

Reference Is Made To:

- 1. Connecticut Guidelines For Soil Erosion and Sediment Control, MAY 2002.
2. Soil Survey Of New London County Connecticut, U.S.D.A. Soil Conservation Service.

Development Schedule:

- Prior to the start of construction, the contractor is to schedule a mandatory preconstruction meeting on site to discuss issues as they relate to the proposed project. These issues will include but not be limited to:
- Resource Protection
- Construction Vehicle Access and Parking.
- Construction Methods and Scheduling.
- Existing site utilities and mark-out coordination.
- Material delivery and stockpiling.
- Site Inspection procedures and As-Built drawings.

General Sequence of Construction:

- 1. Secure all necessary local, state, and federal permits. Register for all applicable state and federal permits as required.
2. Install anti-tracking pad at construction entrance and sediment fence backed with straw bales along proposed clearing limits.
3. Clear and remove all trees within the proposed clearing limits. Wood chips to be removed from site as indicated in Wood Chip Disposal Notes.
4. Install sediment fence backed with straw bales as shown down gradient of proposed development area.
5. Grub stumps in cleared areas and restore disturbed areas by loaming, seeding and mulching. Stockpile excess topsoil for use in site restoration. Seed these stockpiles with ryegrass and surround with sediment fence and staked straw bales. All stumps are to be ground or disposed of off-site at a location approved to accept stumps.
6. Install wetlands mitigation improvements and proposed solar array system. Install conduit, concrete utility pads and electrical equipment as required for harvesting power.
7. After all areas have been permanently stabilized, remove erosion control measures.

Soil Disturbance Phasing:

The project results in an estimated total soil disturbance of approximately 4.04 acres as a result of the following activities:

- 1. Clearing, grubbing, and restoration of Mounting Planes 1 and 2 - 1.85 acres
2. Clearing, grubbing, and restoration of Mounting Plane 3 - 2.14 acres
3. Miscellaneous site improvements (landscaping, utilities, etc.) - 0.05 acres

Each of the soil disturbing activities referenced above will be completed and disturbed areas stabilized to insure that the total disturbed area on site does not exceed 5.0 acres at any given time.

Construction Notes:

- 1. The Contractor shall Call Before You Dig at 811 or 1-800-922-4455 at least 72 hours, Saturdays, Sundays, and holidays excluded, prior to excavation at any location. A copy of the Call Before You Dig project reference number(s) shall be given to the Owner prior to excavation.
2. Locations of existing pipes, conduits, utilities, foundations and other underground objects are not warranted to be correct and the Contractor shall have no claim on that account should they be other than that shown.
3. Stone walls, fences, curbs, etc. shall be removed and replaced as necessary to perform the work. Unless otherwise indicated, all such work shall be incidental to construction of the project.
4. All other areas disturbed by the Contractor beyond payment limits shall be restored to no additional cost to the Owner.
5. The wetland buffer line shall be staked out in the field prior to any clearing operations.
6. All work shall be done in accordance with OSHA requirements and the contractor is responsible for compliance with these requirements. In addition, it shall be the responsibility of the Contractor to provide any excavation safeguards, necessary barricades, flagmen, etc. for traffic control and site safety.
7. All erosion & sedimentation control measures shall be installed prior to the start of construction.
8. All fuel, oil, paint or other hazardous materials used during construction should be stored in a secondary container and removed to a locked indoor area with an impervious floor during non-work hours.

Erosion Control Operation & Maintenance:

The applicant shall be responsible for the installation and maintenance of erosion and sediment control measures throughout the project. No construction shall proceed until proper sedimentation and erosion control methods have been installed as the sequence of construction necessitates.

Every precaution shall be used during construction to prevent and minimize the degradation of the existing water quality from stormwater runoff during construction. All activities shall be in conformance to and consistent with all applicable water quality standards and management practices as set forth by local, state and federal agencies.

The applicant shall appoint an onsite agent who shall be personally responsible for implementing this erosion and sediment control plan and enforcing the prescribed safeguards during the excavation and operation period.

This responsibility includes the installation and maintenance of control measures throughout the project, informing all parties engaged on site of the requirements and objectives of the plan, notifying the proper agency and officials of any transfer of this responsibility.

All erosion and sediment control measures shall be repaired, cleaned and/or replaced as necessary throughout the project in order to maintain complete and integral erosion and sediment control protection. Once in place, all erosion and sediment control measures are to remain in place in proper condition and be continuously maintained until final site restoration has been completed. Following such permanent stabilization, the erosion and sediment control measures shall be dismantled, removed, and disposed of in an approved manner. Additional erosion and sediment control measures beyond those shown on the plans or prescribed herein shall be put in place, whenever necessary, to address field conditions and/or as ordered by the engineer.

Qualified personnel provided by the applicant shall inspect disturbed areas and the locations where vehicles enter and leave the site. These areas shall be inspected at least once every seven calendar days and within twenty-four hours of the end of a storm that is 0.5 inches or greater. Additional measures beyond those indicated and/or shown on this plan set or prescribed herein shall be put in place, whenever necessary, to address field conditions and/or as required by the engineer. Where sites have been temporarily or finally stabilized, such inspection shall be conducted at least once every month for three consecutive months.

No soil, fill or other materials shall be deposited in surrounding inland wetlands.

All temporary storage and/or stockpile areas shall be properly stabilized to prevent erosion and suitably contained to prevent turbid runoff.

Dumping of oil or other deleterious materials on the ground is forbidden. The applicant shall provide a means of catching, retaining and properly disposing of drained oil, removed oil filters, or other deleterious material from equipment used on site. Vehicle maintenance shall be completed off site. All oil spills shall be immediately reported to the department of energy and environmental protection/hazardous materials office. Failure to do so may result in the imposition of fines under the applicable Connecticut General Statutes.

During construction, the applicant shall be responsible for site inspection and maintenance to assure proper performance of erosion control measures. Inspection and maintenance shall include, at a minimum, the following:

- Inspect all sediment fence and other erosion control measures. Repair or replace any damaged portion in order to insure its proper and effective operation. Remove accumulated sediment if required (greater than 4" depth).
- Inspect all stockpiles. Repair or replace any damaged portion of erosion control measures surrounding these areas in order to prevent sedimentation downgradient.
- Inspect grass restored areas. Revegetate any eroded or disturbed areas to provide permanent stabilization. Reseed and/or revegetate any areas that do not have a suitable stand of grass or any scoured areas to provide permanent stabilization.
- Inspect anti-tracking pad. Remove and dispose of pad and replace if pad is no longer functioning efficiently or accumulated sediment is to a depth of 2" below the stone surface.
- Inspect all access roadways. Stabilize surface as needed.
- Inspect downgradient areas of all solar arrays. Stabilize any eroded areas if found.

Erosion and Sediment Control

Best Management Practices (BMP's)

Minimize Disturbed Area and Protect Natural Features and Soil:

Topsoil:

Topsoil will be removed and stockpiled on site and utilized for final grading. Additional topsoil, if required will be supplied from an off-site source. Excess materials resulting from "cut slopes" in the areas of the proposed construction that are not intended for reuse will be immediately removed from the site. When soil is stockpiled, the slope of the stockpile will not exceed 2 horizontal to 1 vertical. Installation Schedule: As noted, excavated topsoil will be stockpiled on site. Sediment fence will be placed around any stockpiles that are not immediately removed from the site to protect the existing drainage ditches and off site areas. Maintenance and Inspection: The cut and fill areas will be inspected weekly for erosion. These areas will be stabilized immediately with erosion controls or graded to avoid possible disturbance to the existing drainage ditches or off site areas. See also maintenance and inspection procedures for silt fence.

Control Stormwater Flowing Onto and Through the Project:

Area for Silt to Accumulate:

BMP Installation Schedule: Before any grading operations begin, sediment fence backed with straw bales will be installed adjacent to the areas under construction just outside the limits of disturbance. Other adjacent off site areas will always be protected by a sediment fence or another BMP until final stabilization is achieved. Maintenance and Inspection: The graded areas and sediment fence will be inspected weekly to ensure that there are no structural failures and immediately after rain events.

Construction Specifications

Sediment Fence

- 1. The material for sediment fences should be a pervious sheet of synthetic fabric such as polypropylene, nylon, polyester, or polyethylene yarn.
2. The stakes used to anchor the filter fabric should be wood or metal. Wooden stakes should be at least 3 feet long and have a minimum diameter of 2 inches if a hardwood like oak is used. Stakes from soft woods like pine should be at least 4 inches in diameter.
3. Erect sediment fence in a continuous fashion from a single roll of fabric to eliminate gaps in the fence. If a continuous roll of fabric is not available, overlap the fabric from both directions only of stakes or posts. Overlap at least 6 inches. Excavate a trench to bury the bottom of the fabric fence at least 6 inches below the ground surface. This helps to prevent gaps from forming near the ground surface. Gaps would make the fencing useless as a sediment barrier.
4. The height of the fence posts should be 16 to 34 inches above the original ground surface. Space the posts no more than 10 feet apart.
5. The fence should be designed to withstand the runoff from a 10-year peak storm event. Once installed, it should remain in place until all areas upslope have been permanently stabilized by vegetation or other means.

- 1. Dig a 6" deep trench on the uphill side of the proposed barrier location.
2. Position the posts on the downhill side of the fabric barrier and drive the post 1.5 feet into the ground.

- 3. Lay the bottom 6" of the fabric barrier in the trench to prevent undermining and backfill. Maintenance:

- 1. Sediment should be removed once it has accumulated to 4" depth.
2. Filter fabric should be replaced whenever it has deteriorated to such an extent that the effectiveness of the fabric is reduced (approximately six months).
3. Sediment fence should remain in place until disturbed areas have been permanently stabilized.
4. All sediment accumulated at the fence should be removed and properly disposed of before the fence is removed. Inspection:

- 1. Inspect sediment fence before anticipated storm events (or series of storm events such as intermittent showers over one or more days) and within 24 hours after the end of a storm event of 0.5 inches or greater, and at least once every seven calendar days, at least 72 hours apart.
2. Where sites have been finally or temporarily stabilized, such inspections may be conducted once per month.

Straw Bale Barrier

Installation

- 1. Excavate trench 4" and place material upslope of trench.
2. Place bales in a single row in the trench, lengthwise, with ends of adjacent bales tightly abutting one another and the bindings oriented around the sides rather than along the tops and bottoms of the bales (to avoid premature rotting of the bindings).
3. Anchor each bale with at least 2 stakes, driving the first stake in each bale toward the previously laid bale to force the bales together. Stakes must be driven a minimum of 18 inches into the ground. Fill any gaps between the bales with straw to prevent water from escaping between the bales.
4. Backfill the bales with the excavated trench material to a minimum depth of 4 inches on the uphill side of the bales. Tamp by hand or machine and compact the soil. Loose straw scattered over the disturbed area immediately uphill from the hay bale barrier tends to increase barrier efficiency. Maintenance

- 1. Inspect the straw bale barrier at least once a week and within 24 hours of the end of a storm with a rainfall amount of 0.5 inch or greater to determine maintenance needs. For dewatering operations, inspect prior to, during, and after pumping operations. Remove the sediment deposits when sediment deposits reach approximately one half the height of the barrier.
2. Replace or repair the barrier within 24 hours of observed failure. Failure of the barrier has occurred when sediment fails to be retained by the barrier because:
(a) the barrier has been overtopped, undercut or bypassed by runoff water,
(b) the barrier has been moved out of position, or
(c) the straw bales have deteriorated or been damaged.

- 3. When repetitive failures occur at the same location, review conditions and limitations for use and determine if additional controls are needed to reduce failure rate or replace straw bale barrier.
4. Maintain the straw bale barrier until the contributing area is stabilized. After the upslope areas have been permanently stabilized, pull the stakes out of the hay bales. Remove sediment.

Dust Control:

Dust from the site will be controlled by using a mobile pressure-type distributor truck that will apply potable water at rate of 300 gallons per acre and minimized as needed to avoid ponding. Installation Schedule: Dust control will be implemented as needed once site grading has been initiated, and during windy conditions exceeding 20mph, while site grading is occurring. Spraying of potable water will be performed once per day during the months of March through May and no more than three times per day from June to September or whenever dryness of soil warrants it. Maintenance Schedule: At least one mobile unit will be available at all times during construction to apply potable water. Each mobile unit shall be equipped with a positive shutoff valve to prevent over watering of disturbed areas.

Soil Stabilization:

Temporary Stabilization:

BMP Description: Hydromulching will be used on slopes where construction will cease for more than 14 days and over the winter months to stabilize erodible materials. Straw mulch and wood fiber will be mixed with a tackifier and applied uniformly by machine with an application rate of 2 tons (100-200 bales) per acre. The contractor will use crimping equipment to bind the mulch to the soil if the tackifier is not effective. Netting will be used on small areas with steep slopes. In areas where hydromulching is infeasible, straw mulch will be applied by hand at the same application rate. Temporary Seeding will be used on any area where construction activity is suspended for more than twenty-one days to stabilize erodible materials. Refer to the Erosion Control Plan for guidance on seeding mixtures, rates, and acceptable planting dates for temporary seeding.

Installation Schedule: Portions of the site where construction activities will temporarily cease for more than 14 days will be stabilized with mulch. Where construction activities will temporarily cease for more than 21 days it will be temporarily seeded. Winter stabilization will be provided between December 25 and March 30. Maintenance and Inspection: Mulched areas will be inspected weekly to ensure that adequate coverage is provided. Repairs will be conducted as needed.

Seed Mixture For Temporary Seeding

Table with 3 columns: Annual Ryegrass, LBS./ACRE, LBS./1000 S.F. Values: 40, 1.0

See Figure 1S-2 in the 2002 Guidelines for additional temporary seed mixes.

Final Stabilization:

Permanent seeding should be applied immediately after the final design grades are achieved at the site but no later than 14 days after construction activities have permanently ceased. After the entire site is stabilized, any sediment that has accumulated will be removed and hauled off site to a licensed landfill facility. Construction debris, trash, and temporary BMP's will also be removed and any areas disturbed during removal will be seeded immediately.

Seedbed Preparation:

- 1. Topsoil will be spread over final graded areas at a minimum depth of four inches. Topsoil shall inclusively mean a soil meeting one of the following soil textural classes established by the United States Department of Agriculture classification system based upon the proportion of sand, silt, and clay size particles after passing a 2 millimeter (mm) sieve and subjected to a particle size analysis:
1.1. Loamy sand, including coarse, loamy fine, and loamy very fine sand, sandy loam, including coarse, fine and very fine sandy loam, loam, or silt loam with not more than 60% silt;
1.2. Containing not less than 6% and not more than 20% organic matter as determined by loss-on-ignition of oven dried samples dried at 105 degrees centigrade;
1.3. Possessing a pH range of 6.0-7.5, except if the vegetative practice being used specifically requires a lower pH, then pH may be adjusted accordingly;
1.4. Having soluble salts not exceeding 500 ppm;
1.5. And that is loose and friable and free from refuse, stumps, roots, brush, weeds, frozen particles, rocks, and stones over 1.25 inches in diameter, and any material that will prevent the formation of a suitable seedbed or prevent seed germination and plant growth.

- 2. Fertilizer will be applied to the seedbed as needed. Fertilizers will be commercial type of uniform composition, free-flowing and conforming to the applicable State and Federal laws. Choose native species that are adapted to local weather and soil conditions wherever possible to reduce water and fertilizer inputs and lower maintenance costs.
3. Topsoil will be loosened by raking, tilling or other suitable methods. Final stabilization should be installed on portions of the site where construction activities have permanently ceased but no later than 14 days after construction ceases.

All seeded areas will be inspected weekly during construction activities for failure until a dense cover of vegetation has been established. If failure is noticed on the seeded area, the area will be reseeded, fertilized and mulched immediately. After construction is complete at the site permanent stabilization measures will be monitored until final stabilization is reached.

Seed Mixture For Upland Areas:

Table with 3 columns: Kentucky Bluegrass, LBS./ACRE, LBS./1000 S.F. Values: 20, 0.45

Table with 3 columns: Creeping Red Fescue, LBS./ACRE, LBS./1000 S.F. Values: 20, 0.45

Table with 3 columns: Perennial Ryegrass, LBS./ACRE, LBS./1000 S.F. Values: 5, 0.10

Table with 3 columns: Annual Ryegrass, LBS./ACRE, LBS./1000 S.F. Values: 45, 1.00

The recommended seeding dates are: April 1-June 15 and August 1-September 15

Spill Prevention and Control Plan:

- 1. Vehicle Maintenance: Vehicles and equipment will be maintained off-site. All vehicles and equipment including subcontractor vehicles will be checked for leaking oil and fluids upon entering the site. Vehicles leaving fluid will not be allowed on-site. Drip pans will be placed under all vehicles and equipment that are parked overnight. Parking shall be in the areas designated on the site logistics plan or as approved by the property owner.
2. Vehicle Fueling: Refueling of vehicles and equipment shall be conducted in the designated laydown area. The location within the laydown area shall be comprised of an impervious surface without access to any subsurface drainage structures.

- 3. Hazardous Material Storage: Hazardous materials including but not limited to fuel, oil and petroleum products and solvents will be stored in an approved covered storage unit and provided with secured secondary containment with an impervious floor in accordance with federal and municipal regulations.
4. Material safety data sheets, a material inventory, and emergency contact information will be maintained at the on-site project trailer.
5. Spill Kits: Spill kits will be stored within the material storage area, concrete washout areas, and designated fueling area.
6. Spills: All spills will be cleaned up immediately upon discovery. Spent absorbent materials and rags shall be placed in a sealed drum and will be hauled off-site immediately after the spill is cleaned up for disposal at the appropriate landfill. Spills or releases of hazardous chemicals or petroleum products shall be promptly reported to CTDEEP at 1-800-424-3338 and the National Response Center 1-800-424-8802.

In accordance with Connecticut General Statutes the contractor shall within 24 hours of verbal notification complete a written "Report of Petroleum or Chemical Product Discharge, Spillage or Release" and mail it to: CTDEEP, Bureau of Waste Management, 79 Elm Street, Hartford, CT, 06106-5127.

Installation Schedule: The spill prevention and control procedures will be implemented once construction begins on-site.

Spill Prevention and Control

Best Management Practices (BMP's) Description:

1. Material Handling and Waste Management:

Waste Materials: All waste materials will be collected and disposed of into metal waste dumpsters in designated areas. Dumpsters will have a secure light lid, be placed away from storm water drains and structures, and will meet all federal, state, county, and local regulations. Only trash and construction debris will be placed in the dumpsters. Construction materials will not be buried on site.

Maintenance and Inspection: The dumpsters will be inspected weekly and immediately after storm events. The dumpster will be emptied weekly or more frequently if needed, and taken to the appropriate landfill.

Hazardous Waste Materials:

BMP Description: All hazardous waste materials including oil filters, petroleum products, paint, and equipment maintenance fluids will be stored in structurally sound and sealed shipping containers in a designated area. Hazardous waste materials will be stored in appropriate and clearly marked containers and segregated from other non-waste materials. Secondary containment will be provided for all waste materials in a designated area and will consist of an impervious available spill pallets. Additionally, all hazardous waste materials will be disposed of in accordance with federal, state, county, and local regulations. Hazardous waste materials will not be disposed of into the on-site dumpsters.

Maintenance and Inspection: The hazardous waste materials area will be inspected weekly and after storm events. The storage area will be kept clean, well organized and equipped with ample cleanup supplies as appropriate for the materials being stored. Material safety data sheets, material inventory, and emergency contact numbers will be maintained in the office trailer.

Sanitary Waste:

BMP Description: Portable toilets, located in the staging area, will be provided at the site throughout the construction phase. The toilets will be located away from concentrated drainage flow paths and will have collection pans underneath as secondary containment.

Maintenance and Inspection: Sanitary waste will be collected a minimum of once a week and shall be inspected weekly for evidence of leaking holding tanks.

Recycling:

BMP Description: Wood pallets, cardboard boxes, and other recyclable construction scraps will be disposed of in a designated dumpster for recycling. The dumpster will have a secure watertight lid, be placed away from stormwater conveyances and drains and meet all local and state solid-waste management regulations. Only solid recyclable construction scraps from the site will be deposited in the dumpster.

Maintenance and Inspection: The recycling dumpster will be inspected weekly. The recycling dumpster will be emptied when full and taken to an approved recycling center by the contractor. If recyclable construction wastes are exceeding the dumpster's capacity, the dumpsters will be emptied more frequently.

2. Designate Washout Areas:

Concrete Washout

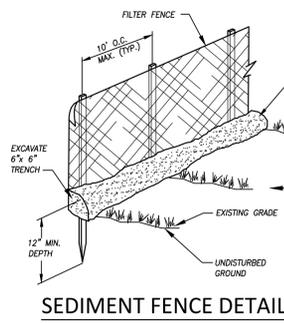
BMP Description: A designated temporary, above-grade concrete washout area will be constructed for concrete washout. The washout area will be lined with plastic sheeting at least 10 mils thick and free of holes or tears. Concrete pours will not be conducted during or before an anticipated storm event. Concrete mixer trucks and chutes will be washed in the designated washout area or concrete wastes will be properly disposed of off-site. When the temporary washout area is no longer needed for the construction project, the hardened concrete materials used to construct the area will be removed and disposed of in accordance with all applicable local, State and Federal regulations, and the area will be stabilized.

Installation Schedule: The washout area will be constructed before concrete pours occur at the site.

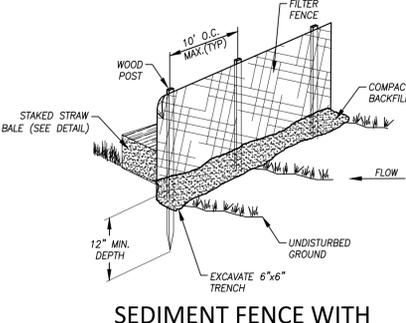
3. Vehicle Fueling and Maintenance Practices:

BMP Description: Several types of vehicles and equipment will be used on-site throughout the project, including graders, scrapers, excavators, loaders, rollers, trucks and trailers, backhoes, and forklifts. All major equipment/vehicle fueling will be performed in the staging area. This proposed activity is to be situated so that drainage facilities or water courses located in the area are not at risk from potential infiltration. Absorbent, spill-cleanup materials and spill kits will be available at the combined staging and materials storage area. Drip pans will be placed under all equipment parked overnight. Fuel will be delivered to the site on an as needed basis by a fuel delivery service. Fueling of equipment will only occur in designated fueling areas. Vehicle maintenance including washing is prohibited on site.

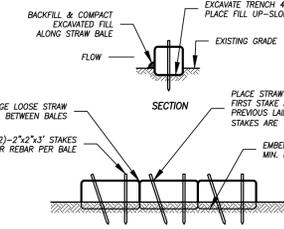
Installation Schedule: BMPs implemented for fueling activities will begin at the start of the project.



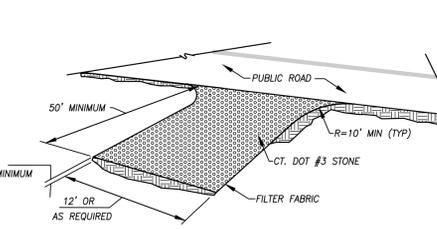
SEDIMENT FENCE DETAIL NOT TO SCALE



SEDIMENT FENCE WITH STAKED STRAW BALE BACKING NOT TO SCALE



STRAW BALE BARRIER DETAIL NOT TO SCALE



ANTI-TRACKING PAD NOT TO SCALE

Rare Plant Protection Plan:

(Prepared by All-Points Technology Corporation)

The Rare Plant Protection Plan consists of various types of protection measures including protection of "Sand Barren" habitat areas located within and adjacent to the Project Areas, contractor awareness training, general protection measures, and post-construction protection/monitoring requirements. The Sand Barren habitat areas have been identified to support a variety of rare plant species protected by the Connecticut Endangered Species Act. Therefore, it is important the following protection measures are implemented to protect against potential impacts to any State-protected rare plants during construction activities.

It is of the utmost importance that the Contractor comply with the Rare Plant Protection Plan requirements for the implementation of these protective measures and the education of its employees and subcontractors performing work within the Project Areas. This protection program shall be implemented regardless of time of year construction activities occur. All-Points Technology Corporation, P.C. ("APT") will serve as the Project Environmental Monitor for this project to ensure that the Rare Plant Protection Plan is implemented properly. The Contractor shall contact Matthew Gustafson, Environmental Scientist at APT, at least five (5) business days prior to the pre-construction meeting. Mr. Gustafson can be reached by telephone at (860) 663-1169 ext. 202 or via email at mgustafson@allpointstech.com.

1. Sand Barren Habitat Protection Measures:

- a. All Sand Barren habitat areas shall be isolated from the Project Areas through installation of orange construction fencing. APT will stake out Sand Barren habitat areas prior to any construction activities or equipment mobilization to the Project Areas. The Contractor shall install orange construction fencing around the identified Sand Barren habitat areas to isolate them from potential encroachment by construction vehicles and equipment throughout the duration of the construction project. This isolation fencing shall be inspected daily by the Contractor to ensure that it maintained in good condition. The Contractor shall repair any damaged fencing within 24 hours.

- b. Where the Sand Barren habitat areas occur in proximity to the existing access road to be used during construction, special measures shall be employed by the Contractor for temporary crossing to avoid potential long term impacts and minimize soil disturbance and compaction. Temporary access points across the Sand Barren habitat areas shall be identified by the Contractor and inspected and approved by the Project Environmental Monitor prior to construction. Special construction matting shall be installed at these pre-determined temporary access points. Prior to the installation of mats, geotextile fabric will be placed on the ground to minimize soil and plant disturbance during mat installation and removal activities.

2. Contractor Awareness Training

- a. Prior to work on site and initial deployment/mobilization of equipment and materials, the Contractor shall attend an educational session at the pre-construction meeting with the Project Environmental Monitor. This orientation and educational session will consist of information on rare plants and the associated Sand Barren habitat areas and the need to follow protective measures as described herein.

3. General Protection Measures

- a. All wood chips generated by the Project shall be removed off site. Distribution of wood chips on site can adversely affect soil conditions, resulting in potential impact to rare plant species.

- b. To reduce the potential impacts of soil compaction as a result of the construction of the Project only low-ground-pressure equipment (<10 PSI) shall be used. If low-pressure-ground equipment is not feasible, construction mats shall be installed prior to any work to adequately distribute the weight of said vehicle to minimize soil disturbance and compaction. Prior to the installation of mats, geotextile fabric will be placed on the ground to minimize soil and plant disturbance during mat installation and removal activities. These construction mats should be removed immediately following completion of work within segments of the Project Areas.

- c. All work areas will be surveyed by the Project Environmental Monitor prior to construction. If any of the listed rare plant species should be observed they will be either protected during construction through isolation using orange construction fencing, or transplanting to an area outside the project limits, as determined by the Project Environmental Monitor.

4. Post-Construction Protection/Monitoring Requirements:

- a. Inspections will be performed throughout the Project Area for all listed rare plant species for an entire growing season following completion of construction. The primary purpose of this survey would be to detect rare plants in locations where they may be expected to be impacted by shading, and move the plant to appropriately open habitat. A report will be generated at the end of the monitoring growing season documenting any rare plant occurrences discovered, any transplanted rare plants, changes in plant communities as the result of development within the Project Areas, and any recommendations to changes of the vegetation maintenance regime.

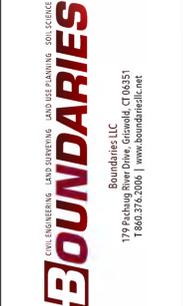
- b. Limit mowing under the solar arrays to the minimum required to maintain system performance and maintenance standards. Modify mowing regimen as necessary following recommendations from post-construction monitoring report.

Wood Chip Disposal Notes:

(Prepared by All-Points Technology Corporation)

All wood chips generated by the proposed project shall be removed off site for proper disposal. Spreading of wood chips on site can adversely affect soil conditions, resulting in potential impact to rare plant species known to occur within the Project Areas.

As a majority of the listed rare plant species occur in sandy exposed soils, spreading of wood chips on-site will impact these types of potential habitats in two ways. First, wood chips would shade out potential habitat and smother either existing rare plant occurrences, or reduce the quality for potential future volunteer rare plant species that occur in these open sandy/barren soil types. Secondly, wood chips will eventually decompose releasing nutrients into the nutrient poor top soil that is preferred by the rare plant species. Release of nutrients would promote growth of less desirable grass and weed species that would outcompete and displace rare plant species. Therefore, in order to protect existing and future rare plant species habitat, all wood chips generated by the project shall be removed off-site for proper disposal.

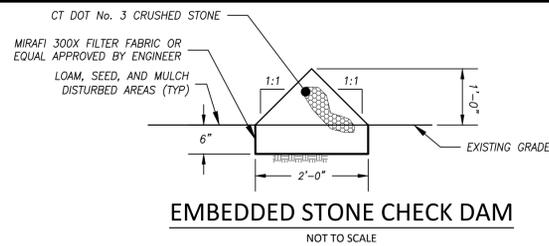


SolarCity Corporation Proposed Solar Photovoltaic System 1240 Poquonnock Road Groton, Connecticut Erosion & Sediment and Spill Prevention & Control Plan

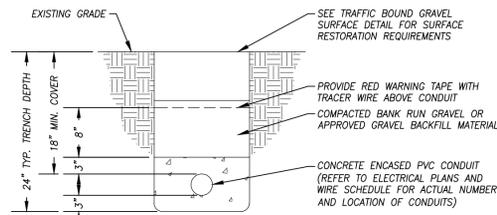
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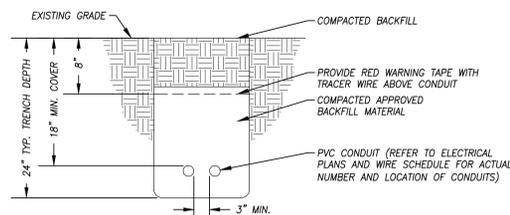
SHEET NO. 9 10



EMBEDDED STONE CHECK DAM
NOT TO SCALE



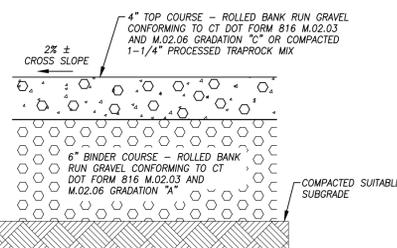
CONDUIT TRENCH THROUGH GRAVEL DRIVE DETAIL
NOT TO SCALE



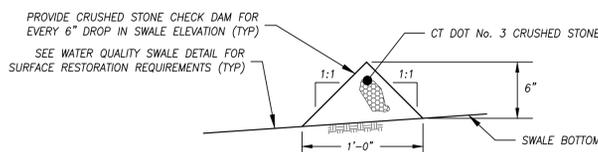
NON-TRAFFIC CONDUIT TRENCH DETAIL
NOT TO SCALE



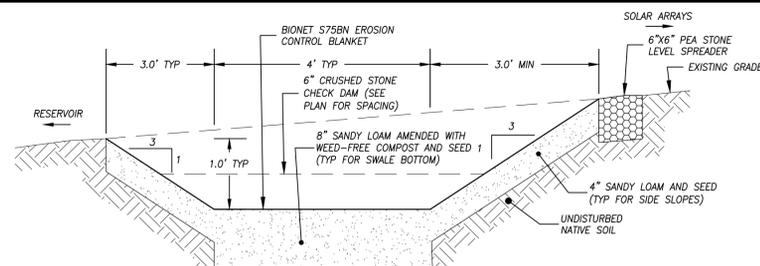
IDENTIFICATION SIGNAGE
NOT TO SCALE



TRAFFIC BOUND GRAVEL SURFACE DETAIL
NOT TO SCALE

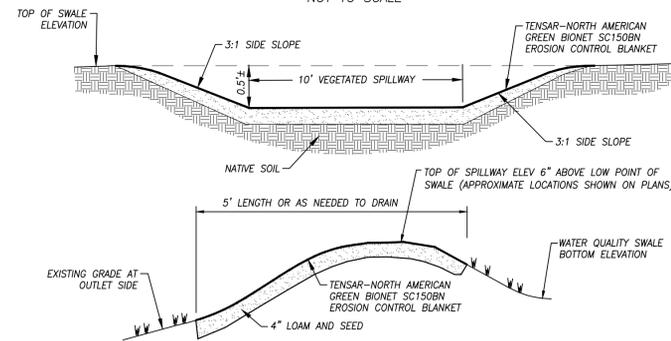


WATER QUALITY SWALE CHECK DAM DETAIL
NOT TO SCALE



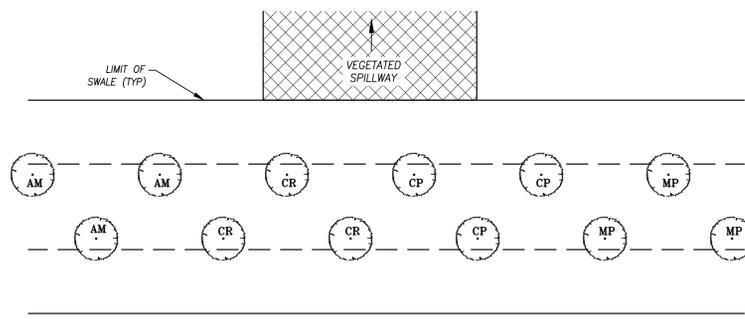
WATER QUALITY SWALE DETAIL
NOT TO SCALE

- NOTES:**
- SEE PLAN FOR WATER QUALITY SWALE LOCATION(S).
 - SEED MIX TO BE NEW ENGLAND EROSION CONTROL/RESTORATION MIX FOR DRY SITES BY NEW ENGLAND WETLAND PLANTS, INC. APPLIED AT 75% OF THE MANUFACTURER'S RECOMMENDED APPLICATION RATE AND NEW ENGLAND CONSERVATION/WILDLIFE MIX BY NEW ENGLAND WETLAND PLANTS, INC. APPLIED AT 50% OF THE MANUFACTURER'S RECOMMENDED APPLICATION RATE.
 - STRIP TOPSOIL FROM WATER QUALITY SWALE AREA; AMEND WITH WEED-FREE COMPOST (30% TO 40% BY VOLUME) TO PROVIDE SOIL MEDIA FOR WATER QUALITY SWALE BASE; EXCAVATE FROM EXISTING GRADE; LOAM, SEED AND STABILIZE WITH TENSAR-NORTH AMERICAN GREEN BIONET S75BN EROSION CONTROL BLANKET.
 - EROSION CONTROL BLANKET TO BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S REQUIREMENTS.



- NOTES:**
- SEE PLAN FOR APPROXIMATE SPILLWAY LOCATION(S). FINAL LOCATIONS TO BE DETERMINED BASED ON ACTUAL LOW POINTS IN SWALE GRADING.
 - SEED MIX TO BE NEW ENGLAND EROSION CONTROL/RESTORATION MIX FOR DRY SITES BY NEW ENGLAND WETLAND PLANTS, INC. APPLIED AT 75% OF THE MANUFACTURER'S RECOMMENDED APPLICATION RATE AND NEW ENGLAND CONSERVATION/WILDLIFE MIX BY NEW ENGLAND WETLAND PLANTS, INC. APPLIED AT 50% OF THE MANUFACTURER'S RECOMMENDED APPLICATION RATE.
 - STRIP TOPSOIL FROM SPILLWAY AREA; EXCAVATE FROM EXISTING GRADE; LOAM, SEED AND STABILIZE WITH TENSAR-NORTH AMERICAN GREEN BIONET S75BN EROSION CONTROL BLANKET.
 - EROSION CONTROL BLANKET TO BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S REQUIREMENTS.

VEGETATED SPILLWAY DETAIL
NOT TO SCALE

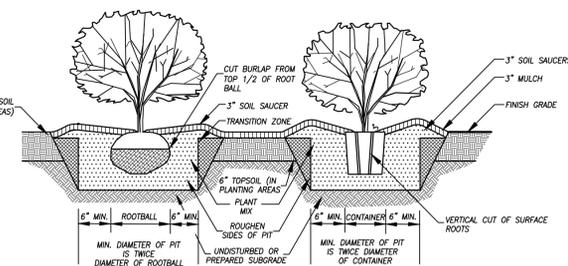


BIOFILTRATION CELL PLANTING SCHEDULE

SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	QUANTITY	SPACING
AM	ARONIA MELANOCARPA	BLACK CHOKEBERRY	3'-4'	27	3-5 FT O.C.
CP	COMPTONIA PEREGRINA	SWEET FERN	3'-4'	27	3-5 FT O.C.
CR	CORNUS RACEMOSA	GRAY DOGWOOD	3'-4'	27	3-5 FT O.C.
MP	MORELLA (MYRICA) PENNSYLVANICA	BAYBERRY	3'-4'	27	3-5 FT O.C.

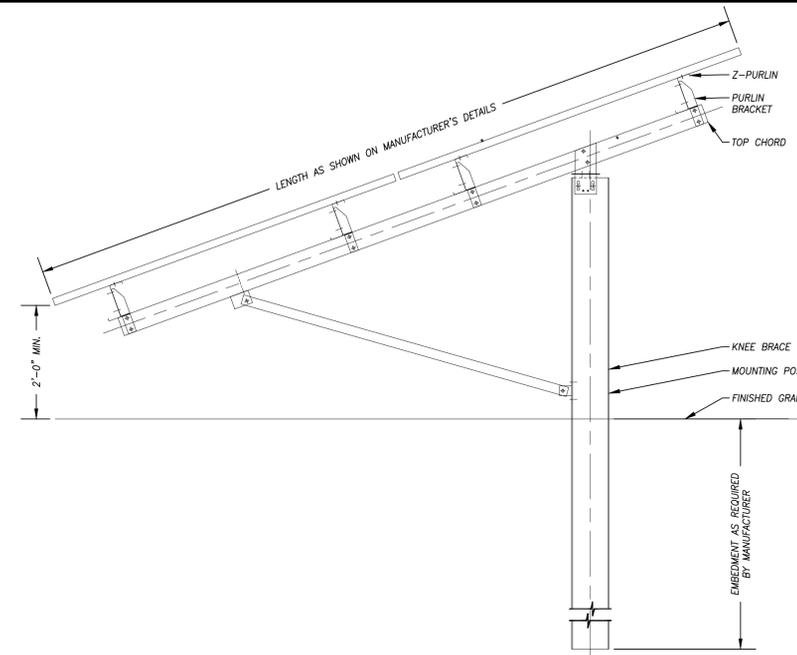
- NOTES:**
- WATER QUALITY SWALE TO BE UNDERSOWN WITH A NATIVE SEED MIX TO BE NEW ENGLAND EROSION CONTROL/RESTORATION MIX FOR DRY SITES APPLIED AT 75% OF THE MANUFACTURER'S RECOMMENDED APPLICATION RATE AND NEW ENGLAND CONSERVATION/WILDLIFE MIX APPLIED AT 50% OF THE MANUFACTURER'S RECOMMENDED APPLICATION RATE (SUPPLIED BY NEW ENGLAND WETLAND PLANTS, INC. (413-548-8000), OR APPROVED EQUIVALENT).
 - SHRUBS SHALL BE PROVIDED IN #2 CONTAINERS.

BIOFILTRATION CELL TYPICAL PLANTING DETAIL
NOT TO SCALE



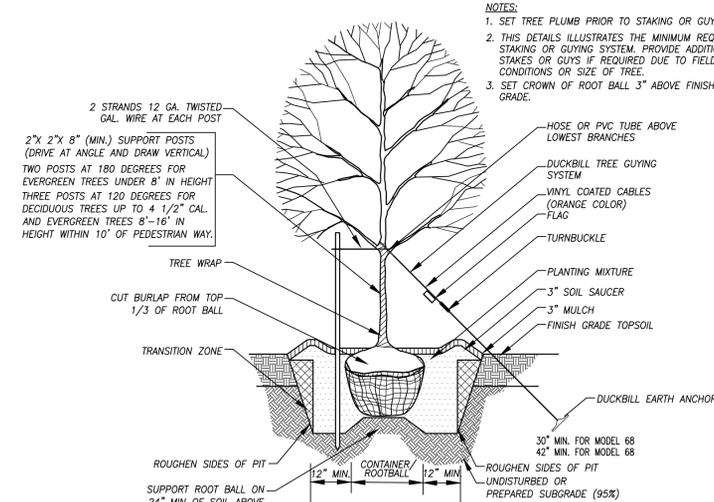
- NOTES:**
- SET CROWN OF ROOTBALL 2" ABOVE FINISH GRADE.
 - FOR CONTAINER GROWN STOCK USE FINGERS OR A SHARP KNIFE TO LOOSEN ROOTS OUT OF THE OUTER LAYER OF POTTING SOIL; THEN CUT OR PULL APART ANY ROOTS CIRCLING THE PERIMETER OF THE CONTAINER.
 - AT PLANTING THOROUGHLY SOAK THE ROOT MASS AND ADJACENT SOIL; REPEAT SEVERAL TIMES DURING THE FIRST MONTH AND THROUGHOUT THE FOLLOWING TWO SUMMERS.

SHRUB PLANTING DETAIL
NOT TO SCALE



TYPICAL POST MOUNTED RACKING SYSTEM DETAIL
NOT TO SCALE

- NOTES:**
- SEE MANUFACTURER'S DETAIL SHEETS FOR ADDITIONAL INFORMATION REGARDING RACKING SYSTEM REQUIREMENTS AND INSTALLATION PROCEDURES. RACKING SYSTEM TO BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S REQUIREMENTS.



TREE PLANTING DETAIL
NOT TO SCALE

LANDSCAPE SCHEDULE

SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	QUANTITY	COMMENT
TH0C2	Thuja Standishii x Placota	"Green Giant" Arborvitae	4'-5" Height	58	C.G.

PLANTING SPECIFICATIONS:

- All materials and construction methods shall conform to the requirements of the Connecticut Association of Landscape Contractors Specification. All plants shall be nursery grown and conform to the latest edition of ANSI Z60.1, AMERICAN STANDARD FOR NURSERY STOCK and also the minimum guidelines established for nursery stock published by the American Association of Nurserymen, Inc.
- No substitution of plant materials will be allowed without the prior written consent of the Project Owner. Where a plant size range is provided at least 50% of the plants shall be of the larger size.
- All lawn and planting area soil preparation shall be fertilized and amended according to recommendations of a soil analysis provided by an approved soil testing laboratory.
- All exterior ground areas disturbed by construction and not covered by buildings, structures, paving, continuous planting beds or other site improvements shall be graded, topsoiled to a minimum depth of 4" and grass seeded. Provide lawn development in all areas of selective clearing as directed.
- All plant pits must be free draining. Break up the bottom of the hole by fork if necessary to ensure plant has proper drainage.
- Set all plants in center of plant pits, plumb and straight and as detailed on the drawing. All plant material shall bear the same relationship to finished grade as to original planting grade prior to digging. Trees shall be planted with the junction of roots and stem level with finished grade.
- Handle balled and burlapped plants from the ball only. Once positioned in the hole, remove the top 1/3 of the burlap from the root ball without disturbing the roots.
- Face each plant to give the best appearance. Final location of plant material should be approved by the Project Owner in the field.
- Fill plant pits 2/3 their depth with prepared planting mixture, water thoroughly and allow to settle. Complete back-filling, water thoroughly to eliminate any voids and air pockets. Provide additional back-fill as necessary to conform to required elevation and as detailed.
- Form saucer and install mulch over entire plant pit and saucer area as detailed.
- All tree staking or guying shall be completed immediately after planting, but in no instance more than 24 hours after planting. See staking/guying detail. At the completion of the maintenance period remove all stakes, flags, guys, tree wrap, and anchors.
- Mulch all new shrub beds and plant pits to achieve a 3" depth after settlement. Mulch all ground cover beds to achieve a 2" depth after settlement. Mulch for saucers and planting areas to be a double shredded bark mulch.
- All plants shall be guaranteed for a period of one full year after inspection and acceptance by the Owner's representative, and shall have at least 80% healthy growth at the end of the guarantee period.
- Landscape planting materials as proposed by this plan are Connecticut native and/or non-invasive species. This landscape plan has been designed to incorporate species which are prolific in USDA plant hardiness zone 6b and which require minimal energy input for upkeep and maintenance. References utilized for Connecticut native and non-invasive species selection include the Connecticut Botanical Society, the Connecticut agricultural experiment station, the U.S. Department of Transportation Federal Highway Administration, 2004 Connecticut Stormwater Quality Manual, New England Wetland Plants, Inc., and other sources.



**EXHIBIT D – Wetland and Public Water Supply Protection
Program**

WETLAND AND PUBLIC WATER SUPPLY PROTECTION PROGRAM

Portions of the proposed Project are located in close proximity to wetlands and a public water supply reservoir. As a result, the following protective measures shall be followed to help avoid degradation of the nearby wetland and water systems.

It is of the utmost importance that the Contractor complies with the requirement for the installation of protective measures and the education of its employees and subcontractors performing work on the project site. These measures will also provide protection to a nearby wetland and water system. This protection program shall be implemented regardless of time of year the construction activities occur. All-Points Technology Corporation, P.C. ("APT") will serve as the Environmental Monitor for this project to ensure that wetland protection measures are implemented properly. The Contractor shall contact Dean Gustafson, Senior Environmental Scientist at APT, at least 5 business days prior to the pre-construction meeting. Mr. Gustafson can be reached by telephone at (860) 663-1697 ext. 201 or via email at dgustafson@allpointstech.com.

The wetland and public water supply protection program consists of several components: use of appropriate erosion control measures to control and contain erosion while avoiding/minimizing wildlife entanglement; periodic inspection and maintenance of isolation structures and erosion control measures; education of all contractors and sub-contractors prior to initiation of work on the site; protective measures; and, reporting.

1. Erosion and Sedimentation Controls

- a. Plastic netting used in a variety of erosion control products (i.e., erosion control blankets, fiber rolls [wattles], reinforced silt fence) has been found to entangle wildlife, including reptiles, amphibians, birds and small mammals. No permanent erosion control products or reinforced silt fence will be used on the project. Temporary Erosion control products will use either erosion control blankets and fiber rolls composed of processed fibers mechanically bound together to form a continuous matrix (net less) or netting composed of planar woven natural biodegradable fiber to avoid/minimize wildlife entanglement.
- b. Installation of erosion control measures shall be performed by the Contractor prior to any earthwork. The Environmental Monitor will inspect the work zone area prior to and following barrier installation to ensure erosion controls are properly installed.
- c. In addition to required daily inspection by the Contractor, the fencing will be inspected for tears or breeches in the fabric following installation periodically by the Environmental Monitor throughout the course of the construction project.
- d. The extent of the erosion controls will be as shown on the site plans. The Contractor shall have additional erosion control materials should field conditions warrant extending the fencing as directed by the Environmental Monitor.
- e. All silt fencing and other erosion control devices shall be removed within 30 days of completion of work and permanent stabilization of site soils. If fiber rolls/wattles, straw bales, or other natural material erosion control products are used, such devices will not be left in place to biodegrade and shall be promptly removed after soils are stable so as not to create a barrier to migrating wildlife. Seed from seeding of soils should not spread over fiber rolls/wattles as it makes them harder to remove once soils are stabilized by vegetation.

2. Contractor Education

- a. Prior to work on site, the Contractor shall attend an educational session at the pre-construction meeting with the Environmental Monitor. This orientation and educational session will consist of an introductory meeting with the Environmental Monitor to understand the environmentally sensitive nature of the development site and the need to follow these protective measures.

3. Petroleum Materials Storage and Spill Prevention

- a. Certain precautions are necessary to store petroleum materials, refuel and contain and properly clean up any inadvertent fuel or petroleum (i.e., oil, hydraulic fluid, etc.) spill due to the project's location in proximity to sensitive wetlands.
- b. A spill containment kit consisting of a sufficient supply of absorbent pads and absorbent material will be maintained by the Contractor at the construction site throughout the duration of the project. In addition, a waste drum will be kept on site to contain any used absorbent pads/material for proper and timely disposal off site in accordance with applicable local, state and federal laws.
- c. The following petroleum and hazardous materials storage and refueling restrictions and spill response procedures will be adhered to by the Contractor.
 - i. Petroleum and Hazardous Materials Storage and Refueling
 1. Refueling of vehicles or machinery shall take place on an impervious pad with secondary containment designed to contain fuels as shown on Attachment 1.
 2. Any fuel or hazardous materials that must be kept on site shall be stored on an impervious surface utilizing secondary containment as shown on Attachment 1.
 - ii. Initial Spill Response Procedures
 1. Stop operations and shut off equipment.
 2. Remove any sources of spark or flame.
 3. Contain the source of the spill.
 4. Determine the approximate volume of the spill.
 5. Identify the location of natural flow paths to prevent the release of the spill to sensitive nearby waterways or wetlands.
 6. Ensure that fellow workers are notified of the spill.
 - iii. Spill Clean Up & Containment
 1. Obtain spill response materials from the on-site spill response kit. Place absorbent materials directly on the release area.
 2. Limit the spread of the spill by placing absorbent materials around the perimeter of the spill.
 3. Isolate and eliminate the spill source.

4. Contact appropriate local, state and/or federal agencies, as necessary.
5. Contact a disposal company to properly dispose of contaminated materials.

iv. Reporting

1. Complete an incident report.
2. Submit a completed incident report to Groton Utilities and other appropriate local, state and/or federal agencies, as necessary.

4. Herbicide and Pesticide Restrictions

- a. No herbicide or pesticide usage is anticipated with the proposed solar facility.

5. Reporting

- a. Any incidents of sediment release into the nearby wetland will be reported to the Connecticut Siting Council.

**EXHIBIT E – Tree Count Investigation & Replanting
Assessment**



**TREE COUNT INVESTIGATION &
REPLANTING ASSESSMENT**

January 13, 2016

**SolarCity Corporation
40 Walnut Street, Suite 301
Wesley, MA 02481**

APT Project No.: CT443120

**Re: Proposed Solar Facility Installation
1240 Poquonnock Road
Groton, Connecticut**

All-Points Technology Corporation, P.C. ("APT") understands that a solar installation ("Project Area") is proposed by SolarCity Corporation ("SolarCity") at 1240 Poquonnock Road Groton, Connecticut ("Site" or "Subject Property"). At your request, Mathew Gustafson, a Connecticut registered Soil Scientist and trained Forester with APT conducted an inspection of the Subject Property on December 3, 2015 to determine the approximate number of trees to be cleared to construct the referenced project. The Project Area in totality includes approximately 13.5 acres of the Site, approximately 75% of which is comprised of previously disturbed land. A total of four (4) ± acres of woodlands will be removed to accommodate the Project. Note the total acreage of woodland to be removed includes those areas assessed as "open field" containing scattered individual trees (primarily focused in the northern portion of the Project Area).

In order to assess the approximate number of trees to be removed by the project a variable radius plot analysis was performed. For variable radius plot analyses, randomly selected points are established within the Project Area. Three points were selected at random distributed across the forested areas proposed for clearing. Plot points were taken in in the two distinct forest cover types (1 plot point for the Japanese Larch Stand, 2 plot points for the Eastern White Pine Stand). For each point, "In" trees were counted, species determined, and their diameter at breast height was measured and recorded. This information was then analyzed to determine approximate number of trees per acre within the two distinct forest cover types. In addition, individual trees were counted using remote sensing within open field areas. The results of the variable-radius analysis are provided below in Table 1. The approximate total number of trees to be removed by construction of the Facility is 356. In order to mitigate impacts from the proposed removal of these trees, SolarCity intends to replicate forested areas through tree plantings. Tree planting mitigation will occur in areas outside the Project Area on Town of Groton owned land to be determined by the Town. SolarCity will plant a total of 356 trees of various species to be determined based upon site specific conditions to replicate the trees to be removed.

ALL-POINTS TECHNOLOGY CORPORATION, P.C.

3 SADDLEBROOK DRIVE · KILLINGWORTH, CT 06419 · PHONE 860-663-1697 · FAX 860-663-0935

P.O. BOX 504 · 116 GRANDVIEW ROAD · CONWAY, NH 03818 · PHONE 603-496-5853 · FAX 603-447-2124

Forest Cover Type	Estimated Trees Per Acre	Total Acres To Be Cleared	Total Estimated Trees Removed
Japanese Larch Stand	182	1.5±	273
Eastern White Pine Stand	53	1±	53
Individual Tree Count	N/A	1.5±	30
Total		4±	356

Following the tree removal assessment, Mr. Gustafson inspected other portions of the reservoir property in coordination with Groton Utilities to evaluate potential tree replanting areas to mitigate for the loss of woodland associated with the proposed solar project. Four areas located in close proximity to the reservoir located north of Interstate 95 were identified as suitable areas for tree replanting. In general, all four areas consist of previously cleared and disturbed areas mostly associated with previous sand and gravel removal operations. As indicated on the attached Reservoir Property Planting Plan, the four separate areas provide a total area of ±4.2 acres. Other areas noted on the map as “Future Tree Planting Area” were found to be currently unsuitable for tree replanting.

As previously noted, a loss of 356 trees will result from the clearing of 4 acres of woodland for the proposed solar project. Additional potential impact will result from a temporal loss of biomass (large trees being replaced with smaller trees). As such, a larger area of tree replanting is proposed (±4.2 ac.) with 450 trees recommended for replanting, accounting for a 15 percent mortality of planted trees. This tree replanting plan would equate to a tree spacing of approximately 20 feet on center. The proposed tree planting plan will result in a benefit to the existing water system due to the greater number of trees and larger planting area that adequately mitigates for the proposed woodland loss. A variety of native evergreen tree species including Eastern white pine (*Pinus strobus*), Eastern red cedar (*Juniperus virginiana*) and pitch pine (*Pinus rigida*) are proposed to be planted. A variety of native oak trees were also considered; however, concern over deer browse eliminated them from consideration.

If you have any questions regarding the above-referenced information, please feel free to contact me at (860) 663-1697 ext. 202 or at mgustafson@allpointstech.com.

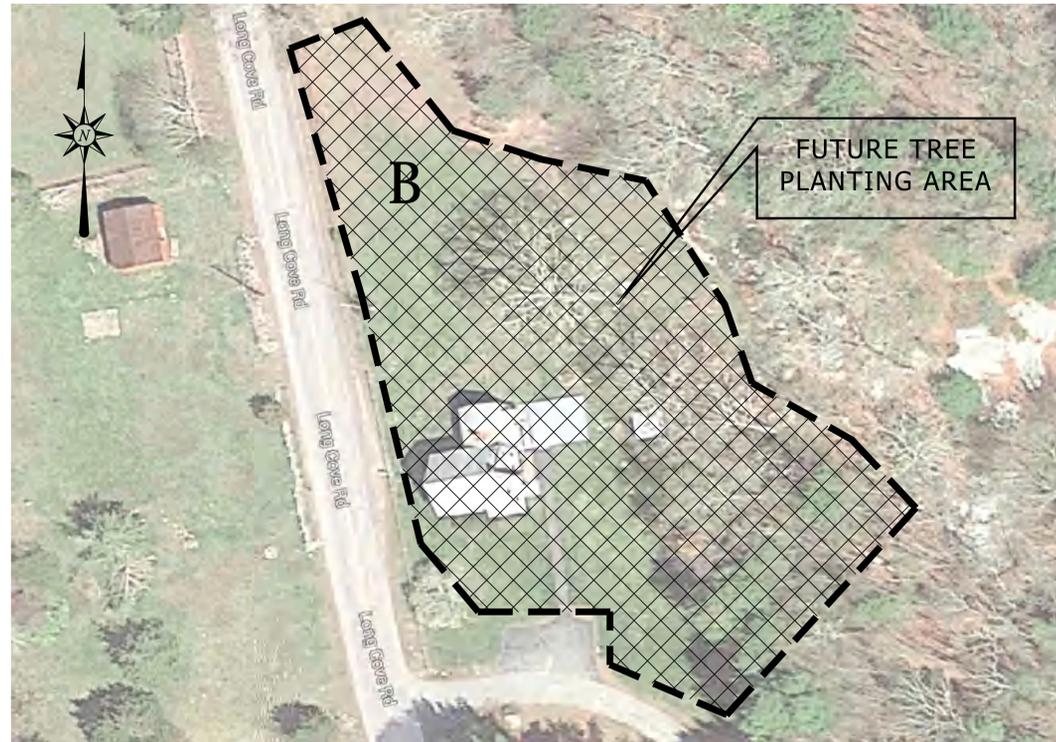
Sincerely,

All-Points Technology Corporation, P.C.



Matthew Gustafson
Registered Soil Scientist and Forester

Attachment



LEDYARD DAM HOUSE AREA

NTS



Aerial View - North of I-95

NTS

A= SOIL: SAND/GRAVEL
 PURPOSE: REFORESTATION
 SOIL STABILIZATION
 SELECTION: MIXED EVERGREEN

B= SOIL: TOP SOIL
 PURPOSE: REFORESTATION
 SELECTION: HARDWOOD/EVERGREEN

DATE	BY	REVISION
		
RESERVOIR PROPERTY PLANTING PLAN		
SURVEY BY:	DLL	SCALE: NTS
BASE PLAN BY:	DLL	DATE: 1/12/16
DESIGN BY:		DWG. NO.
		SHEET 1 OF 1