAL SHALL CONSIST OF 1-4" CLEAN, DURABLE, SHARP-ANGLED CRUSHED STONE OF UNIFORM QUALITY, MEETING THE SPECIFICATIONS OF NYSDOT ITEM 703-02, SIZE DESIGNATION 3-5 OF TABLE 703.4. STONE MAY BE PLACED IN FRONT OF AND SPREAD WITH, A TRACKED VEHICLE. GRAVEL SHALL NOT BE COMPACTED.
5. GEOWEB SYSTEM SHALL BE PRESTO GEOSYSTEM GEOWEB OR APPROVED EQUAL. GEOWEB SHALL BE DESIGNED BASED ON EXISTING SOIL CONDITIONS AND PROPOSED HAUL ROAD SLOPES.
6. LIMITED USE PERVIOUS ACCESS ROAD SHALL BE FLUSH WHEN CONNECTIVE, ALIGN THE I-SLOTS FOR INTERLEAF AND END TO END CONNECTIONS. THE GEOWEB PANELS SHALL BE CONNECTED WITH ATRA KEYS AT THE INTERLEAD AND END TO END CONNECTIONS. REFER TO MANUFACTURER'S SPECIFICATION FOR PROPER INSTALLATION, TYING AN CONNECTIONS.

BASIS OF DESIGN: PRESTO GEOSYSTEMS GEOWEB; 670 NORTH PERKINS STREET, APPLETON, WI; 800-548-3424 OR 920-738-1222; INFO@PRESTOGEO.COM; WWW.PRESTOGEO.COM

WOVEN GEOTEXTILE MATERIAL NOTES:

1. SPECIFIED GEOTEXTILE WILL ONLY BE UTILIZED IN PLACID SOILS. PLACID SOILS CONSIST OF POORLY DRAINED SOILS COMPOSED OF FINELY TEXTURED PARTICLES AND ARE PRONE TO RUTTING. PLACID SOILS ARE TYPICALLY PRESENT IN LOW-LYING AREAS WITH HYDROLOGIC SOILS GROUP (HSG) OF C OR D OR AS SPECIFIED FROM AN ENVIRONMENTAL SCIENTIST, SOIL SCIENTIST OR GEOTECHNICAL DATA.
2. THE CONCERN OF POTENTIAL REDUCTION OF NATIVE INFILTRATION RATES DIE TO THE GEOTEXTILE MATERIAL WOULD NOT BE A SIGNIFICANT CONCERN IN POORLY DRAINED SOILS WHERE SEGREGATION OF PERVIOUS STONE AND NATIVE MATERIALS IS CRUCIAL FOR LONG TERM OPERATION AND MAINTENANCE.

BASIS OF DESIGN: TENCATE MIRAFI RSI-SERIES WOVEN GEOSYNTHETICS; 365 SOUTH HOLLAND DRIVE, PENDERGRASS, GA; 800-685-9990 OR 706-693-2226; WWW.MIRAFI.COM

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Project Manager	Discipline Lead
DJP	DJP
Designer	Reviewer
JL	ECR
Date Issued	Project Number
05/28/2021	12773.46

Sheet Name

DETAILS II

Drawing Number

C012

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PLAN VIEW

NOTES:

1. SOCK FABRIC AND COMPOST SHALL MEET ALL STATE STANDARDS.
2. COMPOST FILTER SOCK SHALL BE PLACED AT EXISTING LEVEL GRADE. BOTH ENDS OF THE BARRIER SHALL BE EXTENDED AT LEAST 8 FEET UP SLOPE AT 45 DEGREES TO THE MAIN BARRIER ALIGNMENT. MAXIMUM SLOPE LENGTH ABOVE ANY BARRIER SHALL NOT EXCEED THAT SPECIFIED FOR THE SIZE OF THE SOCK AND THE SLOPE OF ITS TRIBUTARY AREA.
3. TRAFFIC SHALL NOT BE PERMITTED TO CROSS COMPOST FILTER SOCKS.
4. ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES 1/2 THE ABOVE GROUND HEIGHT OF THE BARRIER AND DISPOSED IN THE MANNER DESCRIBED ELSEWHERE IN THE PLAN.
5. COMPOST FILTER SOCKS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT. DAMAGED SOCKS SHALL BE REPAIRED ACCORDING TO MANUFACTURER'S SPECIFICATIONS OR REPLACED WITHIN 24 HOURS OF INSPECTION.
6. BIODEGRADABLE COMPOST FILTER SOCKS SHALL BE REPLACED AFTER 6 MONTHS; PHOTODEGRADABLE SOCKS AFTER 1 YEAR. POLYPROPYLENE SOCKS SHALL BE REPLACED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
7. UPON STABILIZATION OF THE AREA TRIBUTARY TO THE SOCK, STAKES SHALL BE REMOVED. THE SOCK MAY BE LEFT IN PLACE AND VEGETATED OR REMOVED. IN THE LATTER CASE, THE MESH SHALL BE CUT OPEN AND THE MULCH SPREAD AS A SOIL SUPPLEMENT.

18" COMPOST FILTER SOCK

NO SCALE

* MOUNTABLE BERM USED TO PROVIDE PROPER COVER FOR PIPE

NOTES:

1. REMOVE TOPSOIL PRIOR TO INSTALLATION OF ROCK CONSTRUCTION ENTRANCE. EXTEND ROCK OVER FULL WIDTH OF ENTRANCE.
2. RUNOFF SHALL BE DIVERTED FROM ROADWAY TO A SUITABLE SEDIMENT REMOVAL BMP PRIOR TO ENTERING ROCK CONSTRUCTION ENTRANCE.
3. MOUNTABLE BERM SHALL BE INSTALLED WHEREVER OPTIONAL CULVERT PIPE IS USED AND PROPER PIPE COVER AS SPECIFIED BY MANUFACTURER IS NOT OTHERWISE PROVIDED. PIPE SHALL BE SIZED APPROPRIATELY FOR SIZE OF DITCH BEING CROSSED.
4. MAINTENANCE: ROCK CONSTRUCTION ENTRANCE THICKNESS SHALL BE CONSTANTLY MAINTAINED TO THE SPECIFIED DIMENSIONS BY ADDING ROCK. A STOCKPILE SHALL BE MAINTAINED ON SITE FOR THIS PURPOSE. ALL SEDIMENT DEPOSITED ON PAVED ROADWAYS SHALL BE REMOVED AND RETURNED TO THE CONSTRUCTION SITE IMMEDIATELY. IF EXCESSIVE AMOUNTS OF SEDIMENT ARE BEING DEPOSITED ON ROADWAY, EXTEND LENGTH OF ROCK CONSTRUCTION ENTRANCE BY 50 FOOT INCREMENTS UNTIL CONDITION IS ALLEVIATED OR INSTALL WASH RACK. WASHING THE ROADWAY OR SWEEPING THE DEPOSITS INTO ROADWAY DITCHES, SEWERS, CULVERTS, OR OTHER DRAINAGE COURSES IS NOT ACCEPTABLE.

STABILIZED CONSTRUCTION ENTRANCE

NO SCALE

NOTES:

1. CUT AND FILL SLOPES SHALL BE STABILIZED IMMEDIATELY UPON COMPLETION OF DRIVEWAY GRADING. THESE AREAS SHALL BE BLANKETED WHEREVER THEY ARE LOCATED WITHIN 50 FEET OF A SURFACE WATER OR WITHIN 100 FEET OF AN HIGH QUALITY OR EXCEPTIONAL VALUE SURFACE WATER OR WHERE A SUITABLE VEGETATIVE FILTER STRIP DOES NOT EXIST.
2. A TOP DRESSING COMPOSED OF HARD, DURABLE STONE SHALL BE PROVIDED FOR SOILS HAVING LOW STRENGTH.
3. DRIVEWAY DITCHES SHALL BE PROVIDED WITH ADEQUATE PROTECTIVE LINING WHEREVER RUNOFF CANNOT SHEET FLOW AWAY FROM THE DRIVEWAY.
4. DRIVEWAY SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT. DAMAGED DRIVEWAYS, DITCHES, OR CROSS DRAINS SHALL BE REPAIRED IMMEDIATELY.

CROSS CULVERT

NO SCALE

NOTES:

1. CONTAINMENT MUST BE STRUCTURALLY SOUND AND LEAK FREE AND CONTAIN ALL LIQUID WASTES.
2. CONTAINMENT DEVICES MUST BE OF SUFFICIENT QUANTITY OR VOLUME TO COMPLETELY CONTAIN THE LIQUID WASTES GENERATED.
3. WASHOUT MUST BE CLEANED OR NEW FACILITIES CONSTRUCTED AND READY TO USE ONCE WASHOUT IS 75% FULL.
4. WASHOUT AREA(S) SHALL BE INSTALLED IN A LOCATION EASILY ACCESSIBLE BY CONCRETE TRUCKS.
5. ONE OR MORE AREAS MAY BE INSTALLED ON THE CONSTRUCTION SITE AND MAY BE RELOCATED AS CONSTRUCTION PROGRESSES.
6. AT LEAST WEEKLY REMOVE ACCUMULATION OF SAND AND AGGREGATE AND DISPOSE OF PROPERLY.

CONCRETE WASHOUT AREA

NOT TO SCALE

PIPE DIAMETER, in (mm)						
Diameter in (mm)	12 (300)	15 (375)	18 (450)	24 (600)	30 (750)	36 (900)
A in (mm)	6.5 (165)	6.5 (165)	7.5 (191)	7.5 (191)	7.5 (191)	7.5 (191)
B (max) in (mm)	10.0 (254)	10.0 (254)	15.0 (381)	18.0 (475)	22.0 (559)	25.0 (635)
H in (mm)	6.5 (165)	6.5 (165)	6.5 (165)	6.5 (165)	8.6 (218)	8.6 (218)
L in (mm)	25.0 (635)	25.0 (635)	32.0 (813)	36.0 (914)	58.0 (1473)	58.0 (1473)
W in (mm)	29.0 (737)	29.0 (737)	35.0 (889)	45.0 (1143)	63.0 (1600)	63.0 (1600)

NOTES:

1. PRODUCT SHOWN FROM ADS, INC. OF HDPE MEETING ASTM D3350 MINIMUM CELL CLASSIFICATION 213320C
2. AN ALTERNATIVE SUPPLIER CAN BE USED AS LONG AS MINIMUM SPECIFICATIONS ABOVE ARE MET
3. WHEN PROVIDED, METAL THREADED FASTENING ROD SHALL BE STAINLESS STEEL
4. INVERT OF THE PIPE AND THE END SECTION SHALL BE AT THE SAME ELEVATION

TYPICAL FLARED END SECTION SPECIFICATION

NO SCALE

Q(cfs)	E.W.(ft)	D(ft)	LENGTH(ft)
0-10	10	0.5	10
10-20	16	0.6	20
20-30	24	0.7	30

CONSTRUCTION SPECIFICATIONS:

1. THE MATTING SHOULD BE A MINIMUM OF 4 FT. WIDE EXTENDING 6 INCHES OVER THE LIP AND BURIED 6 INCHES DEEP IN A VERTICAL TRENCH ON THE LOWER EDGE. THE UPPER EDGE SHOULD BUTT AGAINST SMOOTHLY CUT SOD AND BE SECURELY HELD IN PLACE WITH CLOSELY SPACED HEAVY DUTY WIRE STAPLES AT LEAST 12 INCHES IN LENGTH.
2. ENSURE THAT THE LIP IS LEVEL TO UNIFORMLY SPREAD DISCHARGE.
3. THE LIP SHALL BE CONSTRUCTED ON UNDISTURBED SOIL NOT FILL.
4. A 20 FOOT TRANSITION SECTION WILL BE CONSTRUCTED FROM THE DIVERSION CHANNEL TO THE SPREADER TO SMOOTHLY BLEND THE DIFFERENT DIMENSION AND GRADES.
5. THE RUNOFF DISCHARGE WILL BE OUTLETED ONTO A STABILIZED VEGETATED SLOPE NOT EXCEEDING 10%.
6. SEED AND MULCH THE DISTURBED AREA IMMEDIATELY AFTER CONSTRUCTION.

LEVEL SPREADER

NO SCALE

REQUIRED ELEMENTS:

1. MAXIMUM CONTRIBUTING LENGTH SHALL BE 150 FEET FOR PERVIOUS AND 75 FEET FOR IMPERVIOUS SURFACES.
2. RUNOFF SHALL ENTER THE BUFFER AS OVERLAND SHEET FLOW; A FLOW SPREADER CAN BE SUPPLIED TO ENSURE THIS. IF AVERAGE CONTRIBUTING SLOPE CRITERIA CANNOT BE MET (NOTE: A LEVEL SPREADER SHALL BE USED BETWEEN BUFFER SLOPES RANGING BETWEEN 3% AND 15%; FOR BUFFER SLOPES BEYOND 15% THIS PRACTICE CANNOT BE APPLIED)
3. MINIMUM WIDTH OF A VEGETATED FILTER STRIP OR UNDISTURBED RIPARIAN BUFFER SHALL BE 50 FEET FOR SLOPES OF 0% TO 8%, 75 FEET FOR SLOPES OF 8% TO 12% AND 100 FEET FOR SLOPES OF 12% TO 15%.
4. BUFFERS MUST BE FILLY VEGETATED.
5. SITTING AND SIZING OF THE PRACTICE SHOULD ADDRESS WQV AND RUNOFF REDUCTION REQUIREMENTS AND CANNOT RESULT IN OVERFLOW TO UNDESIGNATED AREAS.

NOTE: IN HSG C AND D BUFFER LENGTH SHOULD BE INCREASED BY 15%-20% RESPECTIVELY.

GRASS FILTER STRIP

NO SCALE

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Project Manager	Discipline Lead
DJP	DJP
Designer	Reviewer
JL	ECR
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Sheet Name

DETAILS III

Drawing Number

C013

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FRONT VIEW

01 CORNER POST 5"-6"Ø or 6"-7"Ø WITH BRACING FOR STABILITY
02 LINE POST 5"-6"Ø or 6"-7"Ø
03 BRACING CORNER POST 5"-6"Ø or 6"-7"Ø
04 FIXED-KNOT WOVEN WIRE
05 ACCESS GATE
06 2" x 2" WOOD STAKES
07 FIBER ROLL 9" Ø

FRONT VIEW

01 CORNER POST 5"-6"Ø or 6"-7"Ø WITH BRACING FOR STABILITY
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PERIMETER FENCE DETAIL

NO SCALE

DETAIL 6

DETAIL 3

DETAIL 5

TRACKER SOLAR ARRAY DETAIL

NO SCALE

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JL	ECR
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Sheet Name

DETAILS IV

Drawing Number

C014

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NOTES:

1. MAINTAIN A 2" MINIMUM RADIUS CLEAR OF MULCH AROUND THE TRUNK.

2. THE DISTANCE BETWEEN THE BOTTOM OF THE TRUNK FLARE AND THE FINISHED GRADE SHALL BE AS FOLLOWS:
   FOR SANDY OR LOAMY SOILS: 1"
   FOR CLAY OR POORLY DRAINED SOILS: 3"
   THE CONTRACTOR SHALL REVIEW THE APPROPRIATE PLANTING DEPTH WITH THE OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION.

3. WHEN TAGGING TREES AT THE NURSERY, MARK THE NORTH SIDE OF THE TREE IN THE FIELD AND WHEN INSTALLING, ROTATE TREE TO FACE NORTH WHENEVER POSSIBLE.

EVERGREEN TREE PLANTING

NO SCALE

FOR USE WITH 5/16" HARDWARE (1 PER PV MODULE)

Note: Weeb should fit snugly in slot

FOR USE WITH 1/4" HARDWARE (1 PER PV MODULE)

Note: Weeb may rotate during fastener tightening

DETAIL 1

Note: Torque connections to 10 ft-lbf

DETAIL 4

DETAIL 7

NOTES:

1. MAINTAIN A 2" MINIMUM RADIUS CLEAR OF MULCH AROUND THE TRUNK.

2. PLANTING BED DEPTH IN LAWN AREAS SHALL BE A MINIMUM OF 18" DEEP AND/OR AS DIRECTED BY THE OWNER'S REPRESENTATIVE.

3. ALL PLANTING BEDS SHALL BE FREE OF CONSTRUCTION DEBRIS.

SHRUB PLANTING

NO SCALE

DETAIL 2

RACKING SYSTEM DETAIL

NO SCALE

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280 East Broad Street, Suite #200
Rochester, NY 14604
www.bergmannpc.com
office: 585.232.5135

NY ALFRED I, LLC.

COMMUNITY SOLAR FARM PROJECT

5568 JERICHO HILL ROAD
ALFRED, NY 14803

Date Revised	Description
07/01/2021	REVISED PER TOWN COMMENTS
09/03/2021	REVISED PER TOWN COMMENTS
10/11/2021	REVISED PER TOWN COMMENTS

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Project Manager	Discipline Lead
DJP	DJP
Designer	Reviewer
JL	ECR
Date Issued	Project Number
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Sheet Name

DETAILS V

Drawing Number

C015

ARCH D 24x36
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DETAIL 1 scale 1":8' - PAD DISTRIBUTION

01 TRANSFORMER
02 INVERTER
03 REINFORCED CONCRETE SLAB PSI 3500
04 REINFORCED CONCRETE SLAB PSI 3500

FRONT

TOP VIEW

PAD DISTRIBUTION DETAIL

NO SCALE

DETAIL 2 scale 1":5' - TRANSFORMER

VIEW RIGTH

FRONT

TOP VIEW

01 RADIATORS
02 BOLTED COVER
03 LOW VOLTAGE BUSHING
04 MID VOLTAGE BUSHING

TRANSFORMER DETAIL

NO SCALE

DETAIL 3 scale 1":8' TRANSFORMER, INVERTER & AUXILIARY EQUIPMENT PAD

01 REINFORCED CONCRETE SLAB PSI 3500
02 BLINDING CONCRETE
03 COMPACTED GRADED AGGREGATES 3" Ø
04 ESTIMATED LOCATION FOR CONDUITS
05 REBAR #4@12" O.C., BOTH WAYS, TOP & BOTTOM

FRONT

TRANSFORMER, INVERTER & AUXILIARY EQUIPMENT PAD DETAIL

NO SCALE

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Project Manager	Discipline Lead
DJP	DJP
Designer	Reviewer
JL	ECR
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DETAILS VI

Drawing Number

C016

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Upland Seed Mix		
Low-Growing Wildflower & Grass Mix - ERNMX #156		
Seeding Rate: 20 lb per acre with a cover crop of grain rye at 30 lb per acre		
SCIENTIFIC NAME	**COMMON NAME**	**% OF MIX**
Festuca ovina	Sheep Fescue, Variety Not Stated	63.60%
Lolium multiflorum (L. perenne var. italicum)	Annual Ryegrass	17%
Linum perenne ssp. lewisii	Perennial Blue Flax	8%
Rudbeckia hirta	Blackeyed Susan, Coastal Plain NC Ecotype	2%
Coreopsis lanceolata	Lanceleaf Coreopsis, Coastal Plain NC Ecotype	2%
Chrysanthemum leucanthemum	Oxeye Daisy	2%
Chrysanthemum maximum	Shasta Daisy	1%
Chamaecrista fasciculata (Cassia f.)	Partridge Pea, PA Ecotype	1%
Papaver rhoeas, Shirley Mix	Corn Poppy/Shirley Mix	1%
Achillea millefolium	Common Yarrow	0.5%
Aster oblongifolius (Symphyotrichum oblongifolium)	Aromatic Aster, PA Ecotype	0.5%
Eupatorium coelestinum (Conoclinium c.)	Mistflower, VA Ecotype	0.5%
Monarda punctata, Coastal Plain SC Ecotype	Spotted Beebalm, Coastal Plain SC Ecotype	0.5%
Asclepias tuberosa	Butterfly Milkweed	0.3%
Pycnanthemum tenuifolium	Slender Mountainmint	0.1%
Company Information		
Ernst Conservation Seeds, Inc.		
Address: 8884 Mercer Pike, Meadville, PA 16335		
Phone: (800) 873-3321		
Web: http://www.ernstseed.com		

*OR APPROVED EQUIVALENT

NOTES:

1. WHEN FINAL GRADE IS ACHIEVED DURING NON-GERMINATING MONTHS, THE AREA SHOULD BE TEMPORARILY STABILIZED UNTIL THE BEGINNING OF THE NEXT PLANTING SEASON.
2. MULCHES SHOULD BE APPLIED AT THE RATES SHOWN IN THE MULCH APPLICATION RATES TABLE. VERY LITTLE BARE GROUND SHOULD BE VISIBLE THROUGH THE MULCH.
3. STRAW AND HAY MULCH SHOULD BE ANCHORED OR TACKIFIED IMMEDIATELY AFTER APPLICATION TO PREVENT BEING WINDBLOWN.
4. TOPSOIL SHOULD BE UNIFORMLY DISTRIBUTED ACROSS THE DISTURBED AREA TO A DEPTH OF 4 INCHES MINIMUM. SPREADING SHOULD BE DONE IN SUCH A MANNER THAT SEEDING CAN PROCEED WITH A MINIMUM OF ADDITIONAL PREPARATION OR TILLAGE.
5. TOPSOIL SHOULD NOT BE PLACED WHILE THE TOPSOIL OF SUBSOIL IS IN A FROZEN OR MUDDY CONDITION, WHEN THE SUBSOIL IS EXCESSIVELY WET, OR IN A CONDITION THAT MAY OTHERWISE BE DETRIMENTAL TO PROPER GRADING AND SEEDBED PREPARATION.
6. WHEN USED AS A MULCH REPLACEMENT, THE APPLICATION RATE (THICKNESS) OF THE COMPOST SHOULD BE 1/2" TO 3/4". COMPOST SHOULD BE PLACED EVENLY AND SHOULD PROVIDE 100% SOIL COVERAGE. NO SOIL SHOULD BE VISIBLE.
7. BLANKETING SHALL BE USED ON ALL SLOPES 3H:1V OR STEEPER OR AS NOTED ON THE PLANS.
8. PERMANENT STABILIZATION SHALL BE INSTALLED IMMEDIATELY UPON COMPLETION OF EARTH DISTURBANCE.
9. WETLAND SEED MIX SHOULD BE INSTALLED ONLY IN DRY SWALE.

SOIL AMENDMENT APPLICATION RATE EQUIVALENTS

SOIL AMENDMENT		PER ACRE	PER 1,000 SQ. FT.	PER 1,000 SQ. YD.	NOTES
PERMANENT SEEDING	AGRICULTURAL LIME	6 TONS	240 LB.	2,480 LB.	OR AS PER SOIL TEST: MAY NOT BE REQUIRED IN AGRICULTURAL FIELDS
	10-10-20 FERTILIZER	1,000 L.B.	25 LB.	210 LB.	
TEMPORARY SEEDING	AGRICULTURAL LIME	1 TON	40 LB.	410 LB.	TYPICALLY NOT REQUIRED FOR TOPSOIL STOCKPILES
	10-10-20 FERTILIZER	500 LB.	12.5 LB.	100 LB.	

COMPOST STANDARDS

ORGANIC MATTER CONTENT	80% - 100% (DRY WEIGHT BASIS)
ORGANIC PORTION	FIBROUS AND ELONGATED
pH	5.5 - 8.0
MOISTURE CONTENT	35% - 55%
PARTICLE SIZE	98% PASS THROUGH 1" SCREEN
SOLUBLE SALT CONCENTRATION	5.0 dS/m (mmhos/cm) MAXIMUM

MULCH APPLICATION RATES

MULCH TYPE	APPLICATION RATE (MIN.)			NOTES
	PER ACRE	PER 1,000 SQ. FT.	PER 1,000 SQ. YD.	
STRAW	3 TONS	140 LB.	1,240 LB.	EITHER WHEAT OR OAT STRAW, FREE OF WEEDS, NOT CHOPPED OR FINELY BROKEN
HAY	3 TONS	140 LB.	1,240 LB.	TIMOTHY, MIXED CLOVER AND TIMOTHY, OR OTHER NATIVE FORAGE GRASSES
WOOD CELLULOSE	1,500 LB.	35 LB.	310 LB.	DO NOT USE ALONE IN WINTER, DURING HOT AND DRY WEATHER OR ON STEEP SLOPES (> 3:1)
WOOD	1,000 LB. CELLULOSE	25 LB.	210 LB.	WHEN USED OVER STRAW OR HAY
WOOD CHIPS	4 - 6 TONS	185 - 275 LB.	1,650 - 2,500 LB.	MAY PREVENT GERMINATION OF GRASSES AND LEGUMES

SITE STABILIZATION - SEED MIX

Ernst Conservation Seeds
8884 Mercer Pike
Meadville, PA 16335
(800) 873-3321 Fax (814) 336-5191
www.ernstseed.com

Date: December 14, 2020

Fuzz & Buzz Mix - Standard - ERNMX-146

	Botanical Name	Common Name	Price/lb
26.40 %	*Lolium perenne, 'Crave', Tetraploid*	Perennial Ryegrass, 'Crave', Tetraploid	2.31
25.80 %	*Dactylis glomerata, 'Pennlate'*	Orchardgrass, 'Pennlate'	2.75
18.90 %	*Poa pratensis, 'Troy'*	Kentucky Bluegrass, 'Troy' (pasture type)	3.08
12.00 %	*Festuca elatior x Lolium perenne, Duo*	Festulolium, 'Duo'	1.87
5.70 %	*Trifolium hybridum*	Alsike Clover	3.58
5.70 %	*Trifolium pratense, Medium, Variety Not Stated*	Red Clover, Medium, Variety Not Stated	2.75
1.30 %	*Chrysanthemum leucanthemum*	Oxeye Daisy	30.80
1.30 %	*Cichorium intybus*	Blue Chicory	17.60
1.10 %	*Lotus corniculatus, 'Leo'*	Bird's Foot Trefoil, 'Leo'	5.78
0.90 %	*Coreopsis lanceolata*	Lanceleaf Coreopsis	26.40
0.90 %	*Solidago nemoralis, PA Ecotype*	Gray Goldenrod, PA Ecotype	396.00
100.00 %		**Mix Price/lb Bulk:**	**$6.98**

Seeding Rate: Expect to apply about 26.5 lbs per acre.
Forage & Pasture Sites; Solar Sites

*OR APPROVED EQUIVALENT

NOTES:

1. FUZZ & BUZZ MIX TO BE USED INSIDE THE FENCED AREAS. UPLAND SEED MIX TO BE USED OUTSIDE THE FENCE.

POLLINATOR -SEED MIX

Vegetative Stabilization - Stream Bank and Wetland Mix			
Seed: ERNMX-128 (or equivalent)[1]			Rate (lbs/acre)
Carex vulpinoidea	Fox Sedge	20%	15
Echinochloa crusgalli var. frumentacea	Japanese Millet	20%	
Elymus virginicus	Virginia Wild Rye	20%	
Polygonum pensylvanicum	Pennsylvania Smartweed	19.5%	
Agrostis scabra	Ticklegrass (Rough Bentgrass)	5%	
Panicum virgatum, Shelter	Shelter Switch Grass	5%	
Carex stipata	Awl Sedge	3%	
Panicum clandestinum	Tioga Deer Tongue	3%	
Carex scoparia	Blunt Broom Sedge	2.5%	
Bidens cernua Mix	Nodding Bur Marigold Mix	1%	
Juncus tenuis	Path Rush	1%	
Mulch: Straw			6,000
[1] ERNMX-128 = Ernst Conservation Seeds Seasonally Flooded Seed Mix			

*OR APPROVED EQUIVALENT

WETLAND -SEED MIX

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DETAILS VII

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