## PETITION OF WOODS HILL SOLAR, LLC

FOR A DECLARATORY RULING THAT A CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY AND PUBLIC NEED IS NOT REQUIRED FOR THE CONSTRUCTION, OPERATION AND MAINTENANCE OF A 22 MW (DC)/ 17.61 MW (AC) SOLAR PHOTOVOLTAIC PROJECT ON WOODS HILL ROAD IN POMFRET, CONNECTICUT

March 31, 2016

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## **List of Acronyms and Definitions**

AC Alternating Current

BDP Best Development Practices

CECPN Certificate of Environmental Compatibility and Public Need

CGS Connecticut General Statutes

COC Contaminants of Concern

DC Direct Current

DEEP Department of Energy and Environmental Protection

FAA Federal Aviation Administration

FERC Federal Energy Regulatory Commission

GCN Great Conservation Need

ISO-NE ISO New England

IWWC Inland Wetlands and Watercourse Commission

NDDB Natural Diversity Data Base
NLEB Northern Long-Eared Bat

O&M Operation and Maintenance

PVP Potential Vernal Pool

RES Renewable Energy Systems Americas, Inc.

SHPO State Historic Preservation Office

WAP Wildlife Action Plan

# Section 1 Introduction

Tighe & Bond has prepared this petition on behalf of Woods Hill Solar, LLC (Petitioner) for the proposed installation of a 22 MW (DC) / 17.61 MW (AC) solar ground-mounted solar photovoltaic system in the Town of Pomfret, Connecticut (the "Project"). The Project is proposed to be located at 90 Woods Hill Road and 101 Woods Hill Road ("Site"). Combined, the two parcels encompass approximately 228 acres. As proposed, the limit of work of the proposed project will occupy approximately 102 acres of the 228-acre project Site (42.78 acres of Parcel A and 59.67 acres of Parcel B). See Exhibit L (Environmental Assessment) for figures and photographs depicting the location of the Site and surrounding area.

Pursuant to Section 16-50k(a) and Section 4-176(a) of the Connecticut General Statutes ("CGS") and Section 16-50j-38 *et seq.* of the Regulations of Connecticut State Agencies ("RCSA"), Woods Hill Solar, LLC ("Petitioner") hereby petitions the Connecticut Siting Council (the "Siting Council") for a declaratory ruling that a Certificate of Environmental Compatibility and Public Need ("CECPN") is not required for the construction, operation and maintenance of a ground-mounted solar photovoltaic ("PV") facility of approximately 17.61 MW (AC) to be constructed in the Town of Pomfret, Connecticut (the "Project").

CGS § 16-50k(a) provides, in relevant part:

Notwithstanding the provisions of this chapter or title 16A, the council shall, in the exercise of its jurisdiction over the siting of generating facilities, approve by declaratory ruling ... the construction or location of any ... grid-side distributed resources project or facility with a capacity of not more than sixty-five megawatts, as long as such project meets air and water quality standards of the Department of Environmental Protection ...

As described more fully below, the construction, operation and maintenance of the proposed Project satisfies the criteria of CGS § 16-50k(a) and will not have a substantial adverse environmental effect.

## Section 2 Petitioner

Woods Hill Solar, LLC is a Delaware Limited Liability Company with an office at 11101 West 120<sup>th</sup> Avenue, Broomfield, Colorado, 80021 and a local office at 455 Boston Post Road, Suite 206, Old Saybrook, CT 06475. Woods Hill Solar, LLC was organized in 2016 for the purposes of developing, constructing and operating a 17.61 MW (AC) solar photovoltaic project in the Town of Pomfret, Connecticut. Woods Hill Solar, LLC is a subsidiary of Renewable Energy Systems Americas Inc. ("RES Americas") or ("RES"). As one of the top renewable energy companies in North America, RES Americas provides services in development, engineering, construction, and operations in the large-scale wind, solar, transmission, and energy storage industries. RES Americas has been constructing renewable energy projects in the U.S. since 1997, and is affiliated with the Sir Robert McAlpine group, a family-owned firm based in the U.K. with over 145 years of experience in construction and engineering.

RES Americas' and their affiliates' construction portfolio includes over 8,000 MW of utility-scale wind, solar and energy storage projects.

See Exhibit A for RES Americas Company Background and resumes.

Correspondence and/or communications regarding this petition should be addressed to:

Daniel Boyd RES America Developments, Inc. 455 Boston Post Road, Suite 206 Old Saybrook, CT 06475 (860) 287-5389 (mobile) (631) 651-6515 (office) Dan.Boyd@res-americas.com (email)

A copy of all such correspondence or communications should also be sent to the Petitioner's attorney:

Lee D. Hoffman, Esq.
Pullman & Comley, LLC
90 State House Square
Hartford, CT 06103-3702
(860) 424-4315 (office)
(860) 424-4370 (fax)
Ihoffman@pullcom.com (email)

## Section 3 Proposed Project

### 3.1 Project History

RES has been developing solar projects in Connecticut since June 2014 and is focused on identifying sites with minimal impacts. The 17.61 MW (AC) Woods Hill Solar Project site was identified due to the minimal amount of necessary clearing and close proximity to Eversource infrastructure. It will be built on approximately 102 acres of privately-owned land in Pomfret, Connecticut (Windham County). The Woods Hill Solar Project site consists of undeveloped rural land that is currently farmed for hay and corn and some wooded areas. RES has worked with the landowners on the project since 2014 and has secured the land through an Option to Purchase for Parcel A and an Option to Lease for Parcel B as outlined in Figure 1 in Exhibit B.

#### 3.2 Site Selection

The site selection for the Project was based on a detailed evaluation of the following factors:

- Site suitability (solar resource size, grade and surrounding topography)
- Site availability (ability to lease or purchase land)
- Proximity to critical infrastructure (suitable electrical grid access)
- Ability to minimize environmental impacts

RES evaluated a number of sites in Connecticut. Once the initial evaluation was completed, a preferred site was selected by the Petitioner for development and preliminary due diligence work was initiated. The selected Site consists of two separate and abutting parcels (Parcel A and Parcel B) located near the terminus of Woods Hill Road in Pomfret, Connecticut. Parcel A (approximately 115 acres) is located to the south/ east of the terminus of Woods Hill Road. Parcel B (approximately 113 acres) is located to the north/ west of Woods Hill Road. The total Site area is approximately 228 acres. As proposed, the limit of work of the proposed project will occupy approximately 102 acres of the 228-acre project Site (42.78 acres of Parcel A and 59.67 acres of Parcel B).

The Petitioner retained Tighe & Bond, a full service engineering and environmental consulting firm, to perform a preliminary due diligence investigation for the site. Tighe & Bond conducted a comprehensive wetlands delineation at the site. Davison Environmental, LLC was retained to conduct a wildlife habitat assessment of the two parcels. Consultation has commenced with the CT Department of Energy and Environmental Protection (DEEP) Natural Diversity Database Program (NDDB) and the CT State Historic Preservation Office (SHPO) data to determine the potential presence of state-listed rare species and cultural or archaeological resources, respectively. It should be noted that while the system size and project schedule have changed since the December 2015 submittal to the SHPO, the project footprint has remained the same. A Phase 1A Cultural Resources Assessment will be conducted at the site in compliance with the CT SHPO Environmental Review Primer for Connecticut's Archaeological Resources. If required, a Phase 1 B intensive/ locational survey will be

conducted at the site. The Phase 1B completion report will be submitted to the SHPO for review. See Exhibit K for SHPO correspondence received to date. The Phase 1A and Phase 1B completion report will be submitted to the Siting Council upon completion.

Through these investigations, the Petitioner is aware that jurisdictional wetlands are located in the northwest portion of Parcel B, and in the south-central portion of Parcel A. Additionally, according to available GIS data, the northeastern portion of Parcel B (outside the limit of work) is located within the limits of a mapped Natural Diversity Data Base Area (NDDB area). Tracts of Prime Farmland and Statewide Important Farmland are located in the eastern portion of Parcel B and the northern portion of Parcel A.

No wetlands or watercourses will be directly impacted by the Project. Activities associated with the project will occur a minimum of 75 feet from wetlands or watercourses.

The hayfield portions of the project area have the potential to support several rare grassland birds. In order to minimize direct impacts to wildlife species, a series of mitigation measures are proposed as outlined in Section 6.7 and further presented in Exhibit L.

Two potential vernal pools (PVP's) were identified within the limits of Parcel A. However, the nearest project activity to these PVPs is between 1,000 feet and 1,400 feet. An early Spring 2016 vernal pool survey will be completed for these two PVPs. Results of the Spring 2016 vernal pool survey will be submitted to the Siting Council upon completion.

No work is proposed within the limits of mapped NDDB polygons. Based on NDDB's February 2, 2016 correspondence (Exhibit N), there may be time of year restrictions between May and August associated with listed bat species. The Frosted elfin butterfly is associated with two plant species: wild blue lupine (*Lupinus perennis*) and wild indigo (*Baptisia tinctoria*). A survey will be completed by a biologist to determine if these favored plants will be impacted by the project. A report summarizing the survey results will be submitted to the Siting Council upon completion and will include habitat descriptions, host plant locations, and mitigation measures to protect this species and their associated habitat.

To address the federally-listed NLEB, NDDB was contacted via email to confirm if NLEB habitat data is available. If information is not available, the Petitioner will document attempt to find the information and move forward with the project. Generally, however, the Petitioner will avoid tree removal activities between June 1 and July 31.

Allowing for the potential regulatory constraints known at this time and associated setbacks imposed by resource areas and Town of Pomfret zoning regulations, a preliminary system of approximately 17.61 MW (AC) is proposed at the site.

## 3.3 Property Description

The Project is proposed to be located at 90 Woods Hill Road and 101 Woods Hill Road ("Site"). Throughout this Petition, 90 Woods Hill Road is referred to as Parcel B and 101 Woods Hill Road is referred to as Parcel A. Parcel B is located to the northwest of the terminus of Woods Hill Road and Parcel A is located to the southeast of the

terminus of Woods Hill Road. The total Site area is approximately 228 acres. The parcels are identified in Town of Pomfret Tax Assessor records as:

- 90 Woods Hill Road (Parcel A) Map 43, Block A, Lot 4 (115acres) located within a Commercial Business (CB) Zone
- 101 Woods Hill Road (Parcel B) Map 43, Block A, Lot 5 (113 acres) located within the CB Zone and the Rural Residential (RR) Zone.

The Petitioner has entered into an Option to Purchase Parcel A (owned by Cristina Juanita and Sheila Nabozny) and an Option to Lease Parcel B (owned by Tyler Charles).

The Site consists of cleared agricultural land with frontage off of Woods Hill Road. Currently, the Property is utilized for agricultural uses (hay and corn fields and wooded areas). The Site does not house any structures. Land uses adjacent to the Site and within the immediate locale are predominantly agricultural and wooded open space. Several residences are located to the south of the proposed Site. Stone walls traverse portions of the agricultural land on both parcels. The Site is located just north of the municipal boundary between Pomfret and Brooklyn, Connecticut. Wooded areas surround the agricultural fields on both parcels. A large Eversource transmission line and right of way traverse Parcel A to the east of the cleared portion. The Quinebaug River is located approximately 1,200 feet to the east of the agricultural land on Parcel A. White Brook is located west of Parcel B.

On Parcel A, site topography in the area proposed for development slopes down generally north to south and north to east from a height of approximately 380 feet to 310 feet North American Vertical Datum of 1988 (NAVD88). On Parcel B, site topography in the area proposed for development slopes down generally east to west from a height of approximately 386 feet to 270 feet NAVD88. See <a href="Exhibit C">Exhibit C</a> for topography of the project area.

The proposed work is located greater than 2,000 feet from the Quinebag River. No floodplain exists within the limits of the subject parcels. The Site contains inland wetlands and watercourses. Based on a review of GIS data, a portion of Parcel B includes rare species habitat mapped pursuant to the Natural Diversity Database program. Existing access to the Site is provided from Woods Hill Road.

## 3.4 Project Description

The proposed solar facility will include the following:

- Approximately 69,882 315 watt solar PV modules (4 x 5 landscape layout)
- Driven metal post foundation system. Racks will run east-west and will be mounted facing south at a fixed 25 degree angle to ground surface. The rows of racks will be spaced approximately 16 feet apart.
- Construction of new 12'-wide gravel access roads
- Installation of 10 reinforced concrete electrical equipment pads (32' x 48') to support inverters, switchgear and a transformer
- Selective vegetation clearing on both parcels
- Vegetation screening is proposed at two locations along Woods Hill Road and a third location is proposed within Parcel A

 Underground conduits will convey power from the equipment pads to the interconnect location.

The development footprint associated with the Project, including the associated vegetation clearing, includes a total of 102 acres. To facilitate the installation of the solar arrays, associated equipment, and access, and to minimize shading of the arrays, approximately 16 acres of upland forest requires clearing and minor grading.

The solar modules will be erected using a driven metal post foundation system. The racks will be installed approximately 16 feet apart. As shown in <a href="Exhibit L">Exhibit L</a>, portions of the proposed limit of work will be located 75 feet from delineated inland wetlands. The racks will run east-west and will be mounted facing south at a fixed 25 degree angle to ground surface.

Approximately 10 reinforced and fenced concrete electrical equipment pads (32' x 48') will support the electrical equipment. In addition to the inverters noted above, the electrical equipment pads will also contain switchgear and a transformer that will stepup the power prior to interconnecting with Eversource's local distribution circuit.

The arrays on each parcel will be accessed via new 12-foot wide access roads. The access road entrance to each parcel is on Woods Hill Road. The proposed access road will be comprised of approximately 6 inches of dense graded crushed stone or clean, uncoated aggregate base course (ABC) (per CT DEEP standards) placed above existing grades. Minor grading may be required along the proposed access road in select locations based on topography.

The project also consists of 16 acres of select removal and clearing of existing vegetation to minimize shade impacts. Portions of this work will occur approximately 75 to 100 feet from delineated inland wetlands. Erosion and sedimentation controls will be installed around the project site prior to vegetation removal. The vegetation will be cut and stumps will remain outside of the array area. Stumps within the array area will be removed. All cut vegetation will be chipped on-site and either removed and disposed, or left in place to further stabilize the site. The ground beneath the solar arrays will be planted with fescue species. The aisles will be planted with a low-growing solar array mix.

Vegetation screening is proposed at two locations along Woods Hill Road on Parcel B and a third location is proposed within Parcel A.

Select stone walls within the project area will be removed as part of the clearing and site preparation process. Stone walls outside of the project limit, including those demarcating property boundaries, will be maintained to the fullest extent practicable.

Woods Hill Solar, LLC and/or its authorized subcontractors will perform site maintenance to ensure safety and prevent shading impacts. Mowing of the grass between the rows of racks will occur as needed but estimated at twice per year. No herbicides or chemicals will be used to manage vegetation. An Operations and Maintenance Plan is provided in Exhibit I.

The Project is expected to produce approximately 33,190,000 Kilowatt-Hours (kWh) of energy in the first year of operation. The Project will have a design life of 25 years and efficiency loss of approximately 0.5% per year.

The total estimated cost of the Project includes:

Materials and equipment costs (approximate): \$15MM
 Project construction labor costs (approximate): \$17MM
 Other business costs and overhead (approximate): \$3MM

Construction of the Project is expected to begin in the third quarter of 2016 with mobilization of equipment and land clearing efforts. Further site work and land preparation is expected to be completed by late Fall 2016 with construction and installation efforts for the array equipment completed at the end of Fall 2016. Final site stabilization, testing, and commissioning is expected to be completed by late 2016. See Exhibit D for the Construction Schedule.

Temporary construction measures will include installation of a 6" gravel construction entrance and a siltation fence for erosion control.

At the end of design life of the Project, all equipment (e.g. racking system, panels, inverters, electrical collection system, etc.) will be removed in accordance with the Decommissioning Plan. See  $\underline{\text{Exhibit E}}$ .

#### 3.5 Electrical Interconnection

The system will include integrated combiner and disconnect switches, and the panel wiring feeds into these switches. From the combiner box, energy will be transmitted to inverters. The subsurface conduit will convey power from the solar array to the interconnection point located along Woods Hill Road, to be determined by Eversource. A distribution interconnection request was filed with Eversource in February 2015. The point of interconnection will be located at the Tracy Road substation five miles northeast of the project site. The impact study was completed in September 2015. The facility study is anticipated to be completed in April 2016.

Approximately 10 reinforced concrete electrical equipment pads ( $32' \times 48'$ ) will support the electrical equipment as shown in Exhibit B. In addition to the inverters noted above, the electrical equipment pads will also contain switchgear and a transformer that will step-up the power prior to interconnecting with Eversource's local distribution circuit. Underground conduits will convey power from the equipment pads to the interconnect location. An emergency system cut-off switch will be installed in a location designated by Eversource.

The interconnection facility design and construction will be performed in accordance with the Eversource Guidelines for Generator Interconnection and State of Connecticut and ISO-New England ("ISO-NE") requirements. As part of the interconnection process, the Petitioner has successfully completed a utility sponsored Scoping Meeting, Application Request and an Application Review, Feasibility Study, System Impact Study, and is now completing Facilities and Transmission studies with Eversource.

# Section 4 Project Benefits

A public benefit exists if a project "is necessary for the reliability of the electric power supply of the state or for a competitive market for electricity." CGS § 16-50p(c)(1). The Project is anticipated to generate much of its power at peak times, when the demand for electricity is greatest, and will thereby provide the electrical system with flexible peaking capacity that is necessary to keep the electrical grid stable.

Further, the Project supports the State's energy policies as set forth in CGS §16a-35k, including the goal to "develop and utilize renewable energy resources, such as solar and wind energy, to the maximum practicable extent." The Project will provide clean, renewable, solar-powered electricity and assist the State in meeting its legislatively mandated obligations under the Renewable Portfolio Standard.

The Project will also assist the State of Connecticut in reducing greenhouse gas emissions and reducing criteria air emissions pollutants associated with the displacement of older, less efficient, fossil fuel generation. As part of larger state, national and global strategies, reductions in greenhouse gas emissions from this Project will have long-term secondary biological, social and economic benefits. The Project will also hire local labor, as practical, and be a source of increased revenue for local businesses during construction, and will generate tax revenue for the Town of Pomfret.

# Section 5 Local Input and Public Notice

Throughout the process, the Petitioner has kept officials from the Towns of Pomfret and neighboring communities apprised of the Project's progress. The Petitioner is committed to continuing to solicit input from Town Officials, other relevant agencies and from the general public in an effort to develop a project that results in the most public benefit with the least environmental impact. The Petitioner will work with Town officials and the local community by pursuing a multi-faceted and inclusive public outreach effort.

RES and its local representatives have met with the Town of Pomfret since 2014 with respect to the project. In addition, RES conducted a public information meeting at the Town of Pomfret's Senior Center at 7:00 pm on March 8, 2016 to provide information and to answer questions or concerns. In support of this meeting, the meeting was advertised in the Norwich Bulletin, a local radio station (WINY) and on the Town of Pomfret's website.

See Exhibit G for public information session materials and sign-in sheets.

In addition, because of the Project's proximity to their borders, on June 8, 2015 and March 30, 2016, respectively, the Petitioner also conducted outreach with officials from the Towns of Brooklyn and Killingly to discuss the Project.

As required by RCSA § 16-50j-40(a), the Petitioner also provided notice of its intent to file this petition to: (a) those adjacent property owners listed on Exhibit G and (b) the municipal officials and government agencies listed on Exhibit H. In addition, the Petitioner provided a copy of the petition to the Towns of Pomfret, Brooklyn and Killingly. A copy of the Petition was also provided to the Site owners (Juanita Cristina and Sheila Nabozny; Charles Tyler).

# Section 6 Potential Environmental Effects

The Petitioner and its consultant, Tighe & Bond, conducted a comprehensive environmental impact assessment of the Project. As part of this process, relevant agencies were consulted, Project facilities were overlaid onto the Site and photo simulations were produced, environmental impacts were evaluated and mitigation was applied as appropriate. By March 2016, the public was informed and the Town had played an active role in the design of a project that will produce the maximum amount of energy on the land available while avoiding, reducing and mitigating potential environmental impact to the extent possible.

## 6.1 Natural Environment and Ecological Benefits

Historical aerial photographs indicate that the majority of the Project Area appears to have been agricultural fields consistently from 1970 until the present, and remnant field stone walls can still be seen in many areas of the Site. Select stone walls and piles within the fence line area will be removed as part of the clearing and site preparation process. See Section 6.5.

The solar array layout will utilize existing grades to minimize the required amount of earth work. Some soil disturbance will be required to install foundations for the PV panels and associated equipment. There may also be some limited grading required for installation of the main access road as well as the perimeter road. Racking will follow existing grade in nearly all cases, with little to no grading occurring for installation and only minor surface finish grading. Panel foundations will be secured using ground screw or driven pile technology. All racking will be designed to meet applicable local building codes for wind and snow loads.

No hazardous substances will be used or stored on Site during construction or operation of the Project. Phase 1 Environmental Site Assessments (ESA) were conducted by Tighe & Bond for each parcel to determine the potential for any existing environmental or hazardous materials conditions. The Phase 1 ESA reports concluded that that both parcels contain potential Contaminants of Concern (CPC) including pesticides and herbides based on past agricultural use. Additionally, the *de minimus* environmental condition identified included presence of minor amounts of miscellaneous amounts of solid waste (wood, plastic and metal). At the 101 Woods Hill Road parcel, the potential application of herbicides within the Eversource transmission line ROW was noted. The Phase 1 ESA Reports can be found in Exhibit R.

In order to allow for the installation of the Project and avoid or minimize shading on the PV panels, select tree removal will be required. Approximately 16 acres of wooded area is proposed to be converted to grass/ meadow area, to minimize shading impacts.

The project has been designed to minimize impacts to jurisdictional wetlands. As noted on the Site Plans in  $\underline{\mathsf{Exhibit}\ \mathsf{C}}$  and in more detail in  $\underline{\mathsf{Exhibit}\ \mathsf{L}}$ , no wetland impacts are anticipated as part of the project. The limit of the work will be located at least 75 feet from all delineated wetlands. A comprehensive Wetlands Protection Plan is provided in  $\underline{\mathsf{Exhibit}\ \mathsf{L}}$ .

### 6.2 Public Health and Safety

Overall, the Project will meet or exceed applicable industry, state, and local codes and standards and would not pose a safety concern or create undue hazard to the general public. The facility would not consume any raw materials, would not produce any byproducts and would be unstaffed during normal operating conditions. There are no plans to store fuels or hazardous materials at the facility.

Overall, the Project will meet or exceed all health and safety requirements applicable to electric power generation. Each employee working on Site will:

- Receive required general and Site specific health and safety training
- Comply with all health and safety controls as directed by local and state requirements
- Understand and employ the Site health and safety plan while on the Site
- Know the location of local emergency care facilities, travel times, ingress and egress routes; and
- Report all unsafe conditions to the construction manager.

During construction, heavy equipment will be required to access the Site during normal working hours, and it is anticipated that approximately 400 – 600 trips will be made by vehicles (average size light-duty and delivery) onto the Site during the construction of the project. After construction is complete and during operation, minimal traffic is anticipated. For standard operations and maintenance activities, on average, one to two light-duty vehicles will visit the Site on a monthly recurring basis. There will not be permanent staff present at the Site. See Exhibit I.

Because the solar modules are designed to absorb incoming solar radiation and minimize reflectivity, only a small percentage of incidental light will be reflected off the panels. This incidental light is significantly less reflective than common building materials, such as steel, or the surface of smooth water. In addition, a majority of the Project will be shielded from view due to existing vegetation, proposed screening vegetation and topographical conditions. The panels will be tilted up toward the southern sky at an approximate angle of 25 degrees, further reducing reflectivity.

The Project will not produce significant noise during operation. The only equipment proposed for the Project that would generate noise consists of the inverters, which are inactive at night. The closest inverter to a property line is approximately 100 feet. After the Project is constructed and in service, the noise levels at the nearest offsite residence are anticipated to be a maximum of 44 dBA during operations which is during the daylight house and significantly lower during non-daylight hours. This is well below the most conservative criteria of 45 dBA for nighttime and 55 dBA for daytime, as established by the State of Connecticut Noise Control regulations (CGS 22a/22a-69-1 through 7). See Exhibit O.

During the construction of the Project higher levels of noise are anticipated; however, all work will be conducted during normal working hours and it is not anticipated that the levels of noise will exceed State or local noise standards or limits.

Prior to operation, the Petitioner will meet with Town first responders to provide them information regarding response to emergencies at PV facilities and provide a tour of the Project.

## 6.3 Air Quality

Overall, the Project will have minor emissions of regulated air pollutants and greenhouse gases during construction and no air permit will be required. During construction of the Project, any air emission effects will be temporary and will be controlled by enacting appropriate mitigation measures (e.g., water for dust control, avoid mass early morning vehicle startups, etc.). Accordingly, any potential air effects as a result of the Project construction activities will be *de minimus*.

During operation, the Project will not produce air emissions of regulated air pollutants or greenhouse gases (e.g., PM10, PM2.5, VOCs, GHG or Ozone). Thus, no air permit will be required. Moreover, per the Environmental Protection Agency Greenhouse Gas Equivalencies Calculator (EPA.gov), a 20 MW solar project is equivalent to a reduction in 25.8 metric tons of CO2, which is equal to taking 4.9 vehicles off the road for one year and the amount of carbon sequestered by 19 acres of U.S. forests in one year. See Exhibit  $\Omega$ .

#### 6.4 Scenic Values

The Petitioner conducted a preliminary viewshed analysis during Site visits and by using aerial and topographic mapping in November 2015, which identified a substantial amount of natural screening in the area, primarily in the form of heavily forested land to the east and southeast, southwest, north, and northwest of the project area. As shown in Figure 5 in Exhibit L, in almost all instances, there is existing forest cover between the Site and potential observation points. Furthermore, no public hiking paths or other potential public non-vehicular trails were found to be present in the area that would serve as potential observation points.

To verify the potential visibility of the Project, Tighe & Bond produced visual renderings, using existing site photos in tandem with AutoDesk 3D Studio and Adobe Photoshop, from various locations along Woods Hill Road. See <a href="Exhibit J">Exhibit J</a>. In preparing the renderings, existing site photos were imported into the model and matched to AutoDesk 3D Studio's camera by loading a digital picture and calibrating the AutoDesk camera to the position and focal length of the camera used to take the actual photo. Solar arrays and landscape buffering depicted in the Site plans were modeled to represent actual dimensions and scales. Once modeling was complete, images were created and enhanced with Adobe Photoshop to create the final renderings.

As those visual renderings demonstrate, the proposed Project will not have a substantial adverse visual effect on residences or passersby in the foreground viewing threshold (up to 300-feet from the Property line) because the immediate foreground threshold views into the Site are limited due to existing vegetative screening as well as site topography. The use of low profile Project components (e.g., racking system, panels, inverters, etc.) that generally are not taller than 7 feet also significantly reduces the potential visual impact of the Project. Although the electrical interconnection poles will be visible, they are similar in character to existing distribution lines already located along the same stretch of Woods Hill Road.

#### 6.5 Federal Aviation Administration Determination

Due to the proximity of the site to Danielson Airport, Tighe & Bond filed a "Notice of Proposed Construction or Alteration" with the Federal Aviation Administration (FAA) on March 22, 2016. See <u>Exhibit P</u>. Tighe & Bond will keep the Council promptly informed of any further developments regarding the FAA.

#### 6.6 Historic Resources

Based on project information submitted to the Connecticut State Historic Preservation Office (SHPO) in December 2015 for review, the SHPO requested that a professional cultural resources assessment and reconnaissance survey be completed prior to construction. In correspondence dated January 21, 2016 (Exhibit K), the SHPO indicated that portions of the intact and relatively well-drained soils within the project area ("Area of Potential Effect") have an elevated potential to contain significant archaeological resources. The SHPO acknowledged that farming may have compromised the integrity of any archeological deposits, but this should be confirmed by subsurface examination.

A Phase 1A Cultural Resources Assessment will be conducted at the site in compliance with the CT SHPO Environmental Review Primer for Connecticut's Archaeological Resources. Subsurface testing will assess areas of anticipated ground disturbance that are considered to have a moderate/ high sensitivity for containing significant archeological deposits, unless sufficient research or fieldwork documents that this level of effort is unwarranted. No construction or other project-related ground disturbance will be initiated until SHPO has had an opportunity to review and comment on the requested survey. The survey will also take into consideration potential view shed impacts on structures older than fifty years that are listed on or may be eligible for listing on the National Register of Historic Places.

The objectives of the study will be: 1) to determine whether or not the proposed project parcel, or portions thereof, possess no, low, and/or moderate to high potential to produce intact cultural deposits and/or surficial expressions of cultural resources, 2) to submit the findings and recommendations of the study to the CT SHPO for comment and review, and 3) to determine if subsequent Phase 1B Cultural Resources Reconnaissance Survey of the entire project area or portions of the project parcel is warranted.

If required, a Phase 1B intensive/ locational survey will be conducted at the site. The Phase 1B completion report will also be submitted to the SHPO for review.

While it is not feasible from a design, access, maintenance and safety perspective to maintain stone walls and piles within the project limits, stone walls and piles outside of the project limits, including those demarcating property boundaries, will be maintained to the fullest extent practicable.

#### 6.7 Wildlife and Habitat

A wildlife habitat assessment was conducted at the site in December 2015 by Eric Davison, Davison Environmental LLC. There was no snow cover at the time the assessment was completed. The assessment included and assessment of: wetland and upland habitat types; potential vernal pools; breeding bird inventory; and breeding bird

impact assessment. Breeding bird protection measures were also proposed. The results of the assessment are provided in <a href="Exhibit L">Exhibit L</a>.

The hayfield portions of the project area have the potential to support several rare grassland birds. In order to minimize direct impacts to wildlife species, a series of mitigation measures are proposed as outlined in Section 6.7 and further presented in Exhibit L.

Two potential vernal pools (PVPs) were identified within the limits of Parcel A. However, the nearest project activity to these PVPs is between 1,000 feet and 1,400 feet. An early Spring 2016 vernal pool survey will be completed for these two PVPs. Results of the Spring 2016 vernal pool survey will be submitted to the Siting Council upon completion.

The most recent CTDEEP NDDB mapping (September 2015) was reviewed to determine if any such species or rare habitats occur within the vicinity of the site. Based on the NDDB mapping, an NDDB polygon indicating the presence of a listed species or rare habitat overlaps the northeast portion of the northern parcel. An application was submitted to the CT DEEP NDDB program on December 10, 2015. A response from NDDB dated February 2, 2016 indicated that the following extant populations of species are located on or within the vicinity of the site: Hoary Bat (*Lasiurus cinereus*), Red bat (*Lasiurus borealis*), Silver-haired bat (*Lasionycteris noctivagans*) and Frosted elfin butterfly (*Callophrys irus*). See Exhibit L.

A survey will be completed by a biologist to determine if these favored plants will be impacted by the project. A report summarizing the survey results will be submitted to the Siting Council upon completion and will include habitat descriptions, host plant locations, and mitigation measures to protect this species and their associated habitat.

To address the federally-listed NLEB, NDDB was contacted via email to confirm if NLEB habitat data is available. If information is not available, the Petitioner will document attempt to find the information and move forward with the project. Generally, however, the Petitioner will avoid tree removal activities between June 1 and July 31.

## 6.8 Water Quality

The Project will use no water during operations in the production of electricity. Any water utilized during the construction of the Project for dust suppression will be minimal and have no impact on the water quality in the vicinity of the Site. The Site is within Flood Zone C, designated by the Federal Emergency Management Agency ("FEMA") as an area outside of the 500-year floodplain area with a minimal risk for flooding.

Based on the CT DEEP Water Quality Classifications Map for Pomfret, CT, there are no public water supply wells proximate to the Site. The closest mapped contributing area to a public water supply is near the intersection of Woods Hill Road and Darby Road in Brooklyn, CT, south of the site. The subject parcels are not located within an Aquifer Protection Area. Thus, no impacts on water quality or supply will occur with the construction or operation of the proposed Project.

#### 6.8.1 Wetlands

Tighe & Bond wetland scientists completed wetland inspections and delineations on multiple days in September 2015 (September 1, September 8, September 10, September 23 and September 25, 2015). On two mild temperature December days when there was no snow cover (December 5 and December 23, 2015), Matthew Davison, a Connecticut-registered Soil Scientist with Tighe & Bond, reviewed and confirmed wetland boundaries located within 100 feet of the proposed development at the site. Four (4) wetlands and one intermittent watercourse were delineated/ mapped within the vicinity of the project site. Those delineations were used to design the Project's physical layout in an effort to avoid wetlands features. The Soil Report is provided in Exhibit L.

No wetlands or watercourses will be directly impacted by the Project. Activities associated with the project will occur a minimum of 75 feet from wetlands or watercourses. No work is proposed within the 300-foot Upland Review Area associated with White Brook or the 500-foot Upland Review Area associated with the Quinebaug River.

The Pomfret Inland Wetlands and Watercourses Commission (IWWC) requires a minimum distance of 120 feet from wetlands and perennial watercourses for "non-residential main-use buildings or structures". Work occurring within the 120-foot "minimal distance" is typically subject to review by the Pomfret IWWC. The Project understands that CSC review will address and supersede Town of Pomfret's review.

Short term, temporary impacts during construction will be minimized with sedimentation and erosion controls designed, installed and maintained in accordance with the 2002 *Connecticut Guidelines for Soil Erosion and Sediment Control*. RES has also prepared and will implement a Wetland Protection Plan during construction to provide additional measures to avoid temporary wetland impacts. See <u>Exhibit L</u>.

Similarly, no direct impact to any vernal pool is proposed and no activity is proposed within any vernal pool envelope conservation zone (i.e., 0 to 100 feet). The nearest proposed activity to potential vernal pools is between 1,000 feet and 1,400 feet.

#### 6.8.2 Stormwater

NRCS soil data was obtained through the Web Soil Survey portal on the USDA NRCS website. The areas surrounding the property were queried for soil types according to the record soil survey maps maintained by NRCS. Soil types depicted on the soils map on the subject property include Ridgebury association, Hinckley association, Woodbridge association, Canton and Charlton association, Charlton-Chatfield association, Paxton and Montauk association, Pootatuck association and Rippowam association. In addition to the NRCS Soil Data reviewed, a comprehensive test pit and boring investigation was conducted on the site in December 2015. The results of the test pits and borings are provided in <a href="Exhibit O">Exhibit O</a> (Appendix B of the Stormwater Report). In general, the borings and test pits confirm the NRCS soil mapping in that the site is predominantly sand with some gravel and smaller areas of silt. Bedrock depths ranged from 9 to 22 feet below existing grade.

The topography of the existing conditions site conveys stormwater runoff radially from a high point located in the central portion of the project area. The project was divided into five existing conditions subcatchments conveying stormwater runoff radially off-site. Stormwater runoff from the existing site generally flows radially to the wetland areas

surrounding the site. Each drainage area conveys stormwater runoff off-site associated with a design point so as to compare existing and proposed peak rate discharges.

Under proposed conditions, large portions of the agricultural uses will be converted to solar array where panels will be installed using driven piles or ground screws. Below and between the panels, grass will be planted and will be allowed to grow and develop into a grassy meadow. The topography of the site will not significantly change as a result of the proposed development. While the proposed installation requires that some existing vegetation be removed, the existing topography shall remain generally unchanged. Micro-grading, or the grading of existing undulations, will occur prior to installation of the solar array; however this activity will not cause substantial changes to drainage areas or stormwater flow paths on the site.

Stormwater will fall onto solar panels and will flow off the edge onto the vegetated surface and flow along existing flow paths as under existing conditions. The panels will be spaced such that stormwater runoff will be allowed to flow above the ground surface in between and under rows of panels. Therefore, the only solar panels that are considered impervious will be the most up-gradient panels in each subcatchment<sup>[1]</sup> as these panels are the only panels under which stormwater runoff will not be allowed to flow along existing topography. The remainder of the solar facility within the limit of work will be considered meadow, non-grazed. Concrete equipment pads, existing and proposed gravel access roads, woodland, remaining agricultural fields and wetland areas surfaces were also included in the post-development hydrologic analysis. Since the project will not substantially alter topography of the site, the proposed conditions drainage areas will generally match those of existing conditions. The five proposed areas will continue to discharge stormwater runoff the five associated design points previously described.

The project has been designed to attenuate peak discharge rates from the site as further described in Exhibit N.

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<sup>&</sup>lt;sup>[1]</sup> Cook, L.M. & McCuen, R. H., (2013). Hydrologic Response of Solar Farms. *Journal of Hydrologic Engineering*, 18(5). pp.536-541

## Section 7 Conclusion

The Project will provide numerous and significant benefits to the Town of Pomfret, the State of Connecticut and its citizens, and will place the Town at the forefront of green energy development while producing substantial environmental benefits with minimal environmental impact. Pursuant to CGS §16-50k(a), the Council shall approve by declaratory ruling the construction or location of a grid-side distributed resources project or facility with a capacity of not more than 65 MW, as long as such project meets DEEP air and water quality standards.

The Project is a "grid-side distributed resources" facility, as defined in CGS §16-1(a)(37), because the Project involves "the generation of electricity from a unit with a rating of not more than sixty-five megawatts that is connected to the transmission or distribution system..." and, as amply demonstrated herein, the Project will meet DEEP air and water quality standards. Further, the Project:

- Will not produce air emissions during operations (PM10, PM2.5, VOCs, GHG or Ozone);
- Will not utilize water to produce electricity or be in conflict with any Federal,
   State, or Local requirements related to water quality and quantity;
- Will not produce significant noise;
- Was designed to avoid wetland and biological impacts to the extent practicable;
- Will not have substantial adverse visual, land use, stormwater, recreational, cultural, human or biological impacts; and
- Will further the State's energy policy by developing and utilizing renewable energy resources.

For all the foregoing reasons, the Petitioner requests that the Siting Council issue a declaratory ruling that the proposed Project will comply with DEEP air and water quality standards, will not have a substantial adverse environmental effect and, therefore, that a CECPN is not required for the construction, operation and maintenance of the Project.

Respectfully submitted,

Woods Hill Solar, LLC

## **EXHIBIT A:**

RES Company Background/Resumes















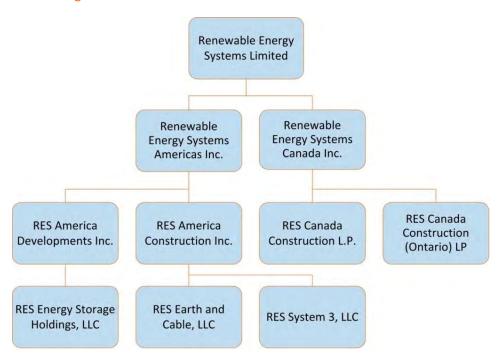
## Renewable Energy Experience

As one of the top renewable energy companies in the world, Renewable Energy Systems (RES) has been providing services in development, engineering, construction, and operations since 1982. RES has developed and/or built over 9 GW of renewable energy capacity worldwide, has an asset management portfolio exceeding 1 GW, and is active in a range of energy technologies including onshore wind, solar, energy storage, transmission, and demand side management (DSM).

RES was originally formed as part of the Sir Robert McAlpine group, a family-owned British firm with 145 years' experience in construction and engineering. The international headquarters remains in the United Kingdom with RES active in the United States since 1997, in the Canadian renewable energy market since 2003, and the Chilean market since 2010.

RES specializes in EPC and BOP/BOS construction services. We built the company's first North American wind energy project in 1999 and joined the solar energy market in 2010 with construction of our first solar farm. The company continued to expand our innovative offerings with our first energy storage project in 2014; we are now one of the energy market's leading providers of energy storage solutions. RES constructed our first major transmission line project in 2013.

## **RES Organizational Structure**



#### **RES Quick Facts**



## **RES Focus on Renewable Energy**

RES and affiliates operate in the renewable energy market. We do not build highways, stadiums, or skyscrapers. We develop and build renewable energy projects. Members of our staff collaborate to manage all aspects of development, construction, maintenance, and technical consulting services as well as utility, municipal, and landowner engagements, as required. Our experience in utility-scale wind, solar, energy storage, and transmission line projects provides our customers with a superior partner with tremendous commitment and value.

## Stewardship of Resources

RES has adopted several new approaches to constructing renewable energy projects that preserve, improve, and restore the natural spaces surrounding each site. This is in accordance with our core principal of maintaining beneficial relationships with stakeholders and applies to the land and communities in proximity to our project sites.



Furthermore, our philosophy of sustainability – People, Planet, and Profit – guide all RES business activities. We focus on these three areas in everything we do from being socially responsible in the communities in which we work to conserving natural resources and providing quality job opportunities.

## The Value of RES Integrated Services

RES offers development, engineering, construction, and technical consulting services across diverse technologies. The company's expertise allows RES to self-perform civil works, wind turbine erection, electrical collection system installation, and high voltage substation and transmission line construction. To deliver these services, RES deploys proven field teams with an extensive background in successfully completing complex projects in diverse regions under the most challenging geophysical and climatological conditions.

The ability to offer such a wide range of services and deliver challenging projects on time and within budget is a core strength of the company. Our integrated approach:

- Allows us to be more efficient and proactive while developing projects
- → Facilitates our assimilation of lessons learned across teams allowing us to implement process improvements on subsequent projects
- → Expedites planning and the resolution of issues making value engineering, cost-effective construction, and successful long-term operations a reality

## RES Sustainability Mission:

To power positive change by ensuring that our operations, products, and services make a net positive contribution to society and the environment.

#### **RES In-House Services**

RES and affiliates have dedicated professionals with the expertise to ensure our projects are engineered for maximum efficiency, transition smoothly from one phase to the next, constructed to last, and completed on time and within budget. We specialize in the following services.

#### Development



RES offers a fully integrated suite of development capabilities to ensure the success of wind, solar, energy storage, transmission, or distributed generation projects from greenfield development to operations. Our in-house expertise spans resource analysis, land acquisition, permitting, site design, engineering, procurement, and construction.

#### Engineering



RES civil, electrical, and mechanical engineering teams offer a comprehensive expertise.

Coordination across teams allows RES to ensure projects are up and running quickly and functioning smoothly. RES offers clients a variety of services including geotechnical engineering, civil site work, WTG foundation, electrical collection system, HV substation, and transmission line design.

#### Construction



RES work teams possess the extraordinary skills required to self-perform construction of nearly all aspects of complex renewable energy projects including civil works, WTG tower, MV collection system, HV substation, and transmission line construction. The RES management team oversees a project from the initial budget and schedule to final testing and commissioning.

## Operations and Maintenance

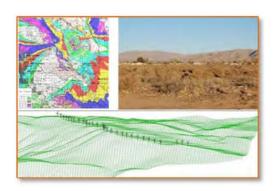


RES operations and maintenance services use fleet-wide performance monitoring as well as central engineering and design teams to maximize availability, minimize lost production, and ensure safety and environmental compliance.

## **Technical and Commercial Analysis**

The RES Technical and Commercial Analysis team offers client services designed to expedite construction and increase project profitability. By merging our renewable resource analysis technology with sophisticated environmental and topographical data, we enhance renewable resource predictability to improve financial leverage on construction and development projects.

For early-stage projects, RES preliminary resource assessment and data analysis facilitate development activities including met tower installation, turbine selection, layout design, and risk mitigation. For late-stage projects, RES analysis optimizes turbine layout to maximize energy production.



RES areas of technical expertise include:

- → Computational Fluid Dynamics (CFD)
- → Mesoscale Wind Modeling
- → Microwave and Radar Communications
- → Wind Farm Layout Design
- → Solar Array Layout Design and Output
- → Wind Data Analysis
- → Sound Analysis
- → In-House Software Design
- → Industry Research

## **RES Core Technologies**

RES has constructed more than 8,000 megawatts (MW) of green energy and energy storage projects in the Americas. This total includes more than 7,800 MW of RES developed and/or constructed wind and solar energy.

Energy storage and transmission solutions support the increased adoption of green energy. RES is a leader in the energy storage market with over 75 MW in our construction portfolio. RES is also active in the transmission market having completed construction of the 214-mile Montana-Alberta Tie Line.

#### Wind Resource Technology

After construction of the company's first wind farm project in 1999, RES completed 10 more wind projects by the end of 2005. In 2006, RES added three wind projects followed by five in 2007 and 10 in 2008. 14 more wind projects were completed by the end of 2010.

From 2011 through 2015 RES constructed 25 additional wind farms and has now completed construction on 68 wind energy projects contributing 10% of the electricity produced by wind power in North America. The following table includes the list of wind farms completed by RES since 2010.

Projects	MW	EPC	Dev	ВОР	Technology	Owner	Year	Location
Flat Water	60			Х	GE	Gestamp and Banco Santander, SA	2010	NE and KS
Dunlap	111			Х	GE SLE	PacifiCorp	2010	WY
SNEEC	4			Χ	REpower MN92	Technocentre eolien Gaspesie	2010	Canada
Hatchet Ridge	101		Х	Х	Siemens	Pattern Energy	2010	CA
Talbot	99	Х	Х		Siemens	Enbridge	2010	Canada
Crossroads	227		Х	Х	Siemens	OG&E	2011	OK
Greenwich	99	Х	Х		Siemens	Enbridge	2011	Canada
Blue Canyon VI	99			Х	Vestas	Horizon	2011	OK
Cedar Point	250	Х	Х		Vestas V90	Enbridge	2011	СО
Gaines Cavern	2			Χ	Gamesa	TX Dispatchable Wind 1	2012	TX
NREL - Gamesa	2			Χ	Gamesa G97 Class IIIA	NREL	2012	СО
Mehoopany	140			Х	GE	BP Wind Energy	2012	PA
Harbor	9			Х	Guodian United Pwr	Revolution Energy	2012	TX
Twin Ridges	140			Х	REpower MM 92	Everpower	2012	PA
Lower Snake River	343		Х	Χ	Siemens	Puget Sound Energy	2012	WA
Wildcat	27			Χ	Suzlon S97	Exelon	2012	NM
Brooke-Alvinston	10			Χ	Samsung	One World Energy	2012	Canada
Halkirk 1	150			Х	Vestas V90	Capital Power	2012	Canada
Buffalo Dunes	250			Х	GE	Tradewind	2013	KS
South Kent	270			Х	Siemens	SRE SKW EPC L.P.	2014	Canada
Origin	150		Х	Х	Vestas	Enel Green Power	2014	OK
Tucannon River	267		Χ	Х	Siemens	PGE	2014	WA
Keechi	110		Х	Х	Vestas	Enbridge	2015	TX
Longhorn	200		Х	Х	Vestas	EDF	2015	TX
Pleasant Valley	200		Х	Х	Vestas	Xcel Energy	2015	MN

Border Winds	150	Χ	Χ	Vestas	Xcel Energy	2015	ND
Goodwell	200		Х	Vestas V100 and V110	Enel Green Power	2015	ОК
Grand Valley 3	39.7		X	Siemens	Grand Valley 2 Limited Partnership	2015	Canada
Little Elk	74		Х	Vestas V110	Enel Green Power	2015	OK
Arbuckle Mountain (Rose Rock) Wind*	100		Х	Vestas V110	Arbuckle Mountain Wind Farm LLC	2016	ОК

<sup>\*</sup> Under Construction

#### Solar Construction Services

RES and our affiliates are experienced in engineering and building over 150 MW of solar energy projects across North America. In 2012, RES was the balance of plant contractor for the 30 MW Webberville Solar project in Travis County, Texas providing construction, commissioning, and operations services until the transfer of ownership to SunEdison. In 2014, we completed construction of the 41 MW Alamo I Solar Project located in Bexar County, Texas. In 2015 RES was selected to construct the largest solar project east of the Rockies, the 156 MW Comanche Solar project, the project is currently in construction.

The table below provides an overview of the RES solar projects in the United States and Canada.

"We found RES' experience to be very helpful in identifying potential issues early on, and finding ways to resolve them. They are a very competent contractor."

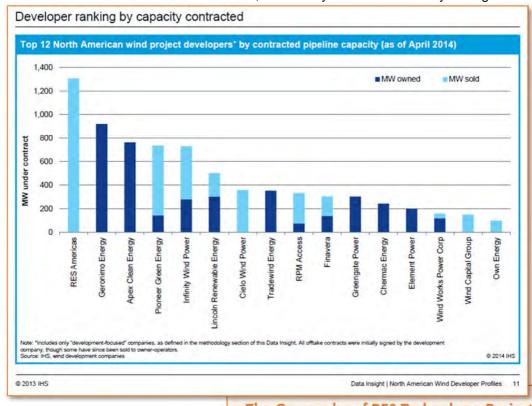
Mike Garland
President & CEO
Pattern Energy

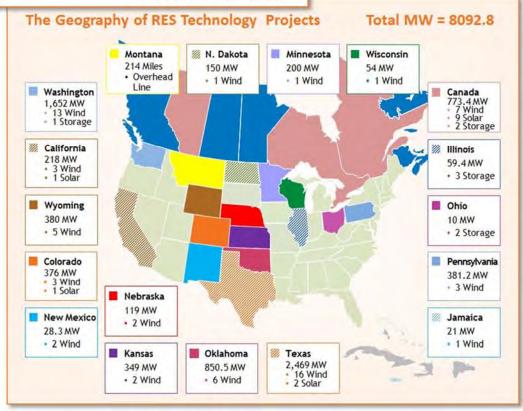


RES Solar Projects								
Project Name	Megawatts (AC/DC)	Location	Completion Date					
Webberville	30 / 35	Austin, Texas	2011					
Rutley	10 / 12	Ingleside, Ontario	2012					
Norfolk 1	10 / 12	Simcoe, Ontario	2013					
Demorestville	10 / 14	Picton, Ontario	2014					
Taylor Kidd	10 / 14	Kingston, Ontario	2014					
Mighty Solar	10 / 14	Chesterville, Ontario	2014					
Newboro I	10 / 18	Crosby, Ontario	2014					
Newboro IV	10 / 18	Newboro, Ontario	2014					
Alamo 1	41	San Antonio, Texas	2014					
GoldLight	10 / 18	Pefferlaw, Ontario	2015					

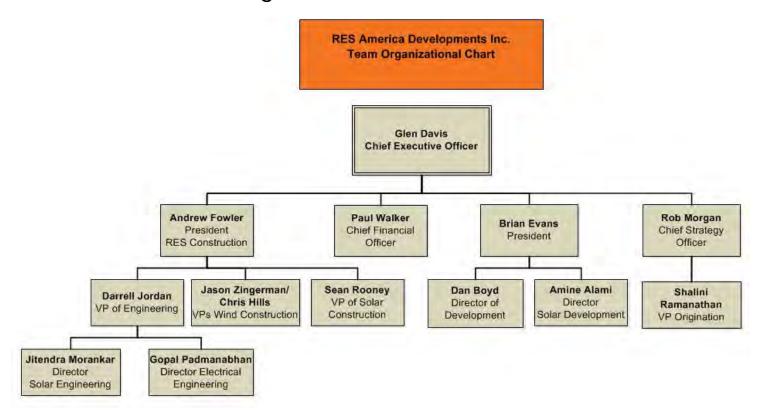
## Top North American Developer

RES is proud to be ranked the top Development company in North America by IHS Inc., an industry-standard and analytics organization.





## Management Structure & Resumes



The following information includes background on all personnel involved in the project including senior management, financing, and responsibility for meeting the obligations of the Project.



Brian Evans, President

Mr. Evans joined RES's parent company, Sir Robert McAlpine Enterprises Ltd., in 1994 as a Project Manager and began working for RES Ltd. in 1996 in the UK. After serving as Project Manager for the construction of two wind farms in Ireland, he moved to the U.S. in 1998 as Vice President (Construction) to set up RES Ltd.'s new North American subsidiary, RES. In 2005, Mr. Evans was named Senior Vice President of Development for RES, and in January 2010 he was named Executive Vice President of Business Development, where he is responsible for securing new construction business across North America. In 2014, Mr. Evans was appointed Chief Development Officer leading RES' Project Development group.

Mr. Evans has more than 20 years of experience in the construction industry. He served on the Board of the American Wind Energy Association (AWEA) from 2002-2005. Mr. Evans holds a BA (Hons) and an MA in Engineering Science from Oxford University and an MBA from London Business School, and he is a Member of the Institution of Civil Engineers (UK) and C Eng. Chartered Engineer (UK).



#### Rob Morgan, Chief Strategy Officer

Mr. Morgan joined RES as Chief Development Officer in 2013 and was appointed Chief Business Development Officer in August 2014. He comes to RES from Agile Energy, a company he founded and led for over nine years.

Mr. Morgan has spent 25 years in the global independent power business, including several years with AES Corporation. He was instrumental in building companies such as Agile Energy and Ausra, Inc. by successfully developing, acquiring, and operating utility-scale power generating assets with both renewable and conventional technologies.

He has a successful track record in all aspects of the project development cycle including site identification and acquisition, securing interconnection and transmission rights, permitting, PPA and fuel supply negotiation, EPC and technology selection, and contracting. Mr. Morgan has worked throughout North America and led operating businesses in the former Soviet Union (Kazakhstan), Chile, and El Slavador. Across continents, he has raised more than \$2 billion in project and corporate finance capital.

Mr. Morgan holds a BA in Economics and an MS in Engineering from Stanford University.



#### Paul Walker, Chief Financial Officer

Mr. Walker joined RES in the Americas in 2012 as Chief Financial Officer. He joined the American team after working for RES Group where he was Director of Financial Planning and Analysis. Previously, Mr. Walker held various Director roles within RES Group, including the position of Finance Director for the Northern European and Asia Pacific businesses.

Prior to joining RES Group, Mr. Walker worked at British Telecommunications for seven years. He established and ran the global acquisition integration team for finance and also ran the global cash management business which had a multibillion dollar monthly activity level. Before his work at British Telecommunications, he worked for Telecommunications Australia (Telstra) and worked on the team which set up one of the largest joint ventures in the telecommunications business. Mr. Walker also worked for Cap Gemini and was a Management Consultant in South Africa.

Paul holds a Bachelor of Commerce degree and is a qualified accountant (Association of Chartered Management Accountants).



#### Andrew Fowler, B.Eng., President RES America Construction

Mr. Fowler is a solid executive whose leadership has directly contributed to the successful implementation of over 8,000 MW of wind, solar, and energy storage projects, and over 650 miles of overhead and transmission lines globally.

He joined Sir Robert McAlpine Enterprises Ltd., in 1989 as a Construction Manager for wind and nuclear energy facilities in the U.K. In 1998, Mr. Fowler moved to RES Limited's subsidiary in the Americas and eventually became the Executive Vice President of Construction and Engineering where he was responsible for managing the construction of the company's renewable energy projects across North America. In 2011 Mr. Fowler was named Chief Operating Officer and continues to manage the engineering, construction, and operations teams for the company in the Americas.

Mr. Fowler has over 25 years of construction and engineering experience. He holds a B.Eng. (Hons) in Civil Engineering from Salford University (U.K.).



#### Shalini Ramanathan, Vice President Origination

Ms. Ramanathan has closed multiple deals with nearly \$2 billion in total transaction value. She worked on the RES team that negotiated a wind power purchase agreement with Microsoft, the first-ever direct green power purchase for that company. She has transacted with numerous utilities including Xcel Energy, Oklahoma Gas & Electric, and Arkansas Electric Coop and has worked on merchant/hedge wind projects. In 2010, she was ERCOT regulatory chair of the trade association, The Wind Coalition. In that role, she contributed to securing approval for the \$7 billion CREZ transmission line build-out in Texas, which is bringing hundreds of MW of clean power online.

Prior to joining RES, Ms. Ramanathan was based in Nairobi, Kenya and worked on renewable energy projects across East Africa for the British company CAMCO. She also worked for the National Renewable Energy Laboratory (NREL) where she focused on renewable energy deployment and policy in Southern Africa, India, and the Philippines.

She holds a Master's degree in Environmental Management from Yale University and a BA from UT Austin. She lives in Austin, TX, and is a Next Generation Fellow at UT's LBJ School of Public Affairs. She serves on the Board of Trustees of The Contemporary, an Austin arts institute.



#### Dan Boyd, Senior Director of Development

Dan is currently Senior Director of Development for Renewable Energy Systems, where he is responsible for the development of Wind, Solar, Energy Storage and Microgrids in the Eastern US. Previously, Dan was Manager of Business Development for FuelCell Energy, Inc. where he developed both utility scale and behind the meter Fuel Cell projects. Dan has worked with various aspects of development and mergers & acquisitions of renewable energy projects throughout the Americas as Principal Consultant with Ozone Renewables. Prior to Ozone, Dan was Director of Development at Noble Environmental Power, LLC, where he developed over 400MW of operational wind farms throughout the northeast. Dan is a graduate of the United States Air Force Academy where he obtained a BS in Civil Engineering and also has a MBA from the University Of Connecticut School Of Business.



#### Amine Alami, Director of Solar Business Development

Mr. Alami has been involved in the photovoltaic industry through multiple roles spanning cutting edge research at the semiconductor level, the technical development of distributed generation and utility-scale photovoltaic systems, and the engineering, procurement, and construction management of these projects.

After receiving his MBA, Mr. Alami worked as manager of operational solar assets at one of the first pioneers of the solar PPA in the U.S. Through his tenure, he had oversight over all technical, engineering, and financial operations spanning 22 installed PV systems.

Most recently, Mr. Alami worked with developing a large utility-scale project and was the solar operations director of a 360 MWdc/250 MWac PPA contracted project with LADWP built on the Moapa Band of Pauite Native American Land. He joined RES in 2015 where he performs business development, origination, and investment structuring of large solar projects.

Mr. Alami holds an MBA from the Georgia Institute of Technology.



#### Darrell Jordan, P.E., Vice President of Engineering

Mr. Jordan is a well-respected industry professional with over 25 years of experience in the design and delivery of power operations. His expertise has proven invaluable at RES as he has provided oversight of teams of up to 245 engineers and designers on multiple, large EPC projects.

In his role as VP of Engineering, Mr. Jordan leads the civil, electrical, and mechanical engineering efforts to support RES' renewable energy, energy storage, and transmission development and construction projects across North and South America.

Mr. Jordan holds both a BS and an MS in Civil Engineering from the Georgia Institute of Technology.



#### Jason Zingerman, Sr. Vice President of Construction

Mr. Zingerman is a highly motivated, results-oriented professional with the proven ability to deliver quality, well managed projects on-schedule. He has nearly 20 years of industry experience and has been with RES since 2007.

As Sr. Vice President of Construction, Mr. Zingerman is responsible for the contract and construction management of renewable energy, energy storage, and transmission projects in the Americas. His ability to manage multiple projects through completion within time deadlines and budget estimates has led to the successful delivery of dozens of solar, wind, and energy storage projects in North America.

Mr. Zingerman attended Texas Tech University.



#### Chris Hills, Sr. Vice President of Construction

Mr. Hills joined RES in the Americas in 2000, initially as a Site Manager. He soon became a Project Manager. He supervised the construction of projects in Texas and Washington. In 2005, he was promoted to Director of Construction Projects with a special focus on the Pacific Northwest. In 2008, Mr. Hills was named Senior Vice President of Construction for the South Central region of the U.S. In this role, he now leads multiple project management teams and is responsible for the successful completion of those projects.

Mr. Hills has over 20 years of experience in civil engineering and holds a BEng (Hons) in civil engineering from the University of Bristol in England.



# Gopal Padmanabhan, PE, P.Eng., Director of Electrical Engineering

Mr. Padmanabhan draws on over 30 years of progressive experience to provide design team support in developing scope of work, performance specifications, review of design and control schemes, and preliminary cost estimates for solar, wind, and energy storage projects. He has a proven track record of timely project delivery, project management, cost control, and customer satisfaction.

Mr. Padmanabhan attends site visits and performs construction support, testing and commissioning for solar, wind, and energy storage projects. He also develops safety procedures for energization/switching and for plant operations and maintenance. He conceptualizes and implements a virtual "grid" to test and simulate collection system in the absence of back feed power.

Mr. Padmanabhan holds an MS in Electrical Engineering from Concordia University in Montreal.



### Jitendra Morankar, Director of Solar Engineering

Jitendra Morankar joined RES in 2008 and manages the engineering team in designing and optimizing production of utility-scale solar facilities. His keen ability to execute solar design from concept to commissioning has contributed to the successful construction and operation of over 350 MW of solar projects in the United States and Canada.

He is a recognized speaker at leading solar industry conferences, such as Solar Power International (SPI), IEEE, PV America, and Texas Renewable Energy Industries Association (TREIA).

Mr. Morankar holds an MS in Mechanical Engineering from the University of Buffalo and an MBA in Finance from the Leads School of Business at the University of Colorado.



### Doug Biggers, Project Director

With over 30 years of professional construction experience, Doug Biggers encompasses exceptional construction management skills and experience providing leadership and guidance in all off-site and on-site construction activities and site safety compliance. He has been responsible for the construction, commissioning, and testing of over 500 MW of photovoltaic solar power plants across the United States.

The 250 MW Silver State Solar project in Primm, NV and the 150 MW SolarGen2 solar project in Calipatria, CA are two of the largest solar facilities constructed under his supervision.

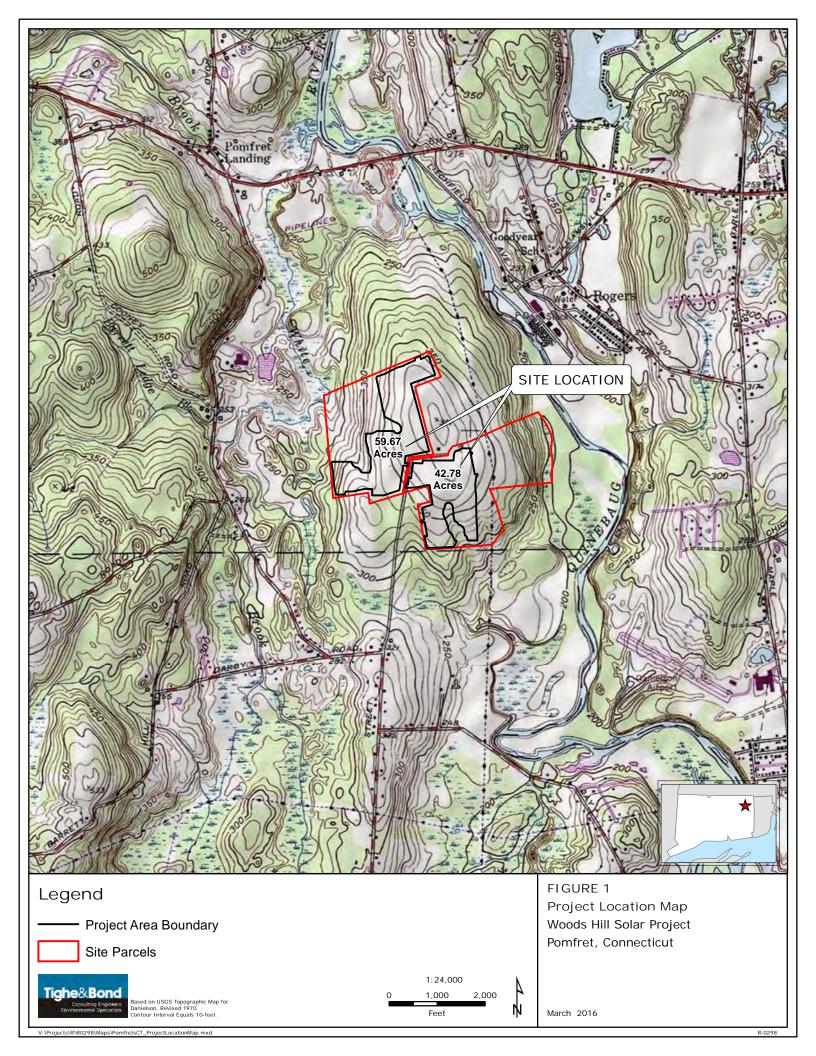
Mr. Biggers holds a Juris Doctorate of Law from Oklahoma City University and a BS in Mechanical Engineering from the University of Oklahoma.

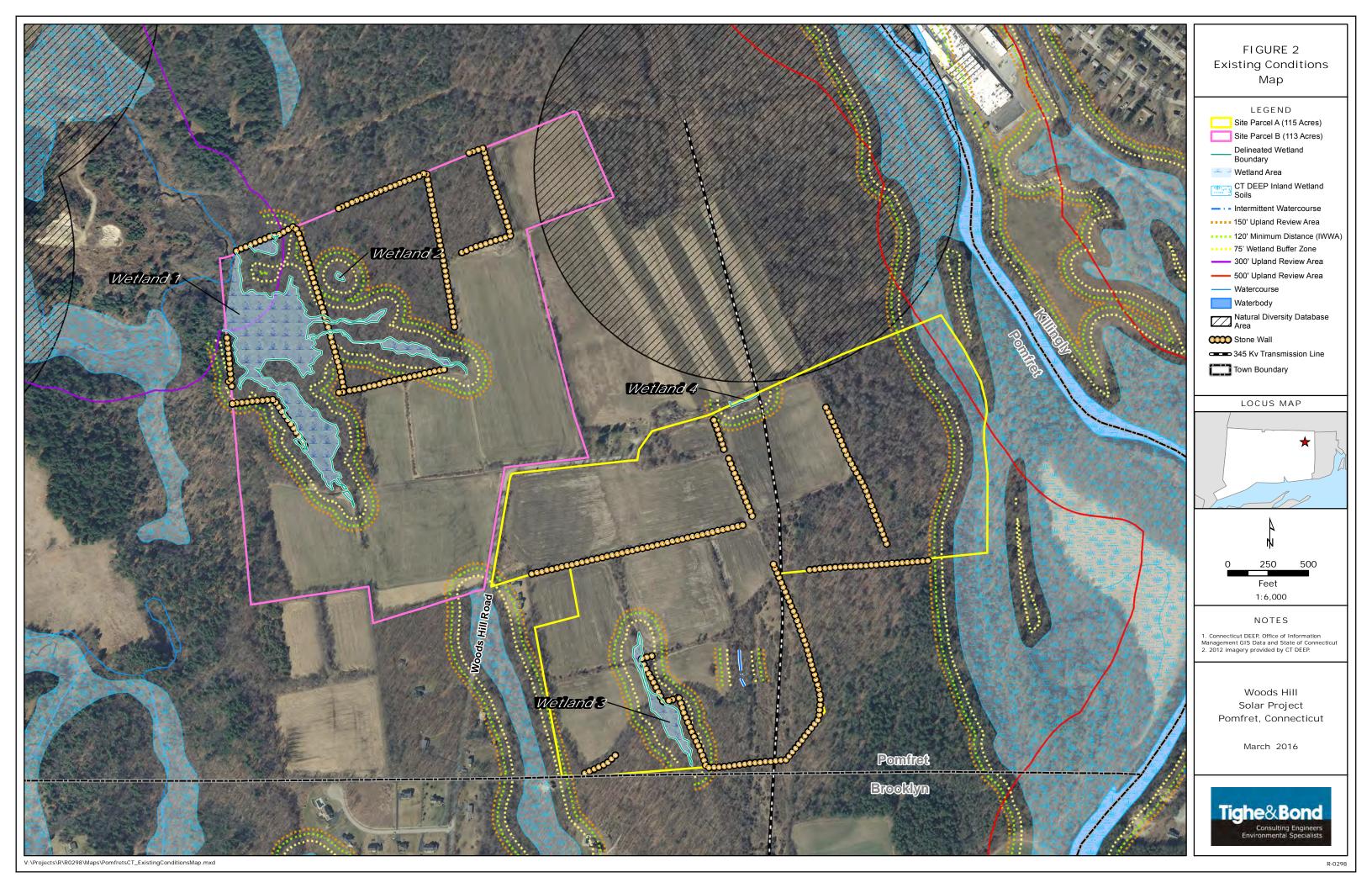
# **EXHIBIT B:**

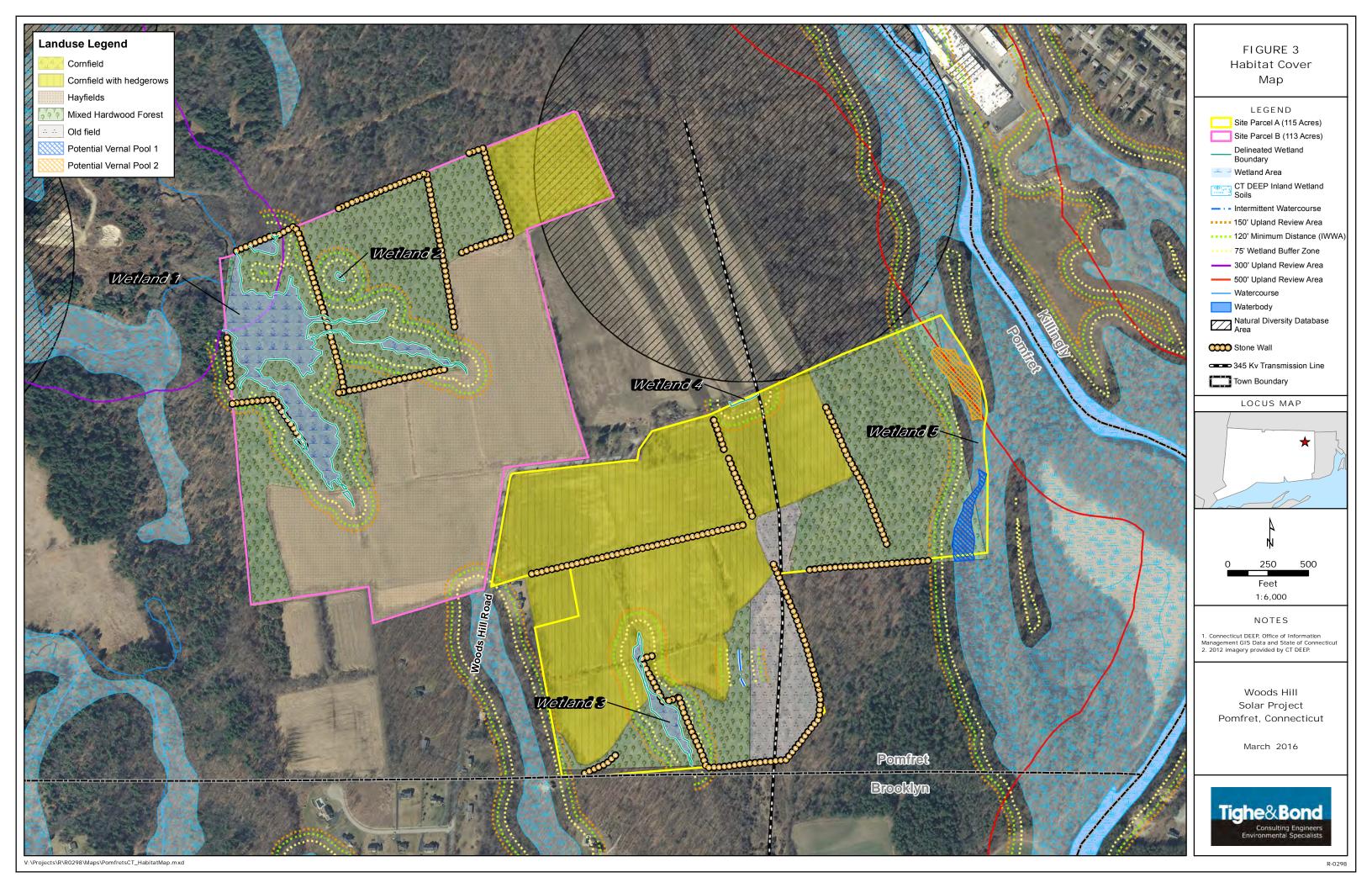
Figures

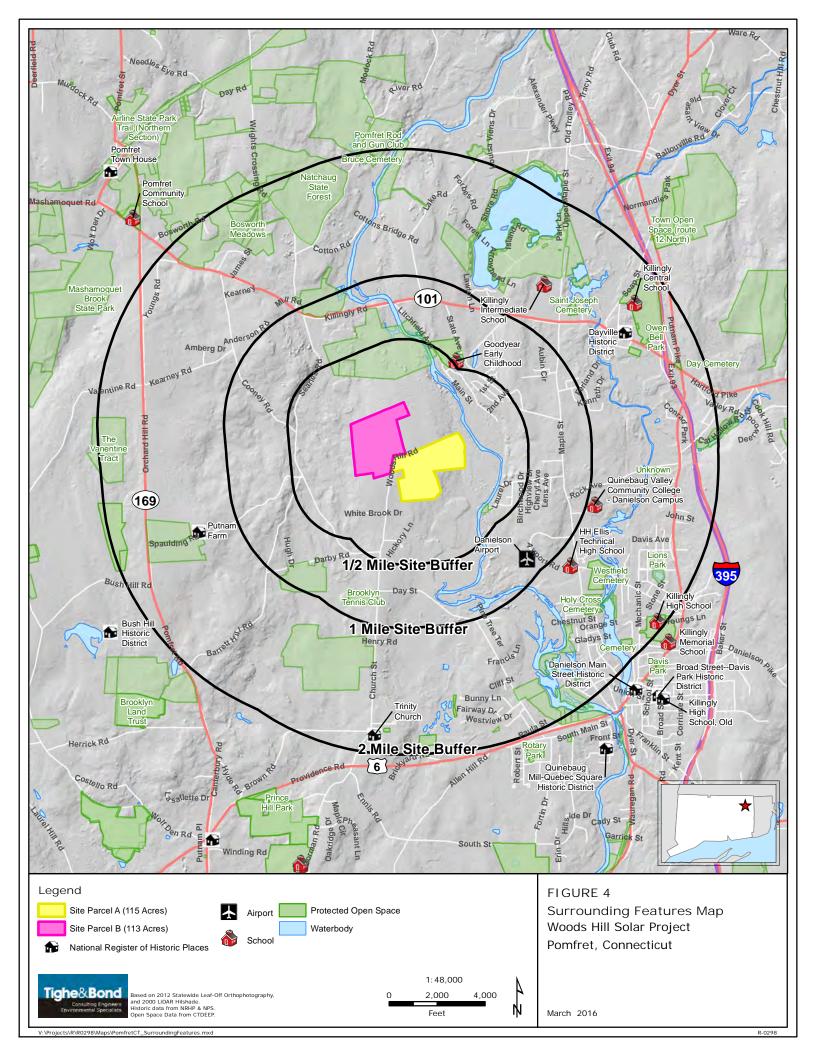


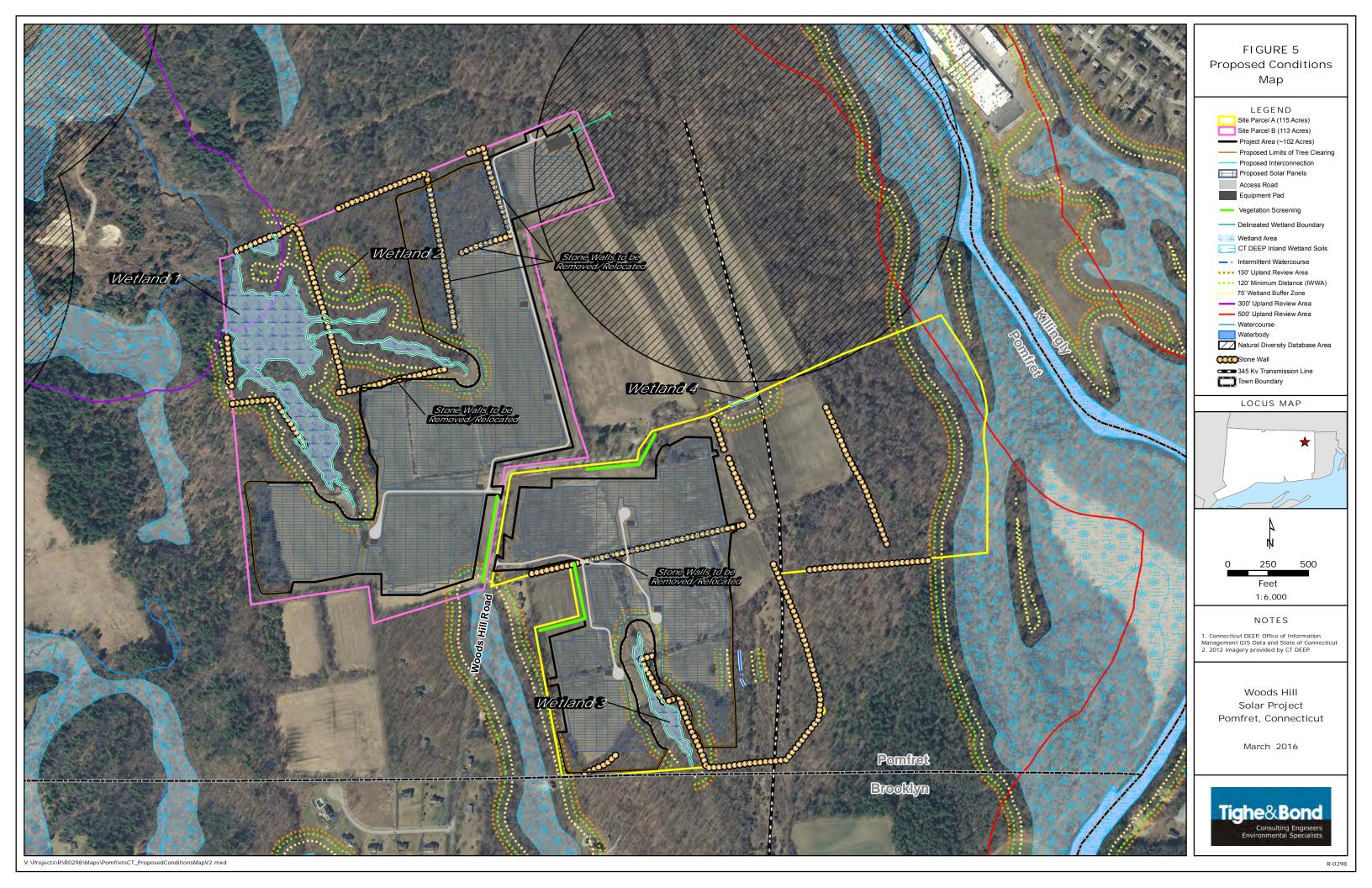












# **EXHIBIT C:**

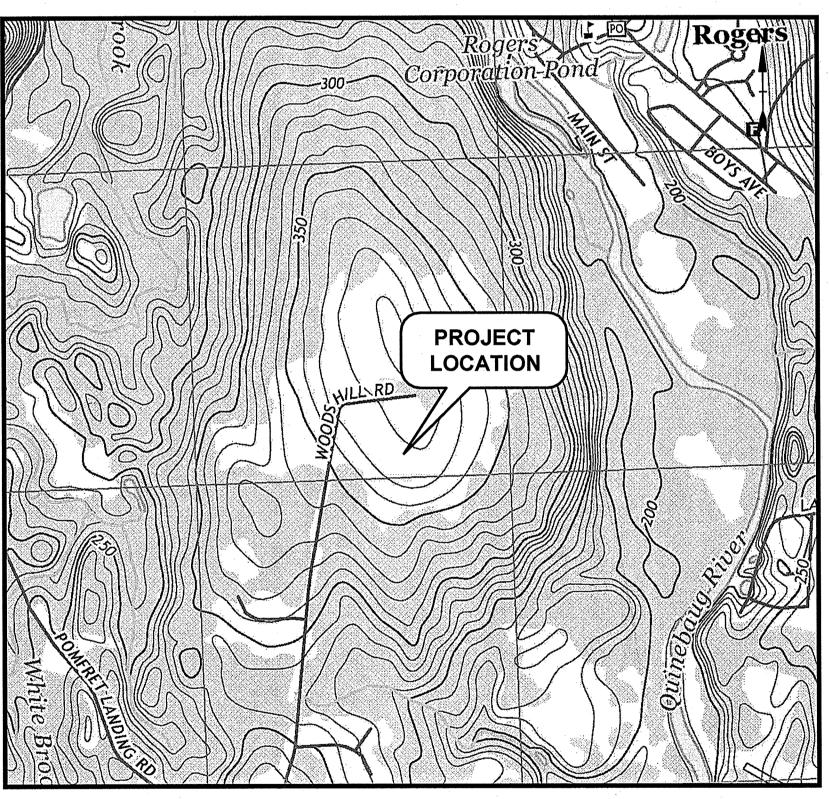
Detailed Site Plan Layout



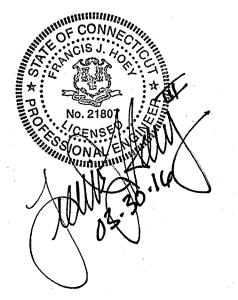


# WOODS HILL SOLAR PROJECT PERMIT APPLICATION SET NOT FOR CONSTRUCTION POMFRET, CONNECTICUT MARCH 2016

SHEET NO.	SHEET TITLE
G-001	COVER SHEET
G-002	NOTES, LEGEND, AND DETAILS
C-001	<b>EXISTING CONDITIONS AND DEMOLITION - LARGE SCALE</b>
C-002 - C-019	EXISTING CONDITIONS AND DEMOLITION
C-020	PROPOSED CONDITIONS - LARGE SCALE
C-021 - C-038	PROPOSED CONDITIONS



SCALE: 1" = 1,000'





# **DEVELOPER:**

WOODS HILL SOLAR, LLC 11101 WEST 120<sup>TH</sup> AVENUE BROOMFIELD, CO 80021

# **LAND OWNERS:**

CHISTINA JUANITA & SHEILA NABOZNY 101 WOODS HILL ROAD POMFRET, CT 06258

CHARLES & WILLIAM TYLER 90 WOODS HILL ROAD POMFRET, CT 06258

# **ENGINEER:**

TIGHE & BOND, INC 53 SOUTHAMPTON ROAD WESTFIELD, MA 01085



COMPLETE SET 40 SHEETS

# PLAN REFERENCES:

- 1. EXISTING CONDITIONS ARE BASED ON A PLAN TITLED "EXISTING CONDITIONS 90 & 101 WOODS HILL ROAD POMFRET, CT" PREPARED FOR TIGHE & BOND INC. BY WSP GROUP COMPLETED ON DECEMBER 29,
- 2. SOLAR LAYOUT PROVIDED TO TIGHE & BOND BY RES. THE LAYOUT WAS MODIFIED BASED ON THE SITE CONSTRAINTS.
- 3. WETLANDS WERE FLAGGED AND LOCATED BY GPS BY TIGHE & BOND ON SEPTEMBER 1, 2015 THROUGH DECEMBER 23, 2015.

# **GENERAL NOTES:**

- 1. FIELD VERIFY EXISTING CONDITIONS PRIOR TO CONSTRUCTION, IF FIELD CONDITIONS ARE OBSERVED THAT SIGNIFICANTLY VARY FROM THOSE SHOWN ON THESE PLANS, IMMEDIATELY NOTIFY THE ENGINEER FOR RESOLUTION OF THE CONFLICTING INFORMATION.
- 2. COMPLY WITH OSHA'S LATEST STANDARDS. PROVIDE ALL REQUIREMENTS OF OSHA'S EXCAVATION STANDARDS, INCLUDING BUT NOT LIMITED TO PROVISION FOR A COMPETENT PERSON ON SITE AND ALL DOCUMENTATION REQUIRING CERTIFICATION BY A PROFESSIONAL ENGINEER.
- 3. MAINTAIN ALL UTILITIES IN THE AREAS UNDER CONSTRUCTION. LEAVE ALL PIPES, SWALES AND STRUCTURES WITHIN THE LIMIT OF THIS CONTRACT IN CLEAN AND OPERABLE CONDITION AT THE COMPLETION OF THE WORK. TAKE ALL NECESSARY PRECAUTIONS TO PREVENT SAND AND SILT FROM DISTURBED AREAS FROM ENTERING THE SYSTEM. CONTRACTOR IS RESPONSIBLE FOR DAMAGE SUSTAINED TO ANY EXISTING UTILITIES AND WILL MAKE REPAIRS THAT COMPLY WITH REQUIREMENTS OF OWNER OR RESPECTIVE UTILITY COMPANY.
- 4. LOAM AND SEED ALL DISTURBED AREAS UNLESS OTHERWISE
- 5. THE PROJECT SITE IS WITHIN NATIONAL DIVERSITY DATABASE AREA (NDDA).

### **EROSION CONTROL NOTES:**

- 1. INSTALL ALL EROSION CONTROL MEASURES SHOWN, SPECIFIED AND REQUIRED BY THE ENGINEER PRIOR TO ANY CONSTRUCTION OR IMMEDIATELY UPON REQUEST. MAINTAIN ALL SUCH CONTROL MEASURES UNTIL FINAL SURFACE TREATMENTS ARE IN PLACE AND/OR UNTIL PERMANENT VEGETATION IS ESTABLISHED.
- 2. MARK WORK LIMIT LINE(S) PRIOR TO STARTING WORK. DO NOT DISTURB VEGETATION AND TOPSOIL BEYOND THE PROPOSED LIMIT LINE. COORDINATE WITH THE ENGINEER FOR THE LOCATIONS FOR THE TEMPORARY STOCKPILING OF TOPSOIL DURING CONSTRUCTION.
- 3. FINE GRADE AND IMMEDIATELY SEED ALL SIDE SLOPES, SHOULDER AREAS, AND DISTURBED VEGETATED AREAS. ALL GRADING TO BE A MAXIMUM SLOPE OF 2:1, COMPACTED, AND STABILIZED. SLOPES GREATER THAN 3:1 TO BE RECEIVE EROSION CONTROL BLANKET.
- 4. REMOVE AND DISPOSE OF ALL SILT TRAPPED AT BARRIERS IN UPLAND AREAS OUTSIDE BUFFER ZONES. REMOVE MATERIALS DEPOSITED IN ANY TEMPORARY SETTLING BASIN AT THE COMPLETION OF THE PROJECT. RESTORE ALL DISTURBED AREAS TO PRE-CONSTRUCTION
- 5. REMOVE ALL SEDIMENT TRACKED ON PUBLIC RIGHT-OF-WAYS AT THE END OF EACH DAY.

FROZEN & ORGANIC MATERIAL

— FINISHED GRADE

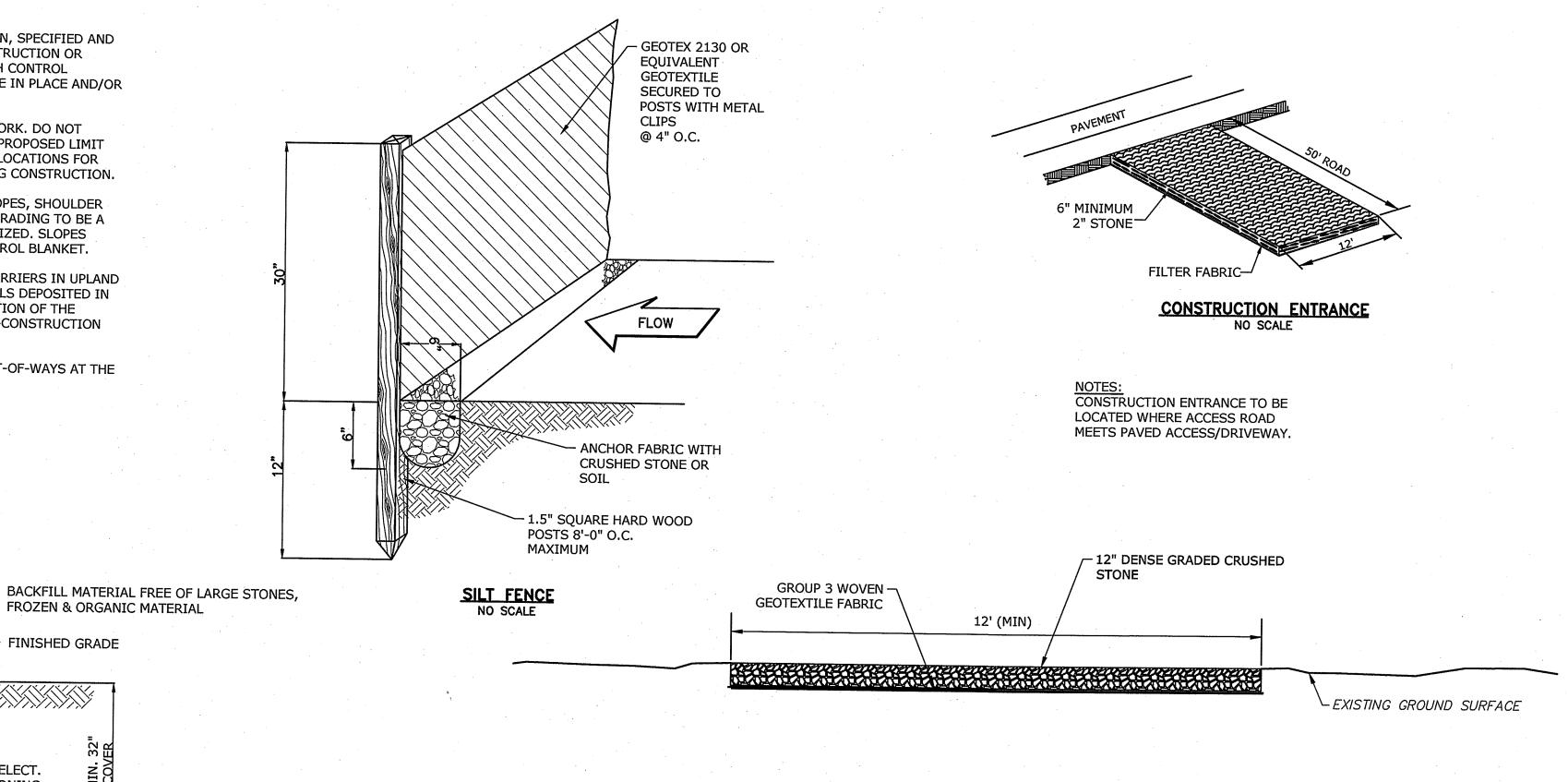
ELECT.

TAPE

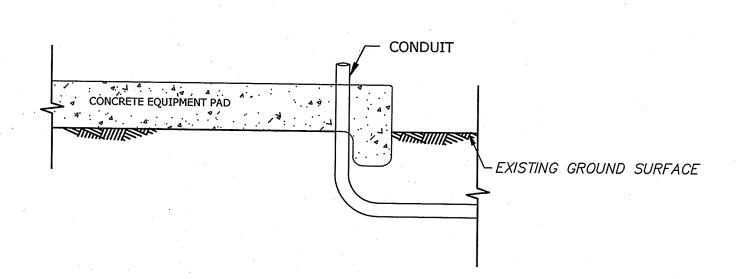
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CONDUIT

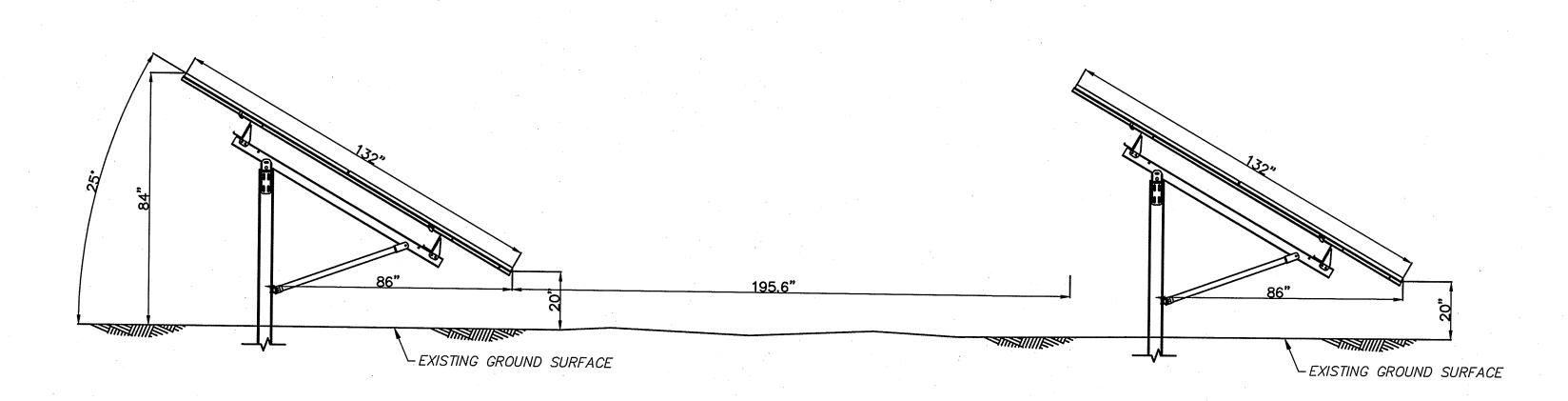
MEDIUM VOLTAGE AC TRENCH DETAIL (TYP)



# TYPICAL ACCESS ROAD SECTION

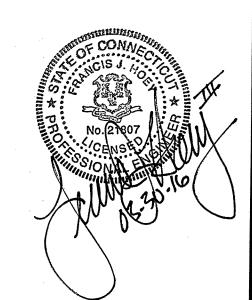


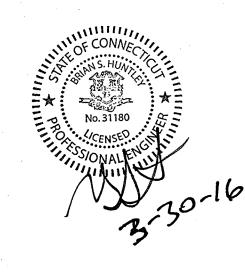
TYPICAL EQUIPMENT PAD AND CONDUIT TRANSITION



SOLAR RACKING SYSTEM DETAIL (TYP)







# **Permit Set**

**Woods Hill Solar Project** 

Woods Hill Solar, LLC

Pomfret,

Connecticut **VERIFY SCALE** BAR IS 1 INCH ON ORIGINAL DRAWING IF NOT ONE INCH ON

THIS SHEET, ADJUST

SCALES ACCORDINGLY

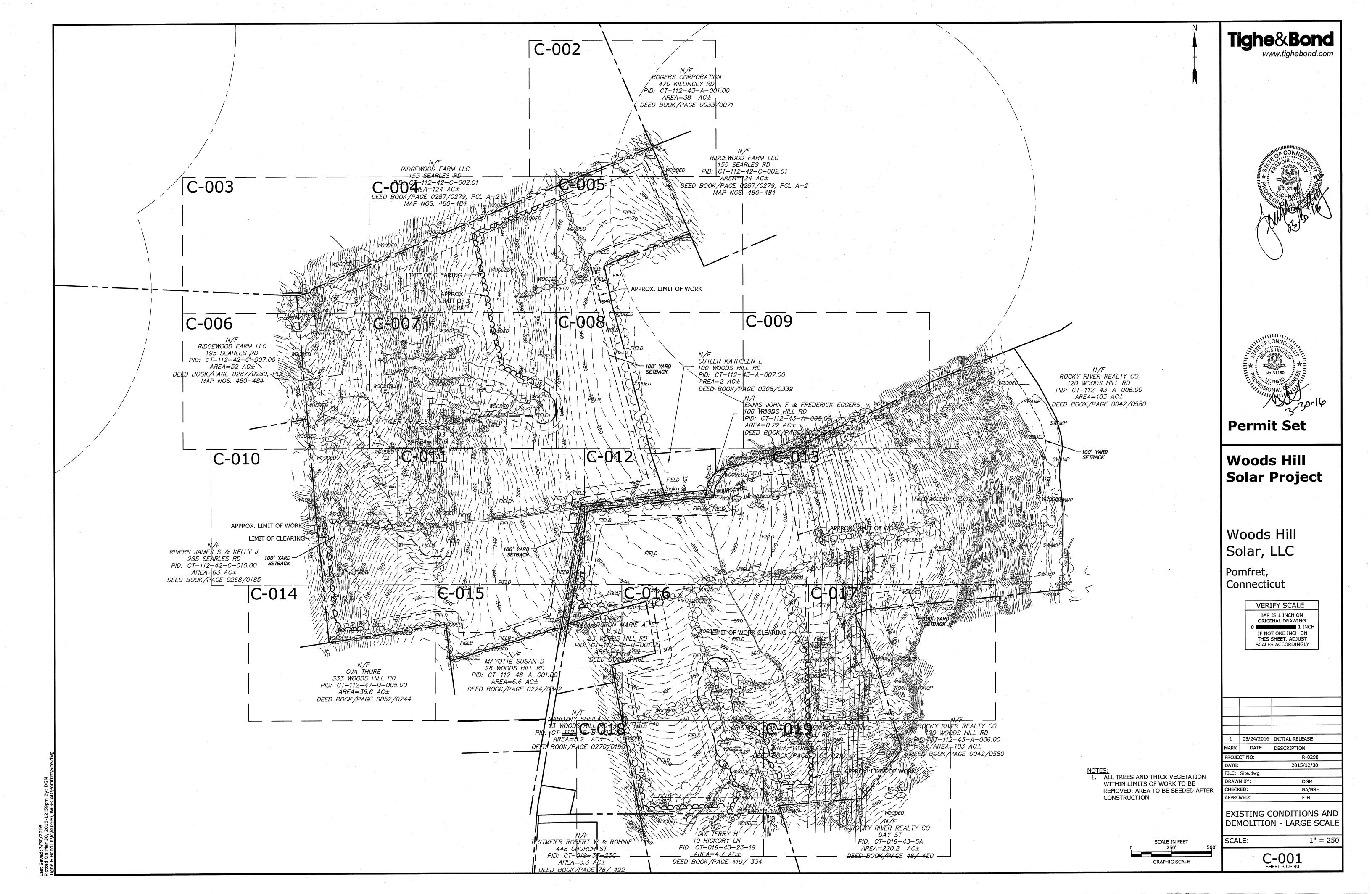
03/24/2016 INITIAL RELEASE MARK DATE DESCRIPTION PROJECT NO: R-0298 DATE: 2015/12/30 FILE: Site.dwg DRAWN BY: DGM BA/BSH PPROVED: FJH

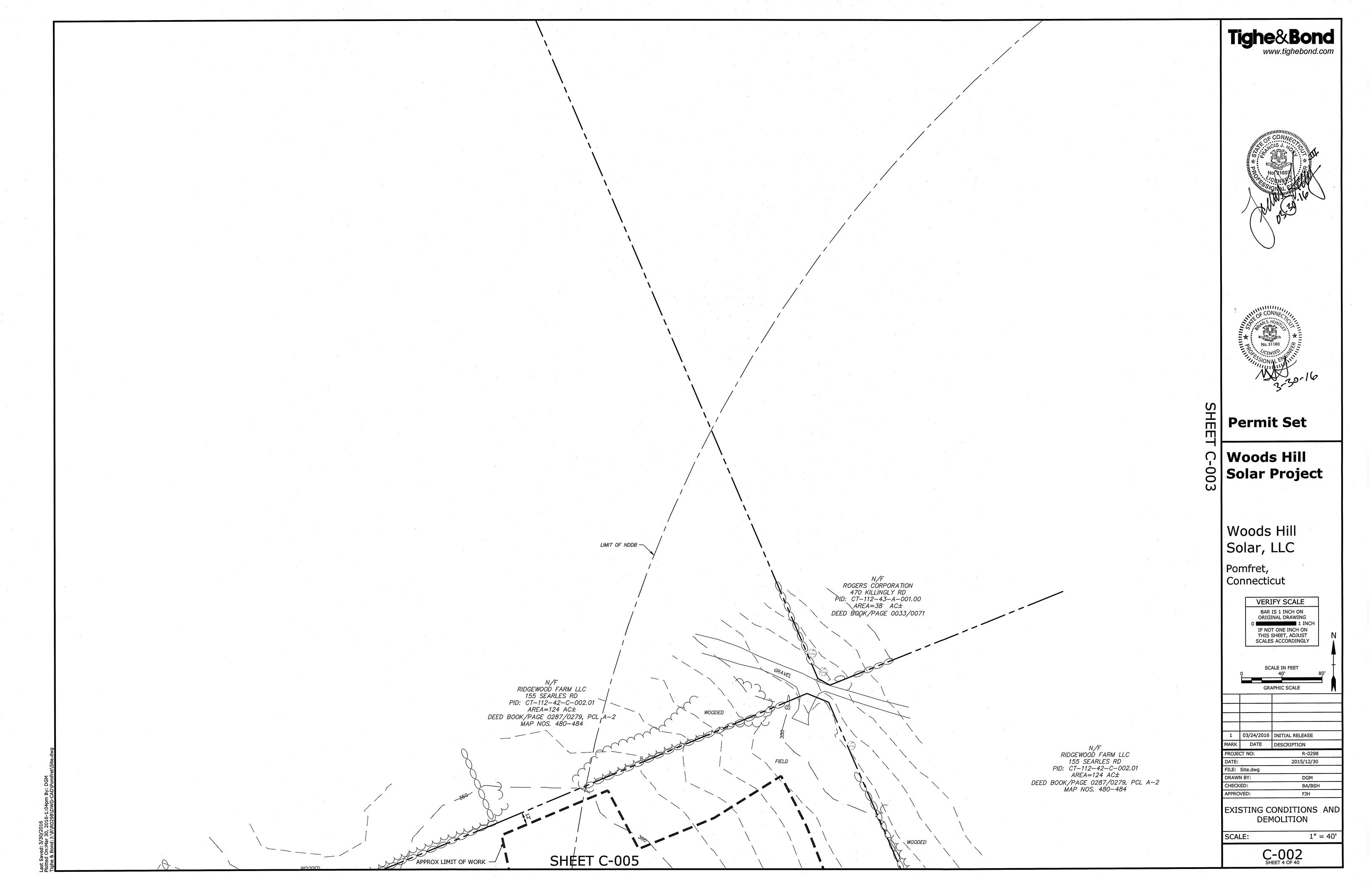
NOTES, LEGEND, AND DETAILS

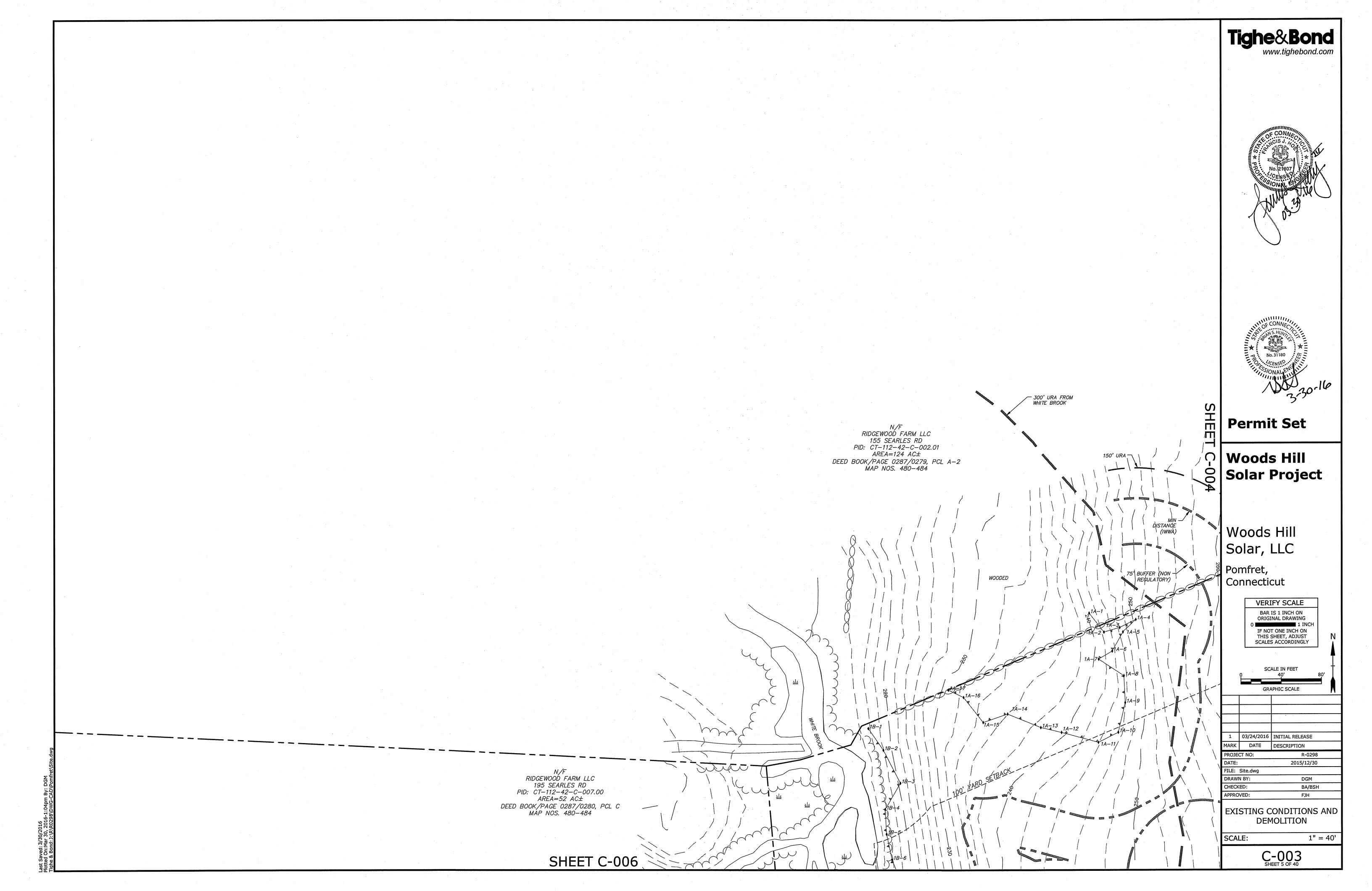
AS SHOWN

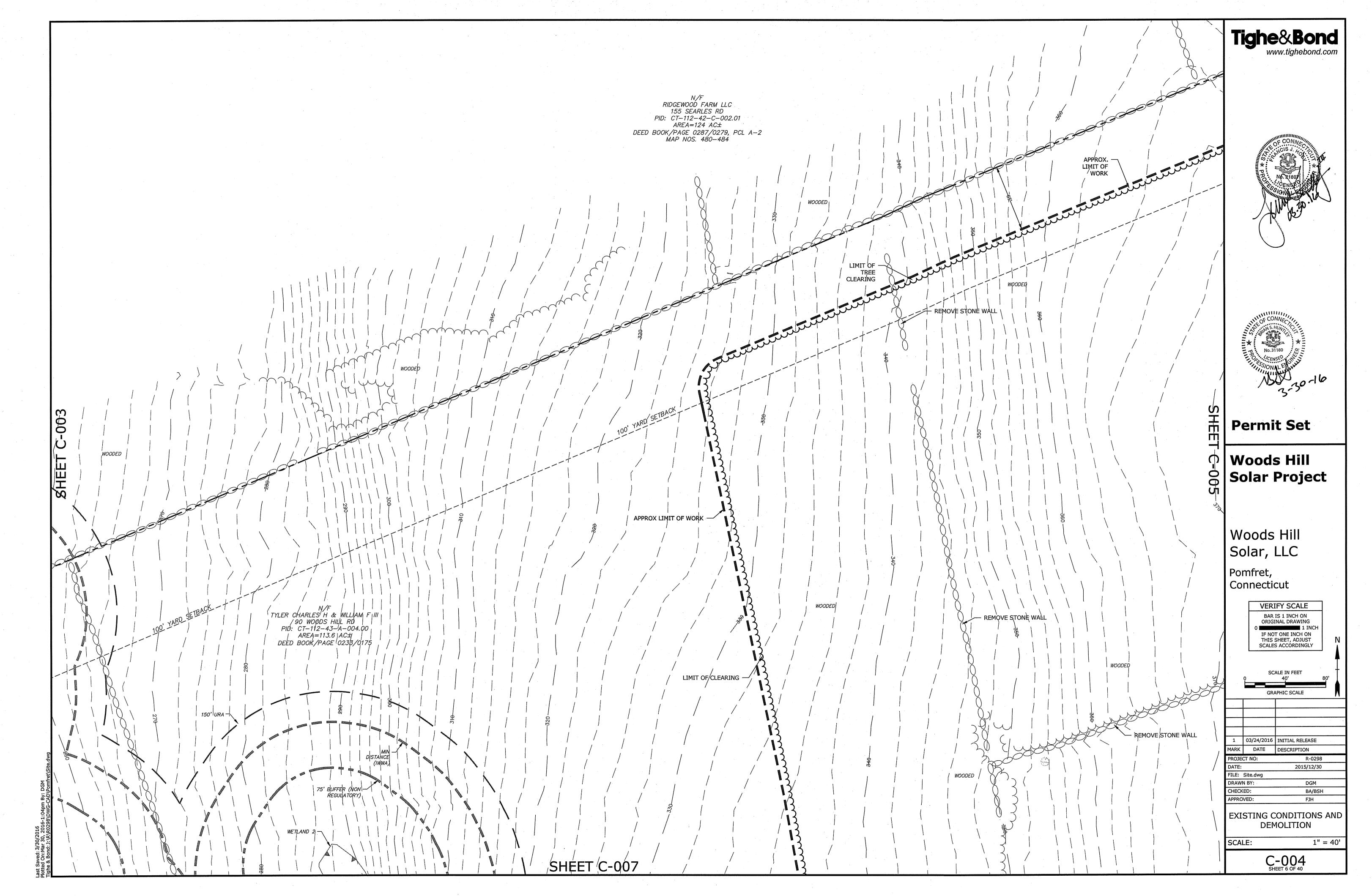
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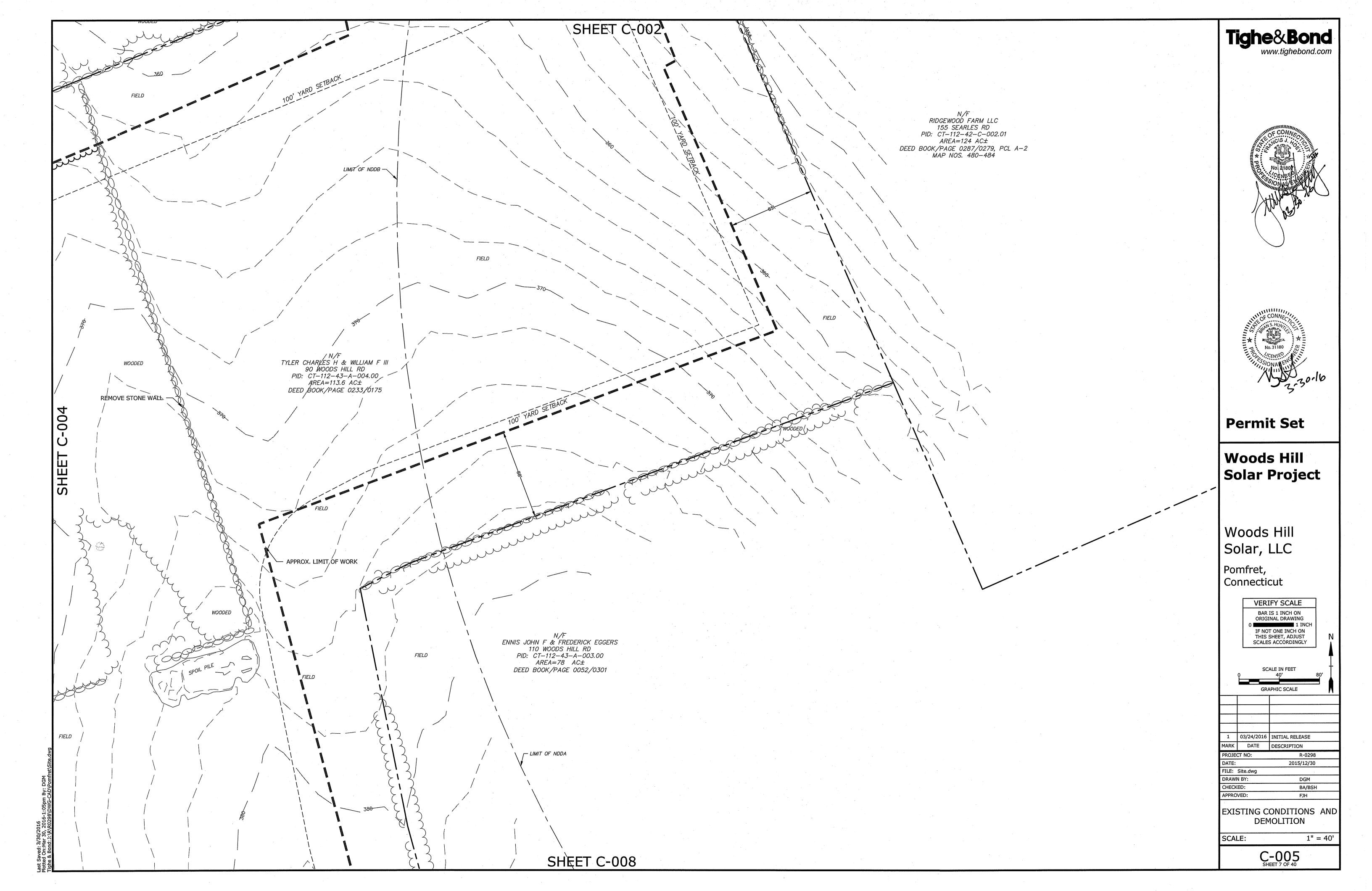
G-002 SHEET 2 OF 40

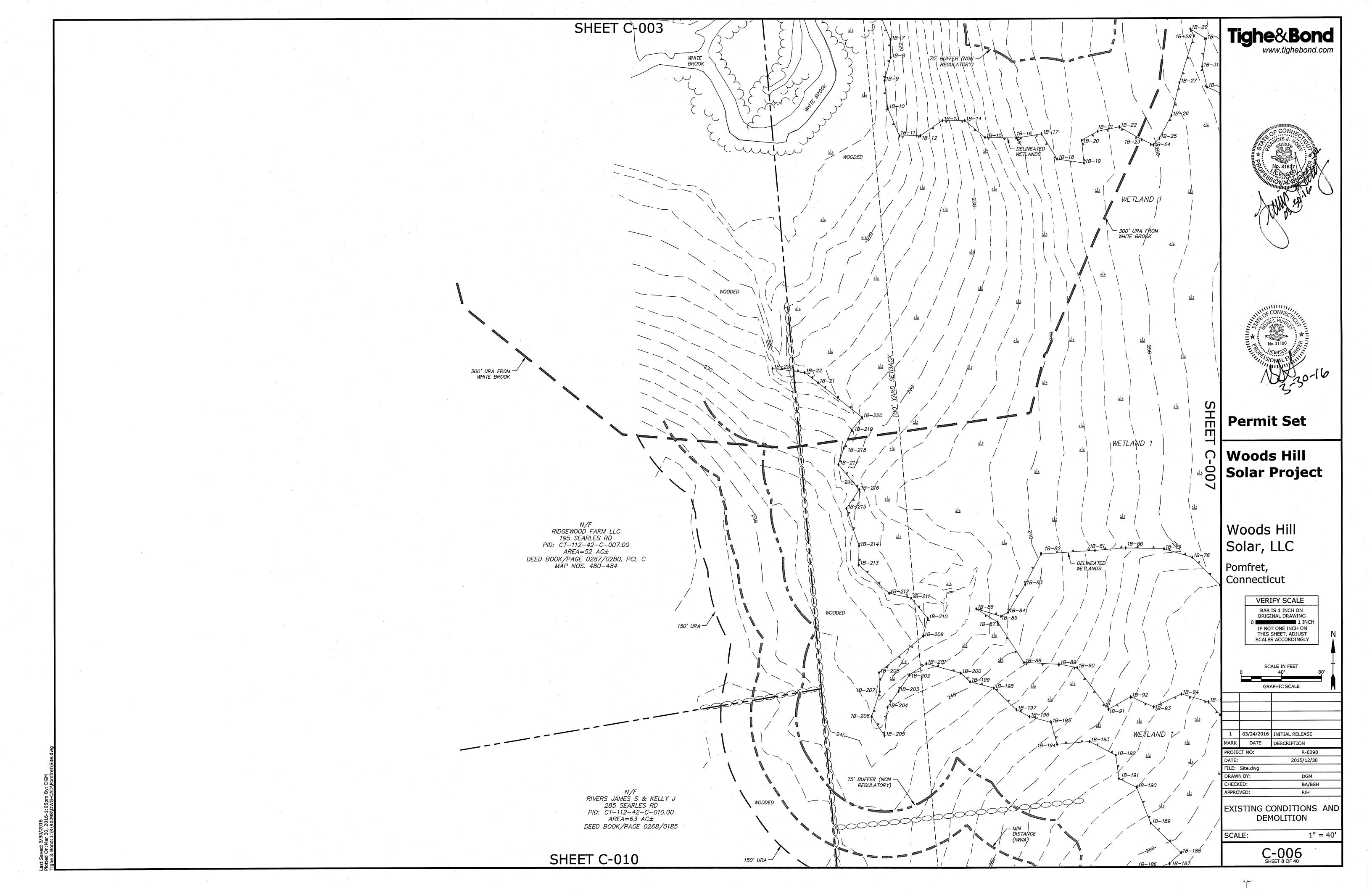


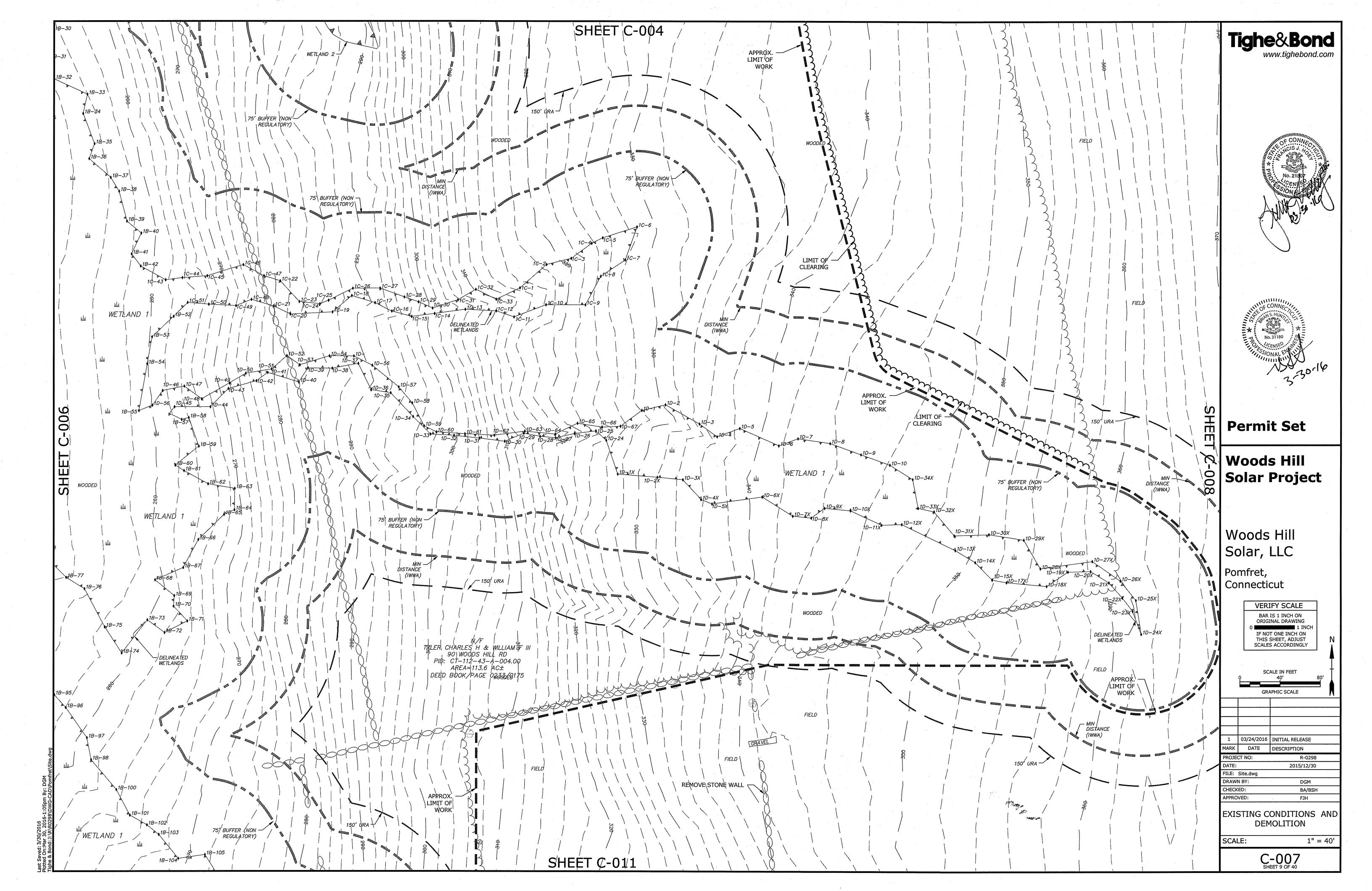


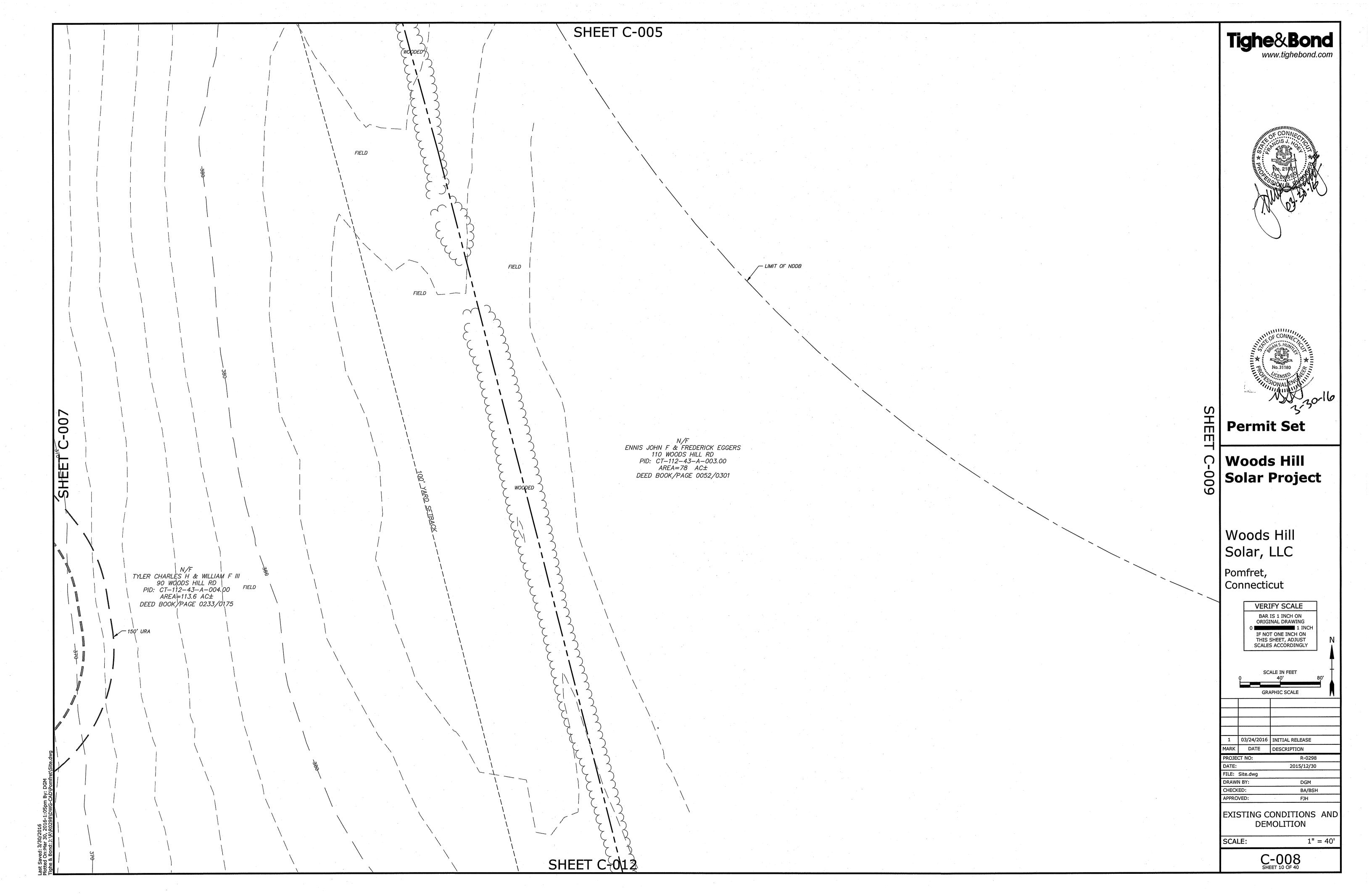




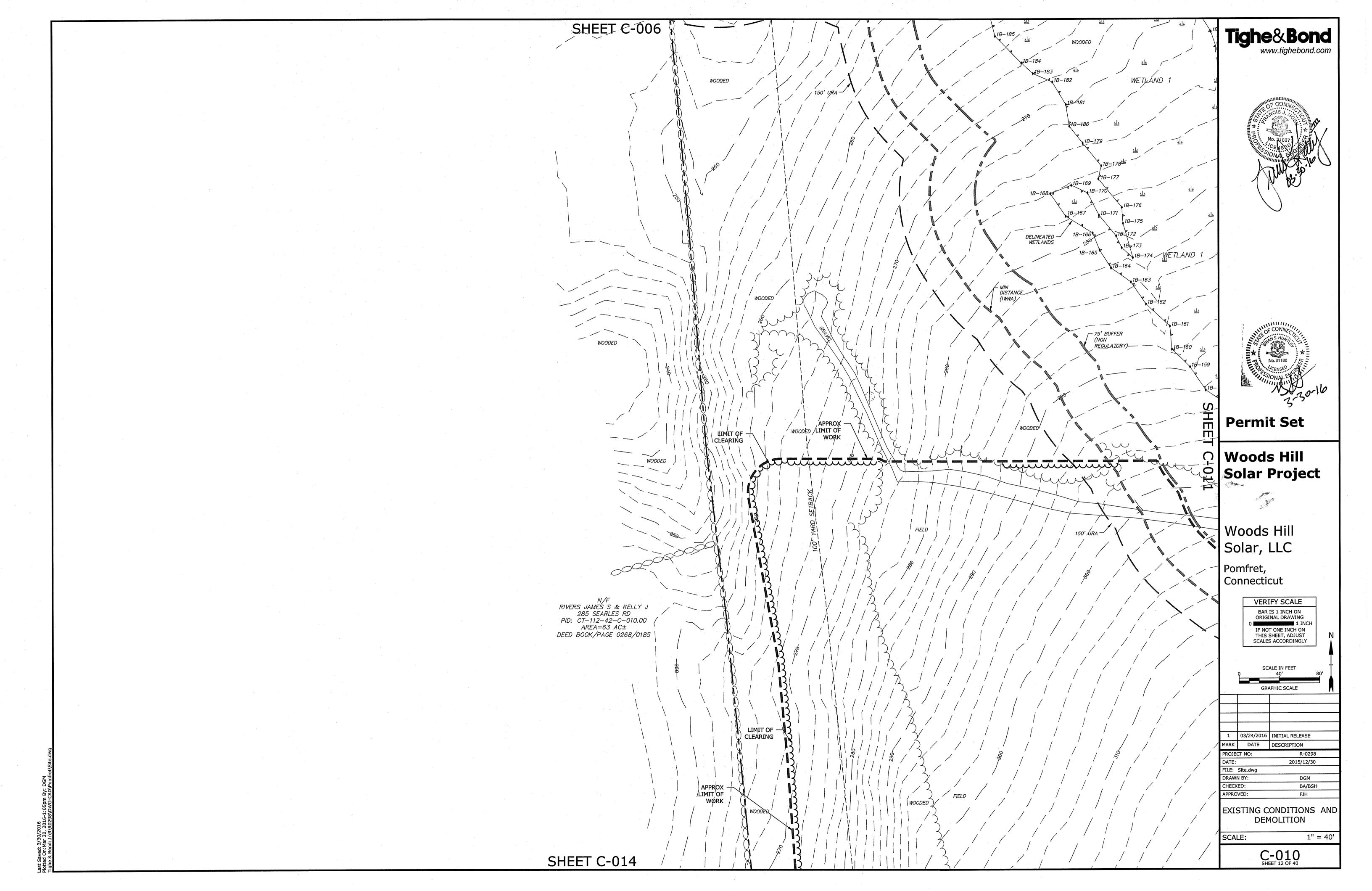


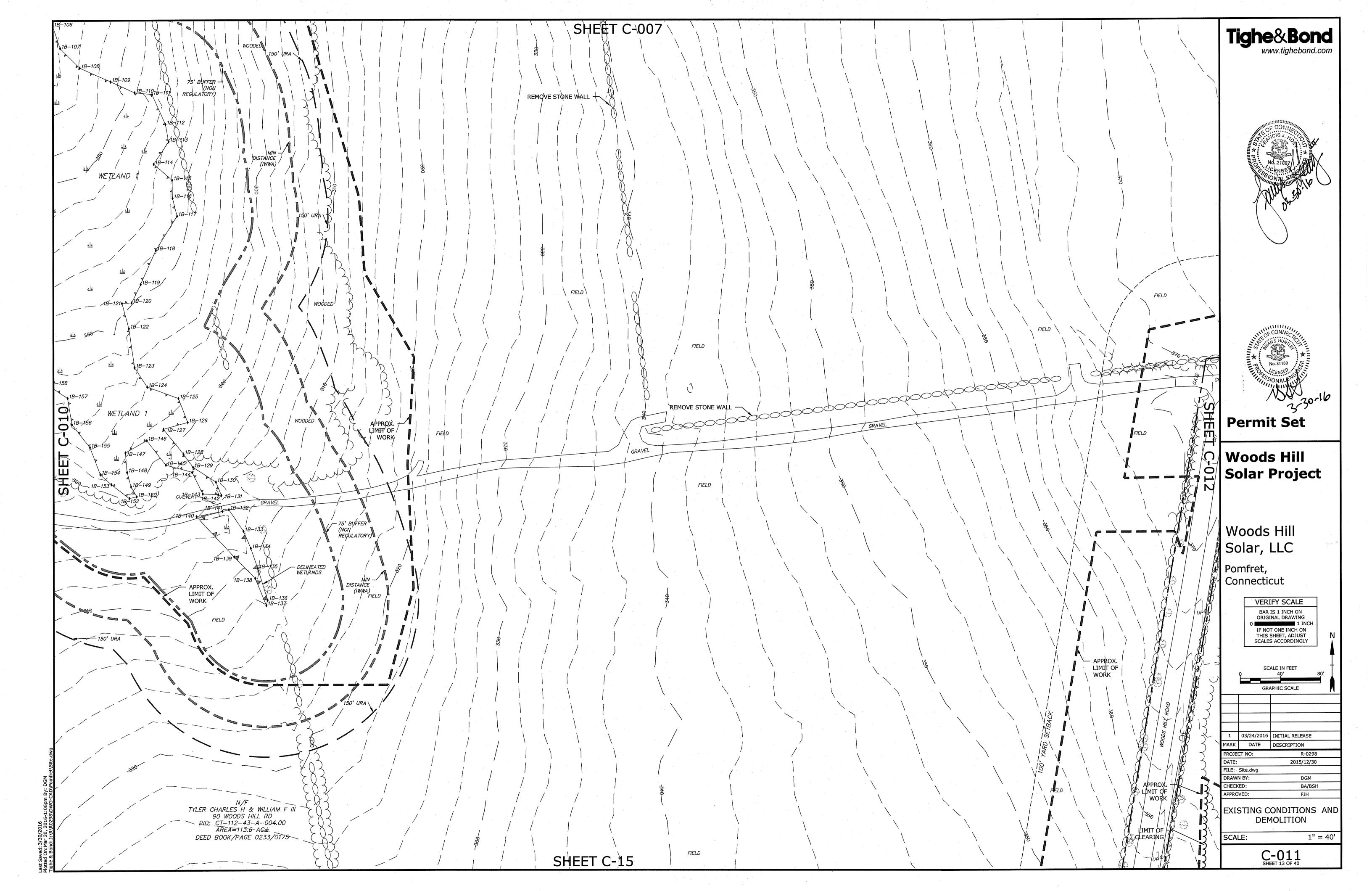


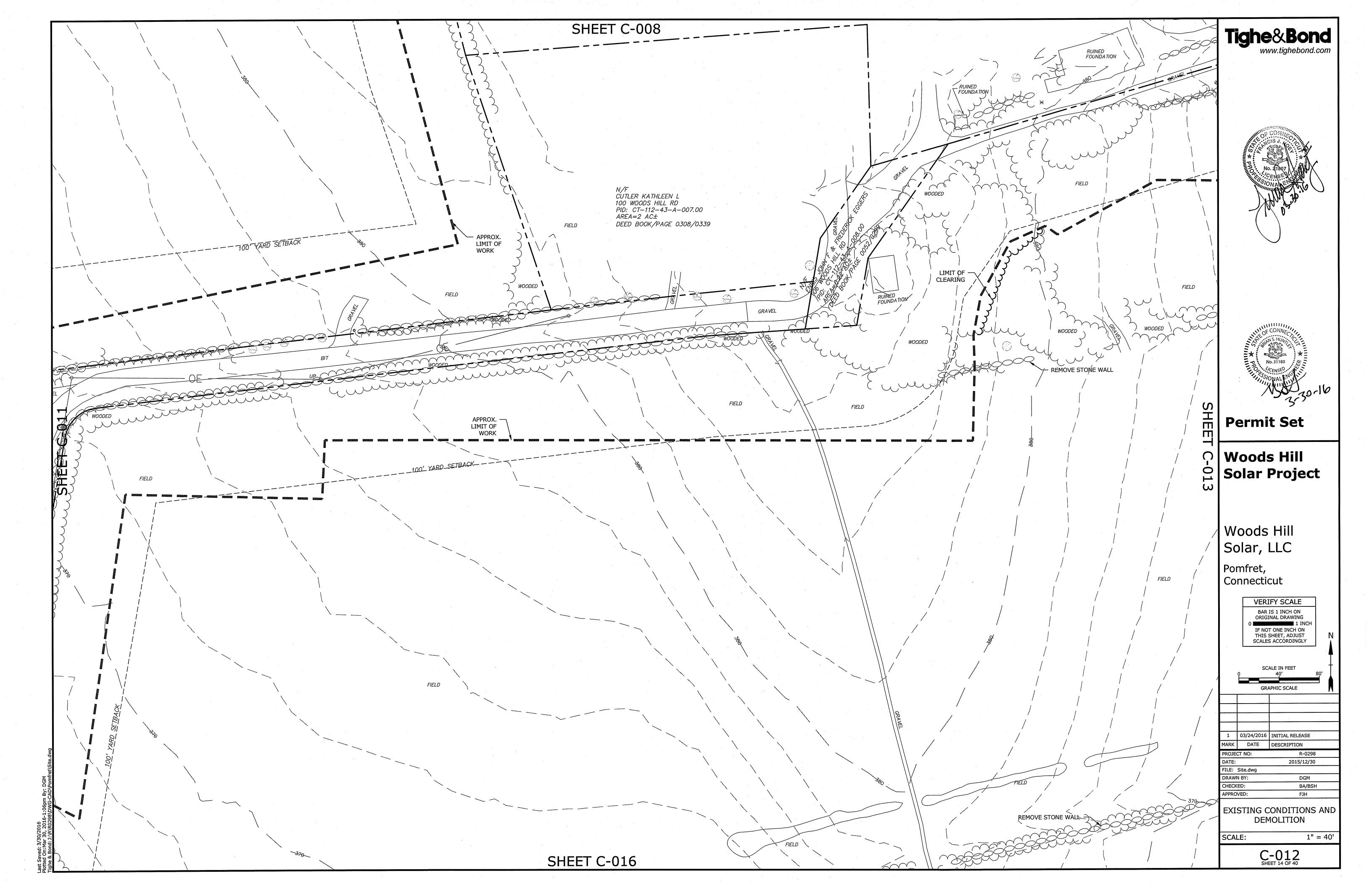


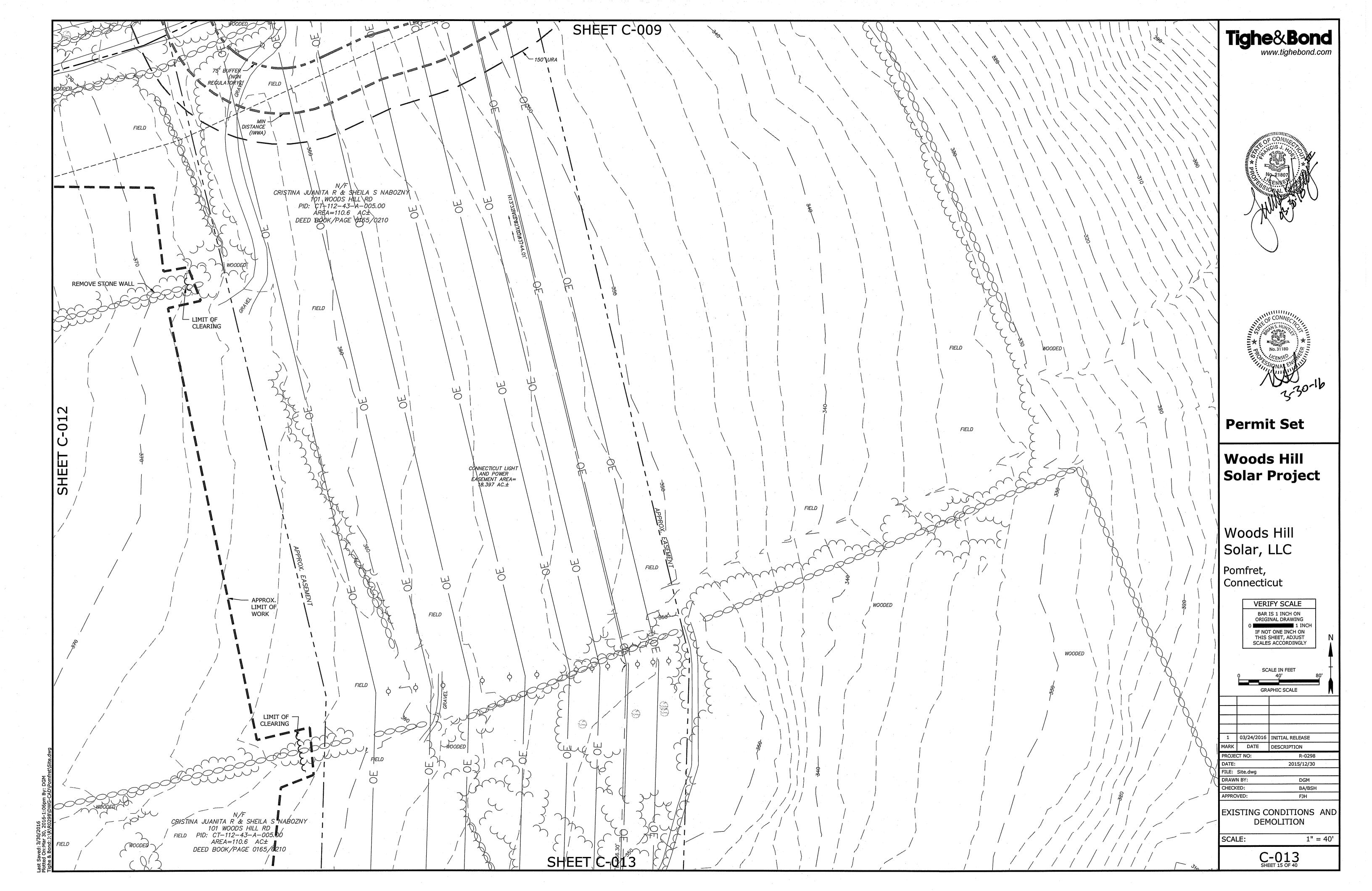


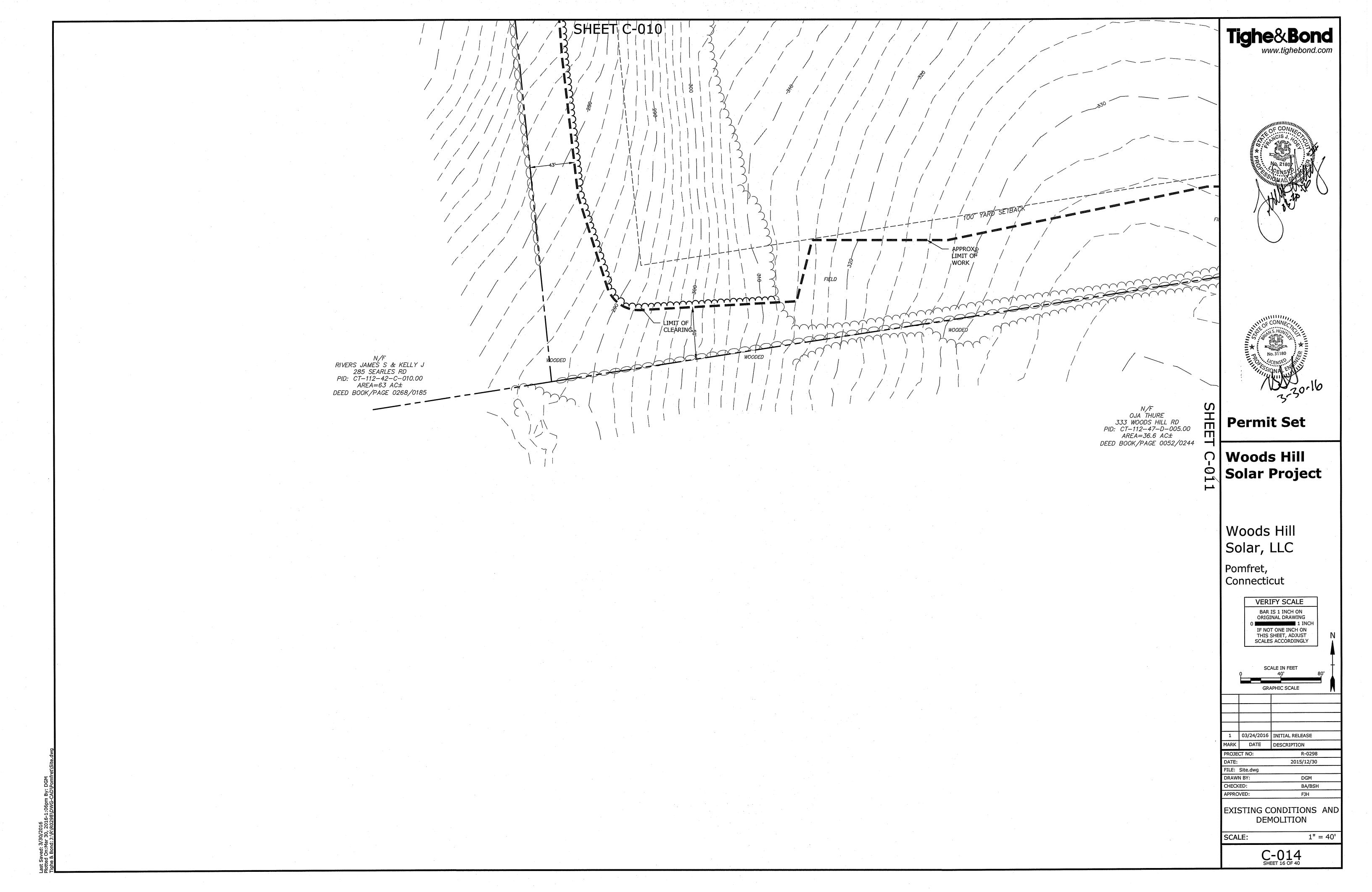


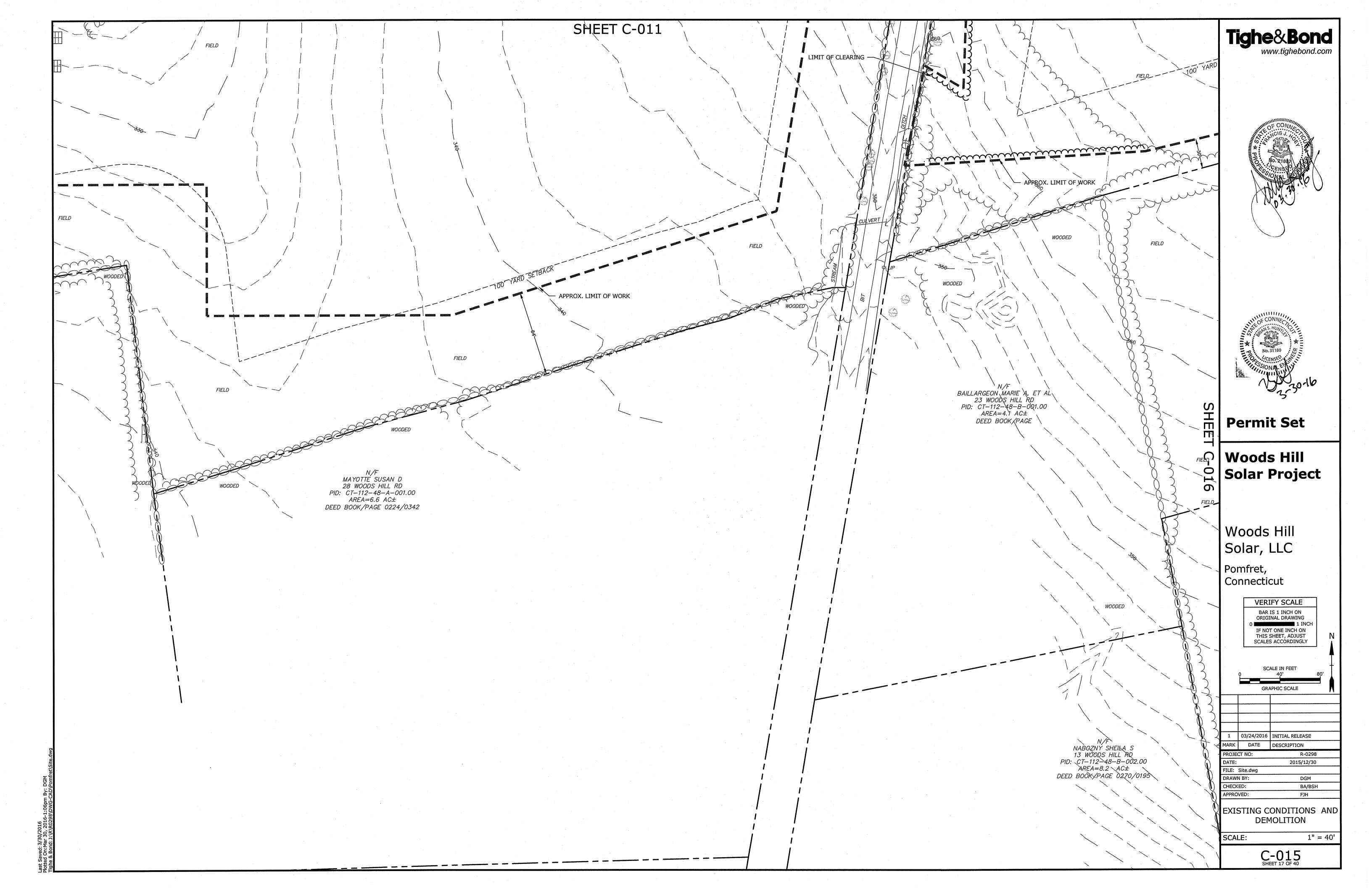


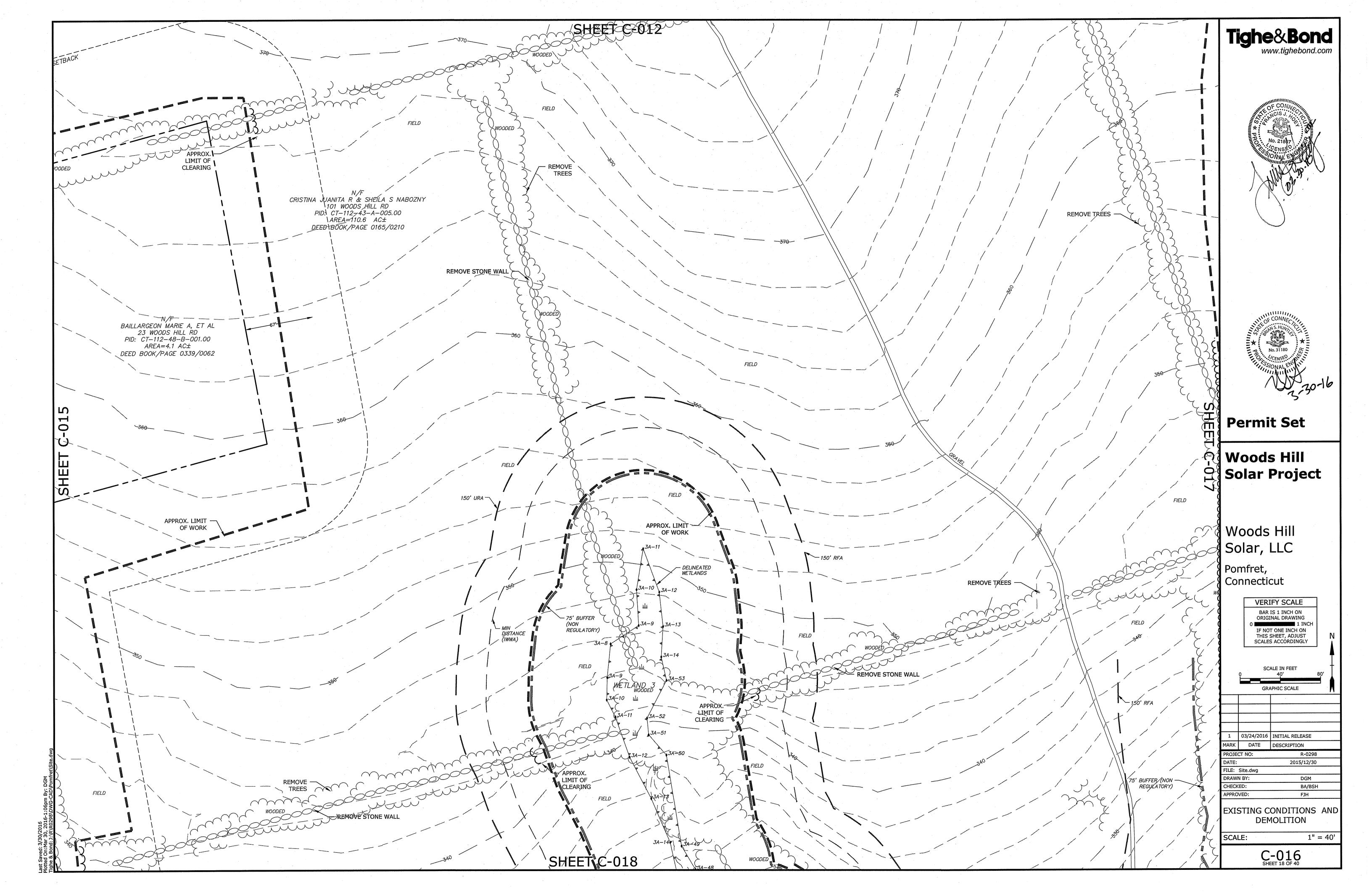


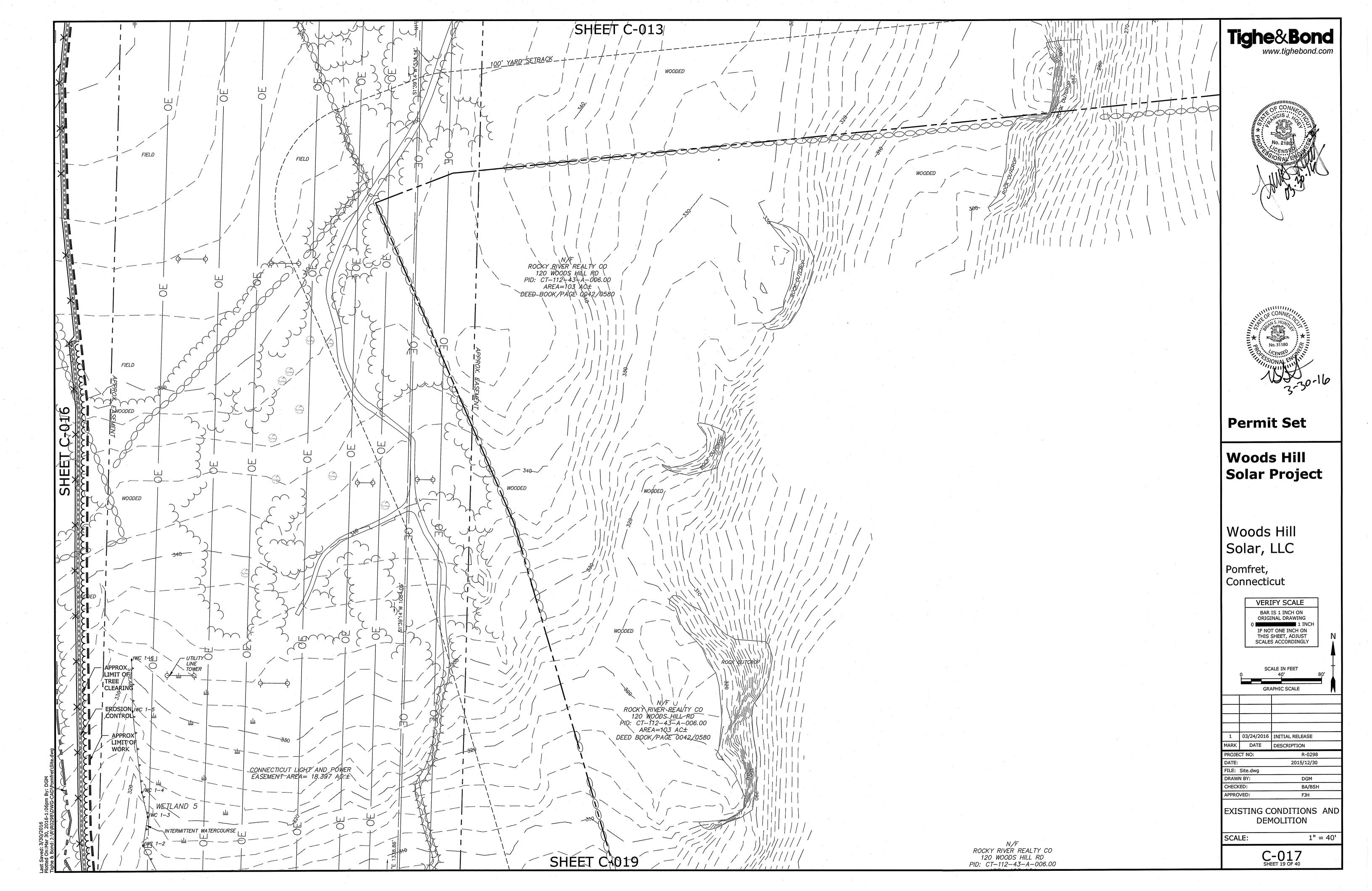


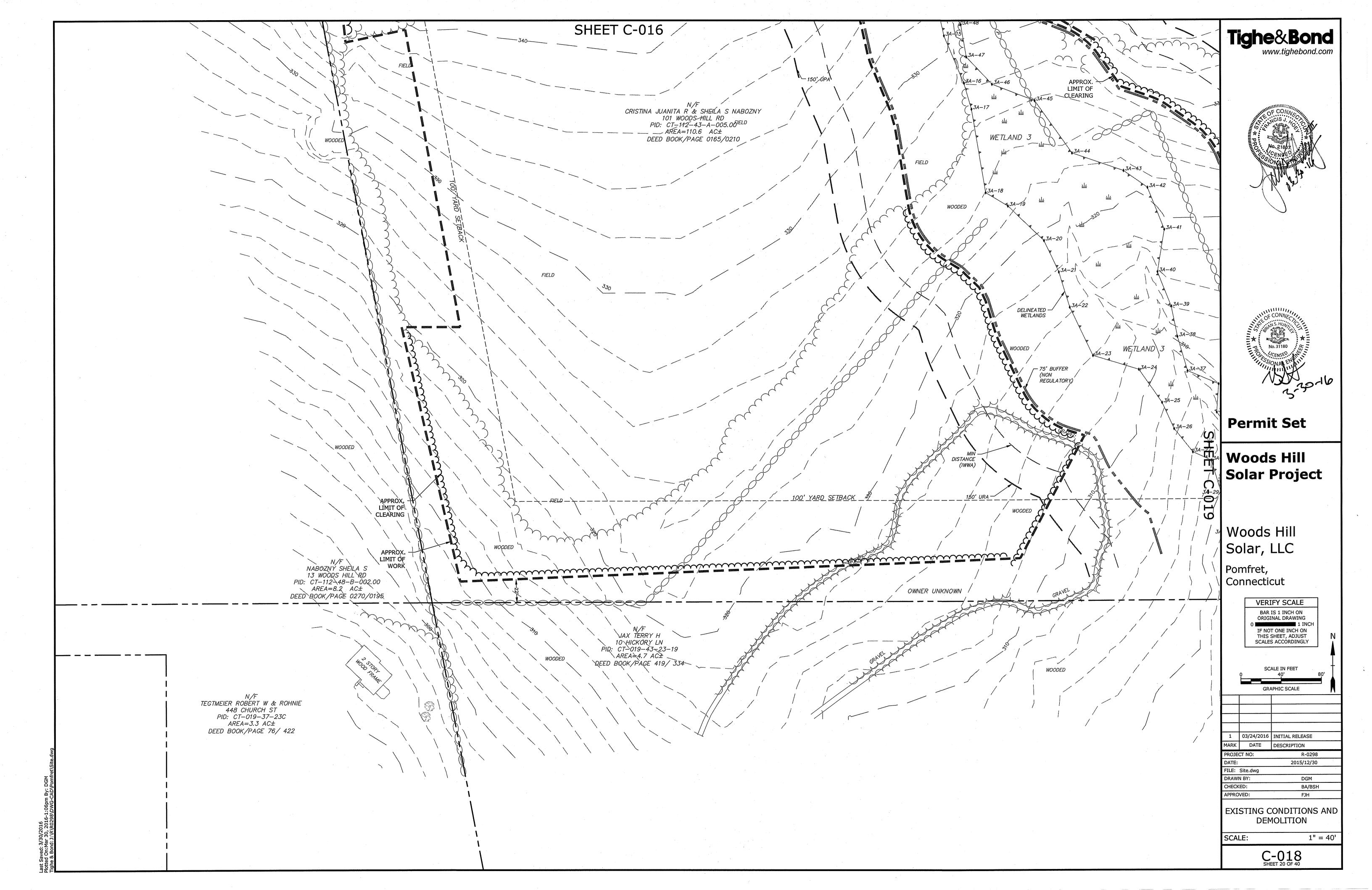


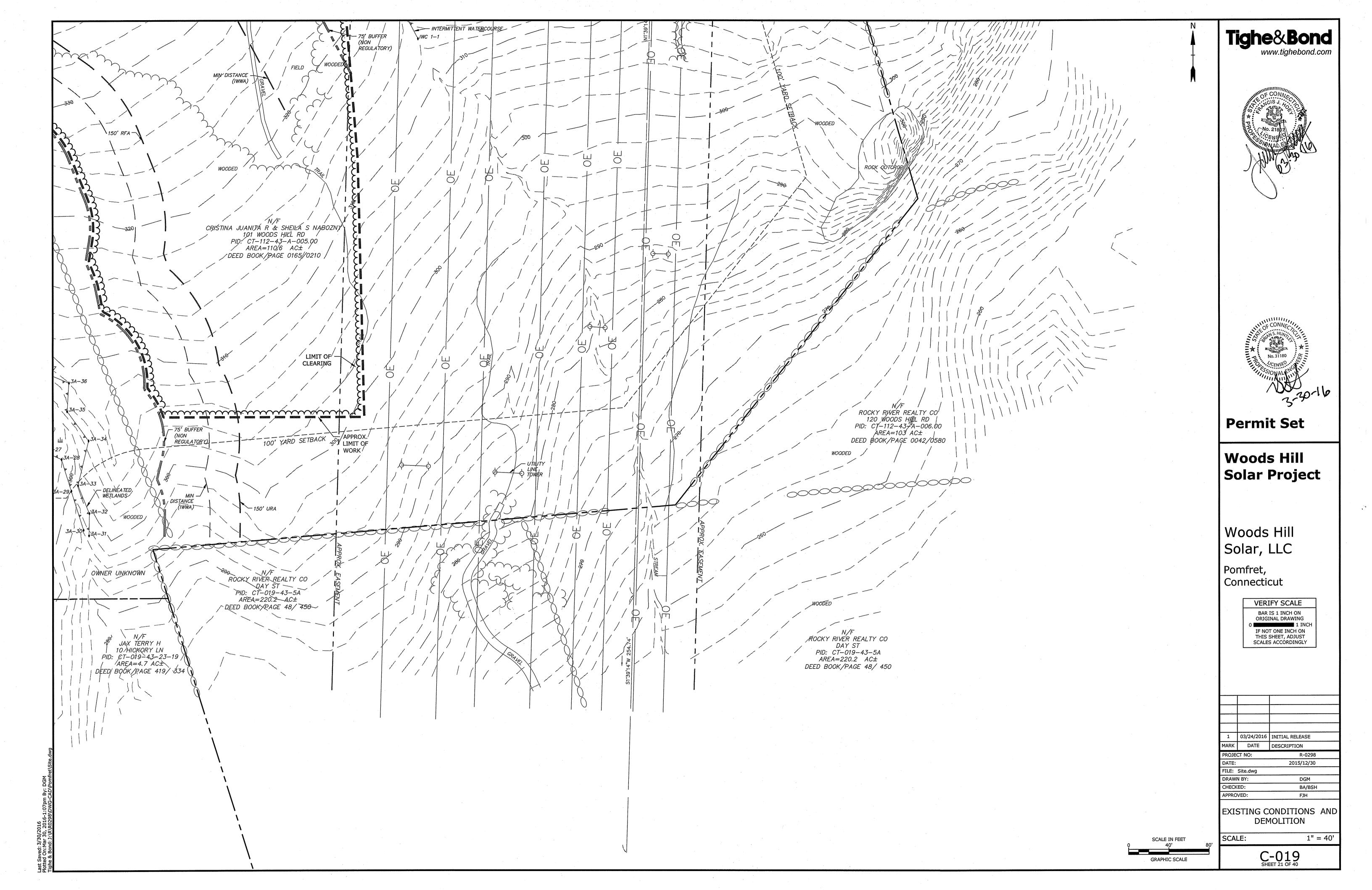


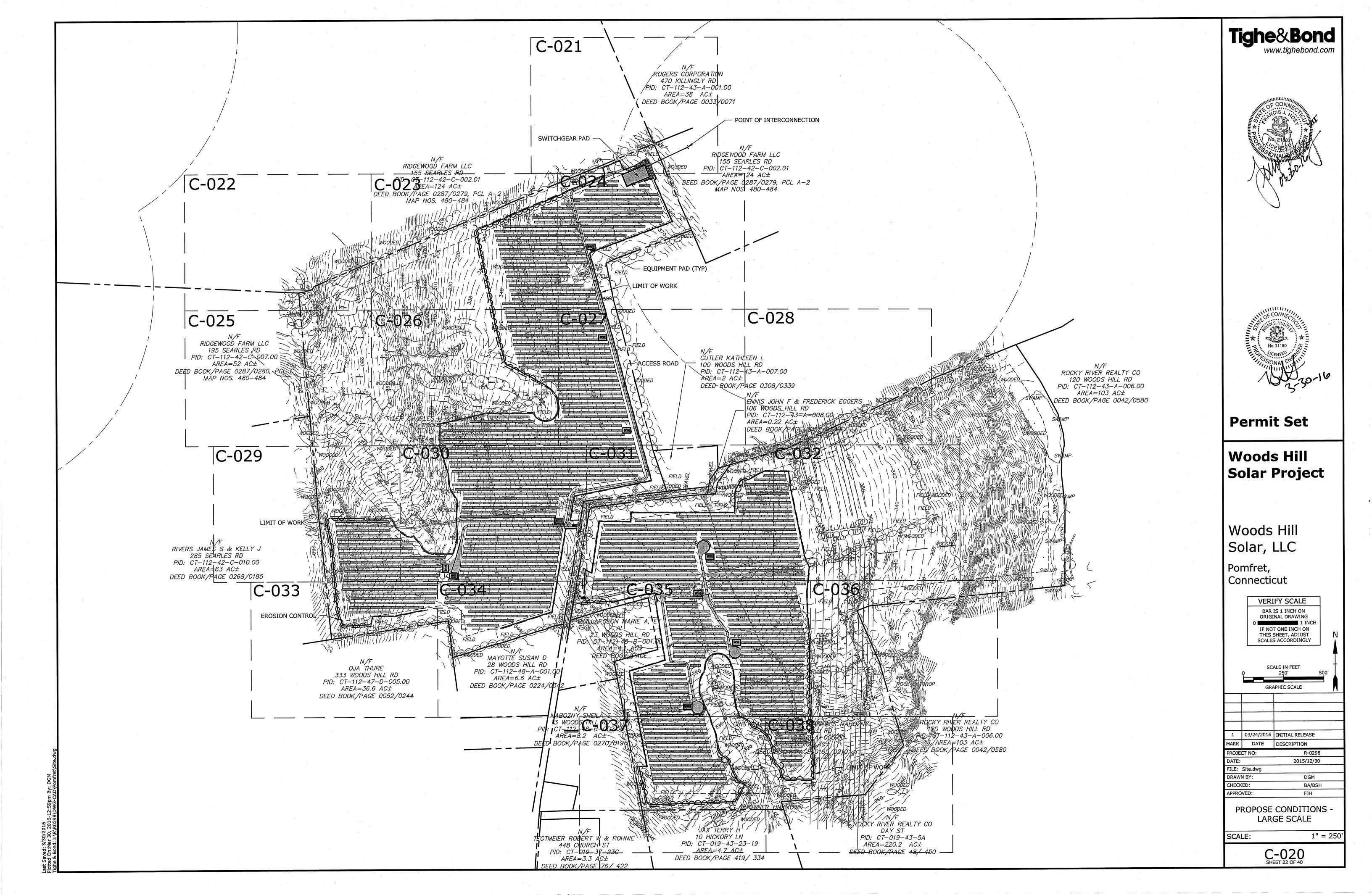


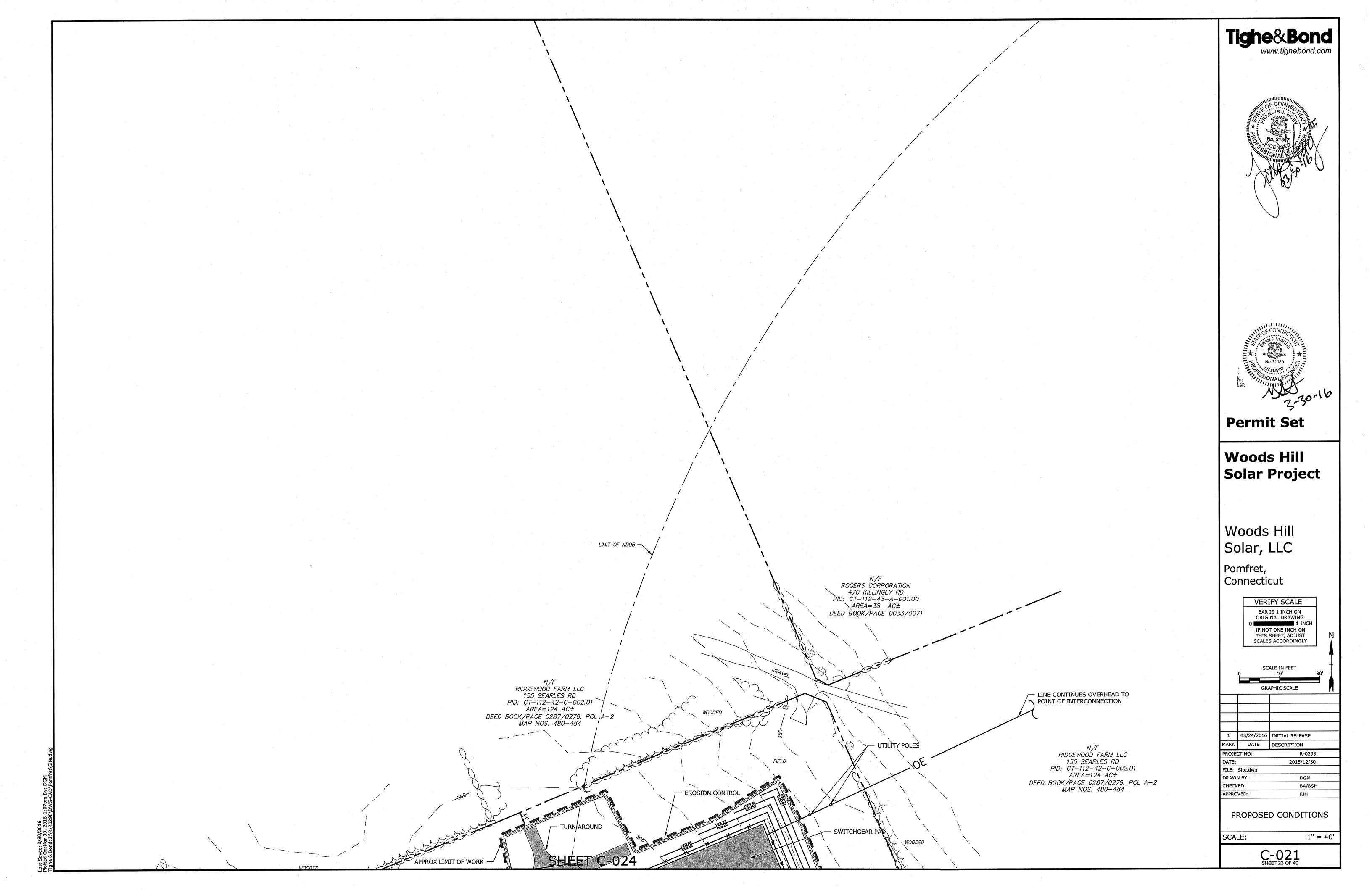


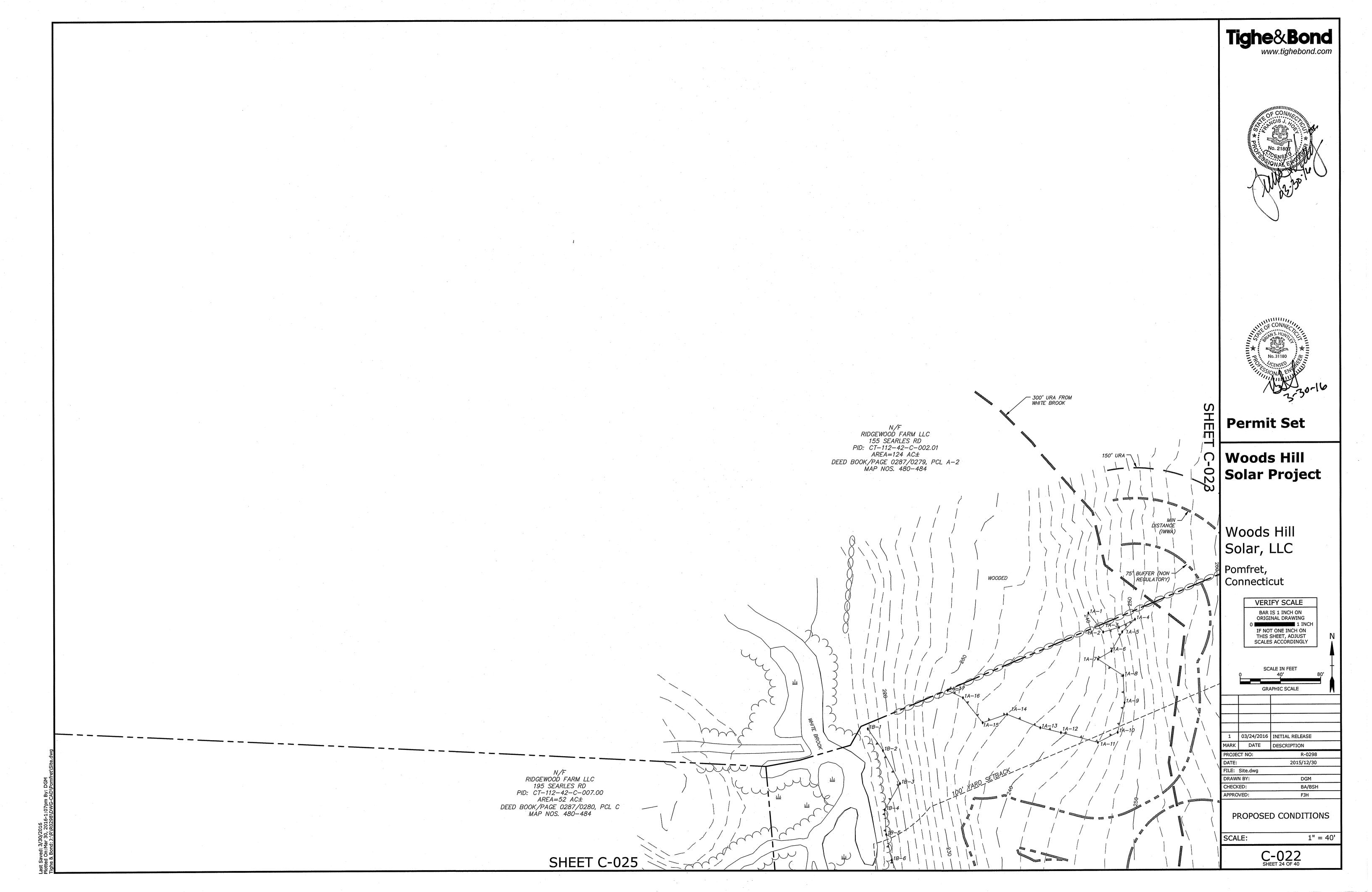


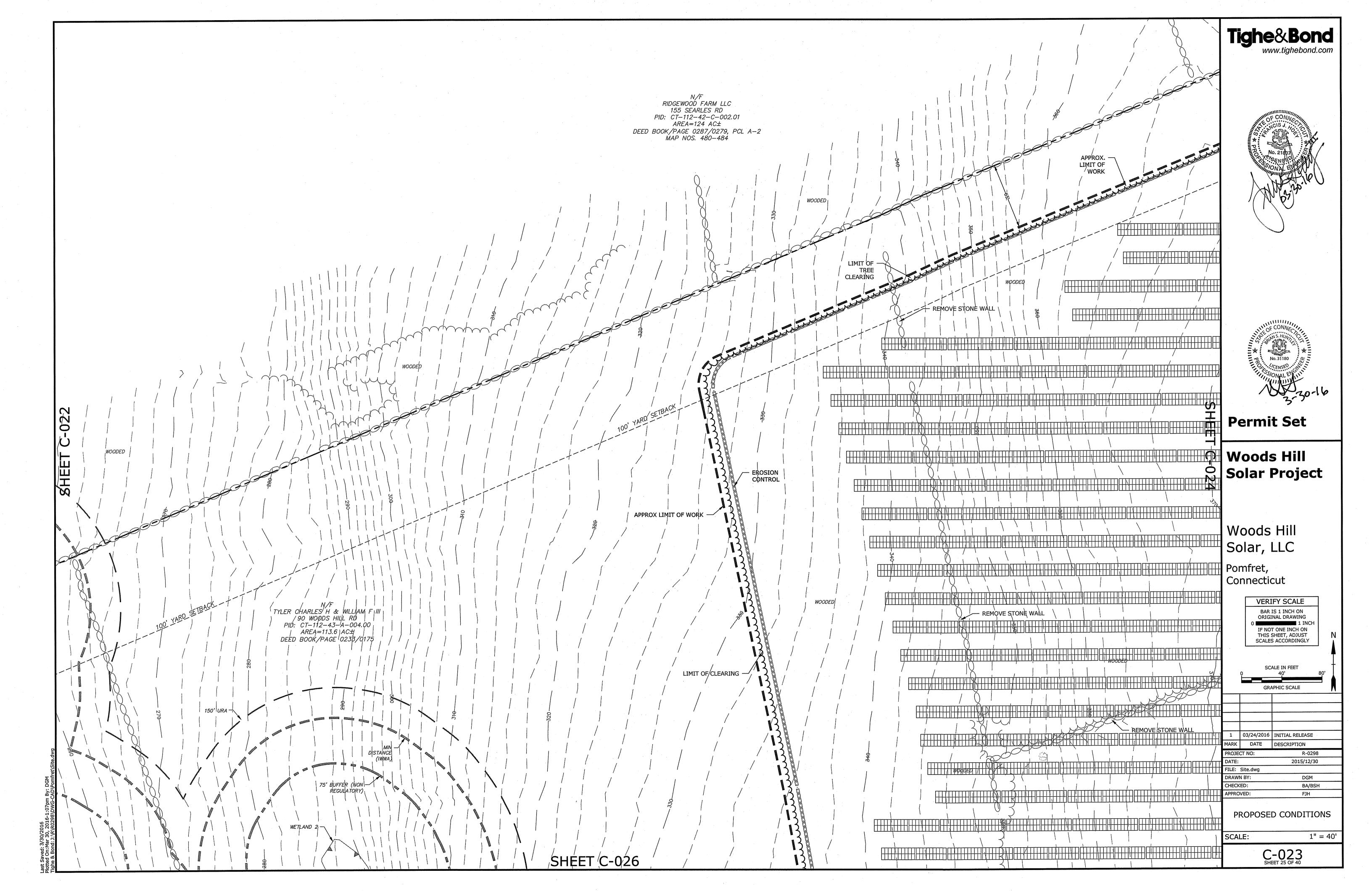


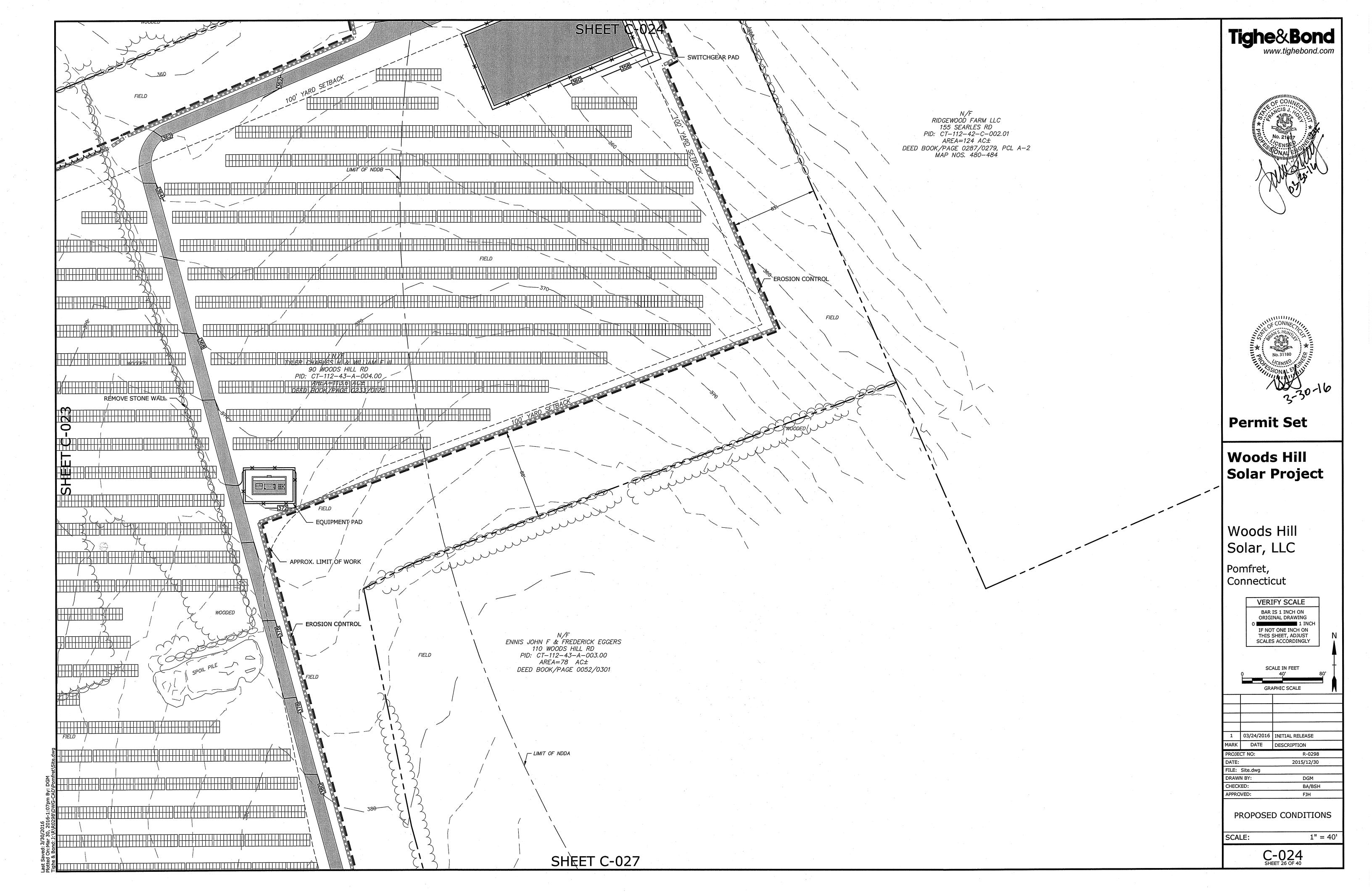


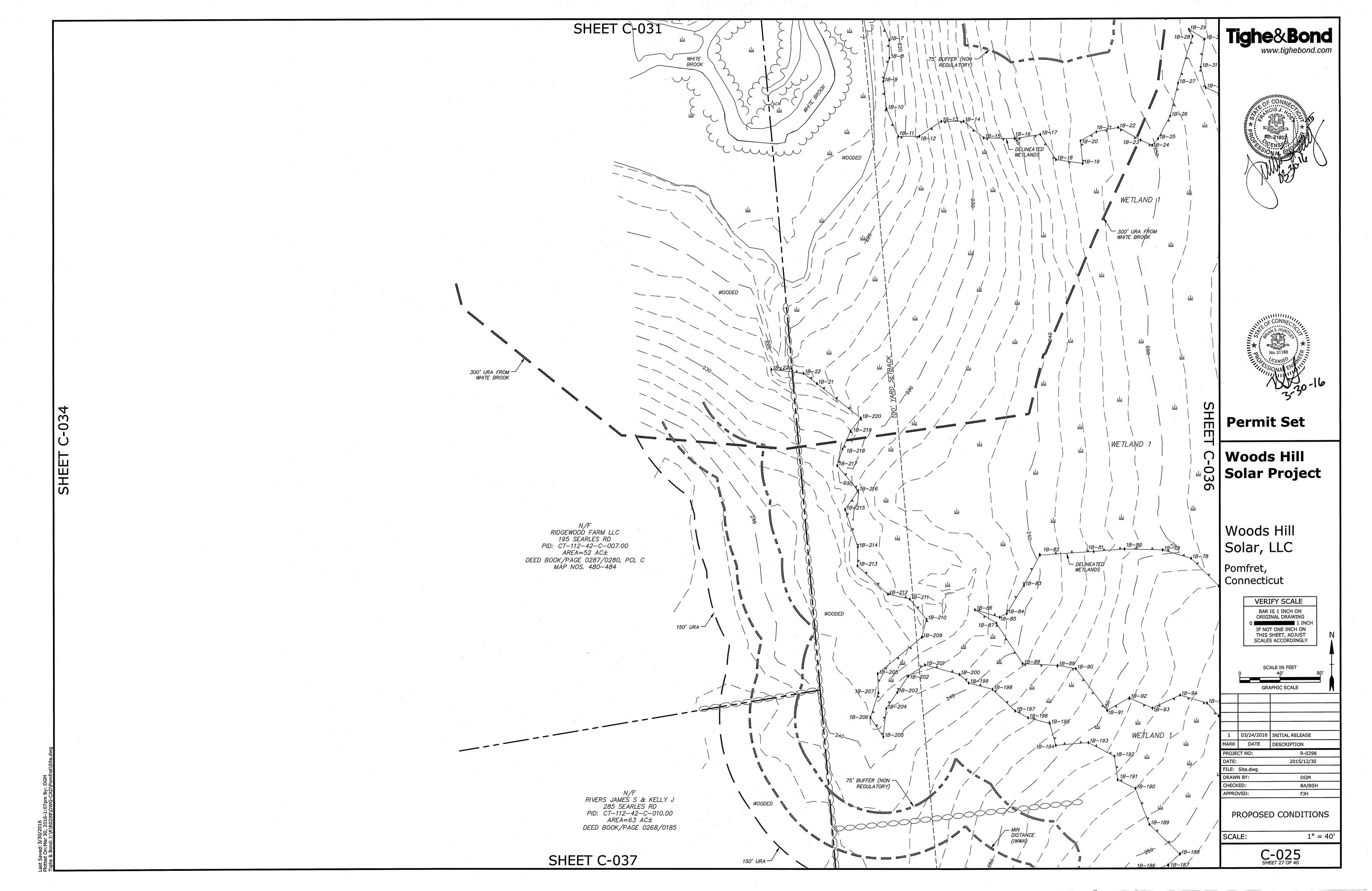


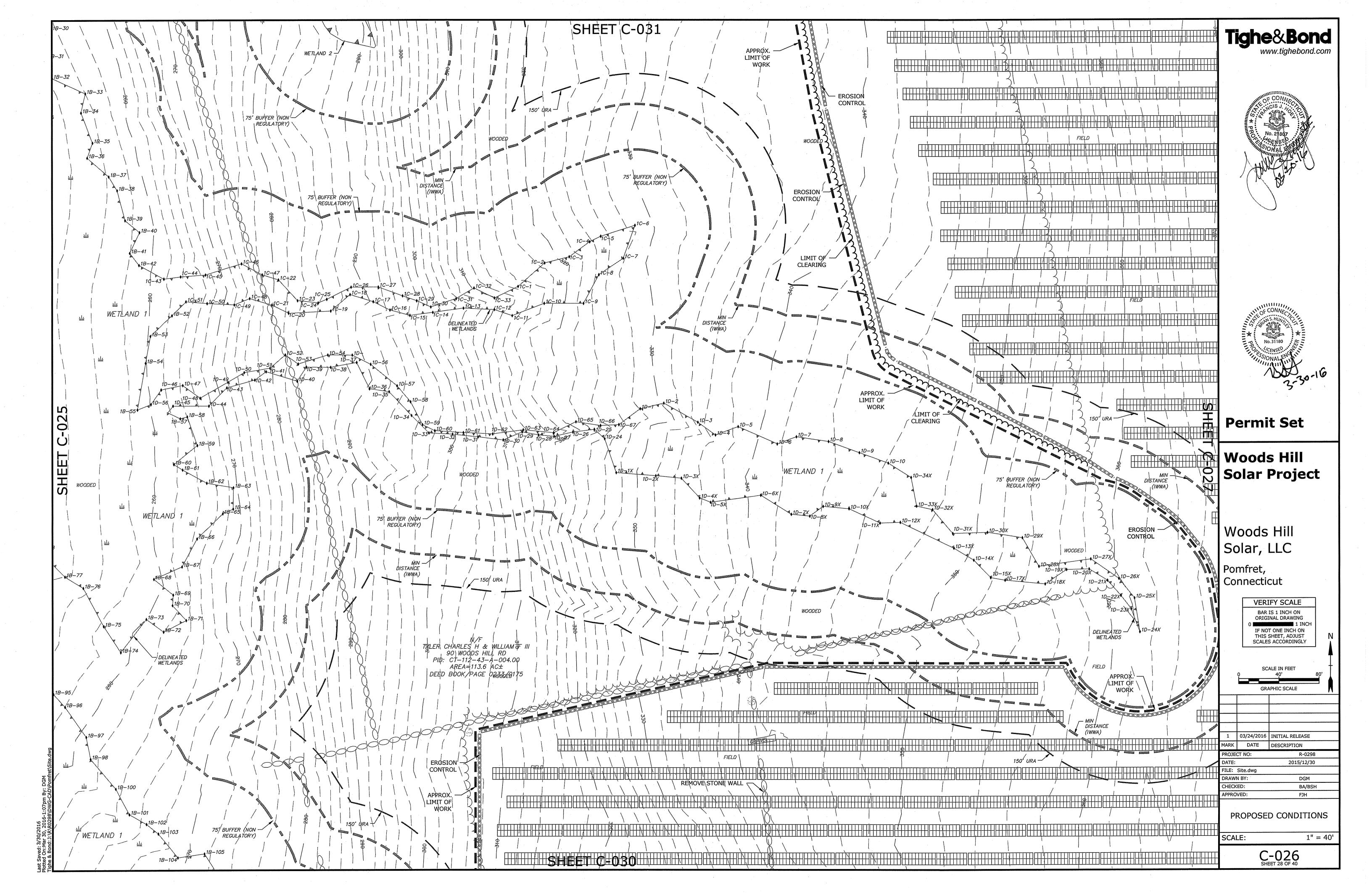


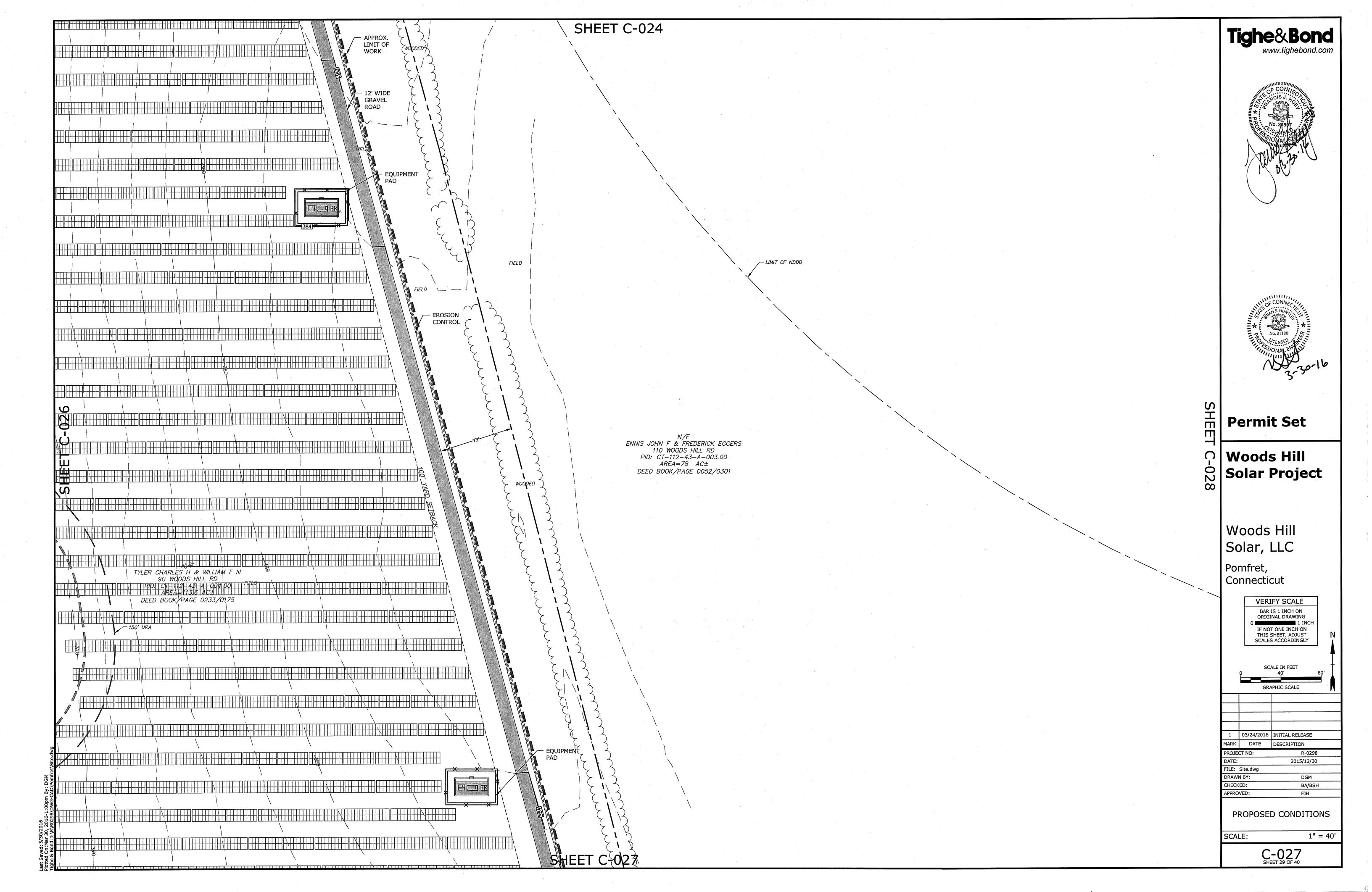


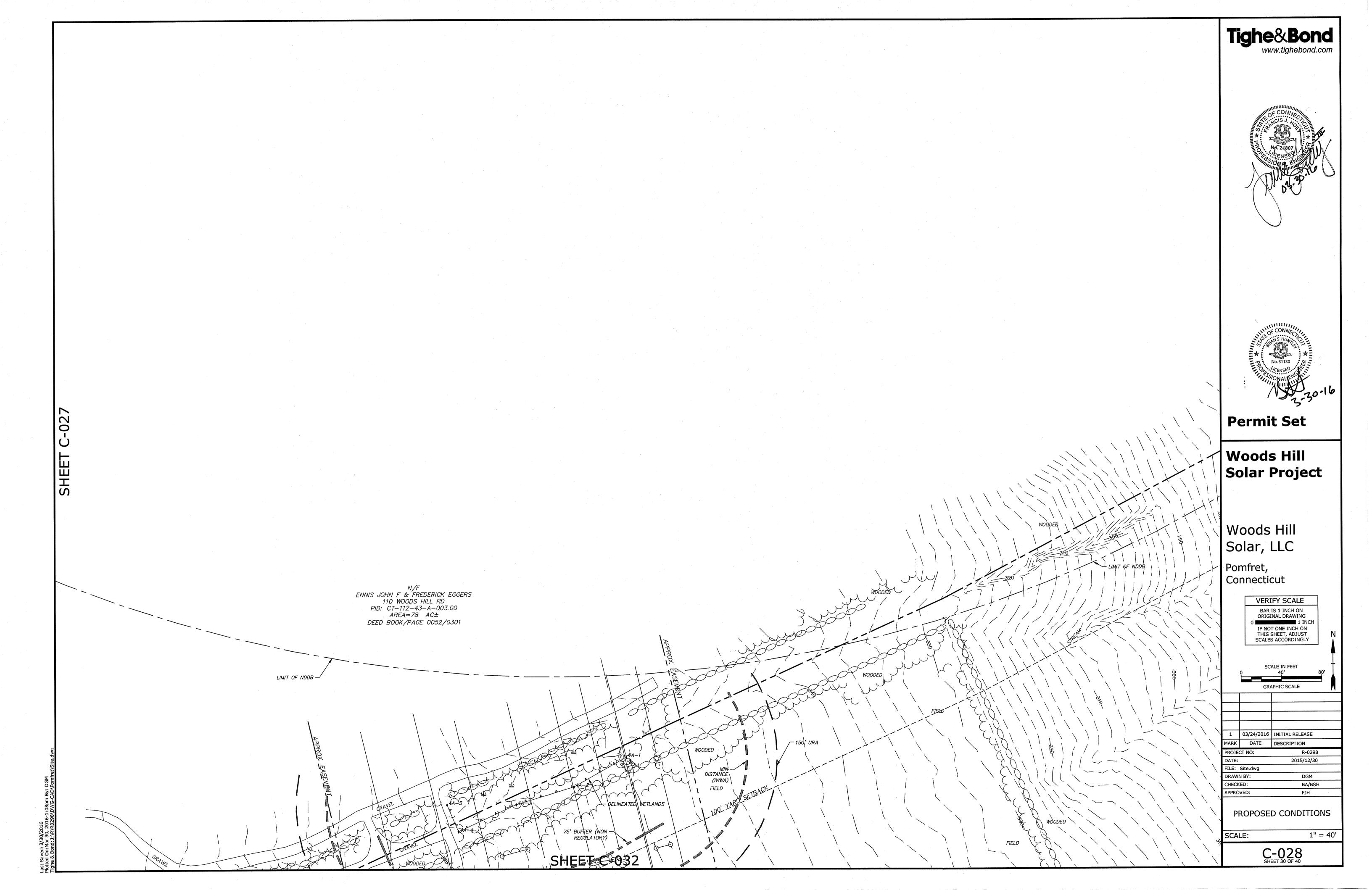


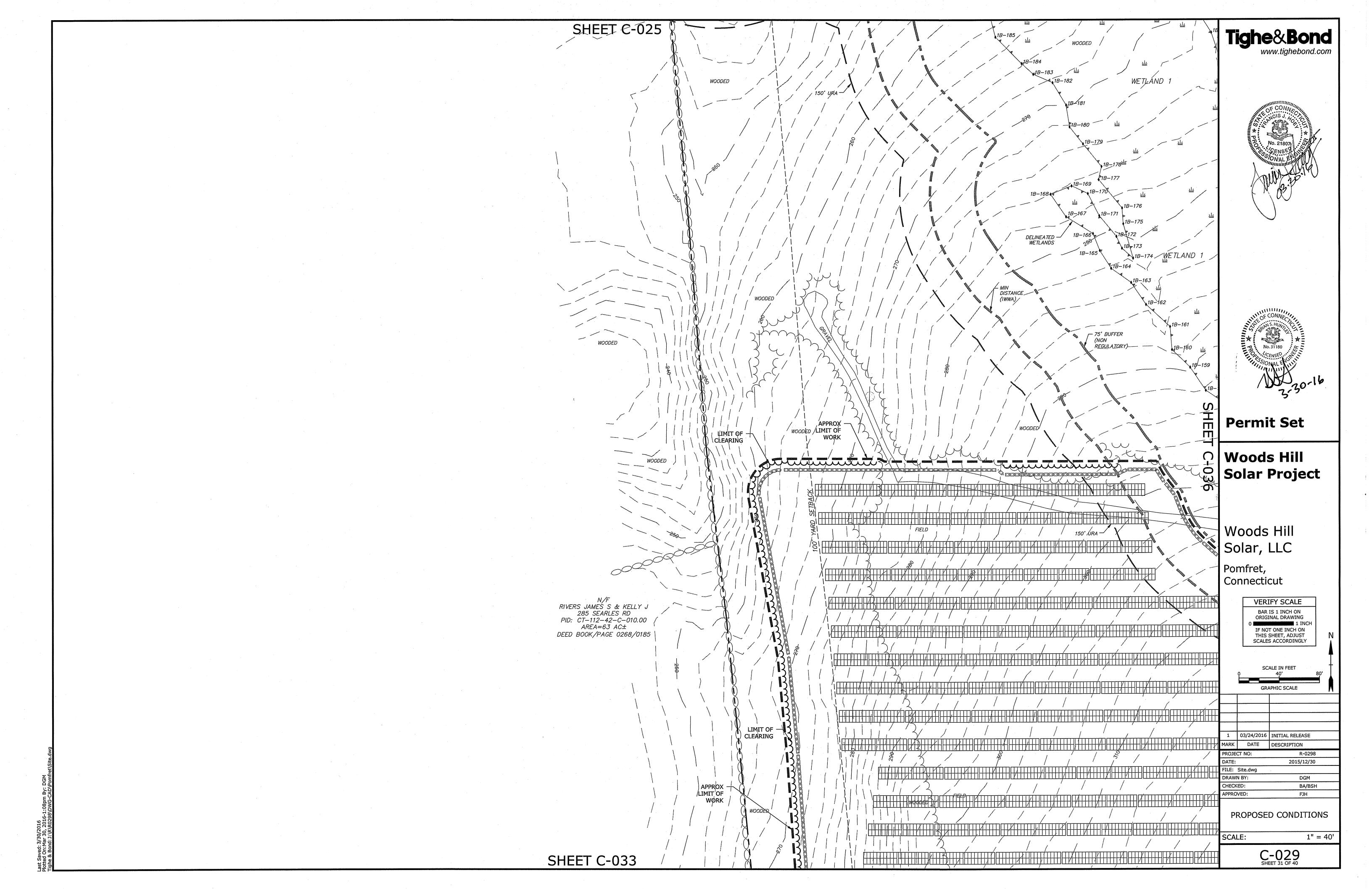


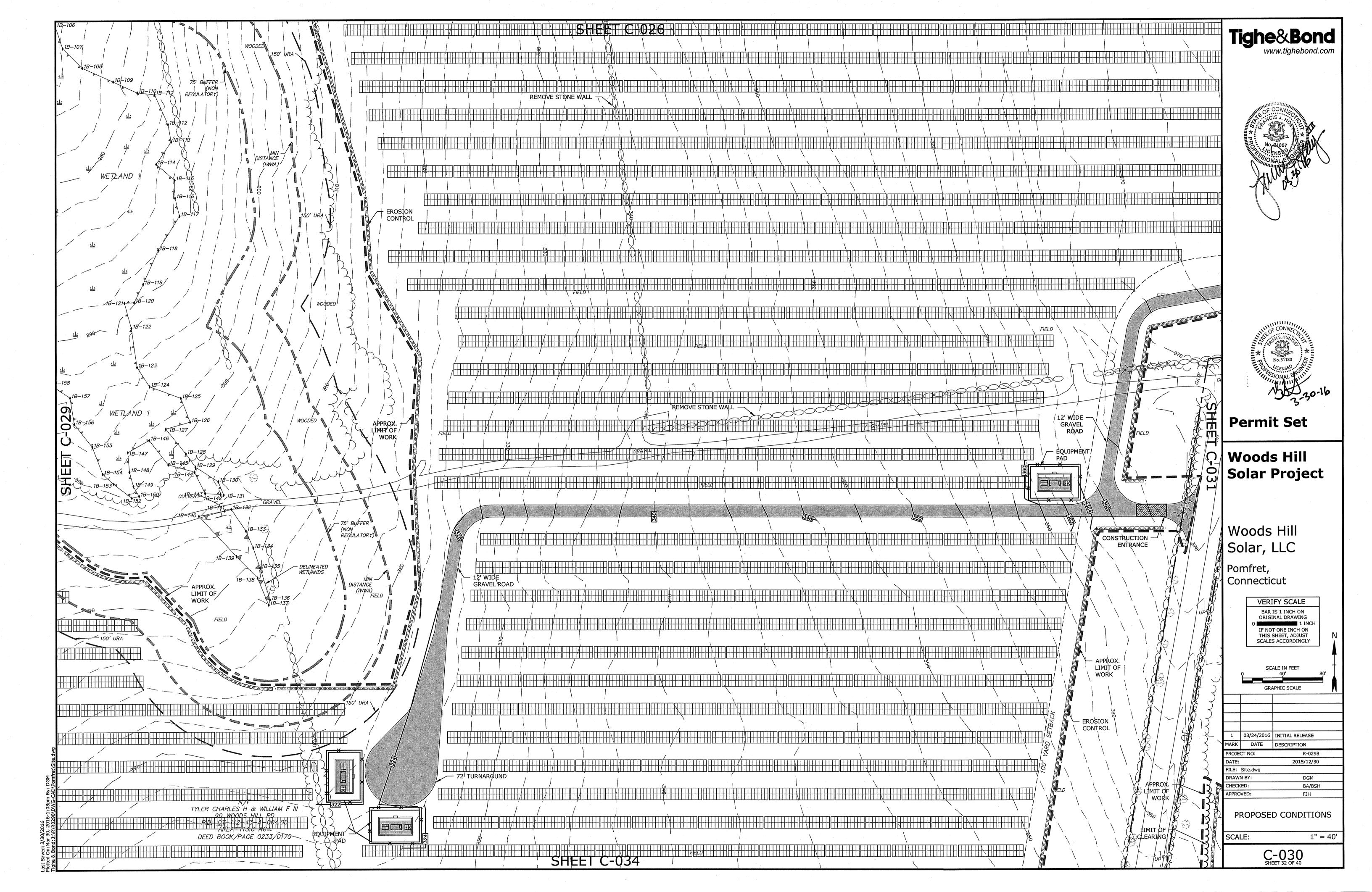


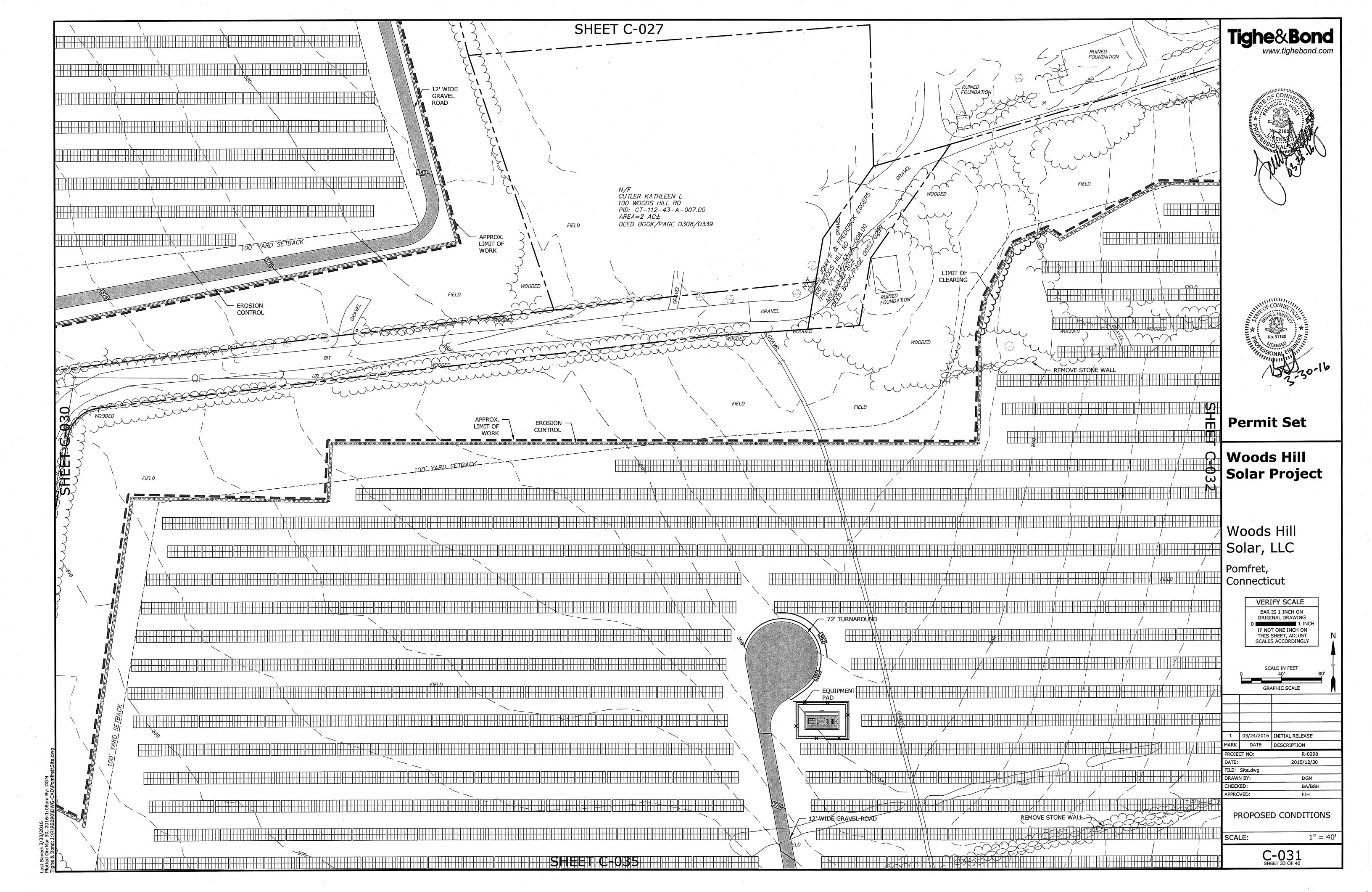


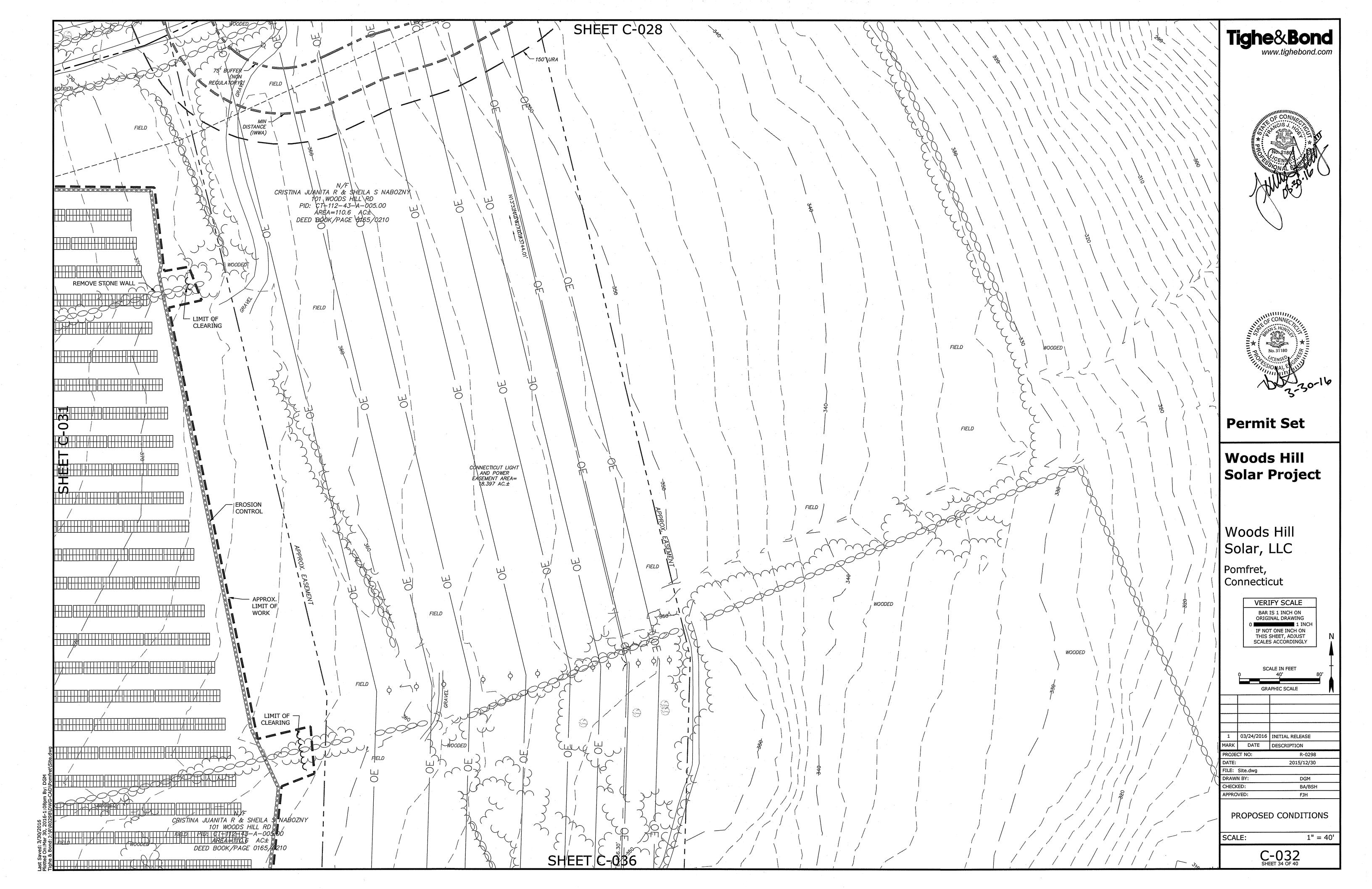


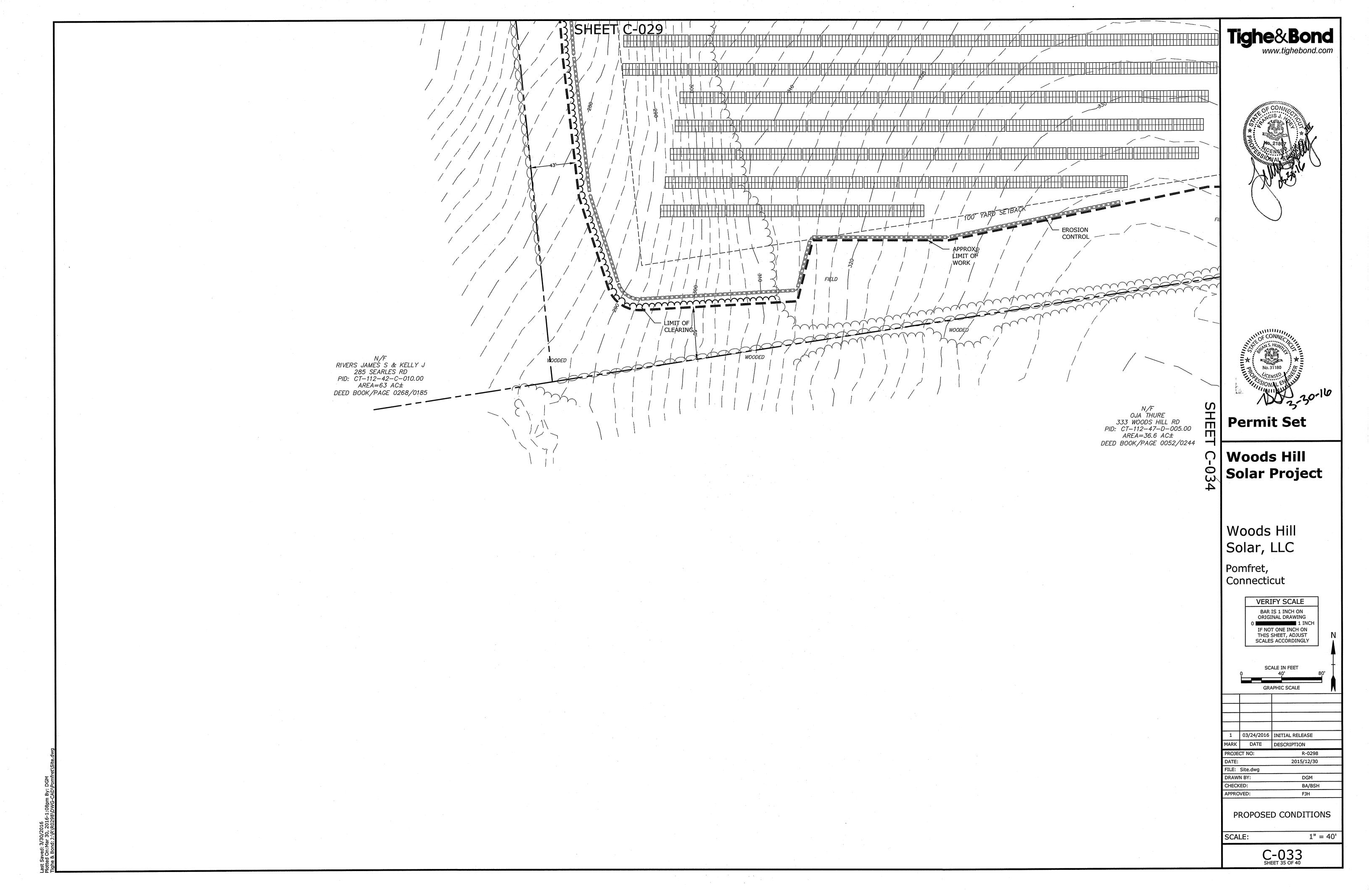


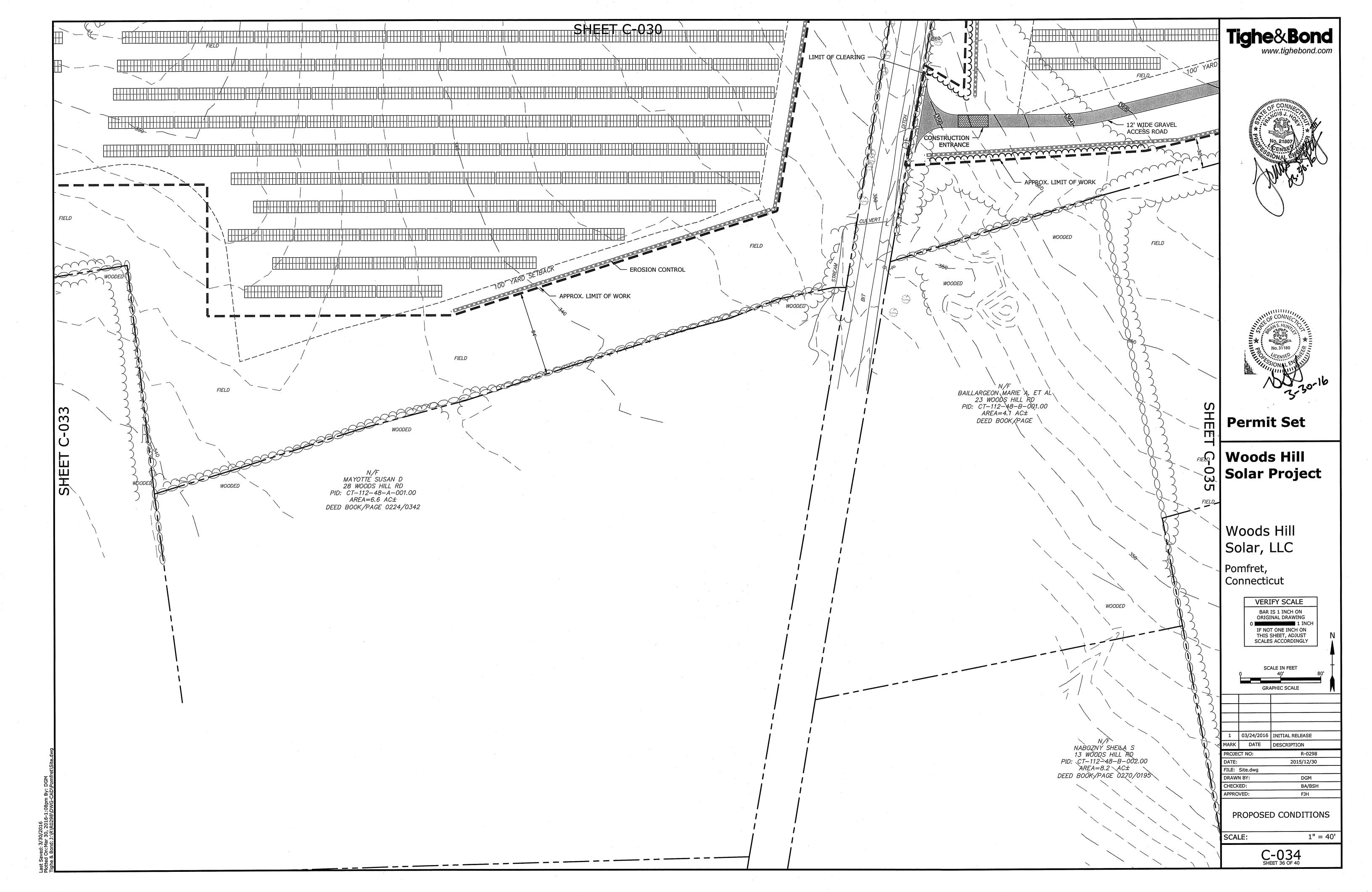


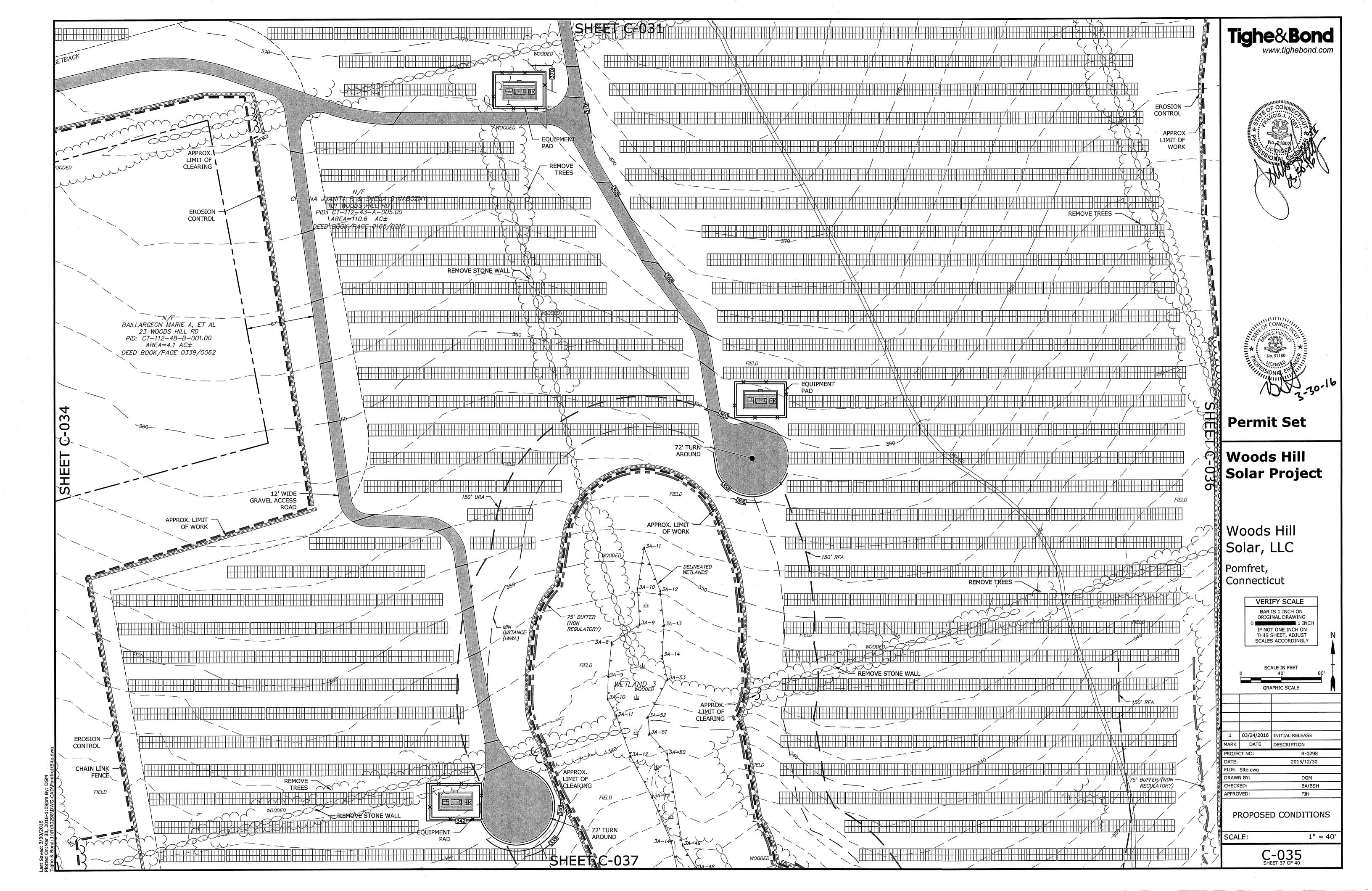


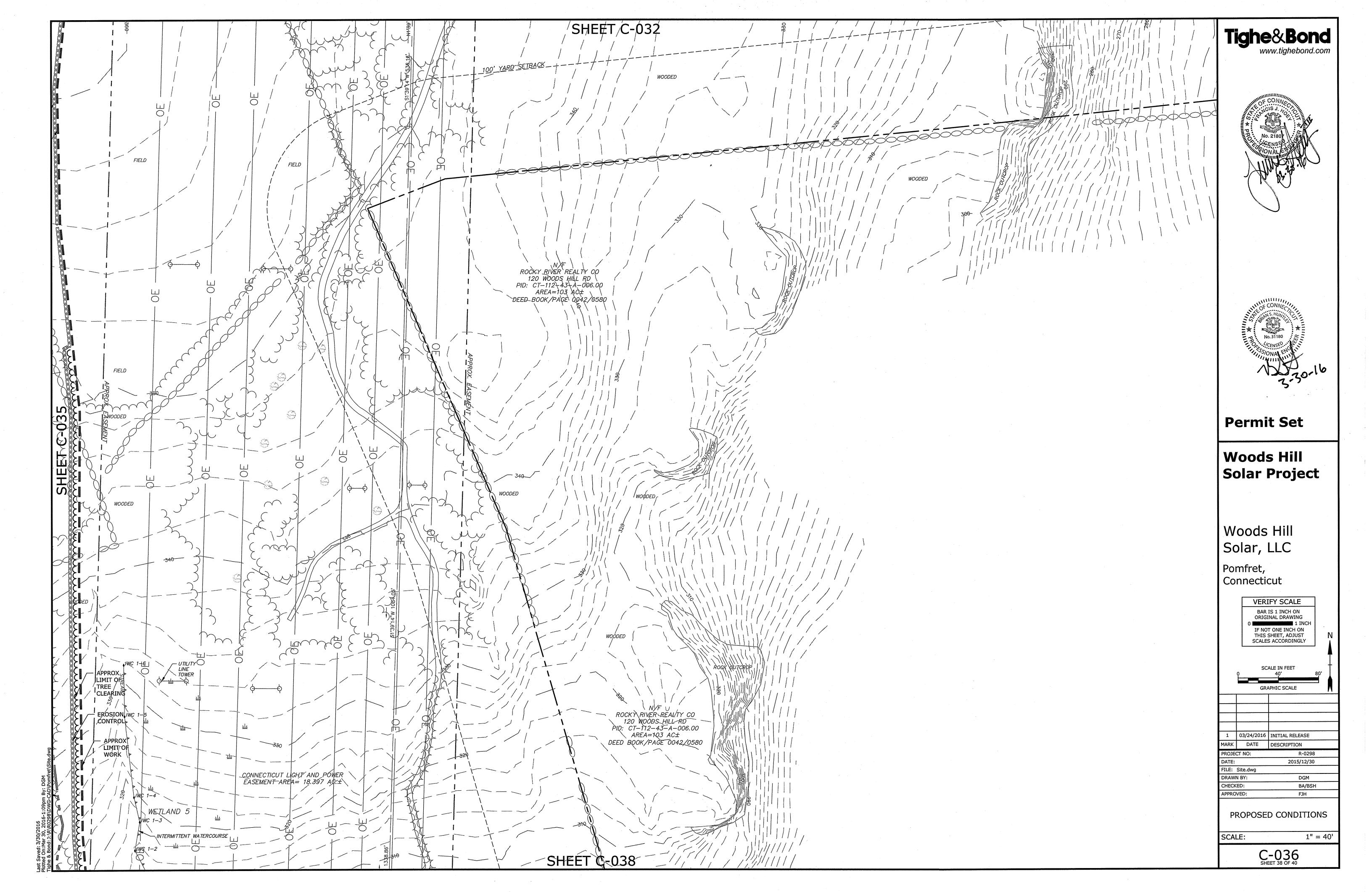


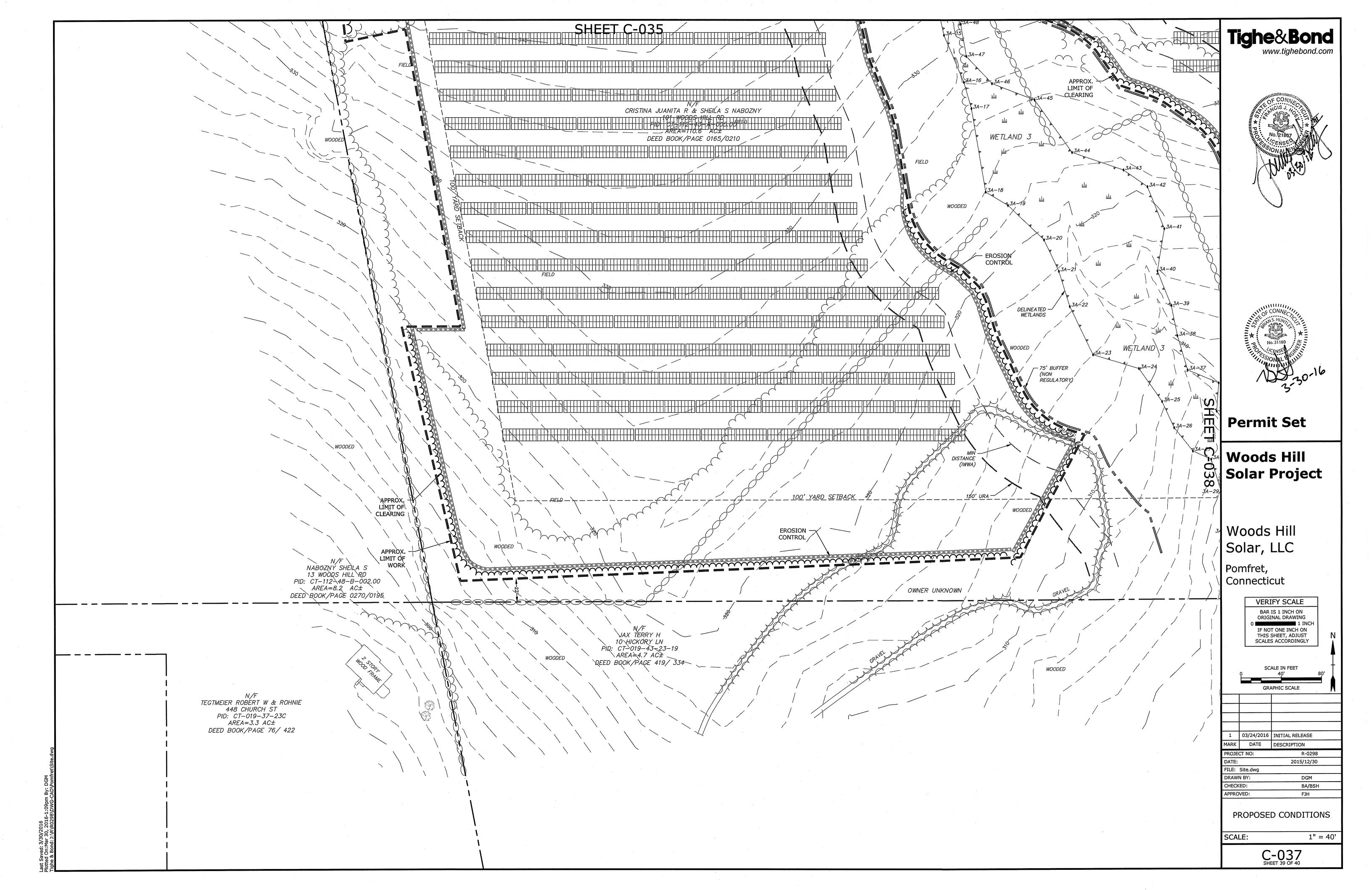


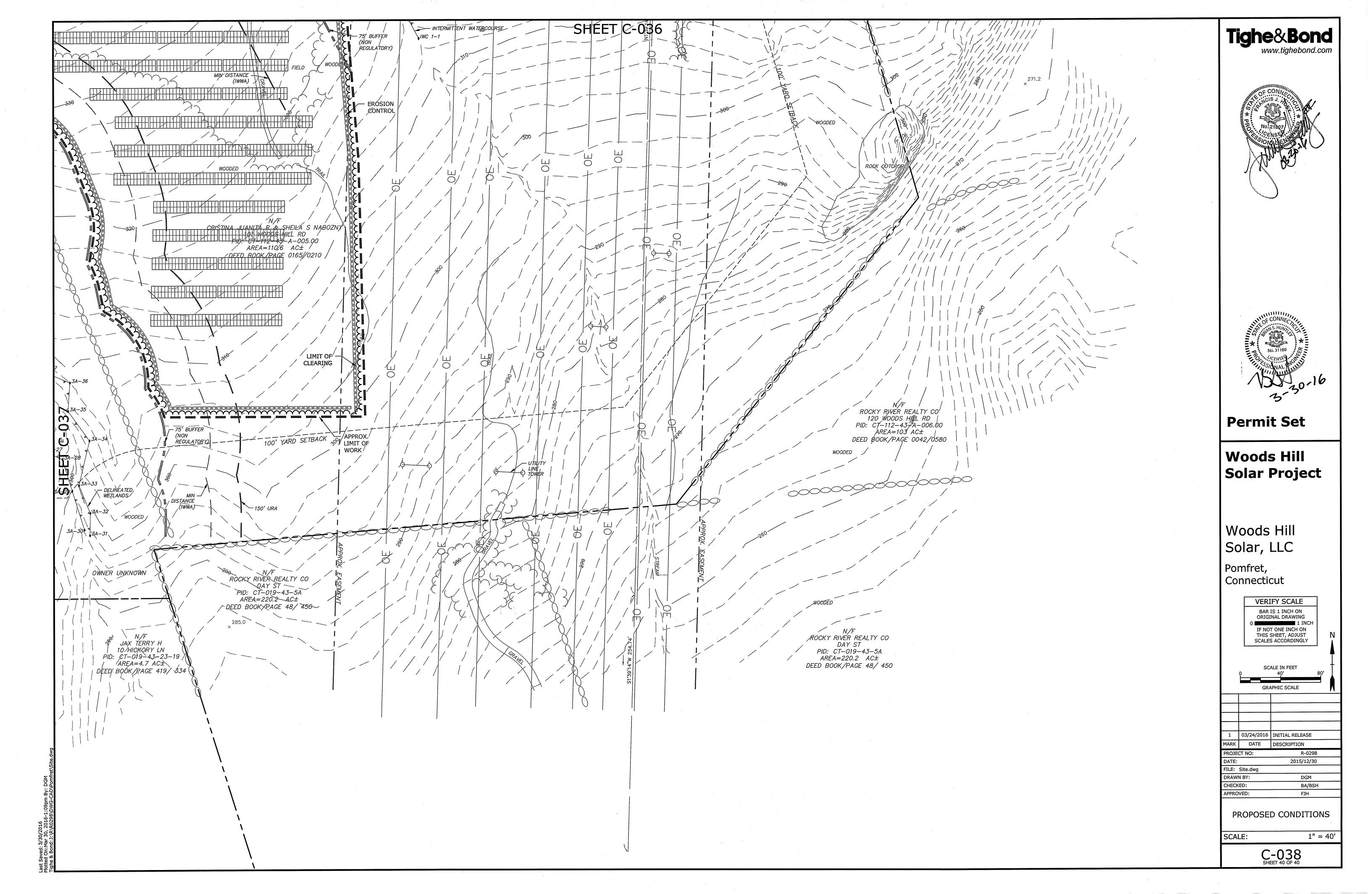












## **EXHIBIT D**:

Construction Schedule/Duration





Woods Hill Solar Schedule		
Development / Construction Activity	Start Date	End Date
Obtain all required land for 100% site control of the primary project footprint	Complete	Complete
Interconnection Studies Complete	Commenced	Q2 2016
Interconnection Agreement Executed	11/15/15	Q2 2016
Obtain all required permits	Commenced	6/15/16
Execute major Project Contracts (EPC, Panels, etc.)	6/30/16	9/30/16
Close project financing, or proof of Project sponsor financial capability to construct the facility provided to NSP	6/30/16	6/30/16
Commencement of Construction	6/30/16	7/15/16
Complete foundations for all facility buildings, generating facilities and step-up transformation facilities	8/1/16	9/1/16
Delivery and installation of generator(s)/step-up transformers to Site	8/1/16	9/1/16
Construct Seller's Interconnection Facilities and facilities energization capability completion	7/1/16	11/1/16
Commencement of facility Start-up testing	11/1/16	12/1/16
Commencement of Commercial Operation	12/1/16	12/31/16

## **EXHIBIT E**:

Decommissioning Plan







### **SUMMARY OF WORK**

Solar Photovoltaic Decommissioning

For Woods Hill Solar LLC's Woods Hill Solar Project Town of Pomfret County, Connecticut

**Author:** Dan Boyd **Date:** March 8, 2016 **Ref:** 030082016-REV1

This document ("Report") has been prepared by Renewable Energy Systems Americas Inc ("RES Americas Inc"). RES Americas Inc shall not be deemed to make any representation regarding the accuracy, completeness, methodology, reliability or current status of any material contained in this ("Report"), nor does RES Americas Inc assume any liability with respect to any matter or information referred to or contained in the Report. Any person relying on the Report ("Recipient") does so at their own risk, and neither the Recipient nor any party to whom the Recipient provides the Report or any matter or information derived from it shall have any right or claim against RES Americas Inc or any of its affiliated companies in respect thereof. Recipient shall treat all information in the Report as confidential.



#### **Revision History**

Issue	Date Author		Nature And Location Of Change	
01	March 8, 2016	Dan Boyd	First Created	

#### **SUMMARY OF WORK**

#### SOLAR PV DECOMMISSIONING

#### **Section 1:** Background

Solar Photovoltaic ("PV") facility decommissioning is generally described as the removal of all system components and the rehabilitation of the site to pre-construction conditions. The typical goal of project decommissioning and reclamation is to remove the installed power generation equipment and return the site to a condition as close to a pre-construction state as feasible.

Properly maintained solar panels have an expected life of thirty (30) years, with an opportunity for a lifetime of fifty (50) years or more with equipment replacement and repowering. The decommissioning process will initiate upon the completion of the project's useful life or the end of an economic power purchase agreement.

Deconstruction procedures are designed to ensure public health and safety, environmental protection, and compliance with applicable regulations. Typical activities during a solar energy facility decommissioning and site reclamation phase include the following:

- Facility de-energization
- PV module removal
- Dismantling and demolition of above grade structures
- Dismantling and removal of all aboveground and belowground utilities
- Debris management including hauling
- Temporary erosion control
- Removal of access road materials that are not maintained for other uses
- Removal of security fencing
- Regrading and revegetation

Much of the solid material waste can be recycled or sold as scrap.

#### **Section 2:** Facility Materials

PV facilities are constructed using the same basic materials and methods of installation common to their application. Materials include:

<u>Metals</u>: Steel from pier foundations, racking, conduits, electrical enclosures, fencing, equipment buildings, and storage containers; aluminum from racking, module frames, electrical wire, and transformers; stainless steel from fasteners, electrical enclosures, and racking; copper from electrical wire, transformers, and inverters.

 $\underline{\text{Concrete}}$ : Equipment pads and footings. Note that the Project will  $\underline{\text{NOT}}$  use concrete ballasts for panel support.

<u>PV Cells</u>: PV Modules are typically constructed of glass front sheets (some use glass back sheets as well), plastic back sheets and laminates, semiconductor rigid or thin film silicon cells, internal electrical conductors (aluminum or copper), silver solder, plus a variety of micro materials. The semiconductor

SUMMARY OF WORK - Solar Photovoltaic Decommissioning



PV cell materials represent a very small part of a PV module's weight, between 1 and 2%. As manufacturers pursue lower cost modules, thinner layers of semiconductor materials are used which reduces this percentage. The most commonly used semiconductor material for the construction of PV modules is silicon. Other materials used for the construction of photovoltaic modules are copper, and in thin-film designs, indium, cadmium, and telluride. Glass, aluminum, and copper are easily recyclable materials, and silicon can be recycled by specialty electronics recyclers.

<u>Glass</u>: Most PV modules are approximately 80% glass by weight. There are certain modules, which use plastic and/or metal sheets for their foundations, however these are very specialized in their application and are generally not used for ground mounted projects.

<u>Plastics</u>: A limited amount of plastic materials are used in PV systems due to a system's continuous exposure to the elements and long operational lifetime. Plastics typically are found in PV facilities as wire insulation, electrical enclosures, control and monitoring equipment, and inverter components. Additionally plastic laminate films are used in most PV module assemblies.

It is generally agreed that the metals in PV Facilities will be highly valued as recycled materials when these facilities are deconstructed. In the limited number of facility deconstruction projects performed to date, the revenue from the recycling of these materials was found to cover the removal and transportation costs of these materials. If a facility is operational at the time of decommissioning and the PV modules are producing within specifications, there is a likely outlet for the used PV modules into a secondary market. It is generally accepted that the existing global market for used solar PV panels will be even more robust in the future.

#### **Section 3:** Project Decommissioning Plan

The Project owner shall:

- Be responsible for all decommissioning costs;
- Obtain any additional permits required for the decommissioning, removal and legal disposal
  of Project components prior to commencement of decommissioning activities;
- Complete decommissioning, including component removal and disposal, grading and revegetation in accordance with permits and in compliance with all applicable rules and regulations then in effect governing the disposal thereof; and
- Remove all hazardous materials and transport them to be disposed of by licensed contractors at an appropriate facility in accordance with rules and regulations governing the disposal of such materials.

The following sequence for the removal of the components will be used: PV Sites:

- Disconnect PV facility from the utility power grid
- Disconnect all aboveground wirings, cables and electrical interconnections and recycle offsite by an approved recycling facility
- Remove concrete foundations (if required). Electric rooms and their foundations will be removed and recycled off-site by a concrete recycler
- Remove PV modules and ship to recycling facilities for recycling and material reuse.
- Remove all waste
- Remove the perimeter fence and recycle off-site by an approved metal recycler

#### Inverters/Transformer:

- Disconnect all electrical equipment
- Remove all on site inverters, transformers, meters, fans, lighting fixture and other electrical components and recycle off-site by an approved recycler



Remove of all waste

#### Access Road:

- Consult with landowner to determine if access roads should be left in place for their continued use
- If access road is deemed unnecessary, remove access road surface materials and restore access road location as near as practical to its original condition.

#### Below-ground Structure Decommissioning

- Disconnect and remove all underground cables and transmission lines to a depth of 36" below grade and recycle off-site by an approved recycling facility
- Removal of steel rack foundations.

#### Site Restoration

Once the on-site equipment is removed, it is expected that the site will be returned to its exiting condition. Some minor site grading may be required. Site restoration activities will be undertaken with the input of the landowner.

The access road will be left at landowner's requests or graded to restore terrain profiles (as much as possible). If removed, filter fabric will need to be bundled and disposed of in accordance with all applicable regulations. The former road areas may need to be backfilled and restored to meet existing grade. This material may come from existing long term berm, stockpile, or nearby soils.

#### **Section 4:** Decommissioning Conditions and Timeframe

The solar facility and all components described above shall be physically removed from the site no later than 180 days following the discontinuation of operations.

This decommissioning plan is based on current procedures and experience. These procedures may be subject to revision based on new experiences and requirements over time.

## **EXHIBIT F**:

**Public Information Session Information** 







(860) 887-9211 • 66 Franklin Street, Norwich, CT 06360

**Advertising Fax:** 860-887-1949

#### Receipt

**Account Number:** 

**Order Number:** 00210447

Salesperson: Seidl | Printed on: 3/4/2016

Telephone: | Fax:

MARK LYONS LYONS, MARK 455 BOSTON POST ROAD SUITE 206 OLD SAYBROOK, CT 06475 (860)388-7730

Title: Norwich Bulletin | Class: 900 Legals Start date: 3/6/2016 | Stop date: 3/6/2016 |

Insertions: 1 | Lines: 26.59 ag

#### SOLAR ENERGY FACILITY IN POMFRET

A ground mounted solar energy facility is being proposed for a site on Woods Hill Road in Pomfret, CT.

The project sponsor, RES Americas, invites members of the public to attend an information session about the project at Pomfret Senior Center, 207 Mashamoquet Road, Pomfret, CT 06258, at 7:00 PM on Tuesday March 8, 2016. Please join us.

For more information please contact:

Mark Lyons, Senior Manager – Project
Development
Mark.Lyons@Res-Americas.com.

#### **Payment Information**

Total Order Price: \$96.34 Payment Type: | Exp:



## **RES Americas**

## Woods Hill Solar Project

## **Public Information Meeting**

## **Pomfret Senior Center**

March 8, 2016

Name	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
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Bonne B. Duncan	198 facue Rd in 4
Monique CARON	22:
Donne Vavarro	1416665130
	88 Freedley Rd Pomfiet Chr
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## **EXHIBIT G**:

Abutting Property Owner List and Notice





On March 30, 2016, notice of the RES Woods Hill Road Project petition was sent to each owner of property which abuts property adjacent to the project as depicted on the maps set forth in Figures 1 and 2 below. This list of abutters to whom the notice was sent is set forth in the chart below:

# RES WOODS HILL ROAD PROJECT CERTIFICATION OF SERVICE TO ABUTTING PROPERTY OWNERS

ABUTTER NAME / ENTITY	PROPERTY ABUTTING	MAILED FROM COUNSEL	RETURN RECEIPT BACK
JOHN F ENNIS & FREDERICK EGGERS 289 PROVIDENCE RD BROOKLYN CT 06234	90 WOODS HILL RD & 101 WOODS HILL RD	3/30/16	
OJA THURE BARRETT HILL RD BROOKLYN CT 06234	90 WOODS HILL RD	3/30/16	
RIDGEWOOD FARM LLC 210 GREEN ST NORTHBOROUGH MA 01532	90 WOODS HILL RD	3/30/16	
JAMES S. & KELLY J. RIVERS PO BOX 291 POMFRET CENTER CT 06259	90 WOODS HILL RD	3/30/16	
ROGERS CORPORATION PO BOX 188 ROGERS CT 06263-0188	90 WOODS HILL RD	3/30/16	
CHARLES H. & WILLIAM F. TYLER III 495 NO SOCIETY RD CANTERBURY CT 06331	90 WOODS HILL RD & 101 WOODS HILL RD	3/30/16	
KATHLEEN L. CUTLER 50 WOODS HILL RD BROOKLYN CT 06234	90 WOODS HILL RD & 101 WOODS HILL RD	3/30/16	
JUANITA R. CRISTINA & SHEILA S. NABOZNY 253 KILLINGLY AVE PUTNAM CT 06260	90 WOODS HILL RD & 101 WOODS HILL RD	3/30/16	

# RES WOODS HILL ROAD PROJECT CERTIFICATION OF SERVICE TO ABUTTING PROPERTY OWNERS

ABUTTER NAME / ENTITY	PROPERTY ABUTTING	MAILED FROM COUNSEL	RETURN RECEIPT BACK
SUSAN D. MAYOTTE PO BOX 203 BROOKLYN CT 06234-0203	90 WOODS HILL RD & 101 WOODS HILL RD	3/30/16	
MARIE A. BAILLARGEON & MICHAEL D. DASILVA 23 WOODS HILL RD BROOKLYN CT 06234	90 WOODS HILL RD	3/30/16	
ROBERT W. & ROHNIE TEGTMEIER 448 CHURCH ST BROOKLYN CT 06234-1511	101 WOODS HILL RD	3/30/16	
THE ROCKY RIVER REALTY CO PO BOX 270 HARTFORD CT 06101-0270	101 WOODS HILL RD	3/30/16	
SHEILA S. NABOZNY 13 WOODS HILL RD BROOKLYN CT 06234	101 WOODS HILL RD	3/30/16	
KEITH D. & MELISSA J. HOYT 13 HICKORY LN BROOKLYN CT 06234	101 WOODS HILL RD	3/30/16	

The notice that was provided to each abutter was substantially in the form of the letter on page three of this Exhibit. In order to ensure that each abutter received notice, return receipts were requested for each notice. RES Woods Hill Road Project will provide copies of the receipts to the Council when the project receives them.



Lee D. Hoffman 90 State House Square Hartford, CT 06103-3702 p 860 424 4315 f 860 424 4370 lhoffman@pullcom.com www.pullcom.com

March 30, 2016

#### VIA CERTIFIED MAIL - RETURN RECEIPT REQUESTED

John F. Ennis and Frederick Eggers 289 Providence Rd. Brooklyn, CT 06234

Re: RES Americas, Inc.; Petition for Declaratory Ruling For Solar Energy Project on Woods Hill Road, Pomfret, CT

Dear Mr. Ennis and Mr. Eggers:

Pursuant to Section 16-50j-40(a) of the Connecticut Siting Council's (the "Council") regulations, we are notifying you that RES Americas, Inc. ("RES") intends to file on or shortly after March 31, 2016, a petition for declaratory ruling with the Council. This petition will request the Council's approval of the location and construction of an approximately twenty (20) megawatt solar photovoltaic (PV) project (the "Project"), located at 90 Woods Hill Road and 101 Woods Hill Road in Pomfret, Connecticut.

Electricity generated by the Project will be exported to the electric grid. The Project will consist of ground-mounted solar PV panels, will qualify as a Class I renewable energy resource, and will supply 100% renewable energy in furtherance of Connecticut's renewable energy goals.

If you have any questions regarding the Project, then please contact the undersigned or the Council.

Sincerely,

Lee D. Hoffman

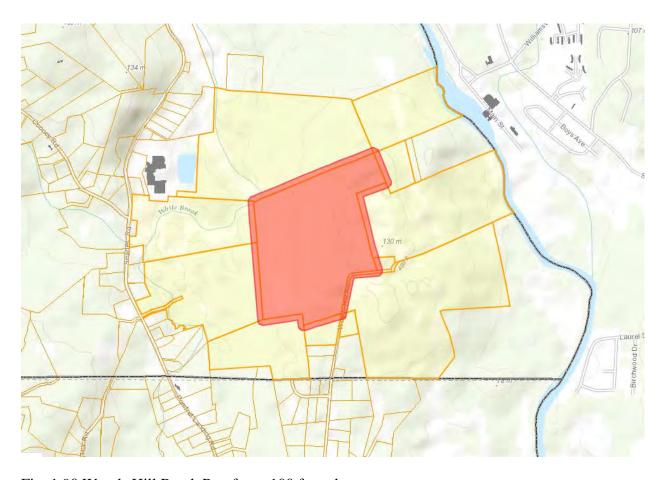


Fig. 1 90 Woods Hill Road, Pomfret -100 foot abutters

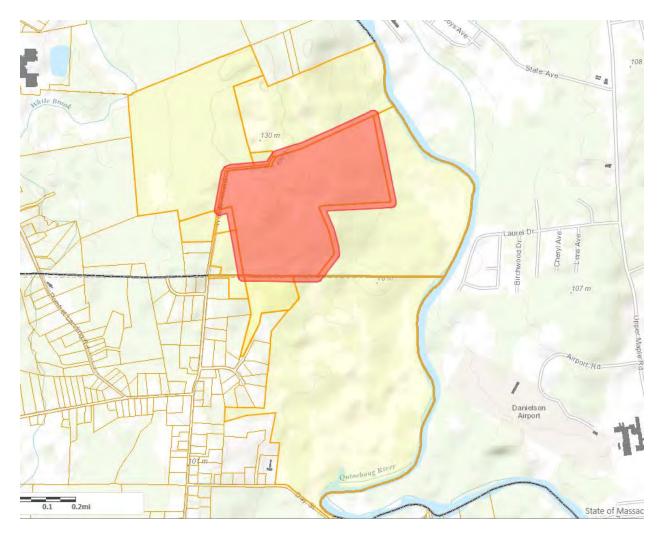


Fig. 2 101 Woods Hill Road, Pomfret – 100 foot abutters

## **EXHIBIT H**:

List of Municipal Officials and Government Agencies





On March 30, 2016, notice of the RES Woods Hill Road Project petition was sent to each governmental official to whom notice is required pursuant to the Council's regulations. The governmental officials to whom the notice was sent is set forth in the chart below:

### **RES WOODS HILL ROAD PROJECT CERTIFICATION OF SERVICE TO GOVERNMENT ENTITIES CT SITING COUNCIL** MAILED **RETURN RECEIPT GOVERNMENT NAME/ENTITY** FROM COUNSEL **BACK POMFRET** Pomfret First Selectman Craig Baldwin Town Hall March 30, 2016 5 Haven Road Pomfret Center, CT 06259 Pomfret Town Clerk Town Hall March 30, 2016 5 Haven Road Pomfret Center, CT 06259 Walter P. Hinchman, Chairman Planning and Zoning Commission Town Hall March 30, 2016 5 Haven Road Pomfret Center, CT 06259 Joseph A. Pajak III **Building Official** Town Hall March 30, 2016 5 Haven Road Pomfret Center, CT 06259 Pamela Cartledge, Chairman **Pomfret Conservation Commission** Town Hall March 30, 2016 5 Haven Road Pomfret Center, CT 06259 John Folsom, Chairman Inland Wetlands & Watercourses Comission Town Hall March 30, 2016 5 Haven Road Pomfret Center, CT 06259

CT SITING COUNCIL				
GOVERNMENT NAME / ENTITY	MAILED FROM COUNSEL	RETURN RECEIPT BACK		
Nicholas Gardner, Chairman Economic Planning and Development Commission Town Hall 5 Haven Road Pomfret Center, CT 06259	March 30, 2016			
BROOKLYN				
First Selectman Richard Ives Town Hall 4 Wolf Den Road PO Box 356 Brooklyn 06234	March 30, 2016			
Brooklyn Town Clerk Town Hall 4 Wolf Den Road PO Box 356 Brooklyn 06234	March 30, 2016			
Jana Butts Roberson Land Use Administrator Clifford B. Green Memorial Center 69 South Main Street PO Box 356 Brooklyn, CT 06234	March 30, 2016			
Carlene Kelleher, Chair Planning and Zoning Commission Town Hall 4 Wolf Den Road PO Box 356 Brooklyn 06234	March 30, 2016			
John A. Berard, Building Official Clifford B. Green Memorial Center 69 South Main Street Suite 22 Brooklyn, CT 06234	March 30, 2016			
		<u> </u>		

CT SITING COUNCIL				
MAILED FROM COUNSEL	RETURN RECEIPT BACK			
March 30, 2016				
March 30, 2016				
March 30, 2016				
March 30, 2016				
March 30, 2016				
March 30, 2016				
	March 30, 2016  March 30, 2016  March 30, 2016  March 30, 2016  March 30, 2016			

CT SITING COUNCIL			
GOVERNMENT NAME / ENTITY	MAILED FROM COUNSEL	RETURN RECEIPT BACK	
Eric Rumsey Planner / Inland Wetlands Agent 172 Main Street Killingly, CT 06239	March 30, 2016		
Elsie Bisset Economic Development Director 172 Main Street Second Floor Killingly, CT 06239	March 30, 2016		
Donna M. Bronwell, Chair Conservation Commission 172 Main Street Killingly, CT 06239	March 30, 2016		
Sandy Eggers Inland Wetlands & Watercourses Commission 172 Main Street Killingly, CT 06239	March 30, 2016		
Keith Thurlow Planning & Zoning Commission 172 Main Street Killingly, CT 06239	March 30, 2016		
Dale Desmarais Economic Development Commission 172 Main Street Killingly, CT 06239	March 30, 2016		
STATE GOVERNMENT			
NORTHEASTERN CONNECTICUT COUNCIL OF GOVERNMENTS 125 Putnam Pike, Rte. 12 P.O. Box 759 Dayville CT 06241-0759	March 30, 2016		

GOVERNMENT NAME / ENTITY MAILED RETURN RECEIPT				
GOVERNMENT NAME / ENTITY	FROM COUNSEL	BACK		
Office of the Attorney General State of Connecticut Attorney General George Jepsen 55 Elm Street Hartford, CT 06106	March 30, 2016			
Senator Richard Blumenthal 90 State House Square, 10 <sup>th</sup> Floor Hartford, CT 06103	March 30, 2016			
Senator Christopher Murphy One Constitution Plaza, 7th Fl. Hartford, CT 06103	March 30, 2016			
US Congressman Joe Courtney 77 Hazard Ave, Unit J Enfield, CT 06082	March 30, 2016			
State Representative Mike Alberts Connecticut House Republican Office L.O.B. Room 4200 Hartford, CT 06106	March 30, 2016			
State Senator Tony Guglielmo Legislative Office Building Room 3400 Hartford, CT 06106	March 30, 2016			
STATE AGENCIES				
State of Connecticut Department of Energy and Environmental Protection Robert Klee, Commissioner 79 Elm Street Hartford, CT 06106	March 30, 2016			
State of Connecticut Department of Public Health c/o Dr. Jewel Mullen, Commissioner 410 Capitol Avenue, PO Box 340308 Hartford, CT 06134	March 30, 2016			

GOVERNMENT NAME / ENTITY MAILED RETURN RECEIPT			
OOVERNIENT WANTE / ENTITY	FROM COUNSEL	BACK	
State of Connecticut Council on Environmental Quality c/o Susan D. Merrow, Chair 79 Elm Street Hartford, CT 06106	March 30, 2016		
State of Connecticut Department of Agriculture c/o Steven K. Reviczky, Commissioner 165 Capitol Avenue Hartford, CT 06106	March 30, 2016		
State of Connecticut Public Utility Regulatory Authority c/o Arthur House, Chairman Ten Franklin Square New Britain, CT 06051	March 30, 2016		
State of Connecticut Office of Policy and Management Benjamin Barnes, Secretary Office of Policy and Management 450 Capitol Avenue Hartford, CT 06106	March 30, 2016		
State of Connecticut Department of Economic and Community Development Catherine Smith, DECD Commissioner 505 Hudson Street Hartford, CT 06106	March 30, 2016		
State of Connecticut Department of Transportation c/o James P. Redeker, Commissioner 2800 Berlin Turnpike Newington, CT 06111	March 30, 2016		

### **RES WOODS HILL ROAD PROJECT**

# CERTIFICATION OF SERVICE TO GOVERNMENT ENTITIES CT SITING COUNCIL

GOVERNMENT NAME / ENTITY	MAILED FROM COUNSEL	RETURN RECEIPT BACK
Connecticut Department of Emergency Services and Public Protection Dora B. Schirro, Commissioner 1111 Country Club Road Middletown, CT 06457	March 30, 2016	
State of Connecticut Department of Consumer Protection Jonathan A. Harris, Commissioner 165 Capitol Avenue Hartford, CT 06106	March 30, 2016	
Connecticut Department of Administrative Services Melody A. Currey, Commissioner 165 Capitol Avenue Hartford, CT 06106	March 30, 2016	
State of Connecticut Department of Labor Sharon Palmer, Commissioner 200 Folly Brook Boulevard Wethersfield, CT 06109	March 30, 2016	

The notice that was provided to each governmental official was substantially in the form of the letter on the next page of this Exhibit. In order to ensure that each official received notice, return receipts were requested for each notice. RES Woods Hill Road Project will provide copies of the receipts to the Council when the project receives them.

In addition, a copy of the petition was provided to a representative of the towns of Pomfret, Killingly and Brooklyn, Connecticut.



Lee D. Hoffman 90 State House Square Hartford, CT 06103-3702 p 360 424 4315 f 360 424 4370 lhoffman@pullcom.com www.pullcom.com

March 30, 2016

#### VIA CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Craig Baldwin
First Selectman, Town of Pomfret
Town Hall
5 Haven Road
Pomfret Center, CT 06259

Re: RES Americas, Inc.; Petition for Declaratory Ruling For Solar Energy Project on Woods Hill Road, Pomfret, CT

Dear Mr. Baldwin:

Pursuant to Section 16-50j-40(a) of the Connecticut Siting Council's (the "Council") regulations, we are notifying you that RES Americas. Inc. ("RES") intends to file on or shortly after March 31, 2016, a petition for declaratory ruling with the Council. This petition will request the Council's approval of the location and construction of an approximately twenty (20) megawatt solar photovoltaic (PV) project (the "Project"), located at 90 Woods Hill Road and 101 Woods Hill Road in Pomfret, Connecticut.

Electricity generated by the Project will be exported to the electric grid. The Project will consist of ground-mounted solar PV panels, will qualify as a Class I renewable energy resource, and will supply 100% renewable energy in furtherance of Connecticut's renewable energy goals.

If you have any questions regarding the Project, then please contact the undersigned or the Council.

Sincerely,

Lee D. Hoffman

## **EXHIBIT I**:

Operations and Maintenance Plan





# **Operations & Maintenance Plan**

The Operation & Maintenance (O&M) plan for the solar facility is explained below.

RES Americas, Inc. (RES) is responsible for maintaining and servicing the solar electric system post construction. This work will be performed through a combination of RES personnel, approved subcontractors, or authorized vendor (manufacturer of components used in the solar PV system) representatives. The area where the Solar Electric System is located and the immediate proximity of the electrical equipment shall be treated as a Secure Facility, accessible only by authorized personnel. Access to these locations should be arranged by contacting the Owner or Operator.

Operations at the site will be minimal. The panels are static, and are monitored remotely on a continuous basis over the internet. On a daily basis, the applicant will be responsible for responding to alerts from system's automated alert system regarding potential system malfunction.

Additional maintenance at the site will typically consist of the following.

### **Equipment Maintenance**

RES and/or its authorized sub-contractors will conduct the following tasks as required by manufacturers' specifications to ensure maintenance and proper operation of the solar PV system equipment and limit traffic to and from the site.

- Perform a visual inspection of the equipment including subassemblies, wiring harnesses, contacts and major components and record ambient operating temperature.
- Check inverter modules for the following:
  - IGBTs and inverter boards for discoloration
  - Power capacitors for signs of damage
  - Record all voltage and current readings via the front display panel
  - Check appearance/cleanliness of the cabinet, ventilation system and insulated surfaces
  - Check for corrosion on terminals and cables
  - Torque terminals, connectors and bolts as needed
  - Check all fuses for open or signs of heating (Inverter & Combiner)
  - Check the condition of both the AC & DC Surge Suppressors
  - Check the operation of all safety devices (E-Stop, Door Switches, GFDI)
  - Correct all deficiencies detected
- Inspect (clean or replace) air filter elements
- Complete Maintenance Schedule Card and issue a written inspection report
- Install and perform any recommended Engineering Field Modifications, including software upgrades.

#### **Site Maintenance**

RES and/or its authorized subcontractors will perform site maintenance activities as follow, to ensure safety and to maintain site aesthetics.

- Mowing the grass between the rows of racks a minimum of twice a year, possibly more if the growth of grass requires it. The height of the grass will be maintained at a level to reduce the risk of grass fires. No herbicides or chemicals will be used to manage vegetation.
- Personnel in a pickup-type truck will visit the site monthly to inspect the inverters for proper performance and perform maintenance as needed. The condition of signage and proper functioning of access gates will be inspected as well.

### **Array Cleaning Procedure**

RES and/or its authorized subcontractors will clean the PV panels if the system is outputting a noticeably lower wattage AC or there is an accumulation of dirt on the modules. Maintaining module cleanliness is crucial to maximizing system performance. No harmful chemicals shall be used in the cleaning of the modules. Cleaning of the panels will be done with water and a soft-bristled broom if needed. Note that the PV system does not need to be turned off during cleaning.

#### **Snow Maintenance**

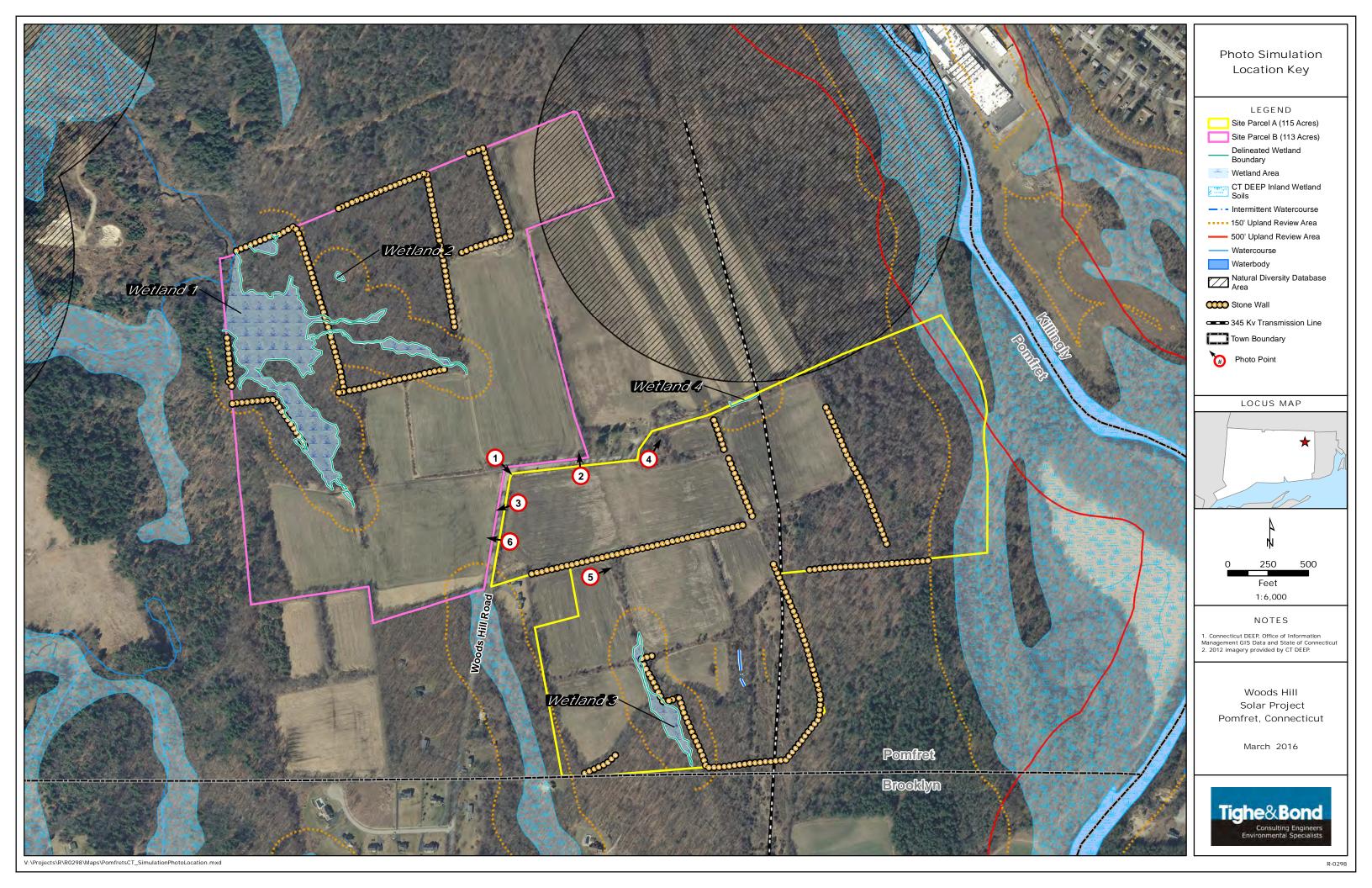
Following a snow event, RES and/or its authorized subcontractors will plow the access roads in order to maintain access to the electrical equipment pads. Snow will be plowed in a manner such that access to the turnaround areas is not impeded. If necessary, excess snow will be moved to a different location on site to ensure the access roads are clear.

## **EXHIBIT J**:

**Photo Simulations** 







# 1: Parcel A - View of the eastern farm field, facing southeast.





Photo Simulations Tighe&Bond

# 2: Parcel B - View of the easternmost parcel boundary, facing north.





Photo Simulations Tighe&Bond

# 3: Parcel B - View of the southern farm field, facing southwest.





Photo Simulations Tighe&Bond

# 4: Parcel A – View from northern edge of the parcel, facing northeast.





PHOTO SIMULATIONS Tighe&Bond

# 5: Parcel A – View across cornfield facing east.

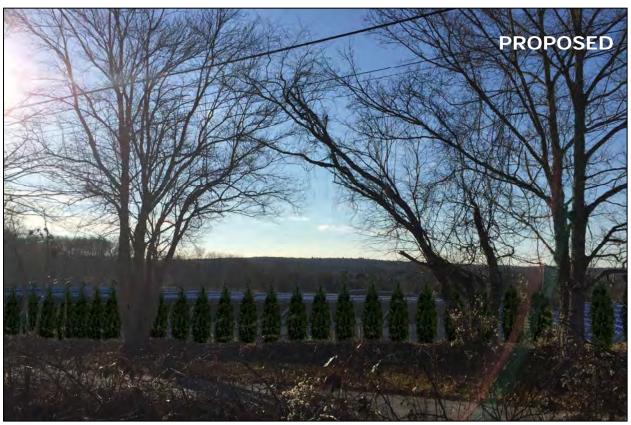




PHOTO SIMULATIONS Tighe&Bond

# 6: Parcel B - View of the southern farm field, facing west.





## **EXHIBIT K:**

SHPO Correspondence







#### Department of Economic and Community Development



January 21, 2016

Ms. Briony Angus Tighe & Bond 53 Southampton Road Westfield, MA 01085-5308

Subject: Solar Farm Development

Woods Hill Road Pomfret, Connecticut

Dear Ms. Angus:

The State Historic Preservation Office (SHPO) has reviewed your request for information concerning the potential effects to historic properties associated with the referenced project. SHPO understands that the proposed solar voltaic facility will entail the construction of approximately 116 acres of ground-mounted solar panels within a larger 227 acre site area. Ancillary features include an access road, underground cabling, security fencing, and equipment pads. The proposed activities are under the jurisdiction of the Connecticut Siting Council.

SHPO notes that the project parcel is situated within a gently rolling, rural section of Pomfret comprised primarily of agricultural fields. Although no properties listed on the National Register of Historic Places have been documented within or immediately adjacent to the project parcels, several archeological sites have been recorded just east of the project parcels, along the Quinebaug River. The project area is situated on well-drained soils between White Brook to the west and the Quinnebaug River to the east. This type of environmental setting tends to be associated with pre-contact Native American settlement. We are therefore requesting that a professional cultural resources assessment and reconnaissance survey be completed prior to construction. Not all areas of the proposed solar field are archeologically sensitive, but it is SHPO's opinion that intact and relatively well-drained soils within portions of the Area of Potential Effect have an elevated potential to contain significant archeological resources. Subsurface testing should assess all areas of anticipated ground disturbance that are considered to have a moderate/high sensitivity for containing significant archeological deposits, unless sufficient research or fieldwork documents that this level of effort is unwarranted. SHPO does acknowledge that farming may have compromised the integrity of any archeological deposits, but this supposition should be confirmed by subsurface examination. All work should be in compliance with our Environmental Review Primer for Connecticut's Archaeological Resources and no construction or other project-related ground disturbance should be initiated until SHPO has had an opportunity to review and comment upon the requested survey. The survey also should take into consideration potential view shed impacts on structures older than fifty years that are listed on or may be eligible for listing on the National Register of Historic Places. A list of qualified consultants is attached for your convenience.

This office appreciates the opportunity to review and comment upon this project. These comments are provided in accordance with the Connecticut Environmental Policy Act. For additional information, please contact me at (860) 256-2764 or catherine.labadia@ct.gov.

Sincerely,

Catherine Labadia

Deputy State Historic Preservation Officer



R 298-4-01-12 December 10, 2015

State Historic Preservation Office One Constitution Plaza Hartford, CT 06103

Re: Project Review Form - Woods Hill Road Solar Project Pomfret, Connecticut

Dear Reviewer:

On behalf of RES America Developments, Inc. (RES or "the Proponent"), Tighe & Bond is submitting this Project Review request for the proposed installation of an approximately 25.6  $MW_{(DC)}/19.25_{(AC)}$  ground-mounted solar PV system within two parcels (Parcel A and Parcel B) located near the terminus of Woods Hill Road in Pomfret, Connecticut. A Petition for a Declaratory Ruling for a Renewable Energy Facility will be submitted to the Connecticut Siting Council for review pursuant to Connecticut General Statutes Section 16-50k(a).

The total Site area is approximately 227 acre (Parcel A = 113 acres; Parcel B = 114 acres). As proposed, the limit of work of the proposed project will occupy approximately 116 acres of the 227-acre project Site (51 acres of Parcel A and 65 acres of Parcel B).

This submittal package includes the following materials:

- · Appendix A: Project Description
- Appendix B: Maps/ Figures
  - USGS Site Location Map
  - Existing and Proposed Conditions Maps
  - o Soil Map
  - Historic Photos
- Appendix C: Site Photographs
- Appendix D: Property Record Cards and Tax Maps

We request your review of this information for potential impact to historic and archaeological resources. Thank you in advance for your attention to this matter. If you have any questions, please contact me by email at <a href="mailto:BAngus@tighebond.com">BAngus@tighebond.com</a> or phone at 413.875.1302.

Sincerely,

TIGHE & BOND, INC.

Briony Angus, AICP

Senior Project Manager/ Associate

cc: Dan Boyd, Senior Director of Development, RES Americas, Inc. Tom Swank, Chairman, SunEast Power, LLC.





#### **State Historic Preservation Office**

One Constitution Plaza | Hartford, CT 06103 | 860.256.2800 | Cultureandtourism.org

### PROJECT REVIEW COVER FORM

1.	You has Numb	o not need to complete the re we been previously issued a ser. Please attach information	SHPO Project
	SHPO Project Numbersubmit		
	(Not all previously submitted projects will have project numbers)		
	Project Address		
	(Street Address and City or Town)		
2.	This is a new Project.  If you have checked this box, it is necessary to complete ALL entries on this form.		
Project	Name Woods Hill Road Solar Project		
Project	Location 101 Woods Hill Road		
	Town Pomfret  Include street number, street name, and or Route Number. If no street address exists give clo		_
County	In addition to the village or hamlet name (if appropriate), the <u>municipality</u> must be included Windham	here.	_
	If the undertaking includes multiple addresses, please attach a list to this form.		
Date of	Construction (for existing structures)		
Installa	ECT DESCRIPTION SUMMARY (include full description in attachment): tion of an approximately 25.6 MW(DC)/ 19.25(AC) ground-mounted solar PV system		
	cres; Parcel B=114 acres) located at the terminus of Woods Hill Road in Pomfret. Th	<u> </u>	
	oximately 80,500 solar panels within 116 acres of the 227-acre project Site. RES is o		Petition
to the (	Connecticut Siting Council for a Declaratory Ruling for Renewable Energy Facility und	ler CGS 16-50k(a).	
TYPE	OF REVIEW REQUESTED		
a.	Does this undertaking involve funding or permit approval from a State or Federal Agency?		
	X Yes No	State	Federal
Agency	Name/Contact Type of Permit/Approval Declaratory Ruling	x	
0011110	block staring obtained:	П	Ħ
		П	Ħ
		Vas	No
	you consulted the SHPO and UCONN Dodd Center files to determine the presence ace of previously identified cultural resources within or adjacent to the project area?	Yes	No ×
If yes: Was the	e project site wholly or partially located within an identified archeologically sensitive area?		
	e project site involve or is it substantially contiguous to a property listed or recommended for n the CT State or National Registers of Historic Places?		
	e project involve the rehabilitation, renovation, relocation, demolition or addition to any g or structure that is 50 years old or older?		





#### **State Historic Preservation Office**

One Constitution Plaza | Hartford, CT 06103 | 860.256.2800 | Cultureandtourism.org

#### PROJECT REVIEW COVER FORM

The Historic Preservation Review Process in Connecticut Cultural Resource Review under the National Historic Preservation Act – Section 106 <a href="http://www.achp.gov/106summary.html">http://www.achp.gov/106summary.html</a> involves providing technical guidance and professional advice on the potential impact of publicly funded, assisted, licensed or permitted projects on the state's historic, architectural and archaeological resources. This responsibility of the State Historic Preservation Office (SHPO) is discharged in two steps: (1) identification of significant historic, architectural and archaeological resources; and (2) advisory assistance to promote compatibility between new development and preservation of the state's cultural heritage.

Project review is conducted in two stages. First, the SHPO assesses affected properties to determine whether or not they are listed or eligible for listing in the Connecticut State or National Registers of Historic Places. If so, it is deemed "historic" and worthy of protection and the second stage of review is undertaken. The project is reviewed to evaluate its impact on the properties significant materials and character. Where adverse effects are identified, alternatives are explored to avoid, or reduce project impacts; where this is unsuccessful, mitigation measures are developed and formal agreement documents are prepared stipulating these measures. For more information and guidance, please see our website at: <a href="http://www.cultureandtourism.org/cct/cwp/view.asp?a=3933&q=293820">http://www.cultureandtourism.org/cct/cwp/view.asp?a=3933&q=293820</a>

ALL PROJECTS SUBMITTED FOR REVIEW MUST INCLUDE THE	E FOLLO	WING	MATERIAI	LS*:
PROJECT DESCRIPTION Please attach a full description of the work that will be undertaken as a result of this project.				
Portions of environmental statements or project applications may be included. The project applications of environmental statements or project applications may be included.	project bou	ndary of	the project sho	uld be clearly
defined**				
X   PROJECT MAP This should include the precise location of the project –				
streets or roadways as well as all portions of the project. Tax maps, Sanborn maps a				
Bing and Google Earth are also accepted if the information provided is clear and we	ell labeled.	The proj	ect boundary sl	hould be clearly
defined on the map and affected legal parcels should be identified.				
× PHOTOGRAPHS Clear, current images of the property should be submit				
accepted. Include images of the areas where the proposed work will take place. May			levations, detail	led photos of
elements to be repaired/replaced (windows, doors, porches, etc.) All photos should be	be clearly l	abeled.		
	X7	37/4	G .	
For Existing Structures	Yes	N/A	Comments	
Property Card		X	G .	
For New Construction	Yes	N/A	Comments	
Project plans or limits of construction (if available)	$\times$			
If project is located in a Historic District include renderings or elevation drawings		$\times$		
of the proposed structure				
Soils Maps http://websoilsurvey.nrcs.usda.gov/app/HomePage.htm	X	Щ		
Historic Maps http://magic.lib.uconn.edu/	X			
For non-building-related projects (dams, culverts, bridge repair, etc)	Yes	N/S	Comments	
Property Card		$\boxtimes$		
Soils Map (see above)		X		
Historic Maps (see above)		X		
SHPO USE ONLY	Above	Date	Below	Date
Indicate date of Review and Initials of Reviewer				
DD O VE CITE CONVEN CITE				
PROJECT CONTACT	1			
Name Briony Angus, AICP Title Senior Project M	/lanager			
Firm/Agency_Tighe & Bond				
Address 53 Southampton Road				
City_Westfield State_MA Zip_01085				
Phone (413) 875-1302 Cell Fax				
Emoil BAngus@tighebond.com				

\*Note that he SHPO's ability to complete a timely project review depends largely on the quality of the materials submitted.

\*\* Please be sure to include the project name and location on each page of your submission.

#### **State Historic Preservation Office**

One Constitution Plaza | Hartford, CT 06103 | 860.256.2800 | Cultureandtourism.org

### PROJECT REVIEW COVER FORM

#### SHPO USE ONLY

Based on our review of the information provided to the State Historic Preservation Office, it is our opinion that:	
No historic properties will be affected by this project. No further review is requested.	
This project will cause no adverse effects to the following historic properties. No further review is requested:	
This project will cause no adverse effects to the following historic properties, <u>conditional</u> upon the stipulations included in the attached letter:	
Additional information is required to complete our review of this project. Please see the attached letter with our requests and recommendations.	
This project will adversely affect historic properties as it is currently designed or proposed. Please see the attached letter for further details and guidance.	
Daniel T. Forrest Deputy State Historic Preservation Officer  Date	

# **Appendix A**Project Description

#### **Project Description**

# Woods Hill Road Solar Project Pomfret, Connecticut

The project consists of the installation of an approximately 25.6 MW<sub>(DC)</sub>/ 19.25<sub>(AC)</sub> ground-mounted solar PV system within two parcels (Parcel A and Parcel B) located near the terminus of Woods Hill Road in Pomfret, Connecticut. Parcel A (approximately 113 acres) is located to the south/ east of the terminus of Woods Hill Road. Parcel B (approximately 114 acres) is located to the north/ west of Woods Hill Road. The total Site area is approximately 227 acres. As proposed, the limit of work of the proposed project will occupy approximately 116 acres of the 227-acre project Site (51 acres of Parcel A and 65 acres of Parcel B).

#### **Existing Conditions**

The Site consists of relatively flat, cleared, agricultural land with frontage off of Woods Hill Road. Stone walls traverse portions of the agricultural land on both parcels. The Site is located just north of the municipal boundary between Pomfret and Brooklyn, Connecticut. Wooded areas surround the agricultural fields on both parcels. A large Connecticut Light & Power transmission line and right of way traverse Parcel A to the east of the cleared portion. The Quinebaug River is located approximately 1,200 feet to the east of the agricultural land on Parcel A. The Site contains inland wetlands and watercourses. Based on a review of GIS data, a portion of Parcel B includes rare species habitat mapped pursuant to the Natural Diversity Database program. There is no regulatory floodplain at the Site.

#### **Photovoltaic Equipment**

Proposed activities include selective vegetation clearing, construction of a new gravel access road, and installation of solar PV modules and equipment pads. Approximately 80,500 310 watt solar PV modules (4 x 5 landscape layout) will be installed.

#### **Mounting System**

The solar modules will be erected using a driven metal post foundation system. The racks will be installed approximately 15 feet apart. As shown on Figure 3 in Appendix B, portions of the proposed PV arrays will be located 75 feet from delineated inland wetlands. The racks will run east-west and will be mounted facing south at a fixed 25 degree angle to ground surface. The rows of racks will be spaced approximately 15 feet apart.

#### **Cable Conduit and Utilities**

The system will include integrated combiner and disconnect switches, and the panel wiring feeds into these switches. From the combiner box, energy will be transmitted to inverters. The subsurface conduit will convey power from the solar array to the interconnection point located along Woods Hill Road, to be determined by Eversource.

#### **Electrical Equipment and Interconnection**

Approximately 14 reinforced concrete electrical equipment pads (28' x 28') will support the electrical equipment. The electrical equipment pads will contain inverters, switchgear and transformers that will step-up the voltage prior to interconnecting with Eversource's local distribution circuit. The solar PV project will interconnect with the utility at distribution voltage on the property at the limit of the right of way. This connection will utilize a combination of underground conduits and overhead wiring and equipment required by the utility company. An emergency system cut-off switch will be installed in a location designated by Eversource.

#### **Access Road**

The arrays on each parcel will be accessed via a new 16-foot wide access road. The access road entrance to each parcel is on Woods Hill Road. The proposed access road will be comprised of approximately 6 inches of dense graded crushed stone or clean, uncoated aggregate base course (ABC) (per CT DEEP standards) placed above existing grades. Minor grading may be required along the proposed access road in select locations based on topography.

#### **Vegetation Removal**

The project also consists of select removal and clearing of existing vegetation to minimize shade impacts. Portions of this work will occur approximately 75 to 100 feet from delineated inland wetlands. Erosion and sedimentation controls will be installed around the project site prior to vegetation removal. The vegetation will be cut and stumps will remain. All cut vegetation will be chipped on-site and either removed and disposed, or left in place to further stabilize the site. The ground beneath the solar arrays will be planted with fescue species. The aisles will be planted with a low-growing solar array mix.

RES and/or its authorized subcontractors will perform site maintenance to ensure safety and prevent shading impacts. Mowing of the grass between the rows of racks may occur as needed but estimated at twice per year. No herbicides or chemicals will be used to manage vegetation.

### **Photovoltaic System Description**

The project design prioritizes minimizing potential impacts to wetland resource areas, while considering Pomfret zoning regulations, cost implications, system operation, array constructability, and ongoing operation and maintenance factors. The following table presents a summary of the details of the solar array.

**TABLE 1**Solar System Summary

SYSTEM SUMMARY		
System Size:	25.6 MW <sub>(DC)</sub> / 19.25 <sub>(AC)</sub>	
Racking System:	Driven Racking System (Racking approximately 15 ft. apart)	
Photovoltaic Modules:	(80,500) 310 watt solar PV modules (4 X 5 landscape layout)	
Inverters:	Approximately 19.26 MW inverters	
Transformer:	Not specified at this time	
Tilt Angle:	25°	
Data System:	Data Acquisition System (DAS) for remote monitoring – Model to be determined.	

# **Project Schedule**

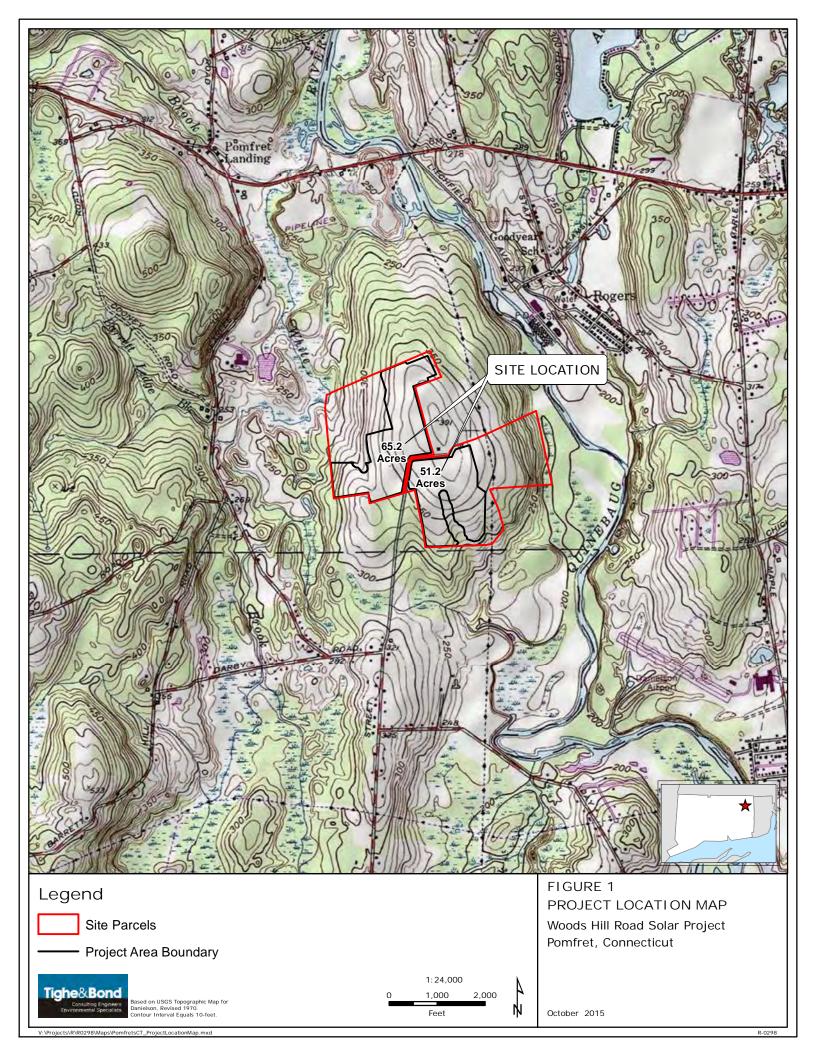
The preliminary schedule for the project is presented below in Table2:

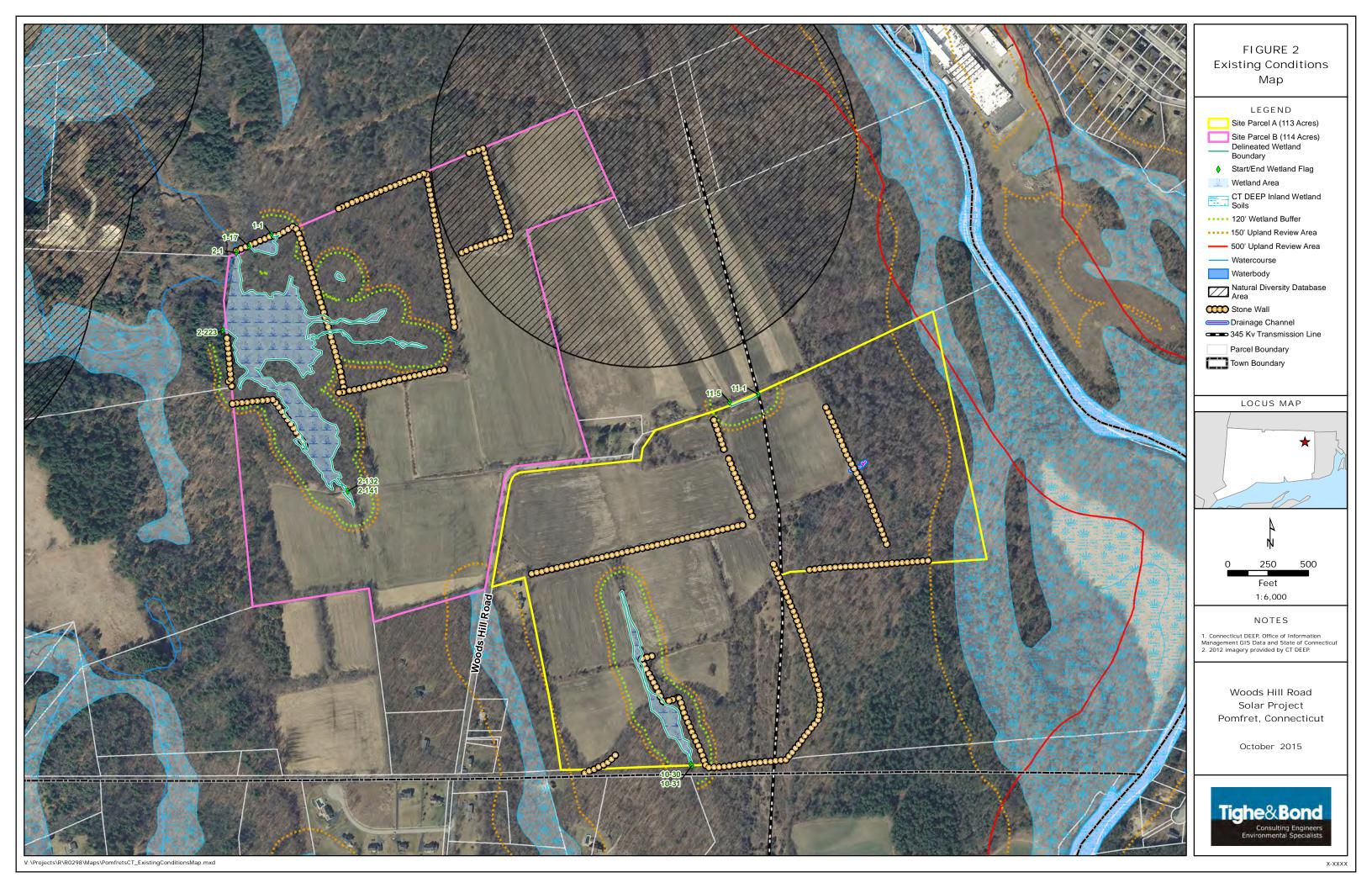
TABLE 2

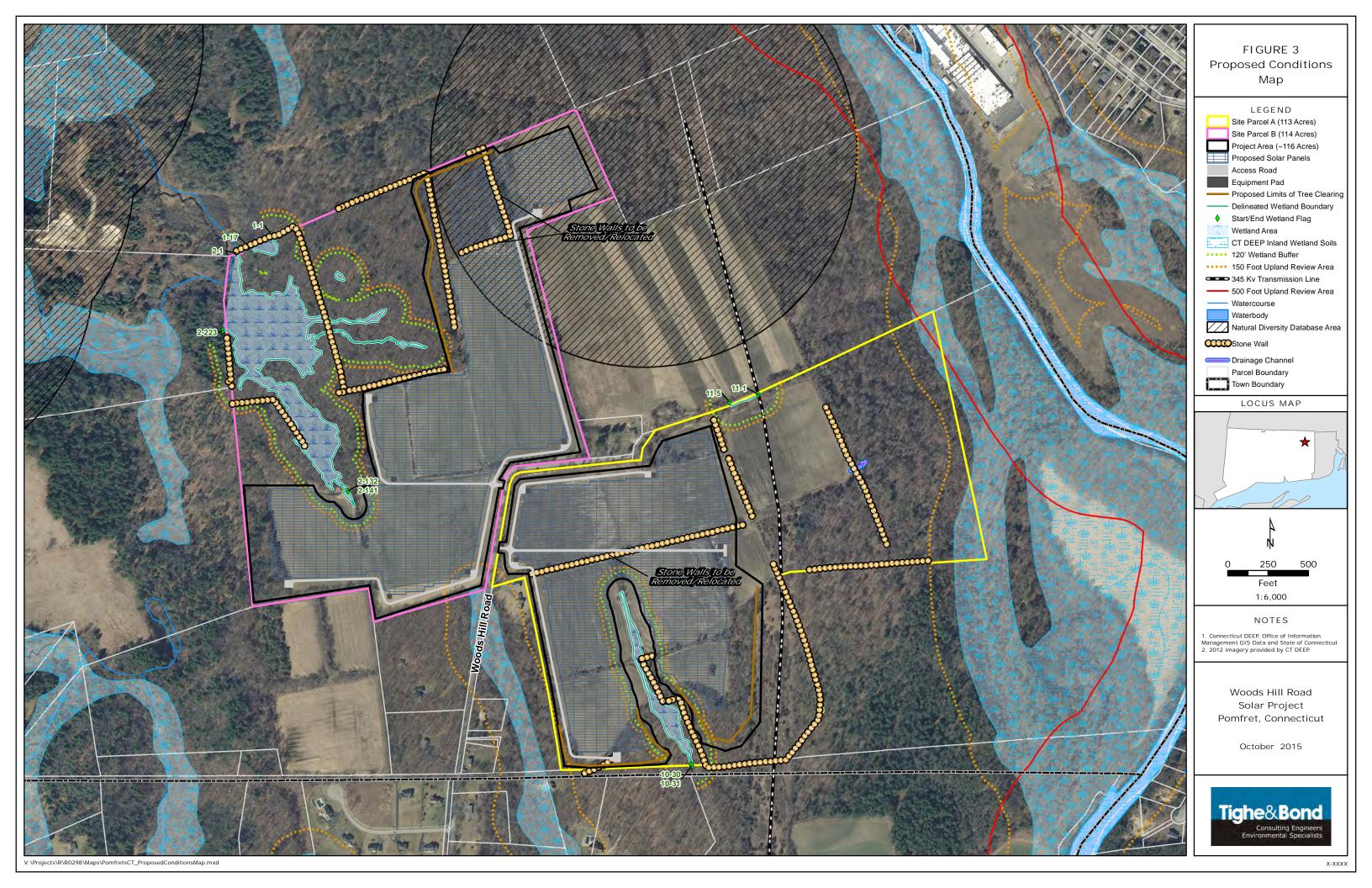
Project Schedule

Project Phase	Timeframe
System Design	September 2015 – December 2015
CSC Siting Council/ Permitting	December 2015 – April 2016
Interconnection Study/ Approval	October 2015 – December 2015
Procurement	April 2016 – June 2016
Construction	July 2016 – October 2016

**Appendix B** Maps/ Figures









Web Soil Survey National Cooperative Soil Survey

#### MAP LEGEND

#### Area of Interest (AOI)

Area of Interest (AOI)

#### Soils

Soil Map Unit Polygons



Soil Map Unit Points

#### Special Point Features

Blowout

☑ Borrow Pit

Clay Spot

Closed Depression

Gravel Pit

Gravelly Spot

Landfill

A Lava Flow

Marsh or swamp

Mine or Quarry

Miscellaneous Water

Perennial Water

Rock Outcrop

Saline Spot

sandy Spot

Severely Eroded Spot

Sinkhole

Slide or Slip

Sodic Spot

#### J\_.,1

§ Stony Spot

Nery Stony Spot

Spoil Area

Wet Spot

△ Other

Special Line Features

#### **Water Features**

Streams and Canals

#### Transportation

Rails

Interstate Highways

US Routes

Major Roads

Local Roads

#### Background

Aerial Photography

#### MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:12,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service Web Soil Survey URL: http://websoilsurvey.nrcs.usda.gov Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: State of Connecticut Survey Area Data: Version 13, Oct 28, 2014

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Mar 28, 2011—May 12, 2011

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

# **Map Unit Legend**

State of Connecticut (CT600)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
2	Ridgebury fine sandy loam	3.9	0.8%
3	Ridgebury, Leicester, and Whitman soils, 0 to 8 percent slopes, extremely stony	18.2	3.6%
18	Catden and Freetown soils	7.1	1.4%
23A	Sudbury sandy loam, 0 to 5 percent slopes	6.8	1.4%
29A	Agawam fine sandy loam, 0 to 3 percent slopes	4.2	0.8%
36A	Windsor loamy sand, 0 to 3 percent slopes	3.9	0.8%
38C	Hinckley gravelly sandy loam, 3 to 15 percent slopes	54.3	10.9%
38E	Hinckley gravelly sandy loam, 15 to 45 percent slopes	3.2	0.6%
45A	Woodbridge fine sandy loam, 0 to 3 percent slopes	50.3	10.1%
45B	Woodbridge fine sandy loam, 3 to 8 percent slopes	114.1	22.9%
46B	Woodbridge fine sandy loam, 0 to 8 percent slopes, very stony	23.8	4.8%
47C	Woodbridge fine sandy loam, 2 to 15 percent slopes, extremely stony	61.3	12.3%
52C	Sutton fine sandy loam, 2 to 15 percent slopes, extremely stony	0.4	0.1%
60C	Canton and Charlton soils, 8 to 15 percent slopes	3.9	0.8%
62C	Canton and Charlton soils, 3 to 15 percent slopes, extremely stony	18.8	3.8%
62D	Canton and Charlton soils, 15 to 35 percent slopes, extremely stony	9.0	1.8%
73C	Charlton-Chatfield complex, 3 to 15 percent slopes, very rocky	41.2	8.3%
73E	Charlton-Chatfield complex, 15 to 45 percent slopes, very rocky	8.2	1.6%
84B	Paxton and Montauk fine sandy loams, 3 to 8 percent slopes	4.6	0.9%

State of Connecticut (CT600)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
84C	Paxton and Montauk fine sandy loams, 8 to 15 percent slopes	13.1	2.6%
85B	Paxton and Montauk fine sandy loams, 3 to 8 percent slopes, very stony	10.8	2.2%
101	Occum fine sandy loam	5.4	1.1%
102	Pootatuck fine sandy loam	10.7	2.1%
103	Rippowam fine sandy loam	19.4	3.9%
306	Udorthents-Urban land complex	0.5	0.1%
W	Water	2.1	0.4%
Totals for Area of Interest	•	499.1	100.0%

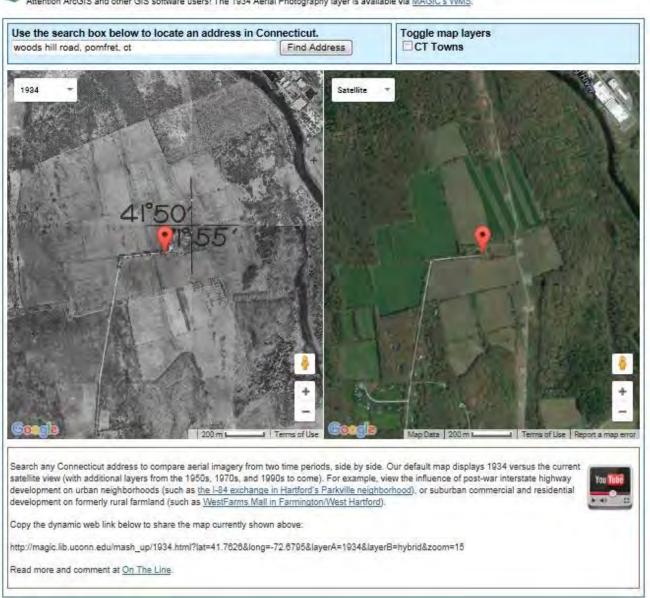
# Woods Hill Road Solar Project (Pomfret) Historic Mapping -1934 and 2012 Aerial Photos



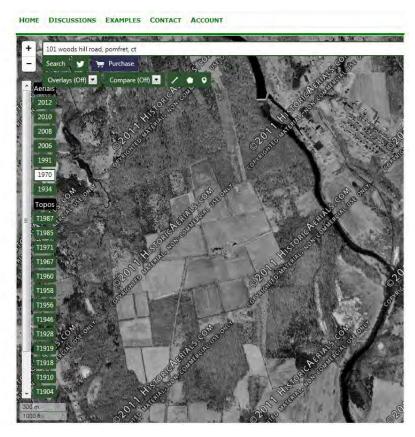
# Neighborhood Change in Connecticut, 1934 to Present

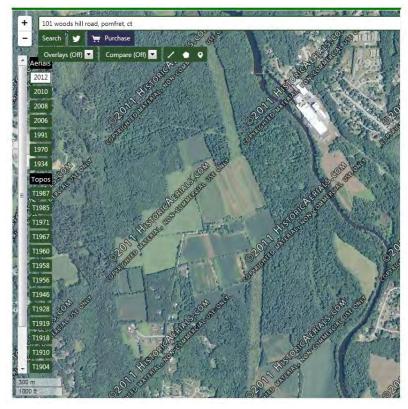
Want to compare 1934, 1990, 2004, 2008, 2008, and 2012 using a transpancey tool? Check out our Connecticut Aerial Photography Interactive Map Interface

\*Attention ArcGIS and other GIS software users! The 1934 Aerial Photography layer is available via MAGIC's WMS.



# Woods Hill Road Solar Project (Pomfret) Historic Mapping - 1970 and 2012 Aerial Photos [Source: Historic Aerials.com]





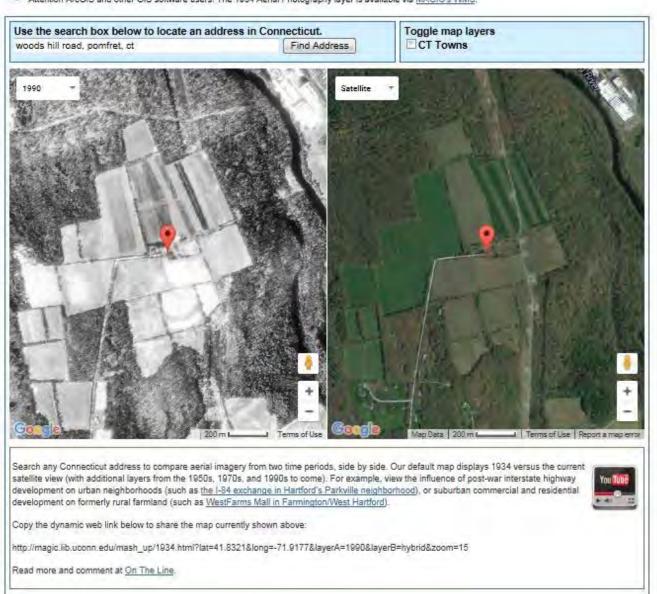
# Woods Hill Road Solar Project (Pomfret) Historic Mapping - 1990 and 2012 Aerial Photos



# Neighborhood Change in Connecticut, 1934 to Present

Want to compare 1934, 1990, 2004, 2006, 2008, and 2012 using a transpancey tool? Check out our Connecticut Aerial Photography Interactive Map Interface

Attention ArcGIS and other GIS software users! The 1934 Aerial Photography layer is available via MAGIC's WMS.



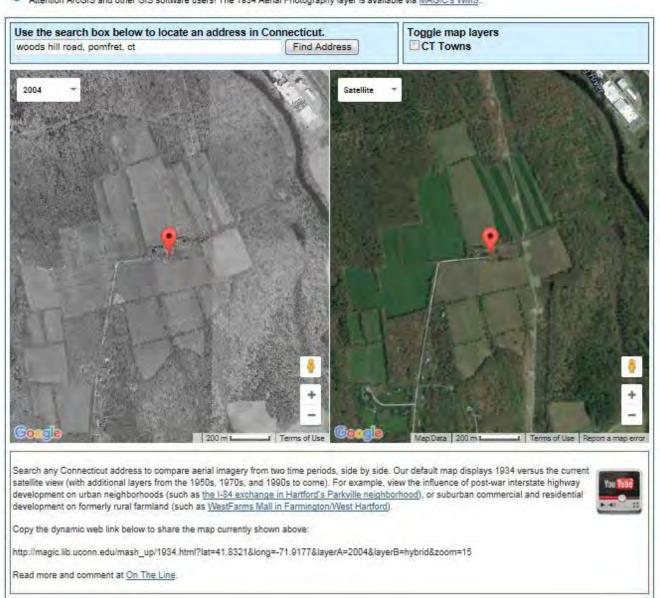
# Woods Hill Road Solar Project (Pomfret) Historic Mapping - 2004 and 2012 Aerial Photos



# Neighborhood Change in Connecticut, 1934 to Present

Want to compare 1934, 1990, 2004, 2006, 2008, and 2012 using a transpancey tool? Check out our Connecticut Aerial Photography Interactive Map Interface

Attention ArcGIS and other GIS software users! The 1934 Aerial Photography layer is available via MAGIC's WMS.



# Woods Hill Road Solar Project (Pomfret) Historic Mapping - 2006 and 2012 Aerial Photos



### Neighborhood Change in Connecticut, 1934 to Present

Want to compare 1934, 1990, 2004, 2006, 2008, and 2012 using a transpancey tool? Check out our Connecticut Aerial Photography Interactive Map Interface

Attention ArcGIS and other GIS software users! The 1934 Aerial Photography layer is available via MAGIC's WMS.



**Appendix C** Site Photographs



**Photo 1:** Parcel B - View of the western farm field, facing west toward the proposed tree removal area and parcel boundary (9/08/2015).



**Photo 2:** Parcel B - View of the tree line within the southern field, facing north (9/8/2015).



**Photo 3:** View of the southwestern farm field in Parcel B, facing southeast (9/8/2015).



**Photo 4:** Parcel B - View of the southern farm field, facing east toward Woods Hill Road (9/8/2015).



**Photo 5:** Parcel B – Representative view of the proposed tree removal area within northern forested portion of parcel and within mapped NDDB polygon, facing east (9/10/2015).



**Photo 6:** Parcel B – Representative view of the proposed tree removal area near northern parcel boundary, facing east (9/10/2015).



**Photo 7:** Parcel A - View of the northern farm field, facing southwest toward Woods Hill Road and parcel boundary (9/23/2015).



**Photo 8:** Parcel A - View of the transmission line and farm field located outside (and east of) the Project Boundary, facing south (9/25/2015).

Tighe&Bond



**Photo 9:** Parcel A - View of the transmission line located outside (and east of) the Project Boundary, facing north (9/25/2015).



**Photo 10:** Parcel A - View of the proposed tree removal area and eastern Project Boundary from the transmission line Right of Way, facing west (9/25/15).



**Photo 11:** Parcel A – Representative view of the forested area outside (and east of) the Project Boundary and transmission line ROW in the eastern portion of the parcel. View facing east (9/25/2015).



**Photo 12:** Parcel A - View of the vegetated access road outside (and east of) the Project Boundary and along the northern parcel boundary, facing east (9/25/15).

# Appendix D

Property Record Cards and Tax Maps

# 90 WOODS HILL RD

**Location** 90 WOODS HILL RD **Assessment** \$14,050

**Mblu** 43/ A/ 004.00/ / **Appraisal** \$673,500

Acct# T0167000 PID 1904

Owner TYLER CHARLES H & WILLIAM F Building Count 1

III

## **Current Value**

Appraisal				
Valuation Year	Improvements	Land	Total	
2014	\$0	\$673,500	\$673,500	
	Assessment			
Valuation Year	Improvements	Land	Total	
2014	\$	914,050	\$14,050	

## **Owner of Record**

 Owner
 TYLER CHARLES H & WILLIAM F III
 Sale Price
 \$0

 Co-Owner
 DBA TYLER BROTHERS
 Certificate

**Book & Page** 0233/0175

**Sale Date** 10/28/2004

Instrument 1J

## **Ownership History**

Ownership History					
Owner	Sale Price	Certificate	Book & Page	Instrument	Sale Date
TYLER CHARLES H & WILLIAM F III			0233/0175	13	10/28/2004
TYLER WILLIAM F JR & CHARLES H WM III	\$0		0057/0239		02/05/1987
ALMADA JOAQUIM C			0038/0539		06/18/1963

# **Building Information**

Year Built:

# **Building 1 : Section 1**

Living Area: 0

Replacement Cost Less Depreciation: \$0

Building Attributes

Field Description

Style Vacant Land

Model

Stories:

# **Building Photo**

Occupancy	
Exterior Wall 1	
Exterior Wall 2	
Roof Structure:	
Roof Cover	
Interior Wall 1	
Interior Wall 2	
Interior Flr 1	
Interior Flr 2	
Heat Fuel	
Heat Type:	
AC Type:	
Total Bedrooms:	
Full Baths:	
Half Baths:	
Xtra Fixtrs:	
Total Rooms:	
Extra Kitchens	
Whirlpool	
Fireplace	
Xtra Opening	
Blocked FPL	
Gas Fireplace	



(http://images.vgsi.com/photos/PomfretCTPhotos//default.jpg)

# **Building Layout**



# **Extra Features**

Extra Features	<u>Legend</u>
No Data for Extra Features	

# Land

Land Use		Land Line Valua	ition
Use Code	7130	Size (Acres)	113.6
Description	490 - Till D	Frontage	0
Zone	СВ	Depth	0
Neighborhood	0075	<b>Assessed Value</b>	\$14,050
Alt Land Appr	No	Appraised Value	\$673,500
Category			

# Outbuildings

Outbuildings	Legend
No Data for Outbuildings	

# **Valuation History**

Appraisal				
Valuation Year	Improvements	Land	Total	
2013	\$0	\$673,500	\$673,500	
2012	\$0	\$673,500	\$673,500	
2011	\$0	\$673,500	\$673,500	

Assessment				
Valuation Year	Improvements	Land	Total	
2013	\$0	\$14,050	\$14,050	
2012	\$0	\$14,050	\$14,050	
2011	\$0	\$14,050	\$14,050	

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# **101 WOODS HILL RD**

Location 101 WOODS HILL RD Assessment \$19,760

**Mblu** 43/ A/ 005.00/ / **Appraisal** \$565,500

K0076800 **PID** 1905 Acct#

Owner CRISTINA JUANITA R & SHEILA S **Building Count** 1

NABOZNY

## **Current Value**

Appraisal					
Valuation Year	Improvements	Land	Total		
2014	\$0	\$0 \$565,500 \$565,5			
	Assessment				
Valuation Year	Improvements	Land	Total		
2014	\$	\$19,760	\$19,760		

## **Owner of Record**

Owner CRISTINA JUANITA R & SHEILA S NABOZNY Sale Price \$0 Co-Owner Certificate

**Book & Page** 0165/0210

Sale Date 11/30/2000

# **Ownership History**

	Ownership History			
Owner	Sale Price	Certificate	Book & Page	Sale Date
CRISTINA JUANITA R & SHEILA S NABOZNY			0165/0210	11/30/2000
KIMBALL HARVEY C ESTATE OF	\$0		0052/0299	05/27/1982

# **Building Information**

#### **Building 1: Section 1**

Year Built: **Living Area:** 0

**Replacement Cost Less Depreciation:** \$0

<b>Building Attributes</b>		
Field	Description	
Style	Vacant Land	
Model		
Stories:		
Occupancy		
Exterior Wall 1		

# **Building Photo**

Exterior Wall 2	
Roof Structure:	
Roof Cover	
Interior Wall 1	
Interior Wall 2	
Interior Flr 1	
Interior Flr 2	
Heat Fuel	
Heat Type:	
AC Type:	
Total Bedrooms:	
Full Baths:	
Half Baths:	
Xtra Fixtrs:	
Total Rooms:	
Extra Kitchens	
Whirlpool	
Fireplace	
Xtra Opening	
Blocked FPL	
Gas Fireplace	



(http://images.vgsi.com/photos/PomfretCTPhotos//default.jpg)

#### **Building Layout**



#### **Extra Features**

Extra Features	<u>Legend</u>
No Data for Extra Features	

# Land

Land Use		Land Line Valuation	
Use Code	7130	Size (Acres)	110.69
Description	490 - Till D	Frontage	0
Zone	CB/RR	Depth	0
Neighborhood	0075	Assessed Value	\$19,760
Alt Land Appr	No	Appraised Value	\$565,500
Category			

# Outbuildings

Outbuildings	<u>Legend</u>
No Data for Outbuildings	

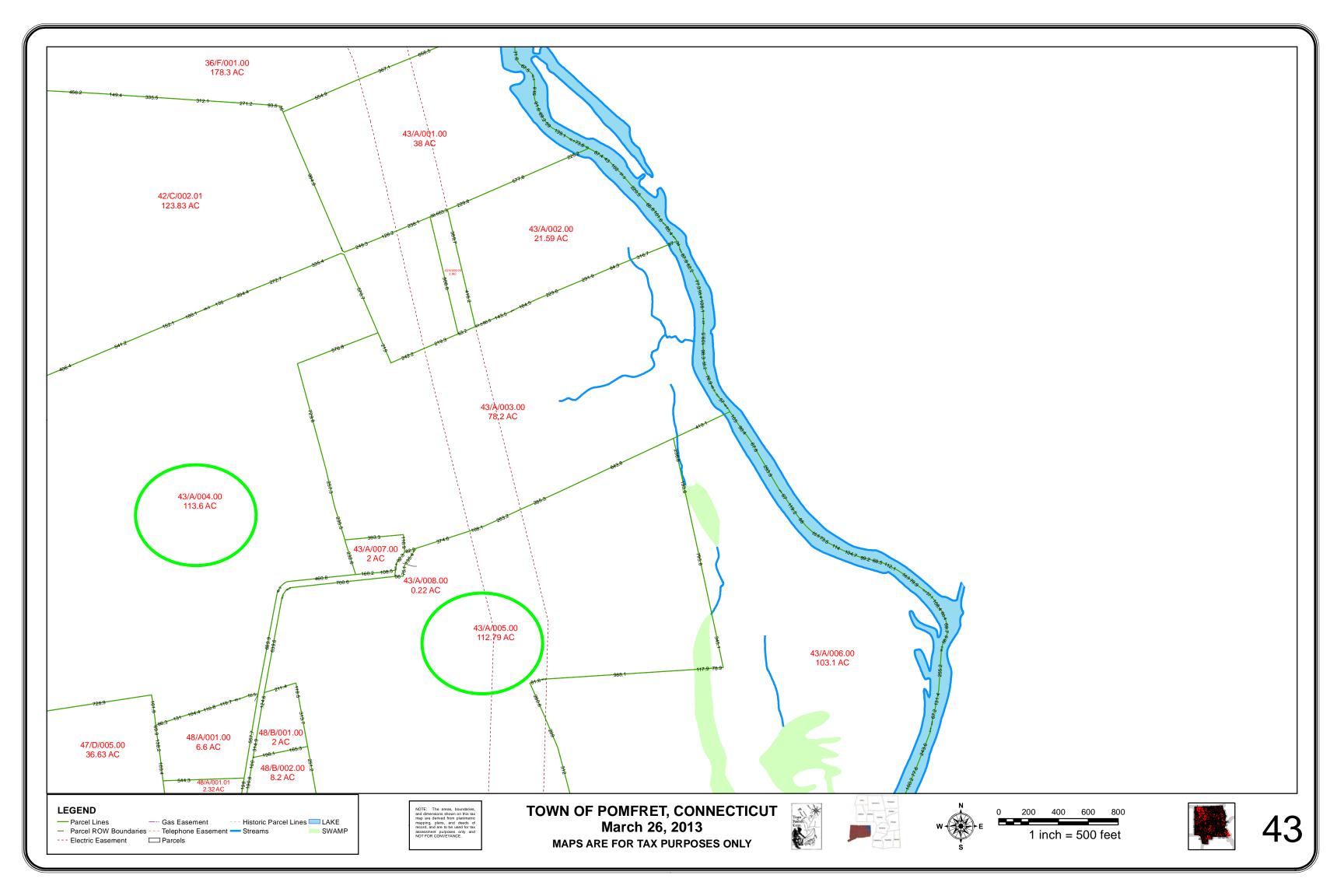
# **Valuation History**

į	
	Appraisal

Valuation Year	Improvements	Land	Total
2013	\$0	\$575,800	\$575,800
2012	\$0	\$575,800	\$575,800
2011	\$0	\$575,800	\$575,800

Assessment			
Valuation Year	Improvements	Land	Total
2013	\$0	\$20,090	\$20,090
2012	\$0	\$20,090	\$20,090
2011	\$0	\$20,090	\$20,090

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# TO WHOM IT MAY CONCERN

The following archaeologists, as known to us, meet the professional qualification guidelines of the National Park Service (36 CFR 61):

# ACS [Archaeological Consulting Services]

Attn: Dr. Gregory Walwer 10 Stonewall Lane

Guilford, CT 06437-2949 Phone: 203-458-0550

Fax: 203-672-2442 acsinfo@yahoo.com

# American Cultural Specialists LLC

Attn: Lucianne Lavin, Ph.D. 755 Riverside Avenue Torrington, CT 06790

Phone: 860-626-8210 Fax: 877-903-0269 Luci.ACS@pobox.com

# Archaeological & Historical Services

Attn: Ms. Mary Harper

PO Box 543 Storrs, CT 06268

Phone: 860-429-2142 Fax: 860-429-1724 mharper@ahs-inc.biz

# **Aspetuck Landways**

Attn: Dr. Stuart A. Reeve

PO Box 11024

Greenwich, CT 06831 Phone: 203-470-7874 Sareeve2000@yahoo.com

# Marc L. Banks, Ph.D., LLC

11 Lincoln Lane

Weatogue, CT 06089 Phone: 860-658-7482 Fax: 860-658-7482 banksmarc@sbcglobal.net

# **BL** Companies

Attn: Mr. Jonathan Libbon 355 Research Parkway Meriden, CT 06450 Phone: 717-943-1672 jlibbon@blcompanies.com

# Gray & Pape Inc.

Attn: Mr. Patrick O'Bannon 60 Valley Street, Suite 103 Providence, RI 02909 Phone: 401-273-9900 Fax: 401-273-9944 pobannon@graypape.com

# Hartgen Archaeological Associates Inc.

Attn: Mr. Matthew Kirk 1744 Washington Avenue Ext. Rensselaer, New York 12144

Phone: 518-283-0534 Fax: 518-283-6276 mkirk@hartgen.com

# Heritage Consultants LLC

Attn: Nicholas Griffis, M.A. P.O. Box 310249

Newington, CT 06131 Phone: 860-667-3001 Fax: 860-667-3008

info@heritage-consultants.com

# **Historical Perspectives Inc.**

Attn: Ms. Cece Saunders Historical Perspectives, Inc.

P. O. Box 529 Westport, CT 06881

Phone: 203-226-7654

cece@historicalperspectives.org



# Department of Economic and Community Development



# Sarah L Holmes, PhD

31 Mistuxet Ave Mystic, CT 06355 Phone: 860-501-1446

slh@att.net

Louis Berger Group Inc.

Attn: Dr. Hope Luhman, Cultural

Resources

20 Corporate Woods Boulevard

Albany, NY 12211 Phone: 518-514-9303 Fax: 518-514-0731 hluhman@louisberger.com

JMA, a CCRG Company

Attn: Mr. Martin Dudek 410 Great Pond Road, Suite B-14

Littleton, MA 01460 Phone: 978-793-2579

mdudek@johnmilnerassociates.com

Public Archaeology Laboratory Inc.

Attn: Ms. Deborah Cox

26 Main Street Pawtucket, RI 02860

Phone: 401-728-8780

Fax: 401-728-8784

dcox@palinc.com

Public Archaeology Survey Team Inc.

Attn: Ms. Mary Harper

PO Box 209 Storrs, CT 06268

Phone: 860-429-1723 Fax: 860-429-9454 mharper@past-inc.org

R. Christopher Goodwin & Associates, Inc.

Attn: Jeffrey H. Maymon 241 East 4<sup>th</sup> Street, Suite 100 Frederick, Maryland 21701 Phone: 301-694-0428

Fax: 301-695-5237

imaymon@regoodwin.com

Raber Associates

Attn: Dr. Michael S. Raber 81 Dayton Road, PO Box 46 South Glastonbury, CT 06073

Phone: 860-633-9026 Fax: 860-633-9026 msraber@aol.com

Cosimo Sgarlata, Ph.D.

1 Roscoe Street Norwalk, CT 06851 Phone: 203-847-5882 Sgarlata@wcsu.edu

This information updates and supersedes all previous material provided by the State Historic Preservation Office with respect to the identification of archaeological consultants. Further, this list has been arranged alphabetically; no preferential rating or evaluation should be inferred. The State Historic Preservation Office does not recommend, endorse, or assume responsibility for the quality of work for any individual or firm on this list, nor is there any guarantee, implicit or implied, that any work product produced by those on this list will necessarily meet federal and state requirements.

At its discretion, the State Historic Preservation Office may remove consultants from its informational list if no work has been undertaken in Connecticut over a three year period.

For further information please contact Catherine Labadia, Staff Archaeologist, at <a href="mailto:catherine.labadia@ct.gov">catherine.labadia@ct.gov</a>

Revised 4/15

# **EXHIBIT L**:

**Environmental Assessment** 







# Environmental Assessment

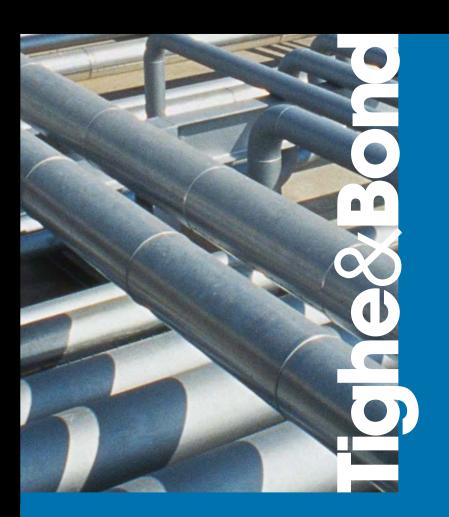
Solar Facility Installation Woods Hill Solar Project

Pomfret, Connecticut

Prepared For:

Woods Hill Solar, LLC

March 2016



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# Section 1 Project Introduction

Woods Hill Solar, LLC retained Tighe & Bond, a full service engineering and environmental consulting firm, to prepare this Environmental Assessment ("EA") for the proposed installation of an approximately 22 MW (DC) / 17.61 MW (AC) solar ground-mounted solar photovoltaic system in the Town of Pomfret, Connecticut (the "Project"). Figure 1, Project Location Map, depicts the Project location and surrounding area.

This EA has been completed to support RES' submission of a Petition for Declaratory Ruling that no Certificate of Environmental Compatibility and Public Need is required for the construction, maintenance, and operation of the Project.

The "Site", as defined herein, consists of two separate and abutting parcels (Parcel A and Parcel B) located near the terminus of Woods Hill Road in Pomfret, Connecticut. Parcel A (approximately 115 acres) is located to the south/ east of the terminus of Woods Hill Road. Parcel B (approximately 113 acres) is located to the north/ west of Woods Hill Road. The total Site area is approximately 228 acres. As proposed, the limit of work of the proposed project will occupy approximately 102 acres of the 228-acre project Site (42.78 acres of Parcel A and 59.67 acres of Parcel B). 50% of the project footprint is secured under an Option-to-Purchase agreement and 50% is secured under an Option-to-Lease agreement.

The proposed solar facility will include the following:

- Approximately 69,882 315 watt solar PV modules (4 x 5 landscape layout)
- Driven metal post foundation system. Racks will run east-west and will be mounted facing south at a fixed 25 degree angle to ground surface. The rows of racks will be spaced approximately 16 feet apart.
- Construction of a new 12'-wide gravel access road
- Installation of 10 reinforced concrete electrical equipment pads (32' x 48') to support inverters, switchgear and a transformer
- Selective vegetation clearing on both parcels
- Vegetation screening is proposed at two locations along Woods Hill Road and a third location is proposed within Parcel A
- Underground conduits will convey power from the equipment pads to the interconnect location.

In totality, the "Project Area" would encompass approximately 102 acres to accommodate the solar arrays, associated equipment, access and tree-free zones (to mitigate shading effects). This will require clearing of approximately 16 acres of existing upland forest.

Figures depicting the project area are provided in Appendix A. A soil report describing delineated wetlands is provided in Appendix B. Site photographs and a Photo Location Key are provided in Appendix C.

# 1.1 Photovoltaic System Description

The project design prioritizes minimizing potential impacts to wetland resource areas, while considering Pomfret zoning regulations, cost implications, system operation, array constructability, and ongoing operation and maintenance factors. The following table presents a summary of the details of the solar array.

**TABLE 1-1** Solar System Summary

SYSTEM SUMMARY		
System Size:	22.01 MW (DC)/ 17.61(AC)	
Racking System:	Driven Racking System (Racking approximately 16 ft. apart)	
Photovoltaic Modules:	(69,882) 315 watt solar PV modules (4 X 5 landscape layout)	
Inverters:	Approximately (#) 2.2MVA Inverters	
Transformer:	Not specified at this time	
Tilt Angle:	25°	
Data System:	Data Acquisition System (DAS) for remote monitoring – Model to be determined.	

# 1.2 Project Schedule

The preliminary schedule for the project is presented below:

**TABLE 1-2**Project Schedule

Project Schedule Project Phase	Timeframe
System Design	September 2015 – March 2016
CSC Siting Council/ Permitting	April 2016 – June 2016
Interconnection Study/ Approval	November 2015 – May 2016
Procurement	June 2016 – September 2016
Construction	June 2016 – December 2016

# Section 2 Existing Conditions

Figure 2, Existing Conditions Map, depicts current conditions on the Site, access, abutting properties, and several key features discussed herein. The purpose of this section is to describe current conditions on the Site. A detailed discussion of the proposed Project's effects on the environment is provided in the following section of this document.

# 2.1 Project Location

Parcel A (approximately 115 acres) is located to the south/ east of the terminus of Woods Hill Road. Parcel B (approximately 113 acres) is located to the north/ west of Woods Hill Road. The total Site area is approximately 228 acres. The Site is identified by the Pomfret Tax Assessor as two separate and abutting parcels, including:

- #90 Woods Hill Road (MBLU 43/A/004); and,
- #101 Woods Hill Road (MBLU 43/A/005).

The Site consists of relatively flat, cleared, agricultural land with frontage off of Woods Hill Road. Stone walls traverse portions of the agricultural land on both parcels. The Site is located just north of the municipal boundary between Pomfret and Brooklyn, Connecticut. Wooded areas surround the agricultural fields on both parcels. A large Eversource transmission line and right of way traverse Parcel A to the east of the cleared portion. The Quinebaug River is located approximately 1,200 feet to the east of the agricultural land on Parcel A. White Brook is located west of Parcel B.

On Parcel A, site topography in the area proposed for development slopes down generally north to south and north to east from a height of approximately 380 feet to 310 feet North American Vertical Datum of 1988 (NAVD88). On Parcel B, site topography in the area proposed for development slopes down generally east to west from a height of approximately 386 feet to 270 feet NAVD88.

# 2.2 Site Access

Access to both parcels is via Woods Hill Road.

# 2.3 Wetland Delineation

On December 5 and December 23, 2015, Matthew Davison, a Connecticut-registered Soil Scientist with Tighe & Bond, reviewed and confirmed wetland boundaries located within 100 feet of the proposed development at the site. The initial wetland delineations were conducted by Tighe & Bond wetland scientists on multiple days in September 2015 (September 1, September 8, September 10, September 23 and September 25, 2015).

Four (4) wetlands and one intermittent watercourse were delineated/ mapped within the vicinity of the project site. The wetlands are summarized below and the wetlands/ watercourse are depicted on the Existing Conditions figure (Figure 2, Appendix A). A copy of the Tighe & Bond Soil Report is included as Appendix B. Matt Davison's resume is provided in Appendix E.

Note that an additional wetland (Wetland 5), described in Section 2.4.1 below was not delineated based on its distance from the proposed limit of work.

**Wetland 1**: The delineated wetland area is characterized as a large forested, hillside seepage (groundwater discharge) wetland (PFO1) located on the west side of a drumlinoid landform that is comprised of thick till. This wetland receives surface water runoff from the upgradient forest and farm fields and drains towards a large emergent wetland and White Brook located off-site to the west. Indicators of both diffuse and channelized (intermittent watercourses) surface water movement were observed throughought the delineated wetland area; however, no surface water was present at the time of the delineation.

**Wetland 2**: Wetland 2 is a small isolated forested wetland with a seasonally saturated hydrology. This wetland was not delineated.

**Wetland 3**: The delineated wetland is characterized as a narrow hillside seepage (groundwater discharge) wetland and intermittent watercourse that collects runoff from the upgradient, till dominated agricultural fields. This wetland forms within a hedgerow between adjacent agricultural fields and discharges downslope to a forested area along the southern site boundary.

**Wetland 4**: The delineated wetland is a small area located in an abandoned access road between farm fields in the northeastern parcel boundary.

# 2.4 Habitat Types

A wildlife habitat assessment was conducted at the site in December 2015 by Eric Davison, Davison Environmental LLC. Mr. Davison is a Wildlife Biologist, Certified Professional Wetland Scientist and Registered Soil Scientist. Eric Davison's resume is provided in Appendix E. There was no snow cover at the time the assessment was completed. The assessment included wetland and upland habitat types, preliminary potential vernal pool evaluation, breeding bird inventory, and breeding bird impact assessment and protection measures.

# 2.4.1 Wetland Habitats

Five wetland habitat areas occur on the site; two on the northern parcel and three on the southern parcel. Table 2-1 summarizes the wetland type and hydrologic regime. Table 2-2 lists the dominant plant species present in each wetland habitat type. The characteristics of each of the five wetlands is described in the following sections.

**Table 2-1: Summary of Wetland and Watercourse Characteristics** 

Wetland #	Habitat Type	Hydrologic Regime
1	Forested	SS
2	Forested	SS
3	Shrub/forested	SS
4	Wet meadow	SS
5	Forested/shrub/marsh	SF

# Wetland Hydrologic Regimes

- (SS) Seasonally saturated the soil is saturated to the surface, especially early in the growing season, but unsaturated conditions prevail by the end of the season in most years. Surface water is absent except for groundwater seepage and overland flow.
- (SF) Seasonally flooded surface water is present for extended periods, especially early in the growing season, but is absent by the end of the season in most years. When surface water is absent, the water table is often near the land surface.

Table 2-2: Dominant Plant Species, Wetland Habitat Types

Forested Wetland		
Trees	Shrubs	Herbs, vines, and other groundcover
Pin Oak (Quercus palustris)	Skunk Cabbage (Symplocarpus foetidus)	Sphagnum Moss ( <i>Sphagnum flexuosum</i> )
Red Oak ( <i>Quercus rubra</i> )	Winterberry (Ilex verticillata)	Cinnamon Fern Osmundastrum cinnamomeum)
Swamp White Oak ( <i>Quercus bicolor</i> )	Sweet Pepperbush (Clethra alnifolia)	Sensitive Fern ( <i>Onoclea sensibilis</i> )
Red Maple (Acer rubrum)	Highbush Blueberry (Vaccinium corymbosum)	Tussocks Sedge (Carex stricta)
American Elm ( <i>Ulmus Americana</i> )	Bramble (Rubus fruticosus)	Grapevine (Vitis sp.)
	Japanese Barberry ( <i>Berberis thunbergii</i> )	Goldenrod (Solidago)
	Spicebush (Lindera benzoin)	Arrowleaf Tearthumb (Polygonum sagittatum)
	Burning bush ( <i>Euonymus alatus</i> )	Reed Canary Grass ( <i>Phalaris arundinacea</i> )
	Speckled Alder (Alnus incana)	
Marsh/Shrub Swamp		
	Shrubs	Herbs, vines, and other groundcover
Limited trees present	Buttonbush (Cephalanthus occidentalis) Silky Dogwood (Cornus amomum)	Reed Canary Grass ( <i>Phalaris arundinacea</i> ) Sensitive Fern ( <i>Onoclea sensibilis</i> )
	Winterberry (Ilex verticillata)	Tussocks Sedge (Carex stricta)
	Sweet Pepperbush (Clethra alnifolia) Highbush Blueberry (Vaccinium corymbosum)	

#### Wetland 1

Wetland 1 is a large groundwater slope wetland¹ located in the Northwest portions of the site and consists of a young Red Maple (*Acer rubrum*) dominated tree canopy with a dense Japanese Barberry (*Berberis thunbergii*) understory. The topography is sloping throughout, resulting in a seasonally saturated hydrology with abundant groundwater seeps and shallow surface rills. The steep topography is also of important note, as it is highly unlikely for vernal pools to develop in this wetland. In the lower reaches of the wetland, a small unnamed headwater stream develops and flows north into White Brook. The stream is deeply incised, and the southern (upper) reaches of the stream have a boulder channel with permanent flow. At the stream's confluence with White Brook within the extreme northwest corner of the site, the wetland is not forested, but rather a speckled alder shrub swamp with a narrow bordering floodplain marsh.

Beyond the main body of the wetland, Wetland 1 includes several easterly extensions in which the wetland climbs up the slope within narrow drainageways. These areas are characterized by steep slopes and small eroded and braided intermittent streams. Wetland topsoil is thin throughout which is consistent with wetlands in recent agricultural use.

# Wetland 2

Wetland 2 is a very small isolated groundwater slope forested wetland with a seasonally saturated hydrology. This wetland has identical physical, hydrologic and vegetative characteristics as Wetland 1. The wetland has a small watershed, and therefore the groundwater discharge zone is small in extent and the volume of discharge is small, and as a result the surface flows are quickly captured and infiltrated back into the ground as opposed to flowing downslope into Wetland 1.

#### Wetland 3

Wetland 3 lies in the southerly portion of the southern parcel within a cornfield and adjacent hedgerow, extending south into a forested area. The northerly portions of the wetland are marginally wet and consist predominately of an eroded intermittent watercourse. Within the southerly forested portions, the wetland consists entirely of a well-defined and deeply eroded intermittent watercourse which flows in a southerly direction through mixed hardwood forest. Vegetation throughout the wetland is predominantly non-hydrophytic.

# Wetland 4

Wetland 4 is a wet meadow that lies along the northeast boundary of the southern parcel at the edge of a cornfield. The wetland is small and marginally wet (hydrologically). The wetland has a seasonally saturated hydrology. Soils are noted as graded and disturbed, with vegetation consisting of mostly multiflora rose, mugwort, and autumn olive.

#### Wetland 5

Wetland 5 is a large forested wetland at the southeast corner of the site. The wetland is a groundwater depression wetland with a seasonally flooded hydrology. Hydrologic surface indicators suggest deep flooding (maximum flooding in excess of 1 foot). The wetland contains a matrix of emergent marsh, shrub swamp and forested cover types. The wetland contains two possible vernal pools along the western perimeter (illustrated as PVP1 and PVP2 on the map) as described in Section 2.5.

<sup>1</sup> Groundwater slope wetlands are wetlands that develop on hillsides where groundwater discharges to the surface as springs and seeps (Mitsch and Gosselink, 2007).

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# 2.4.2 Upland Habitats

Four upland habitat types are present on the site: hayfield (with hedgerows), old field, mixed hardwood forest, and cornfield. Dominant vegetation present in the mixed hardwood forest and old field habitats are listed in Table 2-3. The hayfields are dominated by cool-season Eurasian feed grasses, mainly orchard grass (*Dactylis glomerata*) with quackgrass also occurring (*Elymus repens*). The cornfield is in active rotation, with the margins of the field consisting of a mixture of weeds, forbs and grasses.

Table 2-3: Dominant Plant Species, Upland Habitat Types

Mixed Hardwood Forest					
Trees	Shrubs	Herbs, vines, and other groundcover			
Red Oak (Quercus rubra)	Barberry (Berberis)	Christmas Fern (Polystichum acrostichoides)			
White Pine (Pinus strobus)	Witch-Hazel (Hamamelis)	Asiatic Bittersweet (Celastrus orbiculatus)			
Gray Birch (Betula populifolia)	Eastern Red Cedar (Juniperus virginiana)	Pennsylvania Sedge (Carex pensylvanica)			
Sugar Maple (Acer saccharum)	Multiflora Rose (Rosa multiflora)	Cinnamon Fern Osmundastrum cinnamomeum)			
Hophornbeam (Ostrya)	Highbush Blueberry (Vaccinium corymbosum)	Wood Fern ( <i>Dryopteris</i> )			
White Oak ( <i>Quercus alba</i> )	Bush Honeysuckle (Diervilla)				
Black Oak (Quercus velutina)	Bramble (Rubus fruticosus)				
Tulip ( <i>Liriodendron tulipifera</i> )	Black Cherry ( <i>Prunus serotina</i> )				
Red Maple (Acer rubrum)					
Bigtooth Aspen ( <i>Populus grandidentata</i> ) Musclewood					
(Carpinus caroliniana)					
Shagbark Hickory (Carya ovata)					
Old Field and Hedgerows					
Trees	Shrubs	Herbs, vines, and other groundcover			
Apple ( <i>Malus domestica</i> )	Multiflora Rose (Rosa multiflora)	Mugwort (Artemisia vulgaris)			
Black Cherry ( <i>Prunus serotina</i> )	Autumn Olive ( <i>Elaeagnus umbellata</i> )	Meadowsweet (Spirea tomentosa)			
	Little Bluestem (Schizachyrium scoparium)	Goldenrod (Solidago)			
	Highbush Blueberry ( <i>Vaccinium corymbosum</i> )	Indiangrass (Sorghastrum nutans)			
	Lowbush Blueberry (Vaccinium angustifolium)	Aster (Aster sp.)			
	Eastern Red Cedar (Juniperus virginiana)	Haircap Moss ( <i>Polytrichum commune</i> )			
	Speckled Alder (Alnus incana)	Winter Rye (cover crop)			
	Bramble (Rubus fruticosus)	(Phytolacca Americana)			
	Bush Honeysuckle ( <i>Diervilla</i> )				
		Grapevine (Vitis sp.)			
		Knotweed (Fallopia japonica)			

# 2.5 Vernal Pools

Calhoun and Klemens (2002) provides the following operational definition of vernal pools:

Vernal pools are seasonal bodies of water that attain maximum depths in the spring or fall, and lack permanent surface water connections with other wetlands or water bodies. Pools fill with snowmelt or runoff in the spring, although some may be fed primarily by groundwater sources. The duration of surface flooding, known as hydroperiod, caries depending upon the pool and the year; vernal pool hydroperiods range along a continuum from less than 30 days to more than one year. Pools are generally small in size (<2 acres), with the extent of vegetation varying widely. They lack established fish populations, usually as a result of periodic drying, and support communities dominated by animals adapted to living in temporary, fishless pools. In the region, they provide essential breeding habitat for one or more wildlife species including Ambystomid salamanders (Ambystoma spp., called "mole salamanders" because they live in burrows), wood frogs (Rana sylvatica), and fairy shrimp (Eubranchipus spp.).

Vernal pool physical characteristics can vary widely while still providing habitat for indicator species. "Classic" vernal pools are natural depressions in a wooded upland with no hydrologic connection to other wetland systems. Often, vernal pools are depressions or impoundments within larger wetland systems. These vernal pool habitats are commonly referred to as "cryptic" vernal pools.

Several species of amphibians depend on vernal pools for reproduction and development. These species are referred to as indicator vernal pool species and their presence in a wetland during the breeding season helps to identify that area as a vernal pool.

Two potential vernal pools (PVPs) were identified on the site. These PVPs are cryptic vernal pools embedded within Wetland 5 which straddles the easterly boundary of the southern parcel. The limits of these PVPs were mapped in the field on December 16, 2015 by wildlife biologist Eric Davison of Davison Environmental, LLC. The seasonal high water mark (based on surface water indicators) of the pools was field located using a Trimble GPS unit capable of sub-meter accuracy and plotted in GIS as illustrated on Figure 3.

These PVPs are large in size and likely have a long hydroperiod capable of supporting a wide array of vernal pool indicator species as well as other wetland-dependent herpetofauna.

Potential vernal pool indicator species include wood frog (*Lithobates sylvatica*) and spotted salamander (*Ambystoma maculatum*). Potential facultative vernal pool species and other herpetofauna include gray treefrog (*Hyla versicolor*), red-spotted newt (*Notopthalmus viridescens*), spring peeper (*Pseudacris crucifer*), green frog (*Lithobates clamitans*), pickerel frog (*Lithobates palustris*), American toad (*Bufo americanus*), snapping turtle (*Chelydra serpentina*), as well as the recently state-listed (special concern) spotted turtle (*Clemmys guttata*). Wetlands 1, 2, 3 and 4 do not have a hydrology suitable to support amphibian breeding by species requiring seasonal flooding, but are suitable for two common salamanders associated with streams and seeps, the two-line salamander (*Eurycea bislineata*) and dusky salamander (*Desmognathus fuscus*).

Additional field work will be completed in early Spring 2016 and the results provided to the CSC.

# 2.6 Breeding Bird Inventory

An inventory of breeding birds was developed by wildlife biologist Eric Davison of Davison Environmental, LLC based on field observations on December 4<sup>th</sup> and 16<sup>th</sup> 2015. The inventory includes all birds that are reasonably expected to breed on the site based on the presence of suitable habitat.

All birds considered potential site breeders are listed in Table 2-5. It should be noted that this inventory does not constitute a detailed breeding bird survey, as such a survey was not possible due to the timing of the project initiation. This list was compiled primarily by reviewing published data on the breeding birds of the State. These sources were analyzed in order to develop the list of birds which were not observed but could potentially breed on the site.

The primary source utilized was *The Atlas of Breeding Birds of Connecticut* (Bevier, 1994), which is the result of a five-year study (1982-1986) of all bird species known to breed in the State. The study is the most comprehensive review to date of Connecticut's breeding birds. Additional resources utilized include DeGraaf and Yamasaki (2001) and others listed in the References section of this report. The initial inventory of potential breeding birds was generated solely based on the presence of suitable habitat. That list was then refined by considering such factors as bio-geographical distribution, the presence or absence of critical habitat features, and minimum patch size requirements. The inventory is subdivided by habitat type; a species is listed under the habitat which represents its primary breeding type. However, a species should be considered to be potentially present within the ecotones associated with their primary habitat at any given time.

This report focuses on species considered to be of high conservation priority in Connecticut as designated in the <u>2015 Connecticut Wildlife Action Plan</u>. The WAP was created to establish a framework for proactively conserving Connecticut's fish and wildlife, including their habitats. The WAP identifies species of "Greatest Conservation Need" (GCN) species that fall into three categories in descending order of significance from "most important to "very important" and finally "important". The WAP also identifies 10 key habitat types that support all of the State's GCN species.

A total of 63 birds are identified in the breeding bird inventory (see Table 2-5). This list includes a total of 26 GCN species (42%), nine (9) *important* species, eleven (11) *very important* species, and six (6) *most important* species. The majority of GCN species identified are habitat specialists (i.e., species that tend to utilize a single habitat type) as noted in Table 2-4.

Table 2-4: Greatest Conservation Need (GCN) Species by Habitat Type

Habitat Type			
Habitat Specialists			
Hayfield			
Mixed hardwood forest			
Old field			
Forested wetlands	3		
Total	19		
Habitat Generalists or Edge Species			
Mixed hardwood forest and old field			
Hayfield and old field			
Mixed hardwood forest, old field, hayfield			
Total	7		

Winter resident and late fall migrant species observed on the site include the woodcock, black-capped chickadee, northern cardinal, red-winged blackbird, American robin, blue jay, American crow, a mixed sparrow flock and red-tailed hawk.

Approximately 11 acres of old field habitat are present, and while this is relatively small, it meets the generally accepted minimal threshold of 10 acres required to support many shrubland specialists. The total size of the habitat patch is critical, as many shrubland birds are area-sensitive.

Approximately 51 acres of hayfield are present. This is considered a moderate-sized hayfield capable of supporting some grassland specialists, but is not large enough to support grassland birds that require large grasslands, such as the upland sandpiper (*Bartramia longicauda*) or grasshopper sparrow (*Ammodramus savannarum*). Another limiting factor for grassland birds is the presence of cool-season grasses as opposed to warm-season bunch grasses, which many grassland birds require for nesting. Three species of grassland birds are typically associated with a managed hayfield of this size in Connecticut; the eastern meadowlark (*Sturnella magna*), bobolink (*Dolichonyx oryzivorus*), and savannah sparrow (*Passerculus sandwichensis*) (Comins, et. al. 2003). Their ability to successfully breed is dependent entirely upon the hay cutting regime employed by the farmer. Based on Tighe & Bond's discussions with the site owner, these fields are cut three times per growing season, twice in the summer and once in the fall. Due to this intensive management regime, the likelihood of successful grassland bird nesting is low.

return arge portion of the Project area consists of active cornfield (Parcel A), and these areas offer minimal habitat for breeding birds. While birds breeding in adjacent habitats may feed on seeds within the weedy field edges or on insects in the exposed soil, the field itself is not suitable bird breeding habitat due to frequent disturbance.

Table 2-5: Potential Breeding Birds, Woods Hill Road, Pomfret

Common Name	Scientific Name	CS	Habitat Type
American Crow	Corvus brachyrhynchos		MHF, OF, HY, C
American Goldfinch	Carduelis tristis		OF, HY, C
American Kestrel	Falco sparverius	SC, MI	HY
American Redstart	Setophaga ruticilla		MHF
American Woodcock	Scolopax minor	MI	FW
Barred Owl	Strix varia		MHF, HY
Black-and-white Warbler	Mniotilta varia	I	MHF
Black-billed Cuckoo	Coccyzus erythropthalmus	VI	MHF, OF
Black-capped Chickadee	Parus atricapillus		MHF
Blue Jay	Cyanocitta cristata		MHF, C, OF
Blue-gray Gnatcatcher	Polioptila caerulea		MHF, OF
Blue-winged Warbler	Vermivora pinus	MI	OF
Bobolink	Dolichonyx oryzivorus	SC, VI	HY
Brown Creeper	Certhia americana	I	FW
Brown Thrasher	Toxostoma rufum	SC, VI	OF
Brown-headed Cowbird	Molothrus ater		HY, OF, MHF, C
Common Grackle	Quiscalus quiscula		MHF
Common Yellowthroat	Geothlypis trichas		FW, SS/M
Downy Woodpecker	Picoides pubescens		MHF
Eastern Bluebird	Sialia sialis		HY
Eastern Kingbird	Tyrannus tyrannus	I	HY, OF
Eastern Meadowlark	Sturnella magna	T, MI	HY
Eastern Wood-Pewee	Contopus virens	I	MHF
Eastern Towhee	Pipilo erythrophthalmus	VI	MHF, OF
Field Sparrow	Spizella pusilla	VI	OF, HY
Gray Catbird	Dumetella carolinensis		FW, SS/M
Great Crested Flycatcher	Myiarchus crinitus		MHF
Great Horned Owl	Bubo virginianus		MHF, HY
Hairy Woodpecker	Picoides villosus		MHF
Hermit Thrush	Catharus guttatus		MHF, FW
Hooded Warbler	Wilsonia citrina		MHF
House Wren	Troglodytes aedon		HY, OF
Indigo Bunting	Passerina cyanea	VI	OF
Louisiana Waterthrush	Seiurus motacilla	VI	FW, S
Mourning Dove	Zenaida macroura		MHF, C

Table 2-5 (Continued): Potential Breeding Birds, Woods Hill Road, Pomfret

	Scientific Name	cs	Habitat Type
Northern Cardinal	Cardinalis cardinalis		MHF, OF, C
Northern Flicker	Colaptes auratus	VI	MHF, OF HY
Northern Mockingbird	Mimus polyglottos		OF, HF, C
Northern Oriole	Icterus galbula	I	OF, HY
Ovenbird	Seiurus aurocapillus	I	MHF
Pileated Woodpecker	Dryocopus pileatus		MHF
Prairie Warbler	Dendroica discolor	MI	OF
Red-bellied Woodpecker	Melanerpes carolinus		MHF
Red-eyed Vireo	Vireo olivaceus		MHF
Red-tailed Hawk	Buteo jamaicensis		HY, MHF
Red-winged blackbird	Agelaius phoeniceus		HY
Rose-breasted Grosbeak	Pheucticus Iudovicianus	I	OF, MHF
Ruby-throated	Archilochus colubris		OF, HF
Savannah Sparrow	Passerculus sandwichensis	SC, I	HY
Scarlet Tanager	Piranga olivacea	VI	MHF
Song Sparrow	Melospiza Melodia		OF
Tree Swallow	Tachycineta bicolor		HY, C
Tufted Titmouse	Parus bicolor		MHF
Turkey Vulture	Cathartes aura		HY, OF , MHF
White-breasted Nuthatch	Sitta carolinensis		MHF
White-eyed Vireo	Vireo griseus	I	OF
Wild Turkey	Meleagris gallopavo		MHF, HY, C
Wood Duck	Aix sponsa		SS/M
Wood Thrush	Hylocichla mustelina	MI	MHF
Worm-eating Warbler	Helmitheros vermivorus	VI	MHF
Yellow Warbler	Dendroica petechia		OF, HY
Yellow-billed Cuckoo	Coccyzus americanus	VI	OF
Yellow-throated Vireo	Vireo flavifrons		MHF, OF

KEY

WAP Conservation Status: IM – Important; VI – Very Important; MI – Most Important

SC - State-listed species of special concern

Habitat Types: MHF – mixed hardwood forest; FW – forested wetland; S – stream; SS/M - shrub swamp/marsh (Wetland 3) HY – hayfield; OF – old field (utility ROW); C – cornfield (edges predominately)

## 2.7 Federal and State-Listed Species

The US Fish & Wildlife Service (USFWS) issued a Final 4(d) Rule for the Northern Long Eared Bat (NLEB) on January 14, 2016. In order to avoid an "incidental Take" as part of the project, the following tree removal activities must be avoided:

- 1. Removing a known NLEB-occupied maternity roost tree;
- 2. Tree removal within 150 feet of a known maternity roost tree between June 1 and July 31, and
- 3. Any tree removal within ¼ mile of a known "hibernacula" (caves, etc.) at any time of year.

The Petitioner is not aware of any known maternity roost trees or hibernacula in the vicinity of the project area. NDDB was contacted via email to confirm if NLEB habitat data is available. If information is not available, the Petitioner will document its attempt to find the information and move forward with the project. Generally, however, the Petitioner will avoid tree removal activities between June 1 and July 31.

CTDEEP's Natural Diversity Data Base ("NDDB") program determines the impact of land use projects on state listed species. State agencies are required to ensure that any activity authorized, funded or performed by a state agency does not threaten the continued existence of endangered or threatened species. Maps have been developed to serve as a pre-screening tool to help applicants determine if there is a potential impact to state listed species.

The NDDB maps represent approximate locations of endangered, threatened and special concern species and significant natural communities in Connecticut. The locations of species and natural communities depicted on the maps are based on data collected over the years by CT DEEP, scientists, conservation groups, and private citizens. These data are compiled and maintained in the NDDB.

The most recent CTDEEP NDDB mapping (September 2015) was reviewed to determine if any such species or rare habitats occur within the vicinity of the site. Based on the NDDB mapping, an NDDB polygon indicating the presence of a listed species or rare habitat overlaps the northeast portion of the northern parcel. An application was submitted to the CT DEEP NDDB program on December 10, 2015. A response from NDDB dated February 2, 2016 indicated that the following extant populations of species are located on or within the vicinity of the site: Hoary Bat (*Lasiurus cinereus*), Red bat (*Lasiurus borealis*), Silver-haired bat (*Lasionycteris noctivagans*) and Frosted elfin butterfly (*Callophrys irus*). Refer to Section 3.7 regarding proposed followup surveys for listed species. The time of year restriction for cutting trees for these listed bat species ranges between May and August. However, no tree removal is proposed within mapped NDDB habitat areas during this timeframe.

Additionally, five (5) state-listed bird species were identified in the breeding bird inventory. The bird species are listed in Table 2-6 below. These five species were not identified by NDDB in their response letter.

**Species** Suitable Habitat Types **Listing Status** American Kestrel Hayfield, old field Special Concern Brown Thrasher Old field Special Concern Eastern Meadowlark Hayfield **Threatened** Savannah Sparrow Hayfield Special Concern **Bobolink** Hayfield Special Concern

Table 2-6: State-Listed Birds Identified in Breeding Bird Inventory

The American kestrel inhabits a wide variety of open to semi-open habitats including meadows, grasslands, deserts, early old field successional communities, open parkland, agricultural fields, and both urban and suburban areas; regardless of dominant vegetation form present. The breeding territories are characterized by either large or small patches covered by short ground vegetation, with taller woody vegetation either sparsely distributed or lacking altogether with suitable nest trees and perches required. Typical breeding habitat in the northeast or midwest is large (>25 ha) pasture or recently fallowed field, with one or few isolated large dead trees for nesting and several potential perches (Smallwood and Bird, 2002).

Brown thrasher inhabit thickets, brushy hillsides and woodland edges in suburban and rural areas (Bevier, 1994). Maturation of forest and other factors causing loss of early successional habitat are driving the decline in this species. The Site's old field represents suitable breeding habitat for thrasher.

The bobolink, eastern meadowlark and savannah sparrow are grassland bird specialists. Small to moderate sized hayfields are utilized for nesting, with 50% incidence of occurrence in fields that are a minimum of 25 acres in size and minimum area requirement of 5-10 acres, 15-20 acres and 20-40 acres, respectively (Comins, et. al. 2001).

The bobolink is the most common grassland species in the state, although the species has been steadily declining throughout the region (Comins, et. al. 2001). The primary nesting period occurs from mid to late June but can extend into late July (Martin, et. al. 1995). Bobolink generally inhabit mesic to wet (as opposed to dry) meadows, particularly hayfields. Preferred breeding sites are older mixed grass hayfields (>8 years) that include a mosaic of grasses, sedges and broad-leaved forbs.

The eastern meadowlark inhabits upland meadows, pasture and old fields with sparse to dense grasses, preferable in low-lying areas with damp soils, thick layer of dead grass and scattered shrubs and tall forbs for song perches.

The savannah sparrow inhabits upland meadows, pasture and old fields with dense ground vegetation with a mixture of short and tall grasses in moist habitat with a thick layer of dead grass, scattered saplings, shrubs and forbs.

Because these three grassland birds nest on the ground, conventional haying techniques which typically include mechanical harvesting in June often do not allow for full maturation and fledging of young prior to hay harvesting, and as a result nests and nestlings are often destroyed during the process. As discussed in previous sections, these fields are cut three times per growing season, twice in the summer and once in the fall. Due to this intensive management regime, the likelihood of successful breeding by these grassland birds is low.

# 2.8 Water Supply Areas

Based on the CTDEEP Water Quality Classifications Map for Pomfret, CT, there are no public water supply wells proximate to the Site. The closest mapped contributing area to a public water supply is near the intersection of Woods Hill Road and Darby Road in Brooklyn, CT and south of the site. The subject parcels are not located within an Aguifer Protection Area.

# 2.9 Water Quality

Groundwater beneath the Site and within the majority of the subject parcel is classified by CT DEEP as "GA". Designated uses in GA-classified areas include existing private and potential public or private supplies of water suitable for drinking without treatment and base flow for hydraulically-connected surface water bodies.

The Site is located within the Thames River Major Drainage Basin and the Quinebaug River and White Brook Regional Basins.

The site is located within two (2) separate local drainage basins:

- The east side of the Site is associated with the Quinebaug River. This area drains generally to the east via overland flow. The drainage basin number is 3700-00-5+R1.
- The west side of the Site is associated with White Brook. The drainage basin number is 3710-18-3R1.

The Quinebaug River is classified by the CTDEEP as a Class B surface water body. Designated uses for Class B surface water bodies include habitat for fish and other aquatic life and wildlife; recreation and navigation; and industrial and agricultural water supply.

#### 2.10Scenic Areas

Connecticut State Route 169, a National Scenic Byway, is located approximately 1.75 miles west of the project site. The portion of Route 169 in Pomfret Town Center (between Bracy and Woodstock Road) is part of the Pomfret Street Historic District. The only State-designated scenic road located within the Town of Pomfret is Route 244, from Route 97 westerly to Ragged Hill Road (3.10 miles). Route 244 is approximately 4.20 miles north of the project site. No public hiking paths or other potential public non-vehicular trails were found to be present in the vicinity that would provide potential observation points of the Project.

# 2.11 Historic and Archaeological Resources

Potential historic features at the site include several stone walls. The project area is not located within a historic district.

Based on project information submitted to the Connecticut State Historic Preservation Office (SHPO) for review, the SHPO requested that a professional cultural resources assessment and reconnaissance survey be completed prior to construction. In correspondence dated January 21, 2016, the SHPO indicated that portions of the intact and relatively well-drained soils within the project area ("Area of Potential Effect") have an elevated potential to contain significant archaeological resources. The SHPO acknowledged that farming may have compromised the integrity of any archeological deposits, but this should be confirmed by subsurface examination.

Refer to Section 3.1.5 regarding scheduled completion of a Phase 1A Cultural Resources Assessment Survey to determine if the proposed project parcels, or portions thereof, possess no, low, and/or moderate to high potential to produce intact cultural deposits and/or surficial expressions of cultural resources. The results of the Phase 1A survey will determine if a subsequent Phase 1B Cultural Resources Reconnaissance Survey of the entire project area or portions of the project parcels is required.

# 2.12Geology and Soils

Bedrock geology beneath the Site is identified as the Quinebaug Formation. The Quinebaug Formation is described as gray to dark-gray, medium-grained, well-layered gneiss.

Surficial materials on the majority of the site are comprised of depositions of thick glacial till. The western portion of the site is mapped as sand and gravel. Based on the Connecticut Environmental Conditions Online (CTECO) mapper, the highest point of the project site consists of a drumlin, with a northwest to southeast axis.

Soils vary across the site. Based on a review of the NRCS Soil Survey (Appendix B), the majority of soils mapped within the project area consist of Woodbridge fine sandy loam. The Woodbridge series consists of moderately well drained loamy soils formed in compact, subglacial till. They are very deep to bedrock. They are nearly level to moderately steep soils on till plains, hills, and drumlins. Areas mapped as Prime Farmland Soils and Farmland of Statewide Importance are located within Parcels A and B.

A geotechnical investigation was conducted at the site and a report was completed in February 2016. The report contains recommendations regarding excavation/ fill and bearing surface preparation.

# 2.13Floodplain Areas

Tighe and Bond reviewed the United States Federal Emergency Management Agency ("FEMA") Flood Insurance Rate Map ("FIRM") for the Site. A FIRM is the official map of a community on which FEMA has delineated both the special hazard areas and risk premium zones applicable to the community. The area of the Site is mapped on FIRM PANEL 18 (0901630018B), dated April 17, 1985. Based upon the reviewed FIRM Map, the Site is designated as Zone C which is defined as an area of minimal flooding.

#### 2.14 Recreational Areas

The proposed solar PV array will occupy approximately 102 acres in the Town of Pomfret. Land uses in the vicinity of the Site (in Pomfret and the neighboring communities of Brooklyn and Dayville) include public and private recreational areas. The nearest recreational areas include the Natchaug State Forest located approximately 1.5 miles to the north, and Owen Bell Park approximately 1.7 miles to the northeast.

#### 2.15 Noise

A noise study has been completed for the project. Refer to Section 3.19 below and Exhibit O. The Site and vicinity is a rural, agricultural area with sparse residential development.

# 2.16Lighting

The residences have electricity and lighting.

# 2.17Coastal Zone Management Areas

The Town of Pomfret is not located within the Coastal Area or Coastal Boundary, as defined by the Coastal Management Act, CGS Section 22a-94(a).

# 2.180ther Surrounding Features

The locations of non-residential development and other resources within two miles of the Site are listed in Table 2-7 below. Figure 4 (Surrounding Features Map) depicts these locations relative to the Site.

Table 2-7. Non-Residential Features within 2 Miles of the Site

Туре	Name	Address	Town	Distance to Site
Park	Natchaug State Forest	River Road	Pomfret	1.5 miles
	Owen Bell Park	Hartford Pike	Dayville	1.7 miles
Youth Camp	None within 2 miles of the site.			
Hospital	None within 2 miles of the site.			
Airport	Danielson Airport	Airport Road	Danielson	0.8 miles
Child Day Care	Goodyear Early Childhood	Williamsville Road	Rogers	0.5 miles
Community Center	None within 2 miles of the site.			
Senior Center	None within 2 miles of the site.			
Public School	Killingly Intermediate School	Upper Maple Street	Dayville	1.1 miles
	Killingly Central School	Soap Street	Dayville	1.75 miles
	Killingly High School	Putnam Pike	Dayville	2 miles
Playground	None within 2 miles of the site.			
Historic	Dayville Historic District	Main Street	Danielson	1.5 miles
	Trinity Church	Church Street	Brooklyn	1.9 miles
	Putnam Farm	Spaulding Road	Brooklyn	1.4 miles

# Section 3 Effects on the Environment

The Project will not have any significant adverse effects on the existing environment and ecology, nor will it affect the scenic, historic and recreational resources of the vicinity. A Proposed Conditions Map is included as Figure 5.

# 3.1 Proposed Project Development

The development footprint associated with the Project, including the associated vegetation clearing, includes a total of 102 acres. To facilitate the installation of the solar arrays, associated equipment, and access, and to minimize shading of the arrays, approximately 16 acres of upland forest requires clearing and minor grading.

Proposed activities include selective vegetation clearing, construction of new gravel access roads, and installation of solar PV modules and equipment pads. Approximately  $69,882\ 315$  watt solar PV modules (4 x 5 landscape layout) will be installed.

The solar modules will be erected using a driven metal post foundation system. The racks will be installed approximately 16 feet apart. As shown on Figure 5 in Appendix B, portions of the limit of work will be located 75 feet from delineated inland wetlands. The racks will run eastwest and will be mounted facing south at a fixed 25 degree angle to ground surface.

The system will include integrated combiner and disconnect switches, and the panel wiring feeds into these switches. From the combiner box, energy will be transmitted to inverters. The subsurface conduit will convey power from the solar array to the interconnection point located along Woods Hill Road, to be determined by Eversource. A distribution interconnection request was filed with Eversource in February 2015. The point of interconnection will be located at the Tracy Road substation five miles northeast of the project site. The impact study was completed in September 2015. The facility study is anticipated to be completed in April 2016.

Approximately 10 reinforced concrete electrical equipment pads (32' x 48') will support the electrical equipment. In addition to the inverters noted above, the electrical equipment pads will also contain switchgear and a transformer that will step-up the power prior to interconnecting with Eversource's local distribution circuit. Underground conduits will convey power from the equipment pads to the interconnect location. An emergency system cut-off switch will be installed in a location designated by Eversource.

The arrays on each parcel will be accessed via new 12-foot wide access roads. The access road entrance to each parcel is on Woods Hill Road. The proposed access road will be comprised of approximately 6 inches of dense graded crushed stone or clean, uncoated aggregate base course (ABC) (per CT DEEP standards) placed above existing grades. Minor grading may be required along the proposed access road in select locations based on topography.

The project also consists of 16 acres of select removal and clearing of existing vegetation to minimize shade impacts. Portions of this work will occur approximately 75 to 100 feet from delineated inland wetlands. Erosion and sedimentation controls will be installed around the project site prior to vegetation removal. The vegetation will be cut and stumps will remain. All cut vegetation will be chipped on-site and either removed and disposed, or left in place to

further stabilize the site. The ground beneath the solar arrays will be planted with fescue species. The aisles will be planted with a low-growing solar array mix.

Vegetation screening is proposed at two locations along Woods Hill Road and a third location is proposed within Parcel A.

Select stone walls and piles within the project area will be removed as part of the clearing and site preparation process. Stone walls and piles outside of the project limit, including those demarcating property boundaries, will be maintained to the fullest extent practicable.

RES and/or its authorized subcontractors will perform site maintenance to ensure safety and prevent shading impacts. Mowing of the grass between the rows of racks may occur as needed but estimated at twice per year. No herbicides or chemicals will be used to manage vegetation.

# 3.2 Public Health and Safety

The Project would be designed to applicable industry, State, and local codes and standards and would not pose a safety concern or create undue hazard to the general public. The facility would not consume any raw materials, would not produce any by-products and would be unstaffed during normal operating conditions. There are no plans to store fuels or hazardous materials at the facility.

Overall, the Project will meet or exceed all health and safety requirements applicable to electric power generation. Each employee working on Site will:

- Receive required general and Site specific health and safety training
- Comply with all health and safety controls as directed by local and state requirements
- Understand and employ the Site health and safety plan while on the Site
- Know the location of local emergency care facilities, travel times, ingress and egress routes; and
- Report all unsafe conditions to the construction manager.

During construction, heavy equipment will be required to access the Site during normal working hours, and it is anticipated that 35 - 40 construction vehicles (average size light-duty) will make daily trips onto the Site. After construction is complete and the unstaffed facility is operable, traffic at the Site will be minimal, consisting of one trip per month on average for periodic maintenance activities.

The solar modules are designed to absorb incoming solar radiation and minimize reflectivity, such that only a small percentage of incidental light will be reflected off the panels. This incidental light is significantly less reflective than common building materials, such as steel, or the surface of smooth water. In addition, a large portion of the Project will be shielded from view due to existing vegetation, proposed landscaping and topographical conditions. The panels will be tilted up toward the southern sky at an approximate angle of 25 degrees, further reducing reflectivity.

## 3.3 Local, State and Federal Land Use Plans

The Project is consistent with local, State, and Federal land use plans, including the Pomfret Plan of Conservation and Development (2002), which outlines the need to encourage non-residential development that is environmentally sensitive. The Project also supports the State's energy policy by developing a renewable energy resource while not having a substantial adverse environmental effect. Although local land use jurisdiction over the Project is preempted by the Siting Council, the Project has been designed to meet the intent of local land use regulations to the extent feasible. The project will meet Town of Pomfret setback requirements.

There are extensive benefits that are realized by a local community both on direct jobs and indirect jobs induced in the community as a result of the project. Additionally, there will be significant sales and property tax or Payment In Lieu of Tax (PILOT) revenues which would be utilized to benefit Pomfret either to offset existing tax burdens or to provide additional services or benefits. Additionally, there are lease payments that have already begun and will continue to provide significant revenues to the landowners.

# 3.4 Existing and Future Development

The Project would benefit the community by improving electrical service for existing and future development in the Town through enhanced capacity. Other than this Project, Tighe & Bond is not aware of any current or future plans to develop the Site.

## 3.5 Roads

Gravel access roads will originate off Woods Hill Road into both Parcels A and B. The access roads will be used to conduct operation and maintenance activities.

#### 3.6 Wetlands and Watercourses

No wetlands or watercourses will be directly impacted by the Project. Activities associated with the project will occur a minimum of 75 feet from wetlands or watercourses. No work is proposed within the 300-foot Upland Review Area associated with White Brook or the 500-foot Upland Review Area associated with the Quinebaug River.

The Pomfret Inland Wetlands and Watercourses Commission (IWWC) requires a minimum distance of 120 feet from wetlands and perennial watercourses for "non-residential main-use buildings or structures". Work occurring within the 120-foot "minimal distance" is typically subject to review by the Pomfret IWWC. We understand that CSC review will address issues associated with Town of Pomfret inland wetlands review.

Short term, temporary impacts during construction will be minimized with sedimentation and erosion controls designed, installed and maintained in accordance with the 2002 *Connecticut Guidelines for Soil Erosion and Sediment Control*. RES has also prepared and will implement a Wetland Protection Plan (Appendix D) during construction to provide additional measures to avoid temporary wetland impacts.

# 3.7 Wildlife Impact Assessment

The project area, totaling approximately 102 acres, is sited within three habitat types: hayfield (43 acres), cornfield (37 acres), and mixed hardwood forest (22 acres). The project area will

result in habitat loss predominately within agricultural areas currently managed as hayfield and cornfield. The wildlife value of these areas is limited due to intensive management and low vegetative diversity associated with actively managed agricultural lands. While the edge habitats' associated agricultural lands are highly productive for wildlife, the interior portions of the habitat unit are not. This is particularly true for the cornfields. Given this fact, siting of the project within areas in corn crop would be the least impactful to wildlife. However, the hayfield portions of the project area, while unlikely to support a broad array of wildlife, have the potential to support several rare grassland birds, though successful nesting is unlikely due to the intensive cutting schedule currently in place. Based on discussions with the property owner, the hayfields fields are cut three times per growing season, twice in the summer and once in the fall.

Proposed work within the limits of mapped NDDB polygons is limited to the hayfield. No tree clearing is proposed within NDDB habitat. Based on NDDB's February 2, 2016 correspondence, there may be time of year restrictions between May and August associated with listed bat species. The Frosted elfin butterfly is associated with two plant species: wild blue lupine (*Lupinus perennis*) and wild indigo (*Baptisia tinctoria*). A survey will be completed by a biologist to determine if these favored plants will be impacted by the project. A report summarizing the survey results will include habitat descriptions, host plant locations, and mitigation measures to protect this species and their associated habitat.

To address the federally-listed NLEB, NDDB was contacted via email to confirm if NLEB habitat data is available. If information is not available, the applicant will document attempt to find the information and move forward with the project. Generally, however, the applicant will avoid tree removal activities between June 1 and July 31.

# 3.8 Vernal Pool Impact Assessment

Two potential vernal pools (PVPs) were identified on the site. These PVPs are cryptic vernal pools embedded within Wetland 3 which straddles the easterly boundary of the southern parcel. In order to assess these pools qualitatively, the methodology described in *Best Development Practices, Conserving Pool-Breeding Amphibians in Residential and Commercial Developments in the Northeastern United States* (Calhoun and Klemens, 2002, a.k.a. the BDP) was used. This assessment methodology utilizes a three-tiered rating system, with the tier designation determined by examining the biological value of the pool in conjunction with the condition of the habitat surrounding the pool, which is the area used by vernal pool amphibians during the non-breeding season. The higher the species diversity and abundance, coupled with an undeveloped and forested landscape surrounding the pool, the higher the tier rating. Tier 1 pools are considered the highest quality pools, while Tier 3 are the lowest.

This assessment is focused on the landscape analysis portion of the BDP methodology (Calhoun and Klemens, 2002:p.9, part B) in order to determine whether or not the project will affect the vernal pool conservation zones, which are defined as the *Vernal Pool Envelope* (VPE, 0 to 100 feet) and the *Critical Terrestrial Habitat* (100 to 750 feet). The conservation zones surrounding both vernal pools are entirely undeveloped. Therefore, CTH pools meet the landscape criteria for Tier 1 pools as they had less than 25% development in the VPE and less than 50% development within the CTH. None of the project area falls within either the VPE or CTH conservation zones. The nearest project activity to PVP 1 is over 1,000 feet, and the nearest project activity to PVP 2 is over 1,400 feet. Therefore, this project is compliant with the BDP and will not negatively affect vernal pool wildlife should they be present in the two potential vernal pools identified. However, a vernal pool survey will be completed in early Spring 2016 to confirm vernal pool wildlife that may be present at the Site.

## 3.9 Breeding Bird Impact Assessment

Land development can impact breeding birds via direct habitat loss as well as degradation of habitats adjacent to development, resulting from what is commonly referred to as the "edge effect". The edge effect refers to habitats which are degraded as a result of their adjacency to development. This results from several factors, including habitat avoidance due to noise or visual disturbances, increased rates of predation or brood parasitism caused by improved habitat conditions for predators (e.g., raccoons), and nest parasites (i.e., brown-headed cowbirds). The specific factors which cause the edge effect, as well as its severity, depend upon the habitat being impacted as well as the type of land development being proposed. Generally speaking, the edge effect extends up to 300 feet outward from a developed area. Within this zone, breeding productivity can be diminished and disturbances associated with the adjacent development can result in outright avoidance by nesting birds.

Habitat loss is an unavoidable consequence of land development. A summary of the habitat types that will be directly affected as a result of the project along with the number of greatest conservation need (GCN) species associated with that habitat type are shown in Table 3-1. Based on the breeding bird inventory, a total of 26 GCN species may potentially breed at the site. Of these 26 species, 10 are associated with habitats that will be directly affected by the project; six species are associated with mixed hardwood forest and four are associated with hayfield. The majority of the project (44.3%) is sited within hayfield and cornfield habitats which will result in habitat loss for four GCN species, as no GCN species were associated with the cornfields. The habitat types expected to support the highest species richness (both GCN and non-GCN species), mixed hardwood forest and old field, will be minimally affected as only 16 acres of hardwood forest are proposed for development and no old field areas will be directly affected.

The greatest effect on habitat capable of supporting GCN birds will result from the loss of hayfield habitat. However, due to the haying regime currently employed, which consists of three cuttings – two in the summer and one in the fall, the likelihood of successful grassland bird nesting is low.

In order to minimize direct impacts to GCN species, a series of mitigation measures are proposed as outlined in the following sections.

Direct Total Habitat Habitat Type GCN Loss (total **Species** acres) Habitat Specialists Hayfield 4 43 acres Mixed hardwood forest 6 17 acres Old field 6 0 acres Forested wetlands 3 0 acres 19 Total Habitat Generalists or Edge Species Mixed hardwood forest and old field 3 3 Hayfield and old field 1 Mixed hardwood forest, old field, hayfield 7 Total

Table 3-1: GCN Species Affected by Habitat Loss (By Habitat Type)

# 3.10 Wildlife Impact Mitigation Measures

#### 3.10.1 General Breeding Bird Protection Measures

The proposed construction activities will result in tree clearing and conversion of agricultural land that has the potential to support breeding birds. To avoid potential disturbance during periods of high bird activity, RES will use the following schedule as a general guideline. If construction activities should occur during the peak nesting period of May 1<sup>st</sup> through August 15<sup>th</sup>, it is recommended that all vegetation removal work (forest removal and hayfield conversion) occur prior to May 1<sup>st</sup>; or, if vegetation removal has not been completed by May 1<sup>st</sup>, an avian survey may be conducted to determine if breeding birds would be disturbed. If the avian survey concludes that breeding birds would be disturbed, vegetation removal activities may be restricted through the peak nesting period (or a modified time frame based on the specific findings of the survey).

#### 3.10.2 Grassland Bird Protection Measures

Measures will be taken to avoid incidental take of state-listed grassland birds during construction (if present). Ideally, the hayfield vegetation should be removed during the non-breeding season (September to April) in order to prevent attraction of grassland birds during spring migration. If this is not feasible, hay mowing activities should be delayed until mid-July or early August to allow grassland birds to complete most nesting activities. If delayed mowing is not feasible and construction activities must be conducted during the breeding season, the following measures will be taken to minimize impacts on nesting grassland birds (NRCS, 1999):

- 1. Hayfields should be mowed from the field center outward to allow birds to escape to adjacent habitats.
- 2. Fields can be broken into sub-units and mowed on a rotational basis to allow for some useable habitat to be available at all times.

- 3. Adult nesting birds and roosting individuals are less likely to flush from cover during the night. Therefore, night mowing should be avoided to prevent adult bird mortality.
- 4. Flushing bars should be mounted on harvesting equipment to minimize bird mortality during mowing operations.

#### 3.10.3 Bat Protection Measures

To address the federally-listed NLEB, NDDB was contacted via email to confirm if NLEB habitat data is available. The applicant will document attempt to find the information and move forward with the project. Generally, however, the applicant will avoid tree removal activities between June 1 and July 31.

## 3.11 Water Supply Areas

There are no public water supply wells located in the vicinity of the Site. No liquid fuels are associated with the operations of the Project. Therefore, the Project will have no adverse environmental effect on water supply resources.

# 3.12 Water Quality

The facility will be unstaffed and no potable water uses or sanitary discharges are planned. Because the solar arrays will be installed on driven foundations, impervious areas are substantially minimized. Refer to the Stormwater Management Report in Exhibit N.

It is anticipated that a stormwater management system design will be completed as part of the D&M Plan, should it be required by the Siting Council, in conformance with the guidelines set forth in the 2004 Connecticut Stormwater Quality Manual.

Current stormwater flowpaths will not be impacted. The current hay fields will remain vegetated and any damage to existing vegetation will be reseeded during construction. Current corn/ row crops will be seeded with a grass/ hay mix for stabilization. In general, row crop land is highly erosive. A conversion to grassland/ hay associated with the solar project will reduce runoff, sedimentation and soil loss to wind. The drip edge from the panels is not erosive for established vegetation.

# 3.13 Air Quality

During operation, the Project will not produce air emissions of regulated air pollutants or greenhouse gases (e.g., PM10, PM2.5, VOCs, GHG or Ozone). Thus, no air permit will be required. During construction of the Project, any air emission effects will be temporary and will be controlled by enacting appropriate mitigation measures (e.g., water for dust control, avoid mass early morning vehicle startups, etc.). Accordingly, any potential air effects as a result of the Project construction activities will be *de minimus*.

Moreover, per the Greenhouse Gas Equivalencies EPA calculator (EPA.gov), a 20 MW solar project is equivalent to a reduction in 25.8 metric tons of  $CO^2$ , which is equal to taking 4.9 vehicles off the road for one year and the amount of carbon sequestered by 19 acres of U.S. forests in one year. Refer to Exhibit O.

#### 3.14 Scenic Areas

No scenic areas would be physically or visually impacted by development of the solar Project. Vegetative screening is proposed to minimize visual impacts from abutting residences. Refer to Figure 5 Proposed Conditions for proposed vegetation screening locations.

A preliminary view shed analysis was completed during site visits and by using aerial and topographic mapping in November 2015. The site visits and mapping identified a substantial amount of natural screening in the area, primarily in the form of heavily forested land to the east and southeast, southwest, north and northwest of the project area. In most instances, there is existing forest cover between the project site and potential observation points. Furthermore, no public hiking paths or other potential public non-vehicular trails were found to be present in the area that would serve as potential observation points. A photo simulation of the project area has been prepared and is provided as <a href="Exhibit J">Exhibit J</a> of the Connecticut Siting Council Petition.

## 3.15 Historic and Archaeological Resources

A Phase 1A Cultural Resources Assessment will be conducted at the site in compliance with the CT SHPO Environmental Review Primer for Connecticut's Archaeological Resources. Subsurface testing will assess areas of anticipated ground disturbance that are considered to have a moderate/ high sensitivity for containing significant archeological deposits, unless sufficient research or fieldwork documents that this level of effort is unwarranted. No construction or other project-related ground disturbance will be initiated until SHPO has had an opportunity to review and comment on the requested survey. The survey will also take into consideration potential view shed impacts on structures older than fifty years that are listed on or may be eligible for listing on the National Register of Historic Places.

The objectives of the study will be: 1) to determine whether or not the proposed project parcel, or portions thereof, possess no, low, and/or moderate to high potential to produce intact cultural deposits and/or surficial expressions of cultural resources, 2) to submit the findings and recommendations of the study to the CT SHPO for comment and review, and 3) to determine if subsequent Phase 1B Cultural Resources Reconnaissance Survey of the entire project area or portions of the project parcel is warranted.

If required, a Phase 1B intensive/ locational survey will be conducted at the site. The Phase 1B completion report will be submitted to the SHPO for review.

While it is not feasible from a design, access, maintenance and safety perspective to maintain stone walls and piles within the project limits, stone walls and piles outside of the project limits, including those demarcating property boundaries, will be maintained to the fullest extent practicable.

# 3.16Geology and Soils

Vegetative clearing and earthwork is required for construction of the Project. Existing grades will be utilized to minimize the required amount of earth work. Some soil disturbance will be required to install foundations for the PV panels and associated equipment. Limited grading may be required for installation of the main access road and perimeter road. No significant cut or fill operations are planned. Panel foundations will be secured using driven pile technology.

The solar project will not change the chemical characteristics of the soil. No loam is proposed to be removed as part of this project. No chemical additives (fertilizers, herbicides, etc.) are proposed. Vegetation will not be harvested or removed and there is no anticipated depletion of soil nutrients. Following construction, no heavy traffic is proposed at the site. Construction equipment associated with solar development will not result in compaction. All equipment will be removed at the end of the project life. Finally, the site can be plowed/ planted following removal of the solar array.

The project is beneficial for farmland preservation. The project is a reliable revenue source for both the owner and community due to clear lease terms, no dependence on the agricultural market, provides a reliable tax revenue for the community, and does not place a burden on public services. The development is also reversible at the end of the lease term. RES is responsible for full decommissioning of the solar facility.

# 3.17 Floodplain Areas

The Site is located entirely outside of the 100-year and 500-year floodplains. Therefore, no special design elements are necessary with respect to flooding concerns. In addition, no impacts to floodplains are associated with the proposed Project.

## 3.18 Recreational Areas

No recreational areas will be impacted by the Project.

## 3.19 Noise

The Project will not produce significant noise during operation. The only equipment proposed for the Project that would generate noise consists of the inverters, which are inactive at night. The closest inverter to a property line is approximately 100 feet. After the project is constructed and in service, the noise levels at the nearest offsite residence are anticipated to be a maximum of 44 dBA during operations which is during the daylight hours and significantly lower during non-daylight hours. This is well below the most conservative criteria of 45 dBA for nighttime and 55 dBA for daytime, as established by the State of Connecticut Noise Control regulations (DBS 22a/22a-69-1 through 7). Refer to Exhibit O.

# 3.20Lighting

No lighting is planned for the facility.

# 3.21 Coastal Zone Management Features

No Coastal Zone Management Areas would be affected by the Project.

# 3.220ther Surrounding Features

No adverse effects are anticipated to the facilities identified in Figure 4, primarily because of their sufficient distance from the Project.

# Section 4 Conclusion

As demonstrated in this EA, due to design consideration to minimize environmental impacts, and proposed construction period mitigation measures, the Project will comply with CTDEEP air and water quality standards and will not have a substantial adverse effect on the environment.

# Section 5 References

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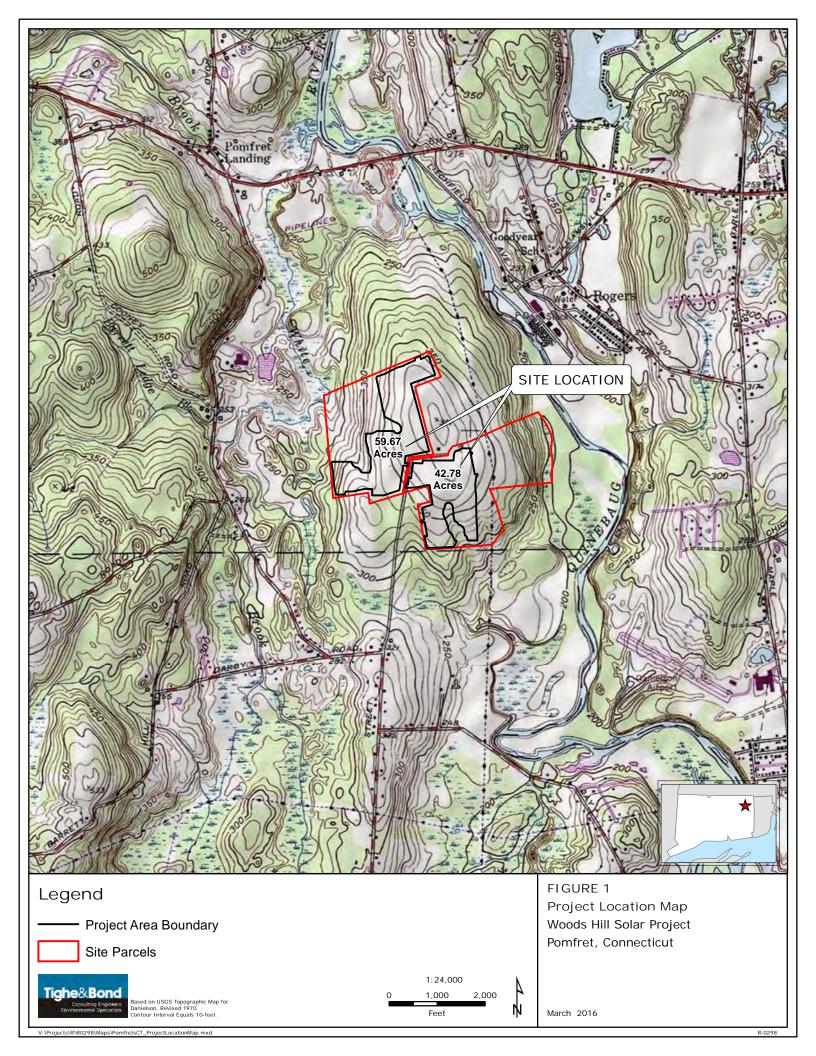
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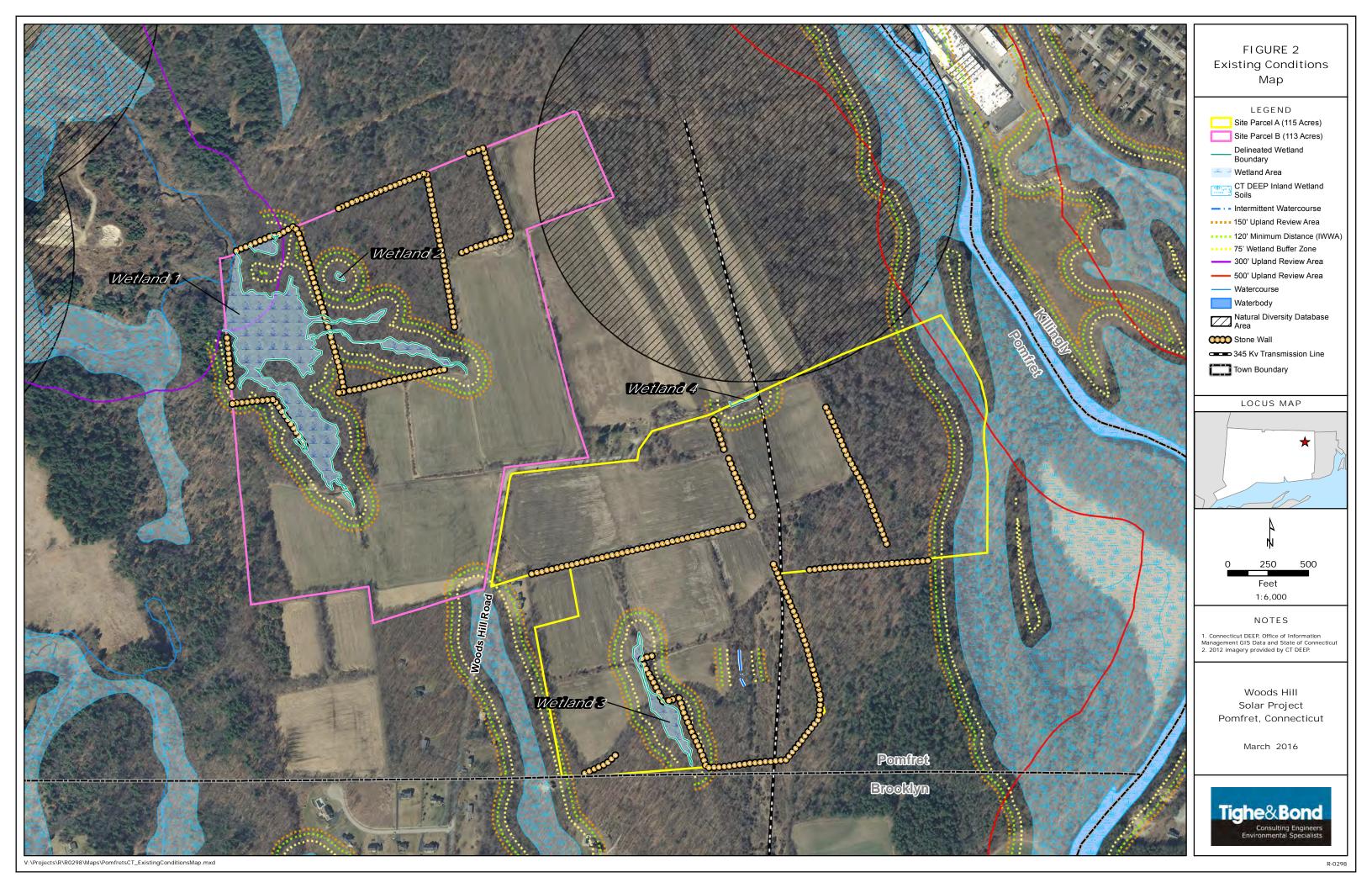
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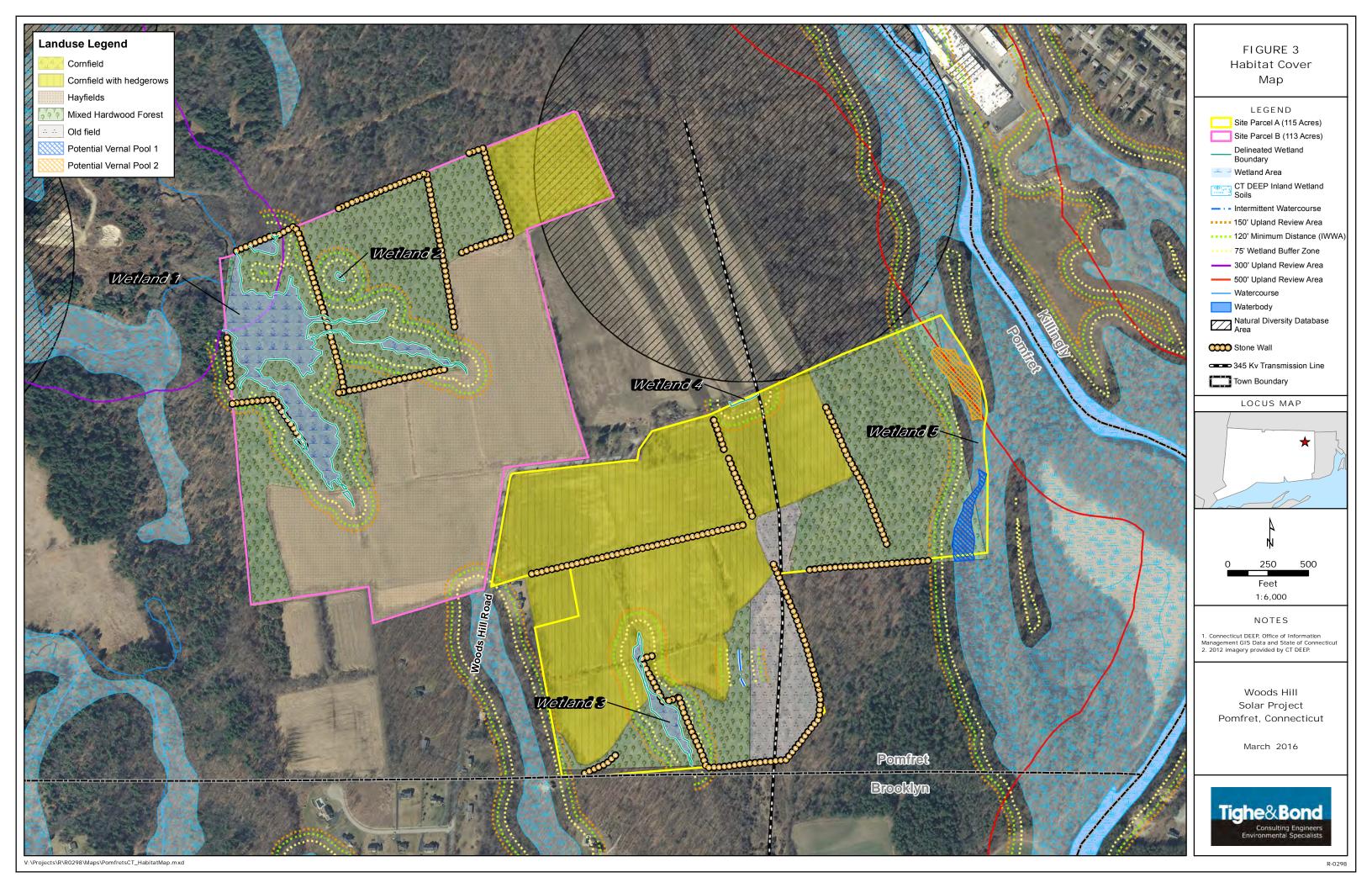
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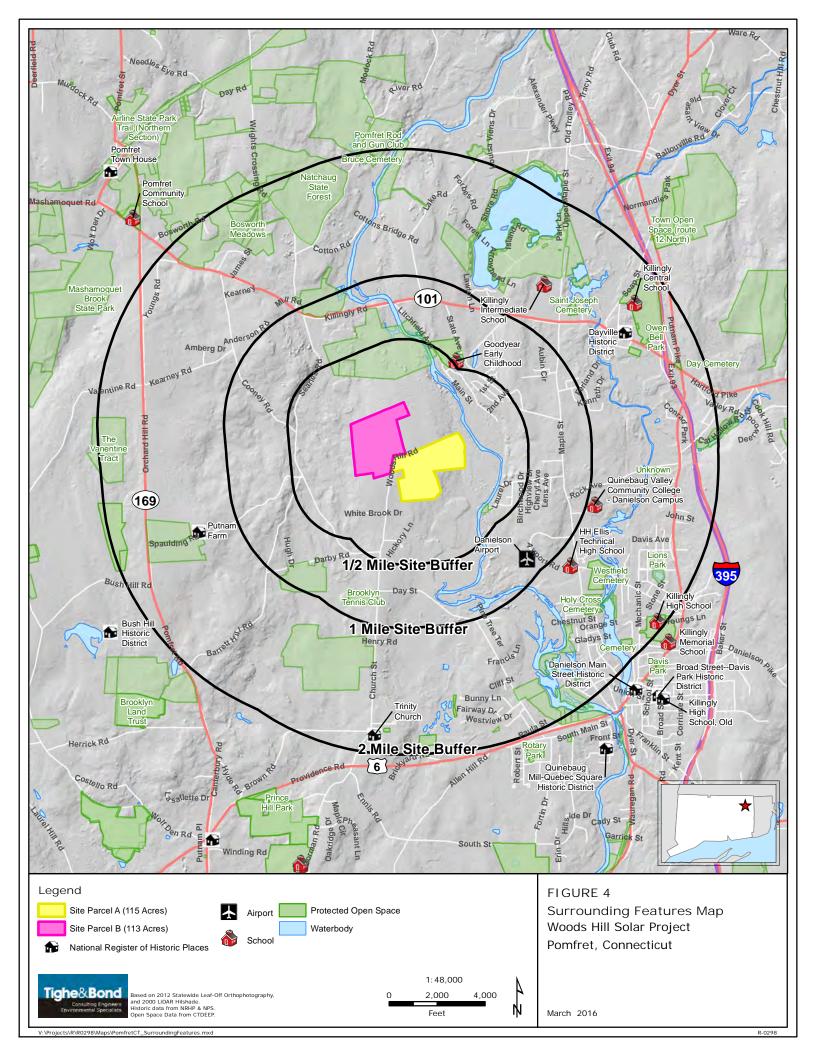
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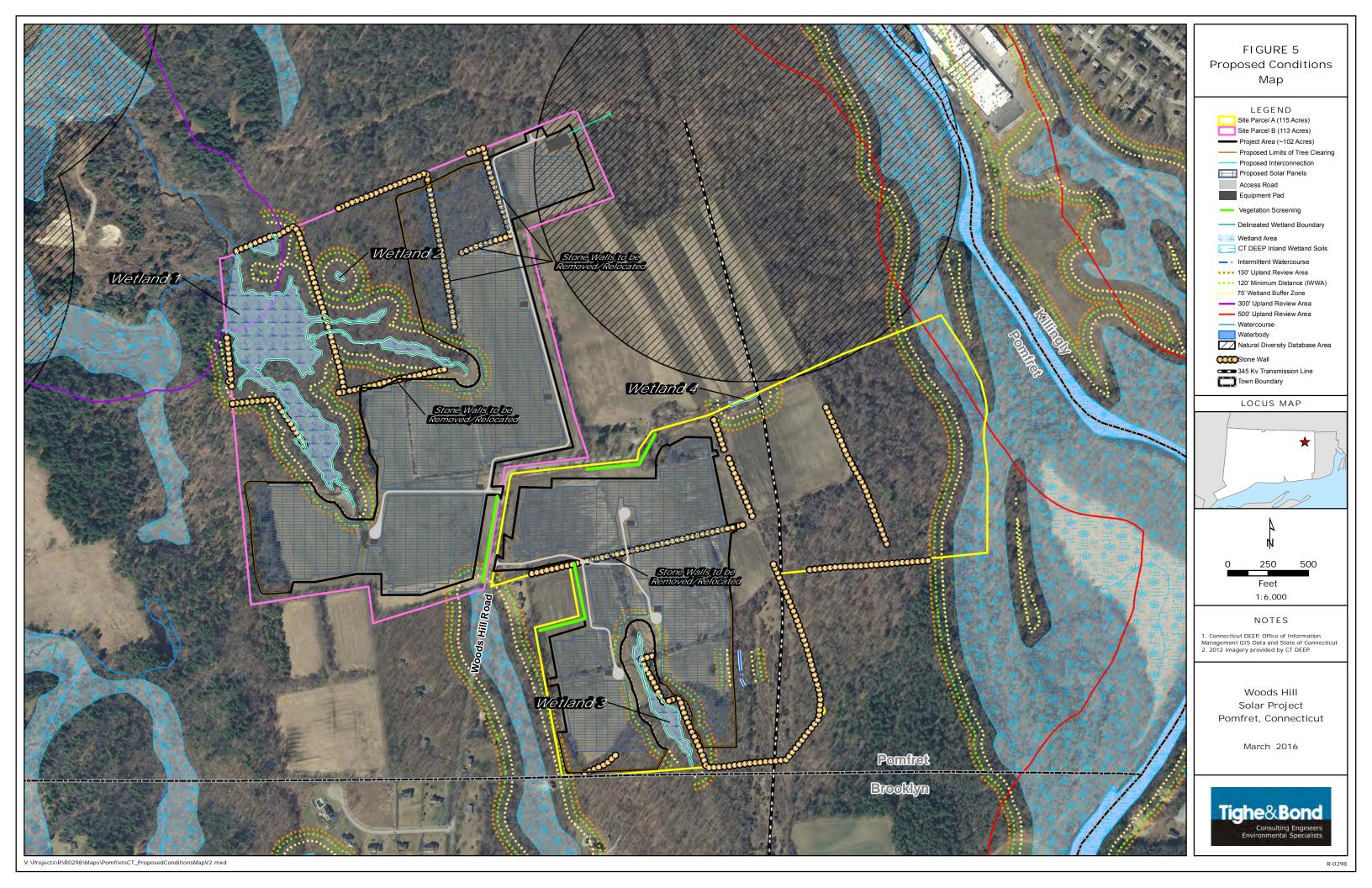














## **SOIL REPORT**

Woods Hill Solar Project **Project:** 

Pomfret, Connecticut

Project No.: R-0298 Site Inspection Dates: 9/1/2015,

9/8/2015, 9/10/2015, 9/23/2015, & 9/25/2015, 12/5/2015, 12/23/2015

PROJECT DESCRIPTION: Inland wetland & watercourse identification and delineation

METHOD FOR IDENTIFICATION OF MAP UNITS	
Wetlands	
☑ Field marking (flagging) for GPS survey	
☐ Field plotting on	
☐ Field plotting on aerial photography	
Non Wetland Soils	
☐ High intensity field identification by Soil Scientist	
Medium intensity identification from USDA, Soil Conservat	tion Service Soil Maps
METHOD OF SOIL IDENTIFICATION	SOIL MOISTURE CONDITION
	Dry ⊠ Moist □ Wet □
☐ Deep test pits (backhoe)	Frost Depth <u>0</u> in.
☐ <i>Other</i>	Snow Depth <u>0</u> in.
The classification system of the National Cooperative Soil Sur the County Identification Legend were used in this investigate the undersigned wetland scientist and wetland boundaries loo development, as depicted on Proposed Conditions mapping d undersigned Professional Soil Scientist.	ion. The investigation was conducted by cated within 100 feet of the proposed
Respectively submitted by,	
TIGHE & BOND, INC.	
Katherin Wilkers Marken	Davis

Katy Wilkins, Environmental Scientist

Matthew Davison, PSS, PWS, CPESC, CT Forester

## **SOIL REPORT** continued

⊠ Site plan with wetland flags located by GPS with sub meter acuracy
☐ Sketch location of wetlands
None

#### WETLAND NUMBERING SEQUENCES AND DESCRIPTION

Wetland 1 (1A-1 to 1A-17;1B-1 to 1B-223; 1C-1 to 1C-33; 1D-1 to 1D-101<sup>1</sup>): The delineated wetland area is characterized as a large forested, hillside seepage (groundwater discharge) wetland (PFO1) located on the west side of a drumlinoid landform that is comprised of thick till. This wetland receives surface water runoff from the upgradient forest and farm fields and drains towards a large emergent wetland and White Brook located off-site to the west. Indicators of both diffuse and channelized (intermittent watercourses) surface water movement were observed throughought the delineated wetland area; however, no surface water was present at the time of the delineation. In many cases, the delineated wetland area is characterized by inclusions of moderately well drained soils, due in part to oxyaquic soil conditions as a result of the topographical gradient present within the wetland. The dominant vegetation included red maple (Acer rubrum), shagbark hickory (Carya ovata), barberry (Berberis thundbergii), multiflora rose (Rosa multiflora), winged euonumous (Euonymus alatus), cinnamon fern (Osmunda cinnamomea) and christmas fern (Polystichum acrostichoides). The herbaceous layer was limited due to the shading from the dense shrub layer of barberry. This area also included two separate drainage channels. The drainage channels consisted of vegetated wetlands surrounding intermittent streams that direct flow from the forested upland and farm fields to the larger wetland extent. There were no resource areas upgradient of these streams but the banks were well defined and there was evidence of sediment drift and wrack build up.

**Wetland 2**: The delineated wetland is a small isolated forested wetland with a seasonally saturated hydrology. This wetland has identical physical, hydrologic and vegetative characteristics to Wetland 1. The wetland has a small watershed and the volume of discharge is small. As a result, the surface flows are quickly captured and infiltrated back into the ground as opposed to flowing downslope into Wetland 1.

**Wetland 3** (3A-1 to 3A-53¹): The delineated wetland is characterized as a narrow hillside seepage (groundwater discharge) wetland and intermittent watercourse that collects runoff from the upgradient, till dominated agricultural fields. This wetland forms within a hedgerow between adjacent agricultural fields and discharges downslope to a forested area along the southern site boundary. Soils are characterized by a deep A horizon, primarily as a result of deposition of colluvium originating from the upgradient fields.

**Wetland 4** (4A-1 to 4A-5<sup>1</sup>): The delineated wetland is a small area located in an abandoned access road between farm fields in the north eastern parcel boundary. Topography trended to the west along the cleared access road and tire ruts. Dominant vegetation included dogwood (*Cornus sp.*), soft rush (*Juncus effusus*), rough stem goldenrod (*Solidago rugosa*), and jewelweed (*Impatients capensis*).

<sup>&</sup>lt;sup>1</sup> Wetland flag series presented in this report may not match what is present in the field due to post-fieldwork mapping and labeling.

#### SUMMARY SOIL DESCRIPTIONS

Digitally available updated soil survey information was obtained from the Natural Resources Conservation Service as depicted on the attached soil map. The following soil types were identified during the delineation:

#### **Wetland Soils**

#### Ridgebury, Leicester and Whitman soils (Map Unit 3)

The Ridgebury series consists of very deep, somewhat poorly and poorly drained soils formed in lodgment till derived mainly from granite, gneiss and/or schist. They are commonly shallow to a densic contact. They are nearly level to gently sloping soils in depressions in uplands. They also occur in drainageways in uplands, in toeslope positions of hills, drumlins, and ground moraines, and in till plains. This series includes phases that are poorly drained and the wetter part of somewhat poorly drained. A perched, fluctuating water table above the dense till saturates the solum to or near the surface for 7 to 9 months of the year. Slope ranges from 0 to 15 percent.

The Leicester series consists of very deep, poorly drained loamy soils formed in friable till. They are nearly level or gently sloping soils in drainageways and low-lying positions on hills. Depth to bedrock is commonly more than 6 feet. Rock fragments range from 5 to 35 percent by volume to a depth of 40 inches and up to 50 percent below 40 inches. Leicester soils have a water table at or near the surface much of the year. Slope ranges from 0 to 8 percent.

The Whitman series consists of very deep, very poorly drained soils formed in lodgement till derived mainly from granite, gneiss, and schist. They are shallow to a densic contact. They are nearly level or gently sloping soils in depressions and drainageways on uplands. Depth to dense till is 12 to 30 inches. Some pedons have organic horizons overlying the A horizon. They are fibric hemic or sapric material, and are up to 5 inches thick. Whitman soils are found on nearly level and gently sloping soils in depressions and in drainage ways of glacial uplands. Slopes are typically 0 to 2 percent but range up to 8 percent where wetness is due to seepage water. This soil is very poorly drained. A perched water table, or excess seepage water, is at or near the surface for about 9 months of the year.

#### Rippowam (Map Unit 103)

The Rippowam series consists of very deep, poorly drained loamy soils formed in alluvial sediments. They are nearly level soils on flood plains subject to frequent flooding.

#### **Nonwetland Soils**

#### Woodbridge (Map Unit 45A/B & 47C)

The Woodbridge series consists of moderately well drained loamy soils formed in compact, subglacial till. They are very deep to bedrock. They are nearly level to moderately steep soils on till plains, hills, and drumlins. Depth to the compact layer (hardpan) is 18 to 40 inches. Depth to bedrock is commonly more than 6 feet. Woodbridge soils have a seasonal high water table on top of the compact layer (18-40") from fall through late spring. Slope ranges from 0 to 25 percent.

#### Canton and Charlton soils (Map Unit 62C)

The Canton series consists of very deep, well drained soils formed in a loamy mantle underlain by sandy glacial till. They are on nearly level to very steep glaciated plains, hills, and ridges. Slope ranges from 0 to 35 percent. Permeability is moderately rapid in the solum and rapid in the substratum. The soils developed in a fine sandy loam mantle over acid sandy glacial till of Wisconsin age derived mainly from granite and gneiss and some fine-grained sandstone.

#### Charlton-Chatfield Complex (Map Unit 73C)

The Charlton series consists of very deep, well drained loamy soils formed in friable till derived from parent materials that are very low in iron sulfides. They are nearly level to very steep soils on till plains and hills. Depth to bedrock and the seasonal high water table is commonly more than 6 feet. Slope ranges from 0 to 50 percent.

The Chatfield series consists of moderately deep, well drained, and somewhat excessively drained soils formed in till derived from parent materials that are very low in iron sulfides. They are nearly level to very steep soils on glaciated plains, hills, and ridges. Slope ranges from 0 to 70 percent. Crystalline bedrock is at depths of 20 to 40 inches. The soils formed in a moderately thick mantle of glacial till overlying granite, gneiss, or schist bedrock. Rock outcrops are rare to common and are limited to the more resistant bedrock.

#### Hinkley (Map Unit 38C)

The Hinckley series consists of very deep, excessively drained soils formed in glaciofluvial materials. They are nearly level through very steep soils on outwash terraces, outwash plains, outwash deltas, kames, kame terraces, and eskers. Saturated hydraulic conductivity is high or very high. Slope ranges from 0 to 60 percent.



Web Soil Survey National Cooperative Soil Survey

#### MAP LEGEND

#### Area of Interest (AOI)

Area of Interest (AOI)

#### Soils

Soil Map Unit Polygons



Soil Map Unit Points

#### Special Point Features

Blowout

☑ Borrow Pit

Clay Spot

Closed Depression

Gravel Pit

Gravelly Spot

Landfill

A Lava Flow

Marsh or swamp

Mine or Quarry

Miscellaneous Water

Perennial Water

Rock Outcrop

Saline Spot

sandy Spot

Severely Eroded Spot

Sinkhole

Slide or Slip

Sodic Spot

#### J\_.,1

§ Stony Spot

Nery Stony Spot

Spoil Area

Wet Spot

△ Other

Special Line Features

#### **Water Features**

Streams and Canals

#### Transportation

Rails

Interstate Highways

US Routes

Major Roads

Local Roads

#### Background

Aerial Photography

#### MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:12,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service Web Soil Survey URL: http://websoilsurvey.nrcs.usda.gov Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: State of Connecticut Survey Area Data: Version 13, Oct 28, 2014

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

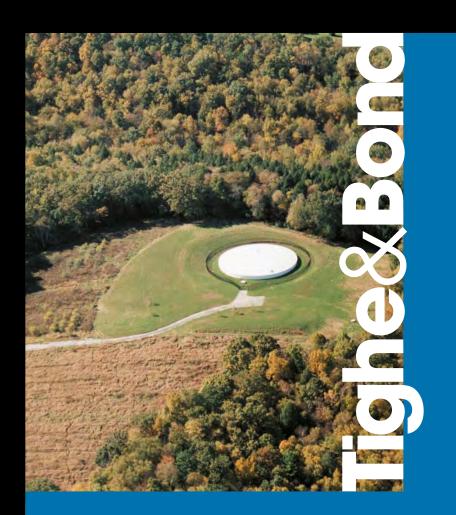
Date(s) aerial images were photographed: Mar 28, 2011—May 12, 2011

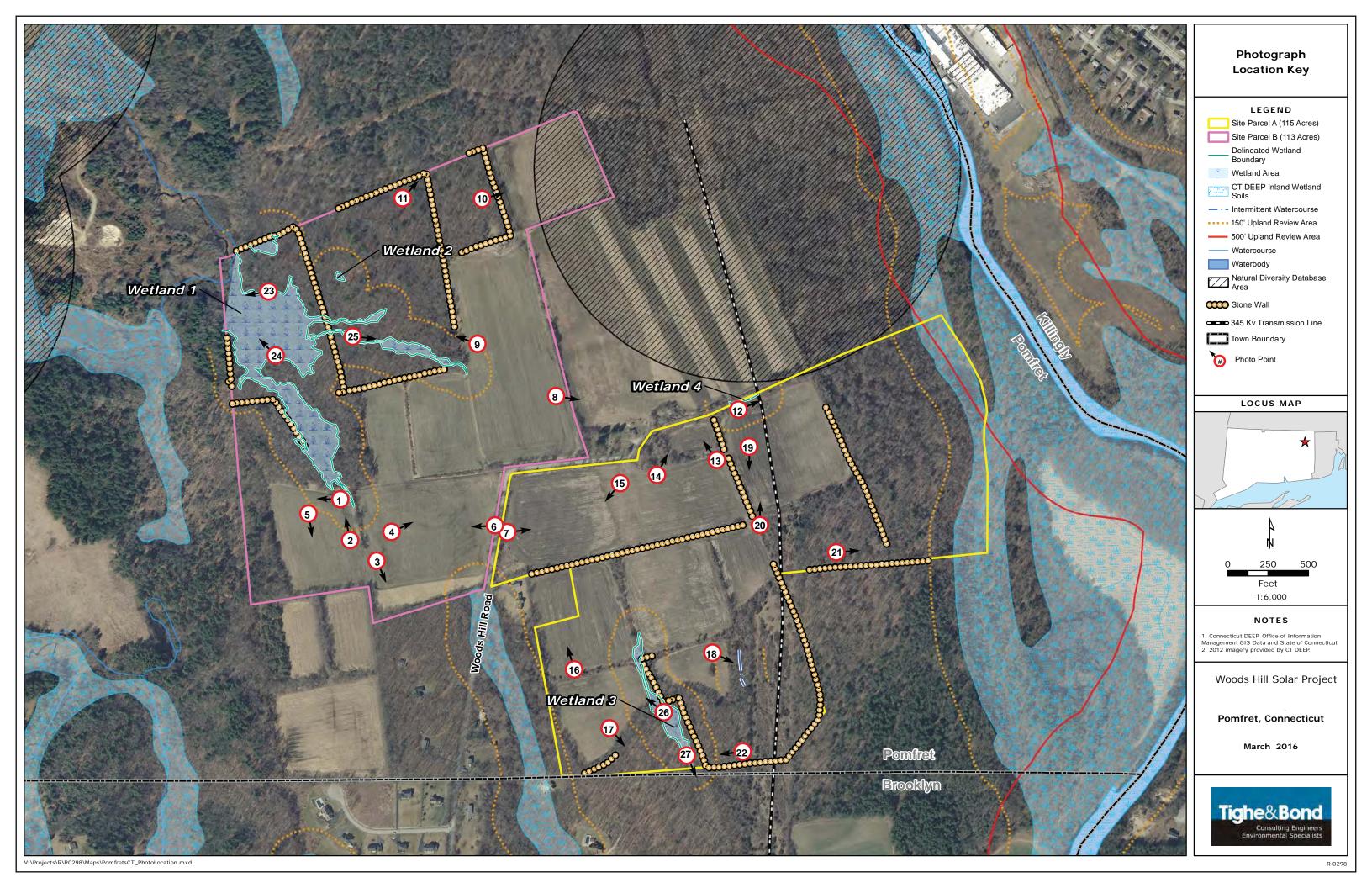
The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

# **Map Unit Legend**

State of Connecticut (CT600)					
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI		
2	Ridgebury fine sandy loam	3.9	0.8%		
3	Ridgebury, Leicester, and Whitman soils, 0 to 8 percent slopes, extremely stony	18.2	3.6%		
18	Catden and Freetown soils	7.1	1.4%		
23A	Sudbury sandy loam, 0 to 5 percent slopes	6.8	1.4%		
29A	Agawam fine sandy loam, 0 to 3 percent slopes	4.2	0.8%		
36A	Windsor loamy sand, 0 to 3 percent slopes	3.9	0.8%		
38C	Hinckley gravelly sandy loam, 3 to 15 percent slopes	54.3	10.9%		
38E	Hinckley gravelly sandy loam, 15 to 45 percent slopes	3.2	0.6%		
45A	Woodbridge fine sandy loam, 0 to 3 percent slopes	50.3	10.1%		
45B	Woodbridge fine sandy loam, 3 to 8 percent slopes	114.1	22.9%		
46B	Woodbridge fine sandy loam, 0 to 8 percent slopes, very stony	23.8	4.8%		
47C	Woodbridge fine sandy loam, 2 to 15 percent slopes, extremely stony	61.3	12.3%		
52C	Sutton fine sandy loam, 2 to 15 percent slopes, extremely stony	0.4	0.1%		
60C	Canton and Charlton soils, 8 to 15 percent slopes	3.9	0.8%		
62C	Canton and Charlton soils, 3 to 15 percent slopes, extremely stony	18.8	3.8%		
62D	Canton and Charlton soils, 15 to 35 percent slopes, extremely stony	9.0	1.8%		
73C	Charlton-Chatfield complex, 3 to 15 percent slopes, very rocky	41.2	8.3%		
73E	Charlton-Chatfield complex, 15 to 45 percent slopes, very rocky	8.2	1.6%		
84B	Paxton and Montauk fine sandy loams, 3 to 8 percent slopes	4.6	0.9%		

State of Connecticut (CT600)						
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI			
84C	Paxton and Montauk fine sandy loams, 8 to 15 percent slopes	13.1	2.6%			
85B	Paxton and Montauk fine sandy loams, 3 to 8 percent slopes, very stony	10.8	2.2%			
101	Occum fine sandy loam	5.4	1.1%			
102	Pootatuck fine sandy loam	10.7	2.1%			
103	Rippowam fine sandy loam	19.4	3.9%			
306	Udorthents-Urban land complex	0.5	0.1%			
W	Water	2.1	0.4%			
Totals for Area of Interest		499.1	100.0%			







**Photo 1:** Parcel B - View of the western farm field, facing west toward the proposed tree removal area and parcel boundary (9/8/2015).



**Photo 2:** Parcel B - View of the tree line within the southern field, facing north (9/8/2015).

SITE PHOTOGRAPHS Tighe&Bond



**Photo 3:** View of the southwestern farm field in Parcel B, facing southeast (9/8/2015).



**Photo 4:** Parcel B - View of the southern farm field, facing east toward Woods Hill Road (9/8/2015).

SITE PHOTOGRAPHS Tighe&Bond



**Photo 5:** Parcel B - View of the southern farm field, facing south toward the southern parcel boundary (11/27/2015).



**Photo 6:** Parcel B - View of the southern farm field from Woods Hill Road, facing west (11/27/2015).



**Photo 7:** Parcel A - View of the western farm field from Woods Hill Road, facing east (11/27/2015).



**Photo 8:** Parcel B - View of the vegetated eastern parcel boundary, facing east (11/27/2015).



**Photo 9:** Parcel B – Representative view of the proposed tree removal area outside of mapped NDDB polygon, facing west (11/27/2015).



**Photo 10:** Parcel B - Representative view of the proposed tree removal area within northern forested portion of parcel, facing east (9/10/2015).



**Photo 11:** Parcel B – Representative view of the proposed tree removal area near northern parcel boundary, facing northeast (9/10/2015).



**Photo 12:** Parcel A - View of the vegetated access road and wetland 4 along parcel boundary, facing east (9/25/15).



**Photo 13:** Parcel A - View of the northernmost agricultural field along the northern parcel boundary, facing north (11/27/15).



**Photo 14:** Parcel A - View of the access into the northernmost agricultural field along the northern parcel boundary, facing northeast (11/27/15).



**Photo 15:** Parcel A - View of the northern farm field, facing southwest toward Woods Hill Road and parcel boundary (9/23/2015).



**Photo 16:** Parcel A - Representative view of the western farm field, facing north (11/27/2015).



**Photo 17:** Parcel A – Representative view of the western farm field, facing south toward the southern parcel boundary (11/27/2015).



**Photo 18:** Parcel A - View of the southern farm field, facing southeast toward Wetland 5 and the transmission line (11/27/2015).



**Photo 19:** Parcel A - View of the transmission line and farm field located outside (and east of) the Project Boundary, facing south (9/25/2015).



**Photo 20:** Parcel A - View of the transmission line located outside (and east of) the Project Boundary, facing north (9/25/2015).



**Photo 21:** Parcel A – Representative view of the forested area outside (and east of) the Project Boundary and transmission line ROW in the eastern portion of the parcel. View facing east (9/25/2015).



**Photo 22:** Parcel A - View of the proposed tree removal area and eastern Project Boundary from the transmission line Right of Way, facing west (9/25/15).



**Photo 23:** Parcel B - Representative view of Wetland 1 located in the northwest corner of Parcel B, facing west (9/01/15).



**Photo 24:** Parcel B - View of a watercourse in interior of Wetland 1, facing northwest (9/08/15).



**Photo 25:** Parcel B - View of a stream channel flowing from the east, included in Wetland 1 delineation, facing east (9/10/15).



**Photo 26:** Parcel A – Representative view of Wetland 3 looking toward the farm field, facing northwest (9/23/15).



**Photo 27:** Parcel A - View of a stream channel flowing from Wetland 3 to the southern parcel boundary, facing south (9/23/15).

Portions of the proposed Project are located within 75 feet of wetlands or watercourses. As a result, the following protective measures will be utilized to avoid degradation of the nearby wetland 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 nearby wetland systems. This protection program will be implemented regardless of time of year the construction activities occur. RES will designate a third-party Environmental Monitor for this project to confirm that wetland protection measures are implemented properly. The Contractor shall contact the Environmental Monitor at least 5 business days prior to the pre-construction meeting.

The wetland 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 contractors and sub-contractors prior to initiation of work on the site; protective measures; and, reporting.

#### **Erosion and Sedimentation Controls**

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.

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.

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.

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 recommended by the Environmental Monitor.

Silt fencing and other erosion control devices will 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.

## **Contractor Education**

Prior to work on site, the Contractor will attend an educational session at the preconstruction 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.

#### **Petroleum Materials Storage and Spill Prevention**

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.

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.

The following petroleum and hazardous materials storage and refueling restrictions and spill response procedures will be adhered to by the Contractor.

## Petroleum and Hazardous Materials Storage and Refueling

Refueling of vehicles or machinery shall occur a minimum of 100 feet from wetlands or watercourses and shall take place on an impervious pad with secondary containment designed to contain fuels.

Any fuel or hazardous materials that must be kept on site shall be stored on an impervious surface utilizing secondary containment a minimum of 100 feet from wetlands or watercourses.

#### **Initial Spill Response Procedures**

- Stop operations and shut off equipment
- Remove any sources of spark or flame
- Contain the source of the spill
- Determine the approximate volume of the spill
- Identify the location of natural flow paths to prevent the release of the spill to sensitive nearby waterways or wetlands
- Ensure that fellow workers are notified of the spill

### Spill Clean Up & Containment

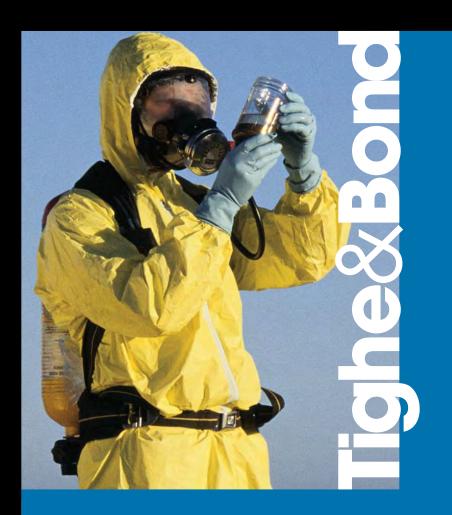
- Obtain spill response materials from the on-site spill response kit. Place absorbent materials directly on the release area.
- Limit the spread of the spill by placing absorbent materials around the perimeter of the spill
- Isolate and eliminate the spill source
- Contact appropriate local, state and/or federal agencies, as necessary
- Contact a disposal company to properly dispose of contaminated materials.

# Reporting - Spills

- Complete an incident report
- Submit a completed incident report to appropriate local, state and/or federal agencies, as necessary.

# **Reporting – Sediment Release**

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





#### YEARS OF EXPERIENCE

17

#### **SPECIALTIES**

Wetland Evaluation & Delineation
Wetland Impact Assessments
Soil Mapping & Classification
Erosion & Sedimentation Control
Habitat Surveys

**Environmental & Energy Permitting** 

#### LICENSES/REGISTRATIONS

Connecticut Certified Forester (#193)

**Connecticut Licensed Forester** 

Professional Soil Scientist Society of Soil Scientists of Southern New England

Massachusetts Licensed Forester (#413)

Professional Wetland Scientist (#2302)

Certified Professional in Erosion and Sediment Control (#6828)

#### **EDUCATION**

Bachelor of Science Forestry University of Massachusetts

New England Regional Soil Science Certificate Program University of Massachusetts & University of Connecticut Matthew Davison is a Senior Environmental Scientist at Tighe & Bond with 17 years of experience in the environmental field. He is a Professional Soil Scientist, a Professional Wetland Scientist, a Certified Professional in Erosion and Sediment Control, and Licensed Forester. His experience as a natural resource professional includes wetland delineation, soil mapping and classification, wetland evaluation, wetland impact assessments and habitat surveys. In addition, he has extensive experience in local, state and federal wetland permitting. He has provided erosion and sedimentation control monitoring services on several projects as part of conditional approvals from both state and local agencies. He has extensive forestry experience, related to his position as the principal of a small forestry business providing a variety of activities related to forest management including forest mensuration, management planning, harvesting and forest products marketing.

#### **Professional Experience**

#### **Environmental and Energy Permitting**

- Linear Electrical Transmission Projects: Managed and conducted permitting, natural resource inventories and constructability evaluations along 4.5, 10, 35, and 57-mile long transmission corridors in southern, central and western Connecticut and southern Massachusetts. Natural resource evaluations included federal and state wetland delineation, Army Corps of Engineers data plots, wetland functions and values assessments, inventory of federal and state threatened and endangered species, vernal pool assessments and cover type mapping. Constructability evaluation included documenting and mapping of potential construction and maintenance access routes and transmission structure locations with respect to wetland and natural resource impacts and constructability constraints.
- NERC Alert: Manage natural resource inventories and mapping for Northeast Utilities, which was necessary for compliance with the North American Electric Reliability Corporation (NERC) rating recommendations. Provide assistance with federal permit determinations and sub-Petition filings with the Connecticut Siting Council.
- Electric Transmission Maintenance Support: Manage natural resource inventories and mapping for Northeast Utilities in support of ongoing maintenance to their electric transmission and distribution systems. Provide assistance with federal permit determinations and regulatory compliance as it pertains to utility maintenance work.
- Wind Energy: Managed environmental permitting efforts for siting of commercial wind farms at three locations in Connecticut. Conducted natural resource inventories including wetlands, existing flora and fauna, and habitat evaluations. Compiled technical documents and assisted in permitting with federal and state agencies. Provided expert testimony at the Connecticut Siting Council.
- Electrical Substation Projects: Provided due diligence and permitting support for existing or proposed bulk power substations in Waterford, Westport, Bloomfield and Lebanon, Connecticut. Provided natural resources inventories of existing flora and fauna, habitat evaluations, wetland delineations, wetland evaluations, site layout and design impact assessments, preparation of technical documents and coordination with federal, state and local agencies.

# MATTHEW E. DAVISON, PSS, PWS, CPESC | Senior Environmental Scientist

- Town of East Lyme Water Main Interconnection Project: Managed natural resource inventories and permitting efforts for a three-mile water main interconnection traversing three municipalities. Attended public hearings for Inland Wetlands Agency approval and assisted in the preparation of required state permit applications. Obtained a waiver from municipal permitting in two of three municipalities.
- Town of Waterford, Connecticut: Managed wetland permitting and erosion and sedimentation control monitoring for the expansion of Waterford High School in Waterford, Connecticut. Responsibilities included wetland delineation, wetland functions and values assessment, site layout and design impact assessments, preparation of technical documents, coordination with state and local agencies and permitting support. Attended public meetings and provided third party erosion and sedimentation control inspection services.
- Telecommunications: Provided technical support, including wetland delineation and site assessments, for various telecommunications providers. Responsible for wetland delineation, assessment, USFWS compliance documentation, design review for permit feasibility of telecommunications facilities in Connecticut and Massachusetts. Provided conditional erosion and sedimentation control monitoring during construction at several facilities.
- **CVS/Pharmacy:** Managed wetland permitting for CVS/Pharmacy at several locations throughout Connecticut. Responsibilities included wetland delineations, wetland evaluations, site layout and design impact assessments, preparation of technical documents, coordination with state and local agencies and permitting.
- East Hartford Multi-Use Trail, East Hartford Connecticut: Provided wetland and permitting support services for a
  proposed 2.75-mile extension of the Charter Oak Greenway multi-use trail. Wetland services included Connecticut
  and Federal wetland delineations and wetland evaluation. Prepared CTDEP Stream Channel Encroachment Line
  (SCEL) Permit and Flood Management Certification Applications for activities conducted within the SCEL and 100year floodplain of the Connecticut River. Coordinated proposed design within these resources with CTDEP regarding
  permitting implications of the proposed design of the trail and alterations that would minimize impact to floodplain
  resources to facilitate permitting effort.
- **Bolton Multi-Use Trail, Bolton Connecticut:** Provided wetland delineation services for a proposed 2-mile multi-use trail that is part of the East Coast Greenway for the Town of Bolton. Following the delineation, recommendations were made to the VHB design team regarding route alterations that would avoid or minimize wetland impacts.

#### **Additional Information - Water**

- Metropolitan District Commission Projects: Conducted wetland and natural resource inventories for multiple projects including; Reservoir 6 to Reservoir 5 Raw Water Transmission Main (West Hartford), Canal Road to Potable Water Interconnection (West Hartford), Orchard Street Pump Station Improvements (Glastonbury), Farmington River Emergency Water Main Repair (Windsor), Eastbury Storage Tank Improvements (Glastonbury), Brook Street Pressure Regulating Valve Vault Improvements (Rocky Hill). Obtained the necessary wetland and natural resource permits for multiple projects. For several projects that included emergency work or water infrastructure maintenance or repair, was able to rapidly obtain the necessary municipal approvals to maintain project schedules without delay.
- Aquarion Water Company Projects: Conducted wetland and natural resource inventories and managed permitting
  efforts for multiple projects, including dam construction and repair projects. Managed ACOE Category 2 permitting
  and provided support for CTDEEP Dam Construction Permit for Lakeville Dam Project in Salisbury, Connecticut.
- South Central Regional Water Authority, East Haven CT: Conducted wetland delineation and obtained waiver for permitting for a pump station improvements project.
- Holyoke Water Works, Holyoke MA: Assisted Holyoke Water Works in obtaining a qualified forester to manage
  forest assets as part of a requirement to retain their filtration waiver. Prepared and issued an RFP, evaluated
  proposals, conducted interviews of potential candidates, and made recommendations for award.

# Eric R. Davison, CSS, CPWS

10 Maple Street, Chester, CT 06412 860-803-0938 ericrdavison@gmail.com

#### **EDUCATION**

2000 University of Massachusetts
New England Regional Soil Science Certificate Program

1998 University of Massachusetts
Bachelor of Science, Wildlife Conservation & Management

Amherst, MA

#### **WORK EXPERIENCE**

# 1998-present Davison Environmental, LLC, Chester, CT

Owner - Wildlife Biologist, Wetland Scientist and Soil Scientist

Provided the following consulting services to clients:

- Herpetological surveys
- Vernal pool inventory and impact assessment
- Breeding bird surveys
- Wetland delineation and soil mapping
- Local, state and federal wetland permitting assistance
- Wetland impact assessments
- Wetland restoration and mitigation plans
- Land management planning
- Wetland functions and values assessments
- GIS based environmental assessments

# 2009-2011 Metropolitan Conservation Alliance

# Cary Institute of Ecosystem Studies, Millbrook, NY Biodiversity Specialist (three-year grant funded position)

- Conducted biodiversity studies throughout Connecticut and New York under the direct supervision of program founder Dr. Michael W. Klemens
- Inventory amphibian and reptile species using field techniques including cover searching, minnow trapping, pitfall trapping and hoop-net trapping
- Characterize and map upland and wetland habitats, soils, geology and other natural resource features
- Catalogue breeding bird species via visual identification and song
- Collect field data using GPS equipment and compile data collected using GIS software (*ArcMap 10.0*); create GIS maps and files of all field data collected

# 2000-2002 Northwest Park and Nature Center, Windsor, CT

#### Naturalist -Land Manager

- Responsible for habitat management and wildlife monitoring at 473-acre municipal park, with a focus on early-successional habitat management and monitoring of rare and state-listed grassland and shrubland wildlife
- Conducted public programs and special events
- Conducted conservation-related public outreach
- Staff liaison for the Town of Windsor Conservation Commission

# 1998-2000 Connecticut Department of Environmental Protection, Stafford, CT Park Maintainer

- Maintained all state park and forest areas within Shenipsit State Forest Unit
- Responsible for all facility and grounds maintenance
- Regular equipment operation included chainsaws, tractor with backhoe, loader, dumptruck, snowplow, skid-steer, mowers & woodworking

# 1995 Smithsonian Institution, Quantico Marine Base, Quantico, VA Field Technician

- Mist netting and banding of neotropical migrant songbirds
- Radio telemetry of the Wood Thrush (*Hylocichla mustelina*)
- Vegetation surveys around wood thrush nesting sites

# **Certifications & Computer Skills**

- Certified Soil Scientist (Society of Soil Scientists of Southern New England)
- Certified Professional Wetland Scientist (Society of Wetland Scientists)
- Proficient in GIS (ESRI ArcMap 10.0), Microsoft Word, Excel & Access

# **Relevant Publications & Projects**

- Author, Audubon Important Bird Area Conservation Plan, Greenwich Point Park, Greenwich in progress
- Author and field biologist, conservation easement documentation plans (four parcels), Granby Land Trust, 2013
- Co-author, Town of Ridgefield Natural Resource Inventory, 2012
- Author and field biologist, open space management plans (six parcels), Northern Connecticut Land Trust, 2012
- Author, Audubon Important Bird Area Conservation Plan, Bent of the River Sanctuary, Southbury, CT, 2011
- Field biologist, point-count breeding bird surveys for CT Audubon, 2010 2011
- Author and field biologist, Lighthouse Point Meadow Restoration Plan, Lighthouse Point Park, New Haven, CT, 2011
- Field biologist and co-author, Haines Pond Management Plan, Brewster, NY, 2010
- Field biologist and co-author, Eastern Westchester Biotic Corridor: Northern Terminus Addendum, North Salem and Southeast, NY, 2010
- Field biologist and co-author, Haines Pond Biodiversity Study, Brewster, NY, 2009
- Field biologist and co-author, Eastern Westchester Biotic Corridor: Titicus Reservoir, North Salem, NY, 2009
- Author, Audubon Important Bird Area Conservation Plan, Northwest Park, Windsor, CT, 2007
- Field biologist and co-author, Town of Windsor Natural Resource Inventory, 2005

#### **Professional Affiliations**

- Commissioner, Inland Wetlands and Watercourses Commission, Town of Chester, CT
- Board Member, Connecticut River Coastal Conservation District
- Member, Society of Soil Scientists of Southern New England

# **EXHIBIT M**:

NDDB Correspondence







Bureau of Natural Resources
Wildlife Division
Natural History Survey – Natural Diversity Data Base

February 2, 2016

Mr. Briony Angus, AICP Tighe & Bond, Inc. 53 Southampton Road Westfield, MA 01085

Regarding: Woods Hill Road Solar Project, 101 Woods Hill Road, Pomfret, Connecticut

Natural Diversity Data Base 201509548

Dear Mr. Angus:

In response to your request for a Natural Diversity Data Base (NDDB) Review of State-listed Endangered, Threatened, and Special Concern Species for Woods Hill Road Solar Project in Pomfret, Connecticut, our records for this site indicate the following extant populations of species on or within the vicinity of the site:

Hoary bat (Lasiurus cinereus) Protection Status: Species of Special Concern

Hoary bats are found in Connecticut during the spring and summer seasons and migrate south to overwinter. Their diet primarily consists of moths and beetles. These bats will roost high in large coniferous and deciduous trees. Female hoary bats are solitary and give birth mid-May to late June. If forest clearing occurs outside this time frame, direct negative impacts to this species will be minimized.

Red bat (Lasiurus borealis) Protection Status: Species of Special Concern

Red bats are considered to be "tree-roosting" bats. They roost out in the foliage of deciduous and coniferous trees, camouflaged as dead leaves or cones. Red bats are primarily solitary roosters. They can be found roosting and feeding around forest edges and clearings. Typically, larger diameter trees (12-inch DBH and larger) are more valuable to these bats. Additionally, trees with loose, rough bark such as maples, hickories, and oaks are more desirable than other tree species due to the increased cover that the loose bark provides. Large trees with cavities are also utilized by this species.

Silver-haired bat (Lasionycteris noctivagans) Protection Status: Species of Special Concern

Silver-haired bats typical roost sites include tree foliage, tree hollows, and crevices behind loose bark, but they are most likely to be found near water. They will typically give birth to their young in June or July, and the young will stay in roost until August.

Recommendations: If tree cutting is part of this project, work should be conducted in the winter when the bats are not in the area, specifically work should not be conducted after May

1<sup>st</sup> through August 15<sup>th</sup>. Long-term impacts can be minimized by retaining large diameter coniferous and deciduous trees whenever possible. If these bats are found, please report the information to the Wildlife Division.

Frosted elfin (Callophrys irus) Protection Status: Threatened Species

Frosted elfin butterflies are associated with the plant species wild blue lupine (*Lupinus perennis*) and wild indigo (*Baptisia tinctoria*). This butterfly is declining nationally because their associated plant species have been negatively impacted. These plants require open habitats on sandy or gravelly soils.

Recommendations: To help protect frosted elfin moths, surveys should be conducted by an invertebrate biologist to determine if favored plants are going to be impacted by this project. A report summarizing the results of such survey should include habitat descriptions, host plant locations, an invertebrate species list and a statement/resume giving the invertebrate biologist's qualifications, and, most importantly, mitigation measures to protect this species and their associated habitat. A DEEP Wildlife Division scientific collector's permit may be required by the invertebrate biologist to conduct survey work, therefore you should ask if your biologist has one. Survey results should be submitted to the DEEP Wildlife Division for review and approval before the project begins.

The Natural Diversity Data Base includes all information regarding critical biological resources available to us at the time of the request. This information is a compilation of data collected over the years by the Department of Energy and Environmental Protection's Natural History Survey and cooperating units of DEEP, private conservation groups and the scientific community. This information is not necessarily the result of comprehensive or site-specific field investigations. Consultations with the Data Base should not be substituted for on-site surveys required for environmental assessments. Current research projects and new contributors continue to identify additional populations of species and locations of habitats of concern, as well as, enhance existing data. Such new information is incorporated into the Data Base as it becomes available. If the project is not implemented within 12 months, then another Natural Diversity Data Base review should be requested for up-to-date information.

Thank you for consulting the Natural Diversity Data Base. If you have further questions, I can be reached by email at <a href="mailto:Elaine.hinsch@ct.gov">Elaine.hinsch@ct.gov</a>.

Sincerely,
/s/
Elaine Hinsch
Program Specialist II
Wildlife Division



CPPU USE ONLY
App #:
Doc #:
Check #: No fee required
Program: Natural Diversity Database Endangered Species
Hardcopy Electronic

# Request for Natural Diversity Data Base (NDDB) State Listed Species Review

Please complete this form in accordance with the <u>instructions</u> (DEEP-INST-007) to ensure proper handling of your request.

There are no fees associated with NDDB Reviews.

# Part I: Preliminary Screening & Request Type

Before submitting this request, you must review the most current Natural Diversity Data Base "State and Federal Listed Species and Significant Natural Communities Maps" found on the <a href="DEEP website">DEEP website</a> . These maps are updated twice a year, usually in June and December.		
	Il in an NDDB Area according to the map instructions: the map reviewed for pre-screening: December 2014	
This form is being submitted for a :		
<ul> <li>New NDDB request</li> <li>Renewal/Extension of a NDDB Request, without modifications and within one year of issued NDDB determination (no attachments required)</li> <li>[CPPU Use Only - NDDB-Listed Species Determination # 1736]</li> </ul>	<ul> <li>New Safe Harbor Determination (optional) must be associated with an application for a GP for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities</li> <li>Renewal/Extension of an existing Safe Harbor Determination</li> <li>With modifications</li> <li>Without modifications (no attachments required)</li> </ul>	
Enter NDDB Determination Number for Renewal/Extension:	Enter Safe Harbor Determination Number for Renewal/Extension:	

# **Part II: Requester Information**

\*If the requester is a corporation, limited liability company, limited partnership, limited liability partnership, or a statutory trust, it must be registered with the Secretary of State. If applicable, the name shall be stated **exactly** as it is registered with the Secretary of State. Please note, for those entities registered with the Secretary of State, the registered name will be the name used by DEEP. This information can be accessed at the Secretary of the State's database CONCORD. (www.concord-sots.ct.gov/CONCORD/index.jsp)

If the requester is an individual, provide the legal name (include suffix) in the following format: First Name; Middle Initial; Last Name; Suffix (Jr, Sr., II, III, etc.).

If there are any changes or corrections to your company/facility or individual mailing or billing address or contact information, please complete and submit the Request to Change company/Individual Information to the address indicated on the form.

1.	Requester*		
	Company Name: Tighe & Bond, Inc.		
	Contact Name: Briony Angus, AICP		
	Address: 53 Southampton Road		
	City/Town: Westfield	State: MA	Zip Code: <b>01085</b>
	Business Phone: (413) 562-1600	ext. 3302	
	**E-mail: BAngus@tighebond.com		
	**By providing this email address you are agreeing to receive this electronic address, concerning this request. Please remem can receive emails from "ct.gov" addresses. Also, please notif	nber to check you	r security settings to be sure you
a)	Requester can best be described as:		
	☐ Individual ☐ Federal Agency ☐ State agence	cy 🗌 Municip	pality 🗌 Tribal
	★ *business entity (* if a business entity complete i through)	iii):	
	i) Check type ⊠ corporation ☐ limited liability comp	oany 🗌 limi	ted partnership
	☐ limited liability partnership ☐ statutor	ry trust	her:
	ii) Provide Secretary of the State Business ID #: Thi	s information ca	n be accessed at the Secretary
	of the State's database (CONCORD). (www.concord	-sots.ct.gov/CO	NCORD/index.jsp)
	iii) $\  \   \square$ Check here if your business is <b>NOT</b> registered with the	ne Secretary of S	State's office.
b)	Acting as (Affiliation), pick one:		
	☐ Property owner ☐ Consultant ☐ Engineer ☐	Facility owner	Applicant
	☐ Biologist ☐ Pesticide Applicator ☐ Other re	epresentative:	
2.	List Primary Contact to receive Natural Diversity Data Badifferent from requester.	se correspond	ence and inquiries, if
	Company Name:		
	Contact Person:	Title:	
	Mailing Address:		
	City/Town:	State:	Zip Code:
	Business Phone:	ext.	
	**E-mail:		

# **Part III: Site Information**

This request can only be completed for one site. A separate request must be filed for each additional site.

1.	SITE NAME AND LOCATION
	Site Name or Project Name: Woods Hill Road Solar Project
	Town(s): Pomfret
	Street Address or Location Description: 101 Woods Hill Road
	Size in acres, or site dimensions: Limit of Work = 116 acres; Total Project Site = 227 acres
	(Approximately 51 acres of Parcel A and 65 acres of Parcel B).
	Latitude and longitude of the center of the site in decimal degrees (e.g., 41.23456 -71.68574):
	Latitude: <b>41.83275</b> Longitude: <b>71.920183</b>
	Method of coordinate determination (check one):
	☐ GPS ☐ Photo interpolation using CTECO map viewer ☐ Other (specify): Google Earth
2a.	Describe the current land use and land cover of the site.
	The Site consists of relatively flat, cleared, agricultural land with frontage off of Woods Hill Road. Stone walls traverse portions of the agricultural land on both parcels. The Site is located just north of the municipal boundary between Pomfret and Brooklyn, Connecticut. Wooded areas surround the agricultural fields on both parcels. A large Connecticut Light & Power transmission line and right of way traverse Parcel A to the east of the cleared portion. The Quinebaug River is located approximately 1,200 feet to the east of the agricultural land on Parcel A. The Site contains inland wetlands and watercourses. Based on a review of GIS data, a portion of Parcel B includes rare species habitat mapped pursuant to the Natural Diversity Database program. There is no regulatory floodplain at the Site.
b.	Check all that apply and enter the size in acres or % of area in the space after each checked category.
	☐ Industrial/Commercial ☐ Residential ☐ ☐ Forest 15
	☐ Wetland ☐ Field/grassland ☐ Agricultural 80
	☐ Water ☐ Utility Right-of-way <u>5</u>
	Transportation Right-of-way Other (specify):
Part	IV: Project Information
1.	PROJECT TYPE:
	Choose Project Type: Utility construction/modification , If other describe:

2.	Is the subject activity limited to the maintenance, repair, or improvement of an existing structure within the existing footprint? $\square$ Yes $\boxtimes$ No $\square$ If yes, explain.

DEEP-APP-007 4 of 6 Rev. 12/13/13

# Part IV: Project Information (continued)

3. Give a detailed description of the activity which is the subject of this request and describe the methods and equipment that will be used. Include a description of steps that will be taken to minimize impacts to any known listed species.

RES America Developments, Inc. (RES, developer/ owner) is submitting this NDDB Review Request for the proposed installation of an approximately 25.6 MW(DC)/ 19.25(AC) ground-mounted solar PV system within two parcels (Parcel A and Parcel B) located near the terminus of Woods Hill Road in Pomfret, Connecticut. Parcel A (approximately 113 acres) is located to the south/ east of the terminus of Woods Hill Road. Parcel B (approximately 114 acres) is located to the north/ west of Woods Hill Road. RES will purchase the properties from the current owner. The total Site area is approximately 227 acres. As proposed, the limit of work of the proposed project will occupy approximately 116 acres of the 227-acre project Site (51 acres of Parcel A and 65 acres of Parcel B).

The Site consists of relatively flat, cleared, agricultural land with frontage off of Woods Hill Road. Stone walls traverse portions of the agricultural land on both parcels. The Site is located just north of the municipal boundary between Pomfret and Brooklyn, Connecticut. Wooded areas surround the agricultural fields on both parcels. A large Connecticut Light & Power transmission line and right of way traverse Parcel A to the east of the cleared portion. The Quinebaug River is located approximately 1,200 feet to the east of the agricultural land on Parcel A. The Site contains inland wetlands and watercourses. Based on a review of GIS data, a portion of Parcel B includes rare species habitat mapped pursuant to the Natural Diversity Database program. There is no regulatory floodplain at the Site.

Proposed activities include selective vegetation clearing, construction of a new gravel access road, installation of solar PV modules and equipment pads, and the installation of a chain-link security fence along the facility's perimeter. Approximately 80,500 310 watt solar PV modules (4 x 5 landscape layout) will be installed.

The solar modules will be erected using a driven metal post foundation system. As shown on Sheet 4 in Appendix B, portions of the proposed PV arrays will be located 75 feet from delineated inland wetlands. The racks will run east-west and will be mounted facing south at a fixed 25 degree angle to ground surface. The rows of racks will be spaced approximately 15 feet apart.

Approximately 14 reinforced concrete electrical equipment pads (28' x 28') will support the electrical equipment. The electrical equipment pads will contain inverters, switchgear and transformers that will step-up the voltage prior to interconnecting with Eversource's local distribution circuit. The solar PV project will interconnect with the utility at distribution voltage on the property at the limit of the right of way. This connection will utilize a combination of underground conduits and overhead wiring and equipment required by the utility company. An emergency system cut-off switch will be installed in a location designated by Eversource.

The arrays on each parcel will be accessed via a new 16-foot wide access road. The access road entrance to each parcel is on Woods Hill Road. The proposed access road will be comprised of approximately 6 inches of dense graded crushed stone or clean, uncoated aggregate base course (ABC) (per CT DEEP standards) placed above existing grades. Minor grading may be required along the proposed access road in select locations based on topography.

The project also consists of select removal and clearing of existing vegetation to minimize shade impacts. Portions of this work will occur approximately 75 to 100 feet from delineated inland wetlands. Erosion and sedimentation controls will be installed around the project site prior to vegetation removal. The vegetation will be cut and stumps will remain. All cut vegetation will be chipped on-site and either removed and disposed, or left in place to further stabilize the site. The ground beneath the solar arrays will be planted with fescue species. The aisles will be planted with a low-growing solar array mix.

RES and/or its authorized subcontractors will perform site maintenance to ensure safety and prevent shading impacts. Mowing of the grass between the rows of racks may occur as needed but

	estimated at twice per year. No herbicides or chemicals will be used to manage vegetation.
	Temporary construction measures will include installation of a 4" gravel construction entrance and a siltation fence for erosion control.
4.	If this is a renewal or extension of an existing Safe Harbor request <i>with</i> modifications, explain what about
	the project has changed.
5.	Provide a contact for questions about the project details if different from Part II primary contact.
	Name:
	Phone:
	E-mail:

# Part V: Request Requirements and Associated Application Types

Check one box from either Group 1, Group 2 or Group 3, indicating the appropriate category for this request.

<b>Group 1</b> . If you check one of these boxes, complete Parts I – VII of this form and submit the required attachments A and B.
☐ Preliminary screening was negative but an NDDB review is still requested
Request regards a municipally regulated or unregulated activity (no state permit/certificate needed)
Request regards a preliminary site assessment or project feasibility study
Request relates to land acquisition or protection
Request is associated with a <i>renewal</i> of an existing permit, with no modifications
<b>Group 2.</b> If you check one of these boxes, complete Parts I – VII of this form and submit required attachments A, B, <i>and</i> C.
Request is associated with a <i>new</i> state or federal permit application
Request is associated with modification of an existing permit
Request is associated with a permit enforcement action
Request regards site management or planning, requiring detailed species recommendations
Request regards a state funded project, state agency activity, or CEPA request
☐ <b>Group 3.</b> If you are requesting a <b>Safe Harbor Determination</b> , complete Parts I-VII and submit required attachments A, B, and D. Safe Harbor determinations can only be requested if you are applying for a GP for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities
If you are filing this request as part of a state or federal permit application(s) enter the application information below.
Permitting Agency and Application Name(s):  Connecticut Siting Council - Petition for Declaratory Ruling for a Renewable Energy Facility
State DEEP Application Number(s), if known:
State DEEP Enforcement Action Number, if known:
State DEEP Permit Analyst(s)/Engineer(s), if known:
Is this request related to a previously submitted NDDB request?   Yes   No
If yes, provide the previous NDDB Determination Number(s), if known:

# Part VI: Supporting Documents

Check each attachment submitted as verification that *all* applicable attachments have been supplied with this request form. Label each attachment as indicated in this part (e.g., Attachment A, etc.) and be sure to include the requester's name, site name and the date. **Please note that Attachments A and B are required for all new requests and Safe Harbor renewals/extensions with modifications.** Renewals/Extensions with no modifications do not need to submit any attachments. Attachments C and D are supplied at the end of this form.

Attachment A:	Overview Map: an 8 1/2" X 11" print/copy of the relevant portion of a USGS Topographic Quadrangle Map clearly indicating the exact location of the site.	
Attachment B:	Detailed Site Map: fine scaled map showing site boundary and area of work details on aerial imagery with relevant landmarks labeled. (Site and work boundaries in GIS [ESRI ArcView shapefile, in NAD83, State Plane, feet] format can be substituted for detailed maps, see instruction document)	
	Supplemental Information, Group 2 requirement (attached, DEEP-APP-007C)  ☐ Section i: Supplemental Site Information and supporting documents  ☐ Section ii: Supplemental Project Information and supporting documents	
Attachment D:	Safe Harbor Report Requirements, Group 3 (attached, DEEP-APP-007D)	

# Part VII: Requester Certification

The requester and the individual(s) responsible for actually preparing the request must sign this part. A request will be considered incomplete unless all required signatures are provided.

"I have personally examined and am familiar with the inform attachments thereto, and I certify that based on reasonable individuals responsible for obtaining the information, the sub to the best of my knowledge and belief."	investigation, including my inquiry of the mitted information is true, accurate and complete
Browships	12/10/205
Signature of Requester (a typed name will substitute for a handwritten signature)	12/10/20 5 Date
Briony Angus (Tighe & Bond, Inc.)	Senior Project Manager
Name of Requester (print or type)	Title (if applicable)
Signature of Preparer (if different than above)	Date
Name of Preparer (print or type)	Title (if applicable)

Note: Please submit the completed Request Form and all Supporting Documents to:

CENTRAL PERMIT PROCESSING UNIT DEPARTMENT OF ENERGY & ENVIRONMENTAL PROTECTION 79 ELM STREET HARTFORD, CT 06106-5127

Or email request to: deep.nddbrequest@ct.gov

# Attachment C: Supplemental Information, Group 2 requirement

# Section i: Supplemental Site Information

<ol> <li>Existina</li> </ol>	Conditions
------------------------------	------------

Describe all natural and man-made features including wetlands, watercourses, fish and wildlife habitat, floodplains and any existing structures potentially affected by the subject activity. Such features should be depicted and labeled on the site plan that must be submitted. Photographs of current site conditions may be helpful to reviewers.

The Site consists of relatively flat, cleared, agricultural land with frontage off of Woods Hill Road. Stone walls traverse portions of the agricultural land on both parcels. Wooded areas surround the agricultural fields on both parcels. A large Connecticut Light & Power transmission line and right of way traverse Parcel A to the east of the cleared portion. The Quinebaug River is located approximately 1,200 feet to the east of the agricultural land on Parcel A. The proposed work is located greater than 150 feet from the Quinnebag River. No floodplain exists within the limits of the subject parcels. The Site contains inland wetlands and watercourses. Based on a review of GIS data, a portion of Parcel B includes rare species habitat mapped pursuant to the Natural Diversity Database program. There is no regulatory floodplain at the Site.

As shown on Sheet 4 in Appendix B, portions of the proposed PV arrays will be located 75 feet from delineated inland wetlands. The project consists of select removal and clearing of existing vegetation to minimize shade impacts. Portions of the vegetation clearing will occur approximately 75 to 100 feet from delineated inland wetlands.

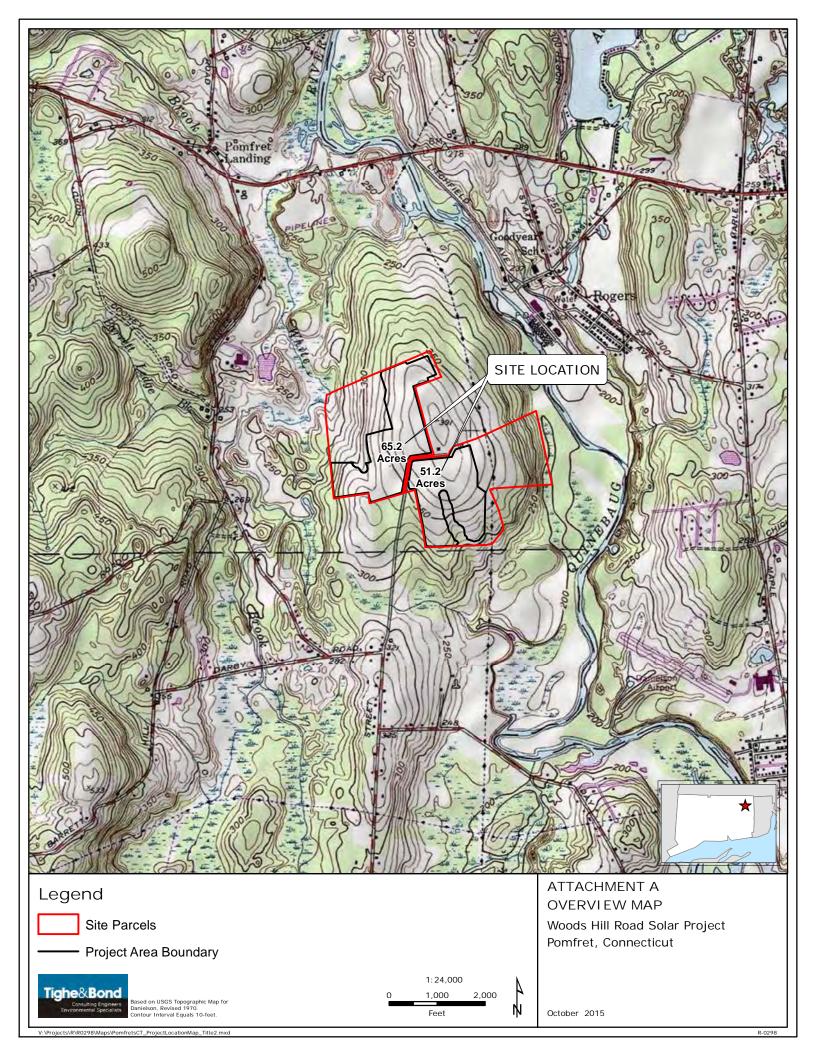
	<ul> <li>☑ Site Photographs (optional) attached</li> <li>☑ Site Plan/sketch of existing conditions attached</li> </ul>
2.	Biological Surveys
	Has a biologist visited the site and conducted a biological survey to determine the presence of any endangered, threatened or special concern species $\ \square$ Yes $\ \boxtimes$ No
	If yes, complete the following questions and submit any reports of biological surveys, documentation of the biologist's qualifications, and any NDDB survey forms.
	Biologist(s) name:
	Habitat and/or species targeted by survey:
	Dates when surveys were conducted:
	☐ Reports of biological surveys attached
	☐ Documentation of biologist's qualifications attached
	NDDB Survey forms for any listed species observations attached

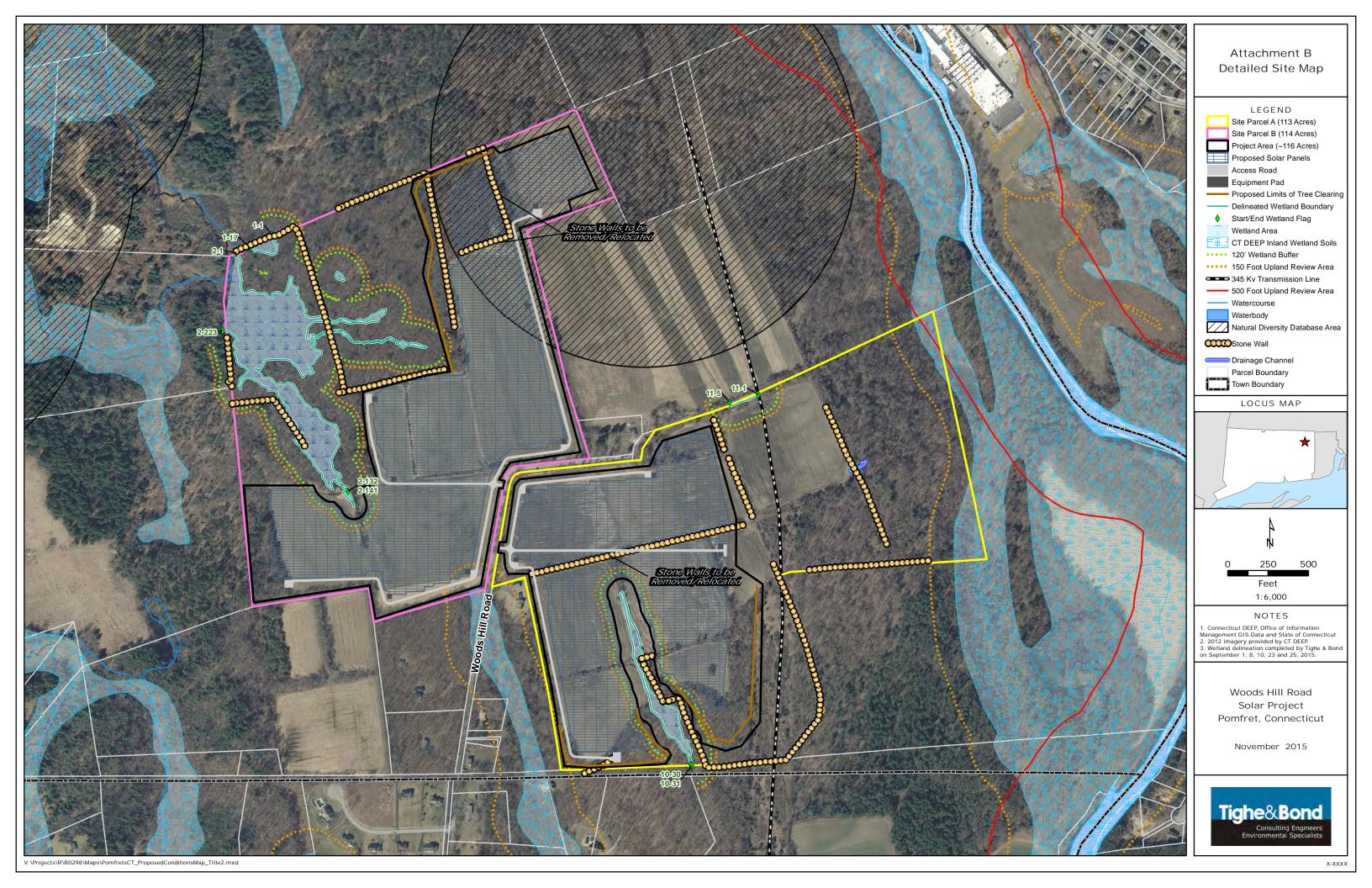
# Section ii: Supplemental Project Information

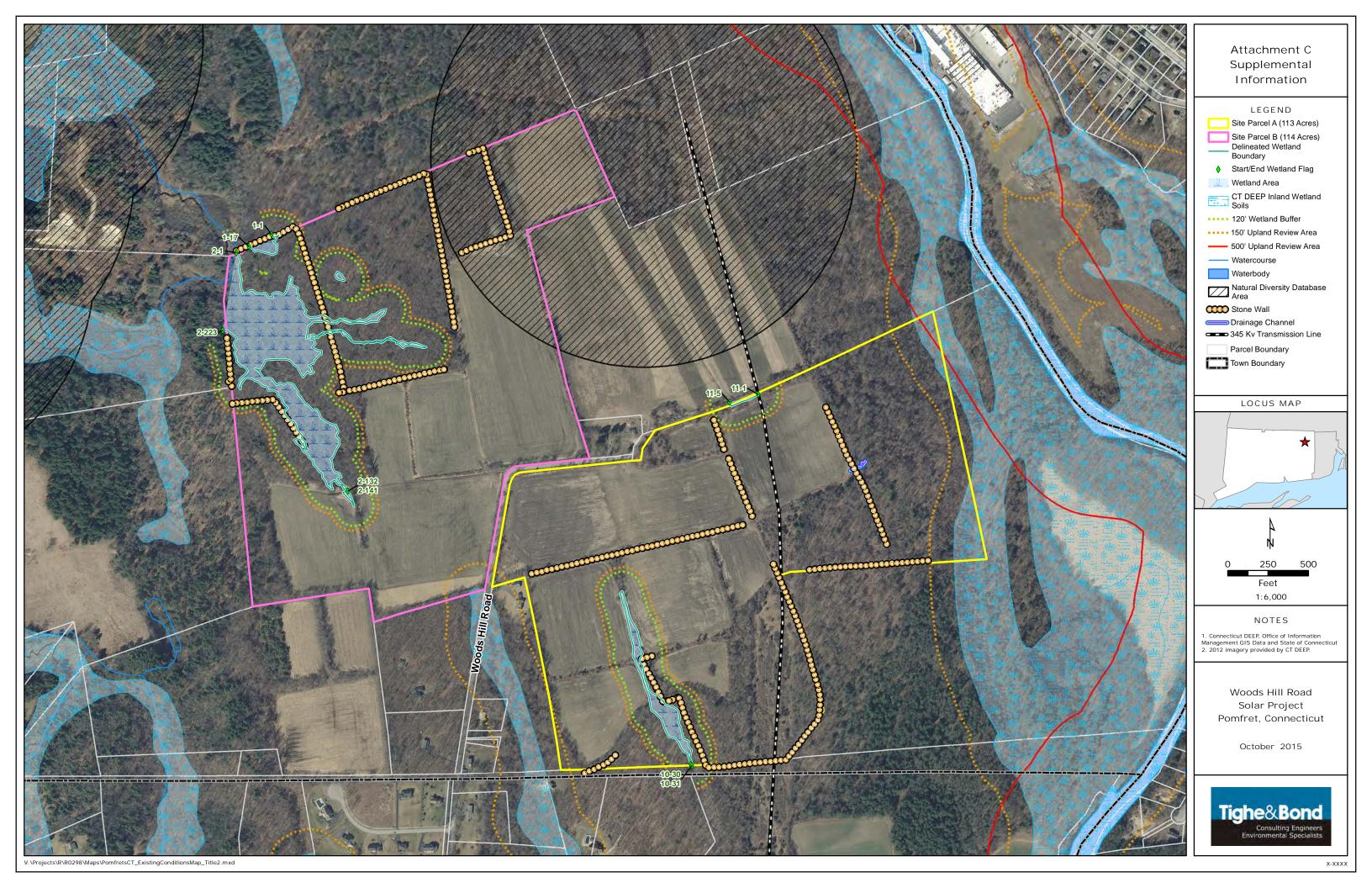
1.	Provide a schedule for all phases of the project including the year, the month and/or season that the
	proposed activity will be initiated and the duration of the activity.

The project is proposed to commence in June 2016 and continue through October 2016.

2.	Describe and quantify the proposed changes to existing conditions and describe any on-site or off-site impacts. In addition, provide an annotated site plan detailing the areas of impact and proposed changes to existing conditions.
	conditions.









**Photo 1:** Parcel B - View of the western farm field, facing west toward the proposed tree removal area and parcel boundary (9/08/2015).



**Photo 2:** Parcel B - View of the tree line within the southern field, facing north (9/8/2015).



**Photo 3:** View of the southwestern farm field in Parcel B, facing southeast (9/8/2015).



**Photo 4:** Parcel B - View of the southern farm field, facing east toward Woods Hill Road (9/8/2015).



**Photo 5:** Parcel B – Representative view of the proposed tree removal area within northern forested portion of parcel and within mapped NDDB polygon, facing east (9/10/2015).



**Photo 6:** Parcel B – Representative view of the proposed tree removal area near northern parcel boundary, facing east (9/10/2015).



**Photo 7:** Parcel A - View of the northern farm field, facing southwest toward Woods Hill Road and parcel boundary (9/23/2015).



**Photo 8:** Parcel A - View of the transmission line and farm field located outside (and east of) the Project Boundary, facing south (9/25/2015).

Tighe&Bond



**Photo 9:** Parcel A - View of the transmission line located outside (and east of) the Project Boundary, facing north (9/25/2015).



**Photo 10:** Parcel A - View of the proposed tree removal area and eastern Project Boundary from the transmission line Right of Way, facing west (9/25/15).



**Photo 11:** Parcel A – Representative view of the forested area outside (and east of) the Project Boundary and transmission line ROW in the eastern portion of the parcel. View facing east (9/25/2015).



**Photo 12:** Parcel A - View of the vegetated access road outside (and east of) the Project Boundary and along the northern parcel boundary, facing east (9/25/15).

# **EXHIBIT N**:

Stormwater Management Report







# 

# **Stormwater Report**

Solar Facility Installation

Woods Hill Solar Project Pomfret, Connecticut

Prepared For:

Woods Hill Solar, LLC

March 2016

## **Section 1 Project Introduction**

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3.1	Stormwater Manual Compliance	3-1
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#### **Appendices**

A Figures

Figure 1: USGS Site Locus Map

Figure 2: Existing Conditions Drainage Area Map

Figure 3: Proposed Conditions Drainage Area Map

B Soils Data

C Hydrologic and Hydraulic Calculations

# Section 1 Project Introduction

On behalf of Woods Hill Solar, LLC, Tighe & Bond has prepared this Stormwater Management Report in support of the Petition submitted to the Connecticut Siting Council for a declaratory ruling that a Certificate of Environmental Compatibility and Public Need is not required for the construction, operation and maintenance of a ground-mounted solar photovoltaic (PV) facility of approximately 17.61 MW AC to be constructed off of Woods Hole Road in the Town of Pomfret, Connecticut (the Project).

Components of the system to be installed at the project site include solar panels, mounting substrates, system foundations, wiring and connections, power inverters, service and metering equipment, and interconnection with the utility. The project also consists of construction of an access road to the array for installation and maintenance and select vegetation clearing. A USGS Site Locus figure is provided in Appendix A. Project Drawings are attached separately to the Petition.

# Section 2 Project Description

#### 2.1 Existing Conditions

The project site consists of two parcels (Parcel A and Parcel B) located near the terminus of Woods Hill Road in Pomfret, Connecticut; jointly referred to as "the Site." The Project is located at 90 Woods Hill Road (Parcel A) and 101 Woods Hill Road (Parcel B)). Parcel A (approximately 115 acres) is located to the southeast of the terminus of Woods Hill Road, while Parcel B (approximately 113 acres) is located to the northwest. The Site is undeveloped, agricultural and wooded land. Currently, the Property is utilized for agricultural uses (hay and corn fields). The Site does not house any structures. Land uses adjacent to the Site and within the immediate locale are predominantly agricultural and wooded open space. Several residences are located to the south of the proposed Site.

The Site consists of relatively flat, cleared, land with frontage off of Woods Hill Road. Site topography in the area proposed for development is generally uniform, with a slight downward slope from north to south. Stone walls traverse portions of the agricultural land on both parcels. Wooded areas surround the agricultural fields on both parcels. A large Connecticut Light & Power (now doing business as Eversource) transmission line and Right Of Way traverse Parcel A to the east of the cleared portion. The Quinebaug River is located approximately 1,200 feet to the east of the agricultural land on Parcel A. The proposed work is located greater than 2,000 feet from the Quinnebag River. No floodplain exists within the limits of the subject parcels. The Site contains inland wetlands and watercourses. Based on a review of GIS data and consultation with DEEP, a portion of Parcel B includes rare species habitat mapped pursuant to the Natural Diversity Database program. There is no regulatory floodplain at the Site.

NRCS soil data was obtained through the Web Soil Survey portal on the USDA NRCS website. The areas surrounding the property were queried for soil types according to the record soil survey maps maintained by NRCS. Soil types depicted on the soils map on the subject property include Ridgebury association, Hinckley association, Woodbridge association, Canton and Charlton association, Charlton-Chatfield association, Paxton and Montauk association, Pootatuck association and Rippowam association. Each soil classification is further detailed below. NRCS soils information is provided in Appendix B.

**Table 2.1** NRCS Soil Summary

Soil Association	Map Unit Designation	Additional Description	Hydrologic Soil Group ( HSG)
Ridgebury association	2	Fine sandy loam	D
Ridgebury, Leicester, and Whitman association	3	Extremely stony	D
Hinckley association	38C	Loamy sand	А
Woodbridge association	45A, 45B, 46B, 47C	Fine sandy loam	C/D
Canton and Charlton association	60C, 62C, 62D	Stony	В
Charlton-Chatfield association	73C, 73E	Rocky	В
Paxton and Montauk association	84B, 84C, 85B	Fine sandy loam	С
Pootatuck association	102	Fine sandy loam	В
Rippowam association	103	Fine sandy loam	B/D

In addition to the NRCS Soil Data provided above, a comprehensive test pit and boring investigation was conducted on the site in December 2015. The results of the test pits and borings are provided in Appendix B. In general, the borings and test pits confirm the NRCS soil mapping in that the site is predominantly sand with some gravel and smaller areas of silt. Bedrock depths ranged from 9 to 22 feet below existing grade.

The topography of the existing conditions site conveys stormwater runoff radially from a high point located in the central portion of the project area. The project was divided into five existing conditions subcatchments conveying stormwater runoff radially off-site. The Existing Conditions Drainage Area Map is provided as Figure 3 in Appendix A. A summary of the existing conditions drainage area size and runoff curve number is provided in Table 2.2 below.

**Table 2.2** Existing Conditions Drainage Area Summary

Subcatchment Designation	Area (acres)	Weighted Runoff Curve Number (RCN)
Drainage Area 10S	56.3	73
Drainage Area 20S	22.5	69
Drainage Area 30S	40.5	81
Drainage Area 40S	101.4	78
Drainage Area 50S	11.5	81
Overall Existing Project	232.2	77

Stormwater runoff from the existing site generally flows radially to the wetland areas surrounding the site. Drainage Area 10S conveys stormwater runoff easterly to an unmapped wetland. Drainage 20S conveys stormwater runoff southeasterly to a wooded area off-site. Drainage Area 30S conveys stormwater runoff southwesterly towards an off-site, unmapped wetland. Drainage Area 40S conveys stormwater runoff northwesterly towards a large wetland system. Drainage Area 50S conveys stormwater runoff northerly off-site. Each Drainage Area is associated with a design point so as to compare existing and proposed peak rate discharges as discussed further in this report.

#### 2.2 Proposed Improvements

The project consists of the installation of an approximately  $22 \text{ MW}_{(DC)}/17.61_{(AC)}$  ground-mounted solar PV system within the site made up of Parcel A and Parcel B. The total Site area is approximately 227 acres. As proposed, the limit of work of the proposed project will occupy approximately 102 acres of the 228-acre project Site (42.78 acres of Parcel A and 59.67 acres of Parcel B).

Proposed activities include selective vegetation clearing, construction of a new gravel access road, installation of solar PV modules and equipment pads. Approximately 69,882 315 watt solar PV modules (4 x 5 landscape layout) will be installed.

The solar modules will be erected using a driven metal post foundation system. The racks will be installed approximately 16 feet apart. Portions of the proposed PV arrays will be located 75 feet from delineated inland wetlands. The racks will run east-west and will be mounted facing south at a fixed 25 degree angle to ground surface.

The arrays on each parcel will be accessed via a proposed 12-foot wide access road. The access road entrance to each parcel is from Woods Hill Road. The proposed access road will be comprised of approximately 6 inches of dense graded crushed stone placed above existing grades. Minor grading may be required along the proposed access road in select locations based on topography; however in general, the access road will be graded to mimic existing topography.

The project also consists of select removal and clearing of existing vegetation to minimize shade impacts. Portions of this work will occur no closer than 75 feet from delineated inland wetlands. Erosion and sedimentation controls will be installed around the project site prior to vegetation removal. Temporary construction measures will include installation of a 4" gravel construction entrance and a siltation fence for erosion control. The

vegetation will be cut and stumps will remain in the areas outside of the array. Stumps will be removed within the array area. All cut vegetation will be chipped on-site and either removed and disposed, or left in place to further stabilize the site. The ground beneath the solar arrays will be planted with fescue species. The aisles will be planted with a low-growing solar array mix.

Woods Hill Solar, LLC and/or its authorized subcontractors will perform site maintenance to ensure safety and prevent shading impacts. Mowing of the grass within the array will occur as needed but estimated at twice per year. No herbicides or chemicals will be used to manage vegetation.

The topography of the site will not significantly change as a result of the proposed development. While the proposed installation requires that some existing vegetation be removed, the existing topography shall remain generally unchanged. Micro-grading, or the grading of existing undulations, will occur prior to installation of the solar array; however this activity will not cause substantial changes to drainage areas or stormwater flow paths on the site.

Under proposed conditions, large portions of the agricultural uses will be converted to solar array where panels will be installed using driven piles or ground screws. Existing hay fields will be cut and existing growth will be maintained. Within areas of existing corn fields, grass will be planted and will be allowed to grow and develop into a grassy meadow. Stormwater will fall onto solar panels and will flow off the edge into the vegetated surface and flow along existing flow paths as under existing conditions. Therefore, the only solar panels that are considered impervious will be the most up-gradient panels in each subcatchment.<sup>1</sup> The remainder of the solar facility within the limit of work will be considered meadow, non-grazed. Concrete equipment pads, existing and proposed gravel access roads, woodland, remaining agricultural fields and wetland areas surfaces were also included in the post-development analysis.

Since the project will not substantially alter topography of the site, the Proposed Conditions Drainage Area Map, provided as Figure 2 in Appendix A, indicates that the five existing conditions drainage areas will also serve as the five proposed conditions drainage areas. The five proposed areas will continue to discharge stormwater runoff the five associated design points previously described. Proposed drainage areas are further described Table 2.3 below.

**Table 2.3** Proposed Conditions Drainage Area Summary

Subcatchment Designation	Area (acres)	Weighted Runoff Curve Number (RCN)
Drainage Area 10S	56.3	69
Drainage Area 20S	22.5	64
Drainage Area 30S	40.5	72
Drainage Area 40S	101.4	73
Drainage Area 50S	11.5	73

<sup>&</sup>lt;sup>1</sup> Cook, L.M. & McCuen, R. H., (2013). Hydrologic Response of Solar Farms. *Journal of Hydrologic Engineering*, 18(5). pp.536-541

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Overall Proposed Project	232.2	71
		·

The decrease in the runoff curve number is due to the conversation of agricultural fields to a grassy meadow condition, which offsets the impacts of the proposed gravel access road and concrete equipment pads. Within the solar array, stormwater will fall onto the PV modules and will flow off the edge into the grassy ground cover. Stormwater runoff will continue to flow across the ground surface as under existing conditions along existing flow paths. Stormwater runoff quantity will not be increased as part of the proposed development.

### 2.3 Hydrologic Analysis

A hydrologic analysis of the pre-development and post-development site was performed to determine the impacts of the proposed project to peak discharge rates and stormwater runoff volumes. HydroCAD Release 9.10 is a hydrology and hydraulics software using Technical Release (TR) 20 and TR-55 methodologies for the determination of stormwater runoff quantities. The HydroCAD Report for both pre- and post-development conditions for the 2-, 10-, 25- and 100-year storm events is provided in Appendix C.

The proposed Project will not substantially alter stormwater flow paths and will result in decreased peak discharge rates as a result of a reduction in the composite Curve Number (CN) under the proposed conditions analysis. The existing site is primarily agricultural (hay and corn crops) with areas of woodland, open meadow, wetlands and gravel roads. As previously presented, the CN value for the existing site is 77 and the proposed CN value is 71 for the entire site. Composite runoff curve number calculations are provided in the HydroCAD Report in Appendix C.

The hydrologic analysis assumes that in each drainage subcatchment, only the topographically highest row of panels is considered impervious due to the nature of how stormwater will continue to travel on the site beneath subsequent rows of panels. This approach is conservative, in that the panels from which the time of concentration was calculated is not the most hydrologically remote point, but results in a reduction in peak discharge rates from the site.

The HydroCAD Report, as provided in Appendix C, includes the analysis for the 2-, 10-, 25- and 100-year storm events for both existing and proposed conditions. Rainfall depths used in the analysis are consistent with those published in the 2004 Connecticut Stormwater Quality Manual for Windham County and as provided in the Table below.

**Table 2.4**Design Rainfall Depths

Storm Event	Rainfall Depth (inches)
2-Year	3.2
10-Year	4.8
25-Year	5.5
100-Year	6.9

Table 2.5 presents the results of the pre-development stormwater runoff analysis versus the post-development stormwater runoff analysis for each design point

**Table 2.5**Peak Discharge Rate Comparison

		2-year Storm Event (cfs)	10-year Storm Event (cfs)	25-year Storm Event (cfs)	100-year Storm Event (cfs)
DA 10	Existing	33.2	75.9	96.4	139.2
DA 10	Proposed	24.5	62.7	81.7	122.0
Existing		11.2	28.9	37.6	56.2
DA20	Proposed	7.2	22.9	31.0	48.8
54.00	Existing	39.3	75.8	92.5	126.2
DA 30	Proposed	21.8	51.1	65.3	95.1
DA 40	Existing	45.8	94.4	117.0	163.4
DA 40	Proposed	33.5	77.5	98.6	143.0
DA FO	Existing	11.8	22.7	27.7	37.8
DA 50	Proposed	8.3	18.9	24.0	34.7

Table 2.5 indicates that existing peak discharge rates are reduced for the 2-, 10-, 25- and 100-year storm events.

# **Section 3 Regulatory Compliance**

#### 3.1 Stormwater Manual Compliance

The project has been designed to comply with the 2004 Connecticut Stormwater Quality Manual (Stormwater Manual) and the 2002 Connecticut Guidelines for Soil Erosion and Sediment Control (SESC Guidelines). The following section describes how the project complies with the criteria outlined in each document.

The project has been designed to comply with the Stormwater Quality requirements of the Stormwater Manual for both Water Quality and Groundwater Recharge. Both requirements are based on the imperviousness of the proposed development.

#### 3.1.1 Water Quality Volume

The required Water Quality Volume (WQV) for the proposed conditions is based on the acreage of impervious surfaces including gravel access roads, impervious roadways and impervious concrete pads. While the hydrologic analysis assumed that a portion of the solar panels in each drainage area were considered impervious in order to determine anticipated peak discharge rates, they have been excluded from WQV computations. The panels, as well as the concrete equipment pads, will not be subject to vehicular access, and therefore do not produce any pollutants to stormwater runoff.

All other impervious surfaces, specifically gravel and paved access roads, will not be curbed in order to promote a "country drainage" scenario. The lack of curb and gutter will allow stormwater runoff from the roadways to flow through the adjacent grasses. This will remove any sediment from the runoff prior to discharge to any wetland resource area. The location of the access roads, as shown on the Site Plans, indicates that impervious surfaces will be located over 100- feet from any wetland resource area, providing suitable residence time within the grass to remove sediment from runoff.

#### 3.1.2 Water Quality Flow

The Water Quality Flow (WQF) is a quantity of stormwater runoff based on the water quality design storm, or a 1-inch rainfall depth. This flow is important when designing water quality swales or other runoff diversion features to endure the property treatment is provided. The proposed project does not include any Best Management Practice (BMPs) that requires a WQF rate for design purposes, therefore this calculation was not performed.

#### 3.1.3 Groundwater Recharge

The required Groundwater Recharge Volume (GRV) is based on impervious ground coverage as well as the Hydrologic Soil Group of the underlying soils. The project has been designed to utilize a "country drainage" scheme which allows stormwater runoff from impervious surfaces to flow into adjacent grassed areas and allowed to recharge to groundwater as under existing conditions. The project does not include large, uninterrupted spans of impervious ground coverage. Concrete equipment pads are relatively small in comparison to the overall watershed, will not adversely impact groundwater recharge capabilities of the proposed conditions site. Of the approximately 228 acres of the parcel, impervious ground coverage will increase from 0.2% of the entire

project area to 0.5% of the entire project area. Since this increase is negligible in relation to the entire property, no further calculations to determine the volume of required groundwater recharge have been provided as part of this report.

#### 3.2 Soil Erosion and Sediment Control Guidelines

#### 3.2.1 Erosion and Sedimentation Control Narrative

Woods Hill Solar, LLC is proposing the construction, operation and maintenance of a ground-mounted solar photovoltaic (PV) facility of approximately 17.61 MW  $_{\rm AC}$  to be constructed off of Woods Hole Road in the Town of Pomfret, Connecticut.

The project will include selective vegetation clearing, construction of a new gravel access road and installation of solar PV modules and equipment pads. The solar modules will be erected using a driven metal post foundation system. The racks will be installed approximately 16 feet apart. Portions of the proposed PV arrays will be located 75 feet from delineated inland wetlands. The racks will run east-west and will be mounted facing south at a fixed 25 degree angle to ground surface.

Erosion and sedimentation control measures proposed as part of the project include silt fencing along the perimeter of the project and construction entrance to limit sediment tracking outside of the construction zone.

The project is proposed to be constructed sequentially in a single phase.

Project construction start: Summer 2016

Project construction end: Spring 2017

Soil erosion and sedimentation control measures shall conform to the standards outlined in the Connecticut Department of Environmental Protection (CTDEEP), "2002 Connecticut Guidelines for Soil Erosion and Sediment Control", latest revision.

#### 3.2.2 Erosion and Sedimentation Control Notes

The following notes have been included on the Site Plans and are to be followed throughout the construction duration.

- 1. Install all erosion control measures shown, specified and required by the Engineer prior to any construction or immediately upon request. Maintain all such control measures until final surface treatments are in place and/or until permanent vegetation is established.
- 2. Mark work limit line(s) prior to starting work. Do not disturb vegetation and topsoil beyond the proposed limit line. Coordinate with the Engineer for the location for the temporary stockpiling of topsoil during construction.
- 3. Fine grade and immediately seed all side slopes, shoulder areas, and disturbed vegetated areas. All grading to be a maximum slope of 2:1, compacted, and stabilized. Slopes greater than 3:1 to be stabilized with erosion control blanket.

- 4. Remove and dispose of all silt trapped at barriers in upland areas outside of buffer zones. Remove materials deposited in any temporary settling basin at the completion of the project. Restore all disturbed areas to pre-construction conditions.
- 5. Remove any sediment tracked on public Rights-of-Ways at the end of each day.

#### 3.2.3 Construction Sequence

The actual sequence of construction will be determined by the selected construction contractor. The following is a proposed sequence of construction for the project:

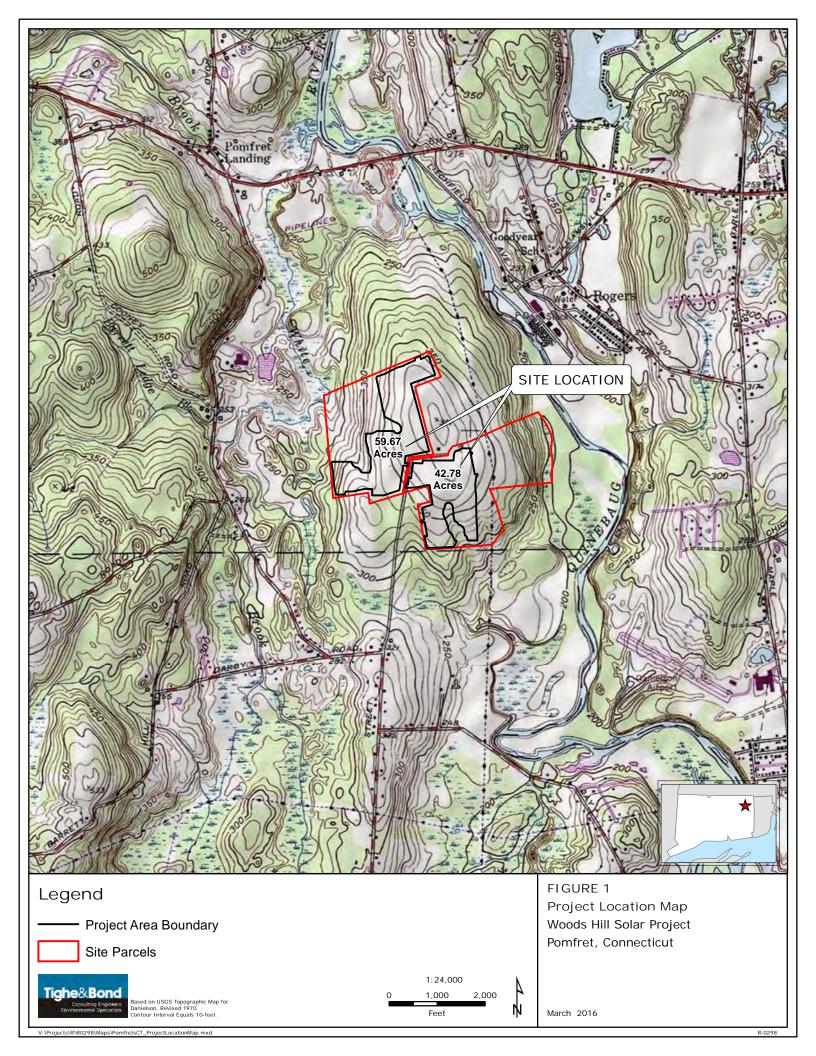
- 1. Flag the limits of construction necessary to facilitate the preconstruction meeting.
- 2. Hold preconstruction meeting. (Remember to call before you dig 1-800-922-4455).
- 3. Install the construction entrance.
- 4. Install erosion and sediment controls in accordance with the Site Plans.
- 5. Cut trees within defined clearing limits and remove cut wood. Chip brush and slash, stockpile chips for future use or remove off site.
- 6. Construct settling basins, as required.
- 7. Strip and stockpile all topsoil that is within the footprint of the access road and concrete equipment pads and reference stockpile management for erosion and sediment controls. (See 2002 CT guidelines for soil erosion and sediment control chapter 4, part ii on stockpile management).
- 8. Prepare sub-base, and concrete placement for equipment pads. Install gravel access road.
- 9. Install all subsurface utilities.
- 10. Install solar racking systems and PV modules.
- 11. Place topsoil where required.
- 12. Seed and mulch disturbed areas.
- 13. After site is stabilized remove temporary erosion and sediment controls (e.g. geotextile silt fences).

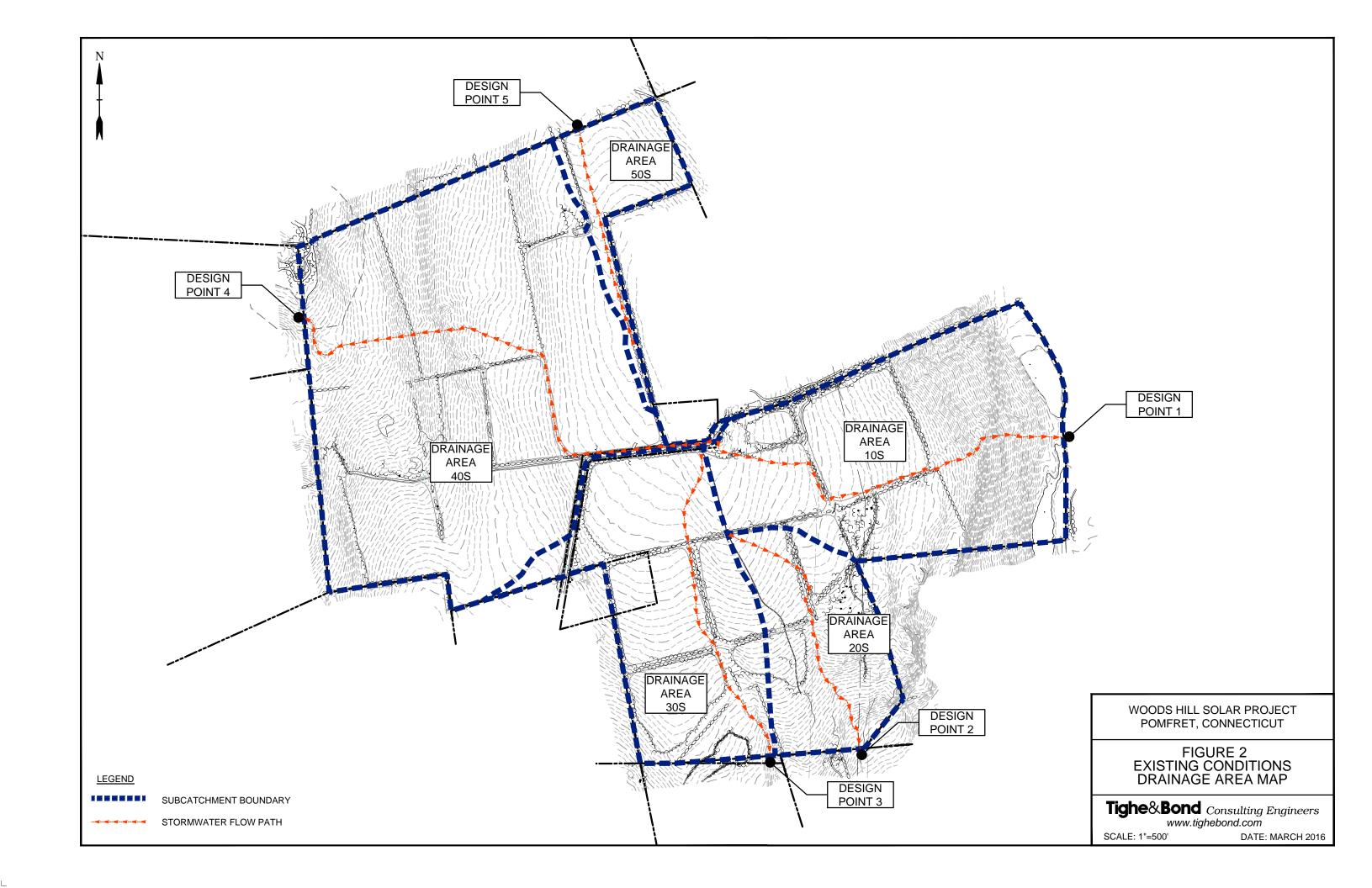
The construction will occur starting at one end or the center of a row with the piles or ground screws driven first, then the racking and panels will be installed on the piles and the construction will continue down each row to the end of the row.

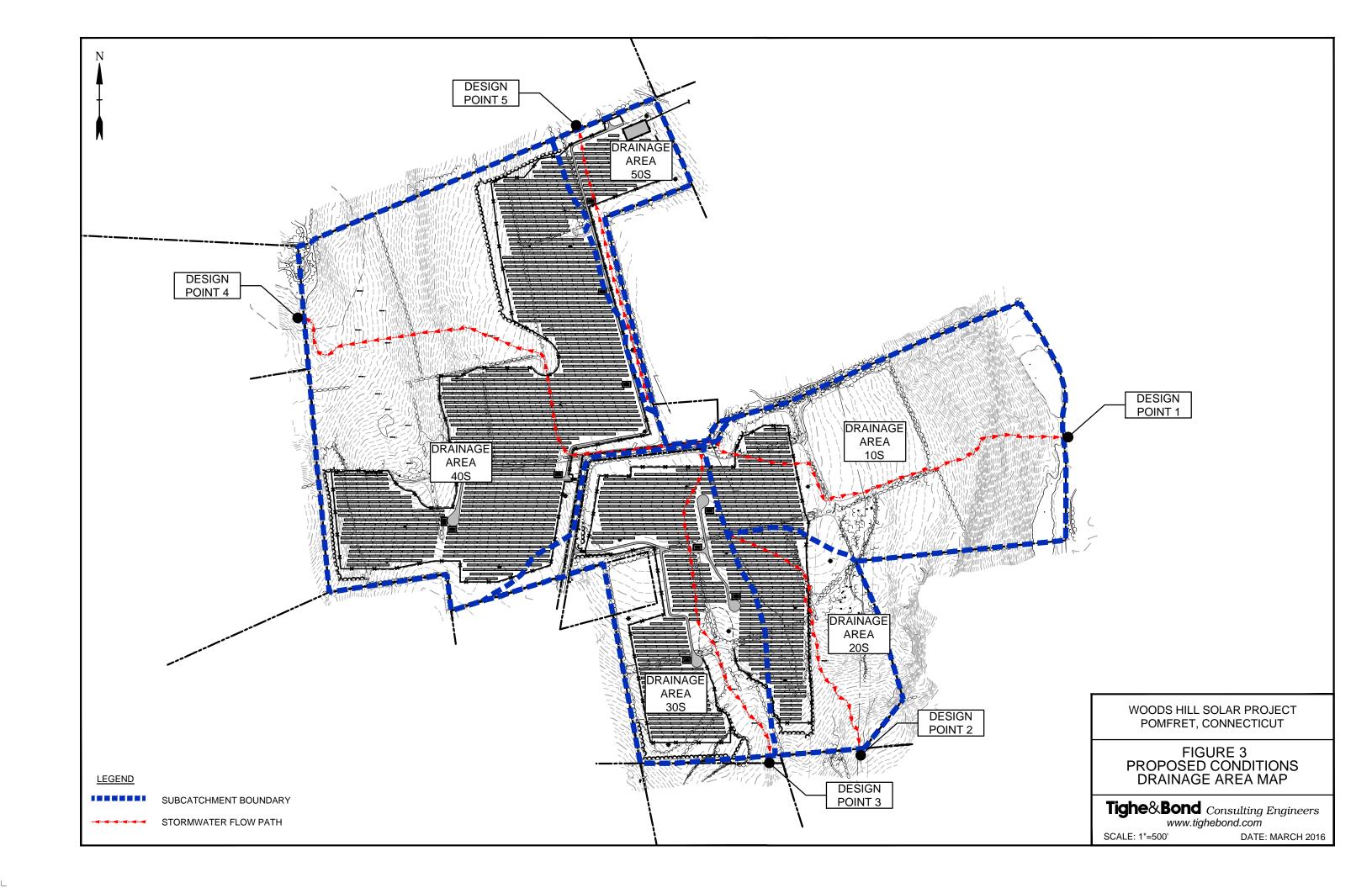
J:\R\R0298\Permitting\Pomfret CT Siting Council\Stormwater\Narrative\Stormwater\_Report\_Pomfret.docx

# **APPENDIX A:**

Figures

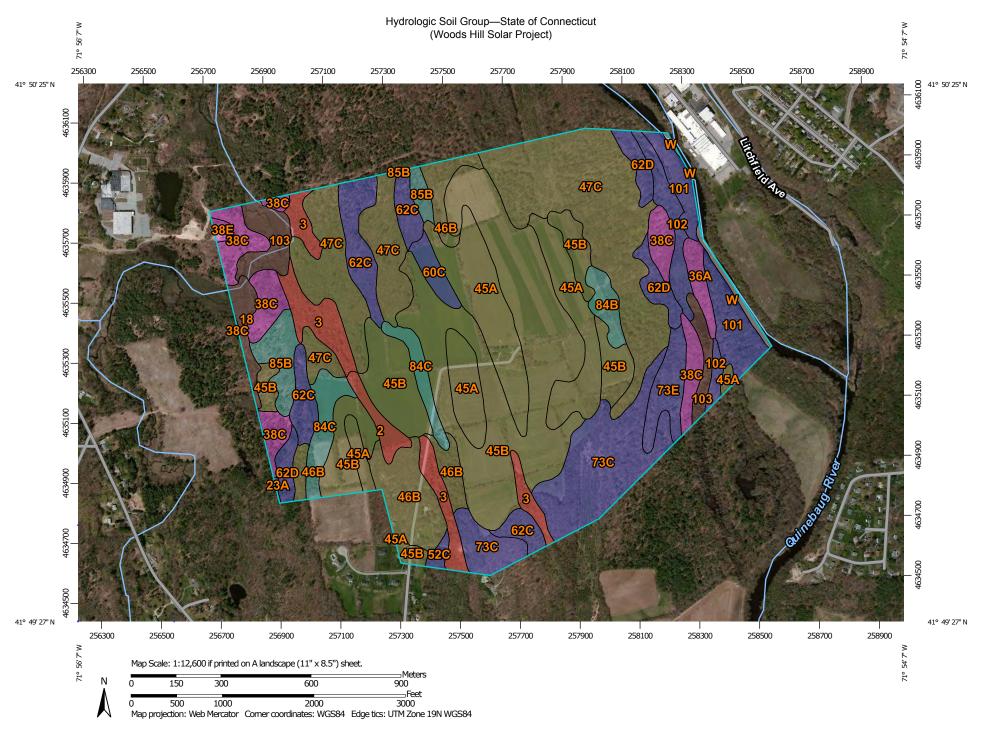






## **APPENDIX B:**

Soils Data



#### MAP LEGEND MAP INFORMATION The soil surveys that comprise your AOI were mapped at 1:12,000. Area of Interest (AOI) С Area of Interest (AOI) Please rely on the bar scale on each map sheet for map C/D measurements. Soils D Soil Rating Polygons Source of Map: Natural Resources Conservation Service Not rated or not available Α Web Soil Survey URL: http://websoilsurvey.nrcs.usda.gov Coordinate System: Web Mercator (EPSG:3857) **Water Features** A/D Streams and Canals Maps from the Web Soil Survey are based on the Web Mercator В projection, which preserves direction and shape but distorts Transportation distance and area. A projection that preserves area, such as the B/D ---Rails Albers equal-area conic projection, should be used if more accurate Interstate Highways calculations of distance or area are required. C/D **US Routes** This product is generated from the USDA-NRCS certified data as of the version date(s) listed below. D Major Roads Not rated or not available Soil Survey Area: State of Connecticut Local Roads Survey Area Data: Version 14, Sep 22, 2015 **Soil Rating Lines** Background Soil map units are labeled (as space allows) for map scales 1:50,000 Aerial Photography or larger. A/D Date(s) aerial images were photographed: Mar 30, 2011—May 1, The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting C/D of map unit boundaries may be evident. Not rated or not available Soil Rating Points Α A/D В B/D

# **Hydrologic Soil Group**

Hydrologic Soil Group— Summary by Map Unit — State of Connecticut (CT600)								
Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI				
2	Ridgebury fine sandy loam	D	3.9	0.8%				
3	Ridgebury, Leicester, and Whitman soils, 0 to 8 percent slopes, extremely stony	D	19.3	4.1%				
18	Catden and Freetown soils, 0 to 2 percent slopes	B/D	4.6	1.0%				
23A	Sudbury sandy loam, 0 to 5 percent slopes	В	0.2	0.0%				
36A	Windsor loamy sand, 0 to 3 percent slopes	А	3.9	0.8%				
38C Hinckley loamy sand, 3 to 15 percent slopes		A	22.9	4.9%				
Hinckley loamy sand, 15 to 45 percent slopes		А	1.0	0.2%				
45A	Woodbridge fine sandy loam, 0 to 3 percent slopes	C/D	48.7	10.4%				
45B	Woodbridge fine sandy loam, 3 to 8 percent slopes	C/D	110.2	23.5%				
46B	Woodbridge fine sandy loam, 0 to 8 percent slopes, very stony	C/D	24.9	5.3%				
47C Woodbridge fine sandy loam, 3 to 15 percent slopes, extremely stony		C/D	84.7	18.0%				
52C Sutton fine sandy loam, 2 to 15 percent slopes, extremely stony		В	1.3	0.3%				
60C Canton and Charlton soils, 8 to 15 percent slopes		В	3.9	0.8%				
62C	C Canton and Charlton soils, 3 to 15 percent slopes, extremely stony		21.2	4.5%				
62D	Canton and Charlton soils, 15 to 35 percent slopes, extremely stony	В	10.6	2.3%				

Hydrologic Soil Group— Summary by Map Unit — State of Connecticut (CT600)							
Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI			
73C	Charlton-Chatfield complex, 3 to 15 percent slopes, very rocky	В	35.8	7.6%			
73E	Charlton-Chatfield complex, 15 to 45 percent slopes, very rocky	В	8.1	1.7%			
84B	Paxton and Montauk fine sandy loams, 3 to 8 percent slopes	С	4.6	1.0%			
84C	Paxton and Montauk fine sandy loams, 8 to 15 percent slopes	С	12.1	2.6%			
85B	Paxton and Montauk fine sandy loams, 3 to 8 percent slopes, very stony	С	9.5	2.0%			
101	Occum fine sandy loam	В	15.0	3.2%			
102	Pootatuck fine sandy loam	В	9.2	2.0%			
103	Rippowam fine sandy loam	B/D	11.3	2.4%			
W	Water		2.1	0.4%			
Totals for Area of Inter	rest		469.2	100.0%			

#### Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

## **Rating Options**

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher



Woods Hill Road Solar Project
Woods Hill Road, Pomfret, CT
SunEast Power & RES America Developments Project:

Location: Client:

Boring No. B-1 Page 1 of 1 File No. R-02984 Checked by: Dave Brogan

Drilling Co.:	Geosearch, Inc.				Casing	Sampler	Sampler Groundwater Readings				
Foreman:	Kenny Bylund			Туре	HSA	Split Spoon	Date	Time	Depth	Casing	Sta. Time
T&B Rep.:	Michael Trovato		I.D./O.D.	4.25"/8.25"	1-3/8"/2"	12/16/2015		15.5'	HSA		
Date Start:	12/16/15	End:	12/16/15	Hammer Wt.		140#					
Location	See Exploration L	ocation Plan		Hammer Fall		30"					
GS. Elev.	381± Datum:	NAVD88		Other	A	uto Hammer					

GS. Ele	v. 381±	Datum: N	AVD88		Other	Auto Hammer									
Depth (ft.)	Casing Blows Per Ft.	Sample No.	Sample Depth (ft.)	Blows Per 6"	Sample D	Description		General S	Stratigraphy	N o t e s	Well (	Construction			
, ,		S-1/24	0-2	3 - 4	12" of Topsoil over me			1' Top	osoil						
				6 - 8	fine to coarse SAND, s	ome Silt, trace	e Gravel								
		S-2/19	2-4	4 - 6	Medium dense, brown,		SAND,								
				8 - 10	some Silt, trace Grave			No Well Installed				No Well nstalled			
5		S-3/20	4-6	4 - 9	Medium dense, light br		oarse								
3				8 - 8	SAND, some Silt, trace	e Gravei									
10															
		S-4/18	10-12	8 - 12		dense, light brown and gray, fine to SAND, some Gravel, little Silt		to							
				15 - 18	Coarse SAND, some G			GLACI	AL TILL						
					]										
15															
15		S-5/17	15-17	26 - 27	Very dense, gray, fine	to coarse SAN	ID, some								
				29 - 40	Gravel, little Silt										
20															
20		S-6/23	20-22	42 - 90	Very dense, gray, fine Gravel, little Silt	to coarse SAN	ID, some								
				62 - 51	Graver, little Silt										
					Bottom of exp	oloration at 22									
25															
30															
Notes:						Proportion	e Heod		Do	ncity//	Consistenc				

Notes:	Proportions Used	Density/Consistency				
	TRACE (TR.) 0 - <10% LITTLE (LI.) 10 - <20% SOME (SO.) 20 - <35% AND 35 - <50%	VERY LOOSE LOOSE MEDIUM DENSE DENSE VERY DENSE	0-4 VERY SOFT 4-10 SOFT 10-30 MEDIUM 30-50 STIFF VERY STIFF HARD	<2 2-4 4-8 8-15 15-30 >30		



Woods Hill Road Solar Project Woods Hill Road, Pomfret, CT Project: Location:

Client:

SunEast Power & RES America Developments

Boring No. **B-2** Page 1 of 1 File No. R-02984 Checked by: Dave Brogan

Drilling Co.:	rilling Co.: Geosearch, Inc.			Casing	Sampler	Groundwater Readings						
Foreman:	Kenny Bylund			Туре	HSA	Split Spoon	Date	Time	Depth	Casing	Sta. Time	
T&B Rep.:	Michael Trovato			I.D./O.D.	4.25"/6.25"	1-3/8"/2"	12/16/2015		16'	HSA		
Date Start:	12/16/15	End:	12/16/15	Hammer Wt.		140#						
Location	See Exploration Lo	ocation Plan		Hammer Fall		30"						
GS. Elev.	367± Datum: N	IAVD88		Other	A	uto Hammer						

	v. <u>367±</u>	_						
Depth (ft.)	Casing Blows Per Ft.	Sample No. Rec. (in)	Sample Depth (ft.)	Blows Per 6"	Sample Description	General Stratigraphy	N o t e s	Well Construction
		S-1/22	0-2	3 - 3	10" of Topsoil over medium dense, brown,	0.8' Topsoil		
-				4 - 11	fine to medium SAND and SILT, trace Gravel			
		S-2/24	2-4	15 - 13	Medium dense, gray-brown, fine to coarse			
•				12 - 11	SAND, some Gravel, little Silt			No Well Installed
		S-3/20	4-6	6 - 9	Medium dense, gray-brown, fine to coarse			motanea
5				11 - 16	SAND, some Gravel, little Silt			
İ								
•								
-								
10		S-4/19	10-12	10 - 13	Dense, gray, fine to coarse SAND, some			
				19 - 27	Gravel, little Silt	GLACIAL TILL		
-								
15		S-5/2	15-17	25 - 34	Very dense, gray, fine to coarse SAND, some			
				35 - 42	Gravel, little Silt			
-								
20		S-6/19	20-22	13 - 28	Very dense, gray, fine to coarse SAND, some			
-				28 - 20	Gravel, little Silt			
					Bottom of exploration at 22'			
<b> </b>					20110 0. 0. pjolation at 22			
<u> </u>								
25								
<u> </u>								
<b> </b>								
30								
Notes:					Proportions Used	l Do	ncity//	Consistency

Notes:	Proportions Used	De	nsity/Consistency	
	TRACE (TR.) 0 - <10% LITTLE (LI.) 10 - <20% SOME (SO.) 20 - <35% AND 35 - <50%	VERY LOOSE LOOSE MEDIUM DENSE DENSE VERY DENSE	0-4 VERY SC 4-10 SOFT 10-30 MEDIUM 30-50 STIFF >50 VERY ST HARD	2-4 4-8 8-15



Woods Hill Road Solar Project Woods Hill Road, Pomfret, CT Project: Location:

SunEast Power & RES America Developments Client:

Boring No. B-3 Page 1 of 1 File No. R-02984 Checked by: Dave Brogan

Drilling Co.:	Geosearch, Inc.				Casing	Sampler		(	roundwate	r Readings	
Foreman:	Kenny Bylund			Type	HSA	Split Spoon	Date	Time	Depth	Casing	Sta. Time
T&B Rep.:	Michael Trovato			I.D./O.D.	4.25"/6.25"	1-3/8"/2"	12/16/2015		Not En	countered	
Date Start:	12/16/15	End:	12/16/15	Hammer Wt.		140#					
Location	See Exploration I	ocation Plan		Hammer Fall		30"					
GS. Elev.	364+ Datum:	NAVD88		Other	A	uto Hammer					

GS. Ele	v. 364±	Datum: N	AVD88		Other	Auto Hammer					
Depth (ft.)	Casing Blows Per Ft.	Sample No. Rec. (in)	Sample Depth (ft.)	Blows Per 6"	Sample D	Description		General S	stratigraphy	N o t e s	Well Construction
		S-1/17	0-2	2 - 2	12" of Topsoil over loo			1' Top:	soil		
				4 - 5	coarse SAND, some S	ilt, little Gravel					
		S-2/17	2-4	11 - 20	Dense, gray-brown, fin	e to coarse SA	AND,				
				22 - 19	some Silt, little Gravel						No Well Installed
5		S-3/19	4-6	11 - 17	Medium dense, gray-b		oarse				
				12 - 10	SAND, some Gravel, li	me Siit					
10											
		S-4/20	10-12	4 - 5	ledium dense, gray-brown, fine to coarse AND, some Gravel, little Silt						
				8 - 11		ND, some Gravel, little Silt		GLACI	AL TILL		
15											
15		S-5/24	15-17	13 - 21	Dense, gray-brown, fin	e to coarse SA	AND,				
				19 - 18	some Gravel, little Silt						
-											
20											
_		S-6/23	20-22	7 - 16	Dense, gray, fine to co Gravel, little Silt.	arse SAND, so	ome				
				17 - 16	·						
					Bottom of exp	oloration at 22'					
<b> </b>											
25											
<b> </b>											
30											
Notes:			•			Proportion	e Llead		Do	ncity/	Consistency

Notes:	Proportions Used	<u>Den</u>	nsity/Consistency	
	TRACE (TR.) 0 - <10% LITTLE (LI.) 10 - <20% SOME (SO.) 20 - <35% AND 35 - <50%	VERY LOOSE LOOSE MEDIUM DENSE DENSE VERY DENSE	0-4 VERY SOFT 4-10 SOFT 10-30 MEDIUM 30-50 STIFF VERY STIFF HARD	<2 2-4 4-8 8-15 15-30 >30



**Consulting Engineers** 

Project: Woods Hill Road Solar Project

Location: Woods Hill Road, Pomfret, CT

Client: SunEast Power & RES America Developments

 Boring No.
 B-4

 Page
 1 of 1

 File No.
 R-02984

 Checked by:
 Dave Brogan

Drilling Co.:	: Geosearch, Inc.				Casing	Sampler	Groundwater Readings				
Foreman:	Kenny Bylund			Type	HSA	Split Spoon	Date	Time	Depth	Casing	Sta. Time
T&B Rep.:	Michael Trovato			I.D./O.D.	4.25"/6.25"	1-3/8"/2"	12/16/2015 Not Encountered				
Date Start:	12/16/15					140#					
Location	See Exploration Location Plan			Hammer Fall		30"					
GS. Elev.	321± Datum: NAVD88			Other		uto Hammer					

GS. Ele	v. <u>321±</u>	Datum: N	AVD00		Other Auto Hammer				
Depth (ft.)	Casing Blows Per Ft.	Sample No. Rec. (in)	Sample Depth (ft.)	Blows Per 6"	Sample Descri	otion	General Stratigraph	y t e s	Well Construction
		S-1/20	0-2	2 - 3	12" of Topsoil over medium		1' Topsoil		
				3 - 10	fine to coarse SAND, some	Silt, little Gravel			
•		S-2/18	2-4	16 - 24	Dense, gray-brown, fine to	coarse SAND,			
				18 - 20	some Gravel, little Silt				No Well Installed
5		S-3/17	4-6	15 - 9	Medium dense, gray-brown SAND and SILT, little Grave				
				11 - 7	SAND and SILT, IIIIle Grave	<del>2</del> 1			
							GLACIAL TILL		
10						04115			
		S-4/24	10-12	12 - 19	Dense, gray-brown, fine to SILT, little Gravel	coarse SAND and			
				26 - 22	,				
15					Manual and a second second Car	- to see a CAND			
		S-5/2	15-17	120/6"	Very dense, gray-brown, fin and SILT, little Gravel	e to coarse SAND			
					Bottom of exploration at 1	5 5' due to auger		1	
					refusal	5.5 due to auger			
20									
,									
,									
25									
30									
		1	<u> </u>	<u> </u>		Dranautiana Haad	1		(0

Notes:

1) Offset boring completed 10' east of original boring location - refusal encountered at 16' in offset boring.

Proportions Used

TRACE (TR.) 0 - <10%
LITTLE (LI.) 10 - <20%
SOME (SO.) 20 - <35%
AND 35 - <50%

Density/Consistency <2 2-4 4-8 8-15 VERY SOFT VERY LOOSE 0-4 SOFT MEDIUM STIFF LOOSE 4-10 10-30 30-50 >50 MEDIUM DENSE DENSE VERY STIFF 15-30 VERY DENSE HARD >30



**Consulting Engineers** 

Project: Woods Hill Road Solar Project
Location: Woods Hill Road, Pomfret, CT

Client: SunEast Power & RES America Developments

 Boring No.
 B-5

 Page
 1 of 1

 File No.
 R-02984

 Checked by:
 Dave Brogan

<2 2-4 4-8 8-15

15-30

>30

Drilling Co.:	Iling Co.: Geosearch, Inc.				Casing	Sampler	Groundwater Readings						
Foreman:	Kenny Bylund			Type	HSA	Split Spoon	Date	Time	Depth	Casing	Sta. Time		
T&B Rep.:	Michael Trovato			I.D./O.D.	4.25"/6.25"	1-3/8"/2"	12/17/2015		12'	HSA			
Date Start:	12/17/15	End:	12/17/15	Hammer Wt.		140#							
Location	See Exploration L	ocation Plan		Hammer Fall		30"							
GS. Elev.	364± Datum:	NAVD88		Other	A	uto Hammer							

	3041				-				
Depth (ft.)	Casing Blows Per Ft.	Sample No. Rec. (in)	Sample Depth (ft.)	Blows Per 6"	Sample D	Description	General Stratigraphy	N o t e s	Well Construction
` '		S-1/5	0-2	7 - 9	12" of Topsoil over med		1' Topsoil		
Ì				16 - 11	fine to coarse SAND ar	nd SILT, little Gravel			
		S-2/24	2-4	8 - 10	Medium dense, light br				
ľ				9 - 11	SAND, some Silt, some	e Gravel			No Well Installed
_		S-3/22	4-6	6 - 5	Medium dense, gray-bi				o.aoa
5				8 - 32	SAND, some Gravel, li	ttle Silt			
					]				
İ					]				
					]				
10					]				
10		S-4/16	10-12	11 - 8	Medium dense, light br				
İ				8 - 11	SAND, some Gravel, li	ttie Siit	GLACIAL TILL		
İ					]				
ľ									
15		S-5/20	15-17	15 - 27	Very dense, gray-brow				
ľ				50 - 43	SAND, some Gravel, li	ttle Silt			
ľ									
ľ									
					1				
20		S-6/2	20-22	56 - 120/6''	Very dense, gray-brow				
ľ					SAND, some Gravel, li	ttle Silt			
İ					Bottom of exp	oloration at 21'			
ľ					1				
					1				
25					1				
ļ					1				
					1				
					1				
30					1				
Notes:		I		<u> </u>		Proportions Used	Do	noity//	Consistency

Notes: Proportions Used Density/Consistency VERY SOFT TRACE (TR.) LITTLE (LI.) SOME (SO.) 0 - <10% 10 - <20% 20 - <35% VERY LOOSE 0-4 SOFT MEDIUM STIFF LOOSE 4-10 10-30 30-50 >50 MEDIUM DENSE DENSE AND 35 - <50% VERY STIFF VERY DENSE HARD



Woods Hill Road Solar Project Woods Hill Road, Pomfret, CT Project:

Location: Client:

SunEast Power & RES America Developments

Boring No. B-6 Page 1 of 1 File No. R-02984 Checked by: Dave Brogan

Drilling Co.	: Geosearch, Inc.				Casing	Sampler	Groundwater Readings				
Foreman:	Kenny Bylund			Type	HSA	Split Spoon	Date	Time	Depth	Casing	Sta. Time
T&B Rep.:	: Michael Trovato			I.D./O.D.	4.25"/6.25"	1-3/8"/2"	12/17/2015		18.5'	HSA	
Date Start:	12/17/15 End: 12/17/15			Hammer Wt.		140#					
Location	See Exploration Location Plan			Hammer Fall		30"					
GS. Elev.	/. 348± Datum: NAVD88		Other	A	uto Hammer						

GS. Ele	v. 348±	Datum: N	AVD88		Other Auto Hammer							
Depth (ft.)	Casing Blows Per Ft.	Sample No.	Sample Depth (ft.)	Blows Per 6"	Sample D	Description		General S	stratigraphy	N o t e s	Well Construction	
, ,		S-1/7	0-2	3 - 3	12" of Topsoil over me			1' Top	soil			
				8 - 9	SILT and fine to mediu	m SAND, little	Gravel					
•		S-2/24	2-4	9 - 6	Medium dense, light br		oarse					
•				8 - 7	SAND, some Silt, some	e Gravel					No Well Installed	
		S-3/22	4-6	7 - 8	Medium dense, light br		oarse				matanea	
5				9 - 10	SAND, some Silt, some	e Gravel						
10												
10		S-4/22	10-12	8 - 34		nse, gray-brown, fine to coarse some Gravel, little Silt						
				65 - 64	SAND, some Gravel, II			GLACI	AL TILL			
•												
_												
15		S-5/19	15-17	12 - 32	Very dense, gray-brow		se					
				54 - 61	SAND, some Gravel, li	ttle Silt						
20		S-6/24	20-22	33 - 51	Very dense, gray, fine	to coarse SAN	ID, some					
				59 - 37	Gravel, little Silt							
					Bottom of exp	oloration at 22'						
25												
25												
30												
Notes:						Proportion	e I lead		Do	neity/	Consistency	ヺ

Notes:	Proportions Used	Used Density/Consistency		
	TRACE (TR.) 0 - <10% LITTLE (LI.) 10 - <20% SOME (SO.) 20 - <35% AND 35 - <50%	LOOSE 4- MEDIUM DENSE 10 DENSE 30	0-4 VERY SOFT -10 SOFT 0-30 MEDIUM 0-50 STIFF VERY STIFF HARD	<2 2-4 4-8 8-15 15-30 >30



**Consulting Engineers** 

Woods Hill Road Solar Project Woods Hill Road, Pomfret, CT Project: Location:

SunEast Power & RES America Developments Client:

Boring No. Page 1 of 1 File No. R-02984 Checked by: Dave Brogan

Drilling Co.:	Geosearch, Inc.				Casing	Sampler		G	Groundwate	r Readings	
Foreman:	Kenny Bylund			Type	HSA	Split Spoon	Date	Time	Depth	Casing	Sta. Time
T&B Rep.:	Michael Trovato	)		I.D./O.D.	4.25"/6.25"	1-3/8"/2"	12/17/2015		15.5'	HSA	
Date Start:	12/17/15	End:	12/17/15	Hammer Wt.		140#					
Location	See Exploration	Location Plan		Hammer Fall		30"					
GS. Elev.	339+ Datum	: NAVD88		Other		uto Hammer					

Description   Casing Blows   Sample Blows   Blows   Per   Rec. (in)   Per Ft.   Rec. (	GS. Ele	v. <u>339±</u>	Datum: N/	AVD88		Other Auto Hammer
S-1/23		Blows	No.	Depth		Sample Description  General Stratigraphy  t e  Well Construction
S-2/24   2-4   9-11			Ť	0-2	3 - 2	
17 - 10					5 - 9	fine to coarse SAND, some Silt, little Gravel
17 - 10			S-2/24	2-4	9 - 11	
S-4/2   10-12   9-18   Dense, light brown, fine to coarse SAND, some Silt, some Gravel   GLACIAL TILL					17 - 10	Installed
10	5		S-3/2	4-6	10 - 13	
15 S-5/2 15-17 5 - 120/6" Very dense, gray-brown, fine to coarse SAND, some Gravel  15 Bottom of exploration at 15.8' due to auger refusal					10 - 14	SAND, Some Silt, little Graver
15 S-5/2 15-17 5 - 120/6" Very dense, gray-brown, fine to coarse SAND, some Gravel  15 Bottom of exploration at 15.8' due to auger refusal						
15 S-5/2 15-17 5 - 120/6" Very dense, gray-brown, fine to coarse SAND, some Gravel  15 Bottom of exploration at 15.8' due to auger refusal						_
15 S-5/2 15-17 5 - 120/6" Very dense, gray-brown, fine to coarse SAND, some Gravel  15 Bottom of exploration at 15.8' due to auger refusal						GLACIAL TILL
25 - 20   Some Silt, some Gravel	10					
15 S-5/2 15-17 5 - 120/6" Very dense, gray-brown, fine to coarse SAND, some Gravel, little Silt  Bottom of exploration at 15.8' due to auger refusal  20 25			S-4/2	10-12		
S-5/2 15-17 5 - 120/6" Very dense, gray-brown, fine to coarse SAND, some Gravel, little Silt  Bottom of exploration at 15.8' due to auger refusal  20 25					25 - 20	
S-5/2 15-17 5 - 120/6" Very dense, gray-brown, fine to coarse SAND, some Gravel, little Silt  Bottom of exploration at 15.8' due to auger refusal  20 25						
S-5/2 15-17 5 - 120/6" Very dense, gray-brown, fine to coarse SAND, some Gravel, little Silt  Bottom of exploration at 15.8' due to auger refusal  20 25						
SAND, some Gravel, little Silt  Bottom of exploration at 15.8' due to auger refusal  20 25	15		C E/O	45 47	F 400/0"	Very dense, gray-brown, fine to coarse
20 Bottom of exploration at 15.8' due to auger refusal  25			5-5/2	15-17	5 - 120/6	
20 refusal  25						
25						
25						
	20					1
						-
						1
						1
30	25					1
30						1
30						1
30						]
	30					

IN	otes:	

1) Offset boring completed 10' east of original boring location - refusal encountered at 16.5' in offset boring.

Proportions Used									
TRACE (TR.)	0 - <10%								
LITTLE (LI.)	10 - <20%								
SOME (SO.)	20 - <35%								
AND	35 - <50%								

De	nsity/Co	nsistency	
VERY LOOSE	0-4	VERY SOFT	<2
LOOSE	4-10	SOFT	2-4
MEDIUM DENSE	10-30	MEDIUM	4-8
DENSE	30-50	STIFF	8-15
VERY DENSE	>50	VERY STIFF	15-30



Woods Hill Road Solar Project Woods Hill Road, Pomfret, CT Project: Location:

SunEast Power & RES America Developments Client:

Boring No. B-8 Page 1 of 1 File No. R-02984 Checked by: Dave Brogan

Drilling Co.:	Drilling Co.: Geosearch, Inc.				Casing	Sampler		G	Groundwate	r Readings	
Foreman:	Kenny Bylund	, ,			HSA	Split Spoon	Date	Time	Depth	Casing	Sta. Time
T&B Rep.:	Michael Trovato			I.D./O.D.	4.25"/6.25"	1-3/8"/2"	12/17/2015 15.5' HSA				
Date Start:	12/17/15	End:	12/17/15	Hammer Wt.		140#					
Location	See Exploration	Location Plan		Hammer Fall		30"					
GS. Elev.	369± Datum:	NAVD88		Other	A	uto Hammer					

GS. Ele	v. <u>369±</u>	Datum: N	4VD88		Other Auto Hammer			
Depth (ft.)	Casing Blows Per Ft.	Sample No. Rec. (in)	Sample Depth (ft.)	Blows Per 6"	Sample Description	General Stratigraphy	N o t e s	Well Construction
		S-1/24	0-2	2 - 3	12" of Topsoil over medium dense brown, fine	1' Topsoil		
				6 - 10	to coarse SAND, some Silt, little Gravel			
		S-2/24	2-4	7 - 13	Dense, gray-brown, fine to coarse SAND, some Gravel, little Silt			N. 147 II
				23 - 29				No Well Installed
5		S-3/17	4-6	9 - 11	Medium dense, gray-brown, fine to coarse SAND, some Silt, some Gravel			
<u> </u>				11 - 14	Start, some one, some oraver			
ļ								
10								
		S-4/22	10-12	8 - 24	Dense, gray-brown, fine to coarse SAND, some Gravel, little Silt			
}				23 - 25	Some Graver, male on	GLACIAL TILL		
ļ								
15		S-5/23	15-17	16 - 17	Dense, gray-brown, fine to coarse SAND,			
				20 - 24	some Gravel, little Silt			
}								
20		S-6/24	20-22	17 - 24	Very dense, gray-brown, fine to coarse SAND, some Gravel, little Silt			
-				27 - 31				
					Bottom of exploration at 22'			
25								
30								
					Proportions Used	1		Consistency

Notes:	Proportions Use	lsed	Density/Consistency				
	LITTLE (LI.) 10 - SOME (SO.) 20 -	- <10% - <20% - <35% - <50%	VERY LOOSE LOOSE MEDIUM DENSE DENSE VERY DENSE	0-4 4-10 10-30 30-50 >50	VERY SOFT SOFT MEDIUM STIFF VERY STIFF HARD	<2 2-4 4-8 8-15 15-30 >30	



#### Woods Hill Road Solar Project Woods Hill Road Pomfret, CT

Test Pit No.
Page No.
File No.
Checked By:
TP-1

TP-1

R-02984

Dave Brogan

T&B Rep. Weather	Michael Tro		Contractor Operator Make Capacity	Geosearch, Inc. Roger Jarry  John Deere Model Unknown Reach	60G 20'5"	ft.	Date Ground Ele Time Start Time Com	ed	1	38 8: 7 9: 0	15
Depth			Soil Descrip	tion		Sample No.	PID Reading (ppm)	Exca Effo		nt/	Note No.
— 0 <del>—</del>	1'		Topsoil				( F F···)	E	5%		
- 1' <del>-  </del>	Danier Carta	CAND .	C'II	Since the control of				E	5%	/A	
2'	Brown, line to co	oarse Sand, s	Cobbles	fine to coarse Gravel, t	race	S-1		E	5%	/A	
- 3' <del>- </del>	3.8'							E	5%	/A	
<del>-</del> 4' <del></del>								E	5- 10%		
— 5' —	Gray-brown fir	ne to coarse SA	AND some fine	to coarse Gravel, little	Silt			E	5-	- 1	
6' —	Gray brown, m	10 10 000130 37	WD, Some mic	to course Graver, inthe	Siit	S-2		E	5-	- 1	
— 7'—								E	5-	- 1	
— 8' —	8.5'							E	5-	- 1	
9'—	Dark gray, fin	e to coarse SA	ND, little Silt, I	ittle fine to coarse Grav	/el	S-3		E	5%/ B	/A-	
10'				(GLACIA	L TILL)			E	5%/	/A-	
— 11' —	В(	ottom of explo	ration at 10.5'	due to refusal					В	-	
<del></del>										_	
— 13' —										$\dashv$	
— 14' —										$\dashv$	
— 15' —										$\dashv$	
<del></del> 16' <del></del>										$\frac{1}{1}$	
Notes:											
	Test Pit Plan	Letter	e <u>r Class</u> Size Range	Proportions Used		A F = Fine	bbreviations		GROUNDWA		
[	Designation Classification A 6" - 17" TRACE (TR.) 0 - 10% B 18" - 36" C 36" + LITTLE (LI.) 10 - 209						um se ne to medium ne to coarse	EI Ti	(X) Not Enc lapsed ime to eading	ounter C t	Depth o Ground-
Volume =	15 cu. yd.	E-	ation Effort Easy Moderate	SOME (SO.) 20 - :		GR = Gra BN = Bro YEL = Ye	ıy wn		Hours)	·	water
	cu. yu.		Difficult	33 - :	5570						



#### Woods Hill Road Solar Project Woods Hill Road Pomfret, CT

Test Pit No.
Page No.
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File No.
R-02984
Checked By:
Dave Brogan

T&B Rep. Weather	Michael Tro		Contractor Operator Make Capacity	Geosearch, In Roger Jarry John Deere M Unknown R	Model 60	OG :0'5''	ft.	Date Ground Ele Time Start Time Comp	ed	3 9	/2015 75± :10 0:00
Depth			Soil Descrip	otion		S	Sample No.	PID Reading (ppm)	Excav. Effort	Boulder Count/ Class	Note No.
— 0 <del>—</del>	10"		Topsoil					(PP)	E	5%/A	
_ 1' <del></del>		n medium SAI	ND and SILT tr	ace fine to coar	se Gravel				E	5%/A	
2'	2.5'	, a.a	15 4.14 5.2.7 1	10 000.	00 0.410.		S-1		 E		
- 3' <del>-</del>										5%/A	
4'	Gray-brown, fine	e to coarse SA	ND, some Silt,	some fine to co	arse Grave	el,			E	5%/A	
— 5' —	J		trace Cobbles				S-2		Е	5%/A	
									E	5%/A	
6'	6.5'								E	5- 10%/A	
— 7' —									E	5-	
— 8' —	Darly super bassum		to coord CANI							10%/A 5-	
<u> </u>	Dark gray-brown,		trace Cobbles	coarse Gra	vei,	S-3		E	10%/A 5-		
— <sub>10'</sub> —									E	10%/A	
									E	5- 10%/A	
— 11' —	Bo	ottom of explo	ration at 11.3'		GLACIAL T	TLL)			Е	5- 10%/A	
12'											
<del></del>											
<del></del>											
<del></del> 15' <del></del>										_	
<del></del> 16'											
Notes:											
[	Boulder Class					6	F = Fine M = Medi C = Coar V = Very F/M = Fir	se	( )	to	ered Depth to Ground-
Volume = _	16 cu. yd.	E N	ation Effort Easy 1Moderate IDifficult	SOME (SO.)	20 - 35% 35 - 50%	6	GR = Gra BN = Bro YEL = Ye	ny wn	(Hour		water



#### Woods Hill Road Solar Project Woods Hill Road Pomfret, CT

Test Pit No.
Page No.
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File No.
R-02984
Checked By:
Dave Brogan

T&B Rep. Weather	Michael Tro		Contractor Operator Make Capacity	Geosearch, I Roger Jarry John Deere Unknown		60G 20'5''	ft.	Date Ground Ele Time Start Time Com	ed	1	36 10	/2015 53± :05 :55
Depth			Soil Descrip	otion			Sample No.	PID Reading (ppm)	Excav Effor		nt/	Note No.
— 0 —	1'		Topsoil						E	5%		
1'		a madium CAN	ID and CILT to	and fine to one	raa Cray	<b>.</b>			E	5%	/A	
2'		Thedium SAF	ID and SILT, tr	ace fille to coa	iise Giav	rei	S-1		E	5%	/A	
— 3' —	3'								E	5-		
— 4' —										10% 5-	_	
5' <del></del>	Gray-brown, fin	e to coarse S/	MD some Silt	some fine to	rnarse G	ravol			E	10% 5-	_	
— 6' —	Gray-brown, mr	c to coarse sp	avo, some siit,	Some fine to	coarse o	iavci	S-2		E	10%	6/A	
<del>-</del> 7' <del></del>									Е	5- 10%	6/A	
	8'								Е	5· 10%		
8'									Е	5- 10%		
9' —	Gray-brown, fin	o to coarso S	AND some fine	to coarso Cra	wol little	Cil+			E	5· 10%	-	
10'	Gray-brown, m	e to coarse si	AND, Some fine	to coarse ora	ivei, iittie	, Siit	S-3		E	5-	- [	
<del></del> 11'									E	10% 5-	-	
12'		Bottom	of exploration	at 12'	(GLACI	AL TILL)				10%	5/A	
— 13' —											_	
<del></del> 14'											_	
<del></del> 15' <del></del>												
<del></del>												
Notes:												
	Letter Size Range Designation Classification A 6" - 17" B 18" - 36"  TRACE (TR			Propo Us TRACE (TR.) LITTLE (LI.)	ed 0 -	10% 20%	F = Fine M = Med C = Coar V = Very	se	Ela Tir			Depth to
Volume =	18 <u></u> cu. yd.	E M	ation Effort Easy Moderate Difficult		35% 50%		ne to coarse ay own		eading ours)		Ground- water	
		D	Difficult	AND								



#### Woods Hill Road Solar Project Woods Hill Road Pomfret, CT

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R-02984

Dave Brogan

T&B Rep	Michael Tro		Contractor Operator Make Capacity	Geosearch, Inc. Roger Jarry John Deere Model Unknown Reach		ft.	Date Ground Ele Time Start Time Com	ted		35 11	/2015 53± :00 :35
Depth			Soil Descrip	tion		Sample No.	PID Reading (ppm)		cav. Co	ulder unt/ ass	Note No.
<u> </u>	1'		Topsoil				(11 )			%/A	
_ 1' <del></del>									- 1	5- %/A	
2'	Brown, fine to	o medium SAND	and SILT, tra	ace fine to coarse Gr	ravel	S-1			E į	%/A 5- %/A	
- 3'									F į	5- %/A	
— 4' —	4.5'							I	F	5- %/A	
_ 5'									⊢ I	5- %/A	
<del>-</del> 6' <del>-</del>									F	5- %/A	
— 7'—	Gray-brown, fine t	o coarse SAND,	some fine to o	coarse Gravel, little	Silt, trace	S-2			E į	5- %/A	
— 8' <del>—</del>			Copples			3-2		ļ	-	5- %/A	
<u> </u>								ĺ	F į	5- %/A	
10'									E į	5- %/A	
— 11' —	De	attam of ovalors	tion at 11 2! a		CIAL TILL)				E į	5-	
— 12' —	ВС	ottom of explora	tion at 11.2 C	iue to reiusai					10	%/A	
<del></del>											
<del></del> 14' <del></del> -											
— 15' —										$\dashv$	
— 16' —										$\dashv$	
Notes:											
	Test Pit Plan	<u>Boulder</u> Letter Designation	Class Size Range Classification	Proportions Used		A F = Fine	bbreviations		GROUNDW		
	13'	LITTLE (LI.) 10	- 10% ) - 20%	M = Med C = Coar V = Very F/M = Fir F/C = Fir	ne to medium ne to coarse		( X ) Not Er Elapsed Time to Reading	ncounte	Depth to Ground-		
Volume =	Excavation Effort SOME (SO.) 20 - 35  EEasy  MModerate AND 35 - 50					GR = Gra BN = Bro YEL = Ye	ay own	(Hours)	<del></del>	water	
•		D	Difficult								



#### Woods Hill Road Solar Project Woods Hill Road Pomfret, CT

Test Pit No.
Page No.
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Checked By:

TP-5 1 of 1 R-02984 Dave Brogan

T. F. F.								<b>.</b>			40.45	2015
T&B Rep.	Michael Tro	vato	Contractor Operator	Geosearch, Roger Jarry				Date Ground Ele	21/		12/8/2 368	
Weather	40 Degrees	: - Cloudy	Make	John Deere		60G		Time Start			11:	
vvcatrici	40 Degrees	oloudy	Capacity	Unknown	Reach	20'5''	ft.	Time Com			12:	
Depth			Soil Descrip	tion			Sample	PID		Bould	ler	
o							No.	Reading (ppm)	Exca Effo		unt/ ass	Note No.
	8''		Topsoil						Е	59	6/A	
- 1' - 2'	Brown fine	to coarse SANI	D and SILT litt	tle fine to coa	arse Grave	اد			Е	59	6/A	
_ 2!			5 a.i.a 612.7 iii.				S-1		Е	59	6/A	
— 4' —	3.5'								Е		6/A	
5' <del></del>	Constitution for		ND C'll	Good by					Е	I	%/A- B	
— 6' —	Gray-brown, fin	e to coarse SA	ND, some Siit,	some fine to	coarse G	ravei	S-2		E	I	%/A- B %/A-	
— 7' —	7.5'								Е	I	%/A- 3 %/A-	
<u> </u>		o coarse SAND	, some fine to	coarse Grave	el, little Sil	t			E	İ	%/A-	
<u> </u>	•					AL TILL)	S-3		E E	1	8 %/A-	
10'	В	ottom of explo	ration at 9.5' c	lue to refusal		·					3	
— 11' —												
12'												
13'												
— 14' —												
— 15' —												
16'												
Notes:												
[	Designation   Size Range   Designation   Classification   A					20%	F = Fine M = Med C = Coar V = Very F/M = Fi	ne to medium ne to coarse ay		GROUNDN ( ) Encou ( X ) Not E Elapsed Time to Reading (Hours)	ıntered	red Depth to Ground- water
Volume =	16 cu. yd.	M-	Moderate	AND	35 -	50%	YEL = Ye					
		D-	Dimcult									



#### Woods Hill Road Solar Project Woods Hill Road Pomfret, CT

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**TP-6**1 of 1
R-02984
Dave Brogan

S-2   E   5-10%/F	Rep. ther	Michael Trovato	60G 20'5''	ft.	Date Ground Ele Time Start Time Com	ed		:1± :40		
Topsoil   E   59%/A   E   59			Soil Descript	tion			Reading		Count/	Note No.
Brown, fine to coarse SAND, some Silt, little fine to coarse Gravel   S-1	1'		Topsoil				(			
3 3.5'  4'  5'  Gray-brown, fine to coarse SAND, some fine to coarse Gravel, little Silt  5'  Gray-brown, fine to coarse SAND, some fine to coarse Gravel, little Silt  8'  9'  Gray-brown, fine to coarse SAND, some fine to coarse Gravel, little Silt  9'  Gray-brown, fine to coarse SAND, some fine to coarse Gravel, little Silt  10'  Bottom of exploration at 10.5' due to refusal  11'  Bottom of exploration at 10.5' due to refusal  Fest Pit Plan  Bottom of exploration at 10.5' due to refusal  Fest Pit Plan  Bottom of exploration at 10.5' due to refusal  Fest Pit Plan  Bottom of exploration at 10.5' due to refusal  Fest Pit Plan  Bottom of exploration at 10.5' due to refusal  Fest Pit Plan  Bottom of exploration at 10.5' due to refusal  Fest Pit Plan  Bottom of exploration at 10.5' due to refusal  Fest Pit Plan  Bottom of exploration at 10.5' due to refusal  Fest Pit Plan  Bottom of exploration at 10.5' due to refusal  Fest Pit Plan  Bottom of exploration at 10.5' due to refusal  Fest Pit Plan  Bottom of exploration at 10.5' due to refusal  Fest Pit Plan  Bottom of exploration at 10.5' due to refusal  Fest Pit Plan  Bottom of exploration at 10.5' due to refusal  Fest Pit Plan  Bottom of explorations () paccuration () pacc	'							E	5%/A	
E   5%/A     E   5-10%/F		Brown, fine to co	oarse SAND, some Silt, litt	le fine to coarse Grav	el	S-1		Е	5%/A	
Gray-brown, fine to coarse SAND, some fine to coarse Gravel, little Silt  Gray-brown, fine to coarse SAND, some fine to coarse Gravel, little Silt  Gray-brown, fine to coarse SAND, some fine to coarse Gravel, little Silt  Gray-brown, fine to coarse SAND, some fine to coarse Gravel, little Silt  E 5-10%//  E 5-10%//  F 5-10%//  Bottom of exploration at 10.5' due to refusal  Test Pit Plan  Bottom of exploration at 10.5' due to refusal  Test Pit Plan  Boulder Class  Boulder Class  F = Fine  Abbreviations F = Fine	3.5'							E	5%/A	
Cray-brown, line to coarse SAND, some line to coarse Gravel, little Silt   S-2   E   5-10%/f	1' —							E	5-10%/A	
Total Pit Pian	Gra	ray-brown, fine to	coarse SAND, some fine	e Silt	S-2		E	5-10%/A		
Solution   Fest Pit Plan							E	5-10%/A		
Gray-brown, fine to coarse SAND, some fine to coarse Gravel, little Silt    S-3	7.5							Е	5-10%/A	
Test Pit Plan   Boulder Class   Letter   Size Range   Designation   Classification   A	Gra	rav-brown, fine to	o coarse SAND, some fine	e Silt			E	5-10%/A		
Bottom of exploration at 10.5' due to refusal   E   5-10%/F	9' —	, , , , , , , , , , , , , , , , , , ,	·		S-3		E	5-10%/A		
Test Pit Plan		Bottom	m of exploration at 10.5' d	AL TILL)			E	5-10%/A		
Test Pit Plan										
Test Pit Plan	2'									
Test Pit Plan	3'									
Notes:    Test Pit Plan										
Notes:  Test Pit Plan  Boulder Class Letter Size Range Designation Classification A 6" - 17" B 18" - 36" C 36" +  LITTLE (LI.) 10 - 20% Excavation Effort  SOME (SO.) 20 - 35%  RADDE Viations F = Fine M = Medium C = Coarse V = Very F/M = Fine to medium F/C = Fine to coarse Reading (Hours)	5' —									
Test Pit Plan    Boulder Class	6' —									
Letter   Size Range   Designation   Classification   A   6" - 17"   B   18" - 36"   C   36" +   Little   Excavation Effort   Excavation Effort   Size Range   Used   TRACE (TR.)   O - 10%   TRACE (TR.)   O - 10%   TRACE (TR.)   O - 10%   TRACE (TR.)   O - 10%   TRACE (TR.)   O - 10%   TRACE (TR.)   O - 10%   TRACE (TR.)   O - 10%   TRACE (TR.)   O - 10%   TRACE (TR.)   O - 10%   O - 20%   TRACE (TR.)   O - 10%   O - 10%   TRACE (TR.)   O - 10%   O -	s:									•
Volume = 15 cu. yd.	Letter   Size Range   Designation   Classification   A   6" - 17"   B   18" - 36"   LITTLE (LI.)   10 - 20"					F = Fine M = Med C = Coar V = Very F/M = Fin F/C = Fir GR = Gra BN = Bro	ium se ne to medium ne to coarse ay wn	( ( Ela Tir Re	X) Not Encount spsed ne to ading	



#### Woods Hill Road Solar Project Woods Hill Road Pomfret, CT

Test Pit No.
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**TP-7**1 of 1
R-02984
Dave Brogan

T0 D D	NAL-L 17		Cantas	Canada	l.a.a			Dati		40.00	2015
T&B Rep.	Michael Tro	ovato	Contractor Operator	Geosearch, Roger Jarry	inc.			Date Ground Ele	21/	12/8/2	
Weather	40 Degrees	Cloudy	Make	John Deere	Model	60G		Time Start		13:	
vveatriei	40 Degrees	s - Cloudy	Capacity	Unknown	Reach	20'5''	ft.	Time Com		14:	
Depth			Soil Descrip	tion			Sample			Boulder	
							No.	Reading	Excav.	Count/	Note
— 0 <del>—</del>			T					(ppm)	Effort	Class	No.
	1.2'		Topsoil						Ε	5%/A	
- 1' <del>-  </del>	1.2										
									E	5%/A	
2'									Г	EQ. /A	
_ 3' <del>_</del>	Brown, fine	to coarse SAND	and SILT, tra	ce fine to coa	rse Grav	el	S-1		E	5%/A	
3									E	5%/A	
— 4' —											
	5'								Ε	5%/A	
— 5' —							-			10-15%/A-	
									E	В	
6'									E	10-15%/A-	
— 7' —									L	В	
	0 1 5	CAND	<b>C</b> ! .						Е	10-15%/A-	
— 8' —	Gray-brown, fine to	o coarse SAND	Cobbles	coarse Grave	i, little Si	it, trace	S-2			B 10-15%/A-	
			Copples				3-2		E	В	
— 9' —									-	10-15%/A-	
4.01									E	В	
10'									E	10-15%/A-	
— 11' —									_	В	
•	D <sub>C</sub>	ottom of explora	ation at 11 E'	due to refusal		AL TILL)					
12'	БС	rttorii or explora	ation at 11.5 t	due to refusai	_						
13'											
<del></del>											
— 15' —										+	
16'											
Notes:											
	Test Pit Plan	Boulde	r Class	Draw	ortions				I	GROUNDWATER	
		Letter	Size Range	Propo Us	ortions sed		F = Fine	bbreviations	(	) Encountered	
г		Designation A	Classification 6" - 17"	TRACE (TR.)	0 -	10%	M = Med C = Coar		(	X ) Not Encounte	red
L	13'	B C	18" - 36" 36" +	LITTLE (LI.)	10 -	20%	V = Very			ipsed ne to	Depth to
							F/C = Fir	ne to medium ne to coarse	Re	ading	Ground-
			ion Effort Easy	SOME (SO.)	20 -	35%	GR = Gra BN = Bro		(H	ours)	water
Volume =	15 cu. yd.	M	Moderate Difficult	AND	35 -	50%	YEL = Ye				
_	<del></del>	D	-Dimoult								



#### Woods Hill Road Solar Project Woods Hill Road Pomfret, CT

Test Pit No.
Page No.
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Checked By:

1 of 1 R-02984 Dave Brogan

T&B Rep.			Contractor Operator	Geosearch, Roger Jarry				Date Ground Ele		1	2/8/2 323	3±
Weather	40 Degrees	s - Cloudy	Make Capacity	John Deere Unknown	Model Reach	60G 20'5''	ft.	Time Start			14:2 15:0	
B I												
Depth			Soil Descrip	ition			Sample No.	PID Reading (ppm)	Excav Effor		nt/	Note No.
	8''		Topsoil						Е	5%	/A	
1'	<u> </u>								E	5%	/A	
2'	Brown, fine	to coarse SAND	, some Silt, lit	tle fine to coa	arse Grav	el	S-1		Е	5%	/A	
— 3'—	4'								E	5%	/A	
- 4' -									Е	5-10	%/A	
— 5' —									Е	5-10	%/A	
- 6' - - 7' -	Gray-brown, fine	to caorsa SAND	and SILT litt	le fine to coar	se Grave	d trace			Е	5-10	%/A	
	Gray-brown, fine	to caurse SAND	Cobbles	ie iiile to coai	se Grave	я, пасе	S-2		Е	5-10	%/A	
— 8' — — 9' —									Е	5-10	%/A	
									Е	5-10	%/A	
10'					(GLACI	AL TILL)			Е	5-10	%/A	
— 11' —	Е	Bottom of explo	ration at 11' d	ue to refusal								
12'												
13'												
14'												
<del></del>												
16'												
Notes:												
	Test Pit Plan	<u>Boulder</u> Letter	Size Range	Prope Us	ortions sed		A F = Fine	bbreviations		GROUNDW		
[	Designation Classification A 6" - 17" TRACE (TR.) 0 - 10%  B 18" - 36"						M = Med C = Coar V = Very	se	F	(X) Not En	counter	ed Depth
	13'	C Excavat	36" +	SOME (SO.)		20% 35%	F/M = Fir	ne to medium ne to coarse	T	Time to Reading Hours)		to Ground- water
Volume =	16 cu. yd.	E M	Easy Moderate Difficult	AND		50%	BN = Bro YEL = Ye	wn	Ľ			
							<u> </u>					



#### Woods Hill Road Solar Project Woods Hill Road Pomfret, CT

Test Pit No.
Page No.
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Checked By:

**TP-9**1 of 1
R-02984
Dave Brogan

T&B Rep.	Michael Tro	ovato	Contractor	Geosearch,	Inc.			Date		1	2/8/2	2015
			Operator	Roger Jarry				Ground Ele			339	) <u>+</u>
Weather	40 Degrees	s - Cloudy	Make	John Deere Unknown		60G 20'5''		Time Start			15:1	
			Capacity	UNKNOWN	Reach	20 5	ft.	Time Com	pietea		16:0	JU
Depth			Soil Descrip	tion			Sample			Boulde		
0							No.	Reading (ppm)	Excav Effor			Note No.
— <sub>1'</sub>	1'		Topsoil						E	5%	/A	
_ <sub>2'</sub>									E	5%	/A	
— 3'—	Brown, fine	to coarse SAND	, some Silt, lit	tle fine to coa	arse Grav	el	S-1		E	5%	/A	
									E	5%	/A	
5'	4.5'								Е	5-10	%/A	
— 6' —									Е	5-10	%/A	
_ 7'_	Dark gray, fine to	coarse SAND.	some fine to c	oarse Gravel	. little Sil	t, trace			Е	5-10	%/A	
8'	3 3,		Cobbles			,	S-2		Е	5-10	%/A	
— 9' —									E	5-10	%/A	
10'									E	5-10	%/A	
F	Bo	ottom of explor	ation at 10.5'	due to refusa		AL TILL)		1	Ε	5-10	%/A	
— 11' —		ж. өлүнө:		<b></b>	•							
12'												
13'												
14'												
15' —												
16'												
Notes:								,				
	Test Pit Plan	Boulde Letter	Size Range	Prop. U:	ortions sed		F = Fine	abbreviations		GROUNDW ( ) Encour		
[	3'	Designation A B	Classification 6" - 17" 18" - 36"	TRACE (TR.)		10%	M = Med C = Coar V = Very	ium se	E	(X) Not En lapsed	counter	red Depth
	13'	C <u>Excava</u> i	36" + ion Effort	SOME (SO.)		20% 35%	F/M = Fi	ne to medium ne to coarse	T	ime to Reading Hours)		to Ground- water
Volume =	15 cu. yd.	E M-	Easy Moderate Difficult	AND		50%	BN = Bro YEL = Ye	own	È			
							<u> </u>					



#### Woods Hill Road Solar Project Woods Hill Road Pomfret, CT

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Page No.
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**TP-10**1 of 1
R-02984
Dave Brogan

T&B Rep.	Michael Tro	ovato	Contractor	Geosearch,	Inc.			Date		1	2/9/2	
			Operator	Roger Jarry				Ground Ele			361	
Weather	43 Degrees	s - Sunny	Make	John Deere		60G 20'5''		Time Start			14:5	
			Capacity	Unknown	Reach	20.5	ft.	Time Comp	pieted		15:5	50
Depth			Soil Descrip	tion			Sample	PID		Bould	er	
Ворин			Con Besonp	11011			No.	Reading	Exca	v. Cou	nt/	Note
_ o _								(ppm)	Effor	rt Cla	SS	No.
	1'		Topsoil						Е	5%	/A	
1'	Drown fined	to coarse SAND	come Cilt lit	tla fina ta agr	roo Crou	al			Е	5%	/A	
- 2' - - 3' -	Brown, fine	to coarse SAND	, some siit, iit	tie line to coa	ii se Giav	ei	S-1		Е	5%	/A	
	3.5'								Е	5%	/A	
5'	Gray, fine to co	narse SAND and	NSIIT trace fi	ne to coarse	Gravel t	race			Е	5-10	%/A	
- 6' -	Gray, fine to co	ourse shirts und	acc	S-2		Е	5-10	%/A				
7'	7.01								Е	5-10	%/A	
8'	7.8'								Е	5-10	%/A	
— 9' —	Light brown, fine t	o coarse SAND		coarse Grave	I, little Si	It, trace			Е	5-10	%/A	
10'			Cobbles				S-3		Е	5-10	%/A	
					(GLACI	AL TILL)			E	5-10	%/A	
— 11' —	В	ottom of explo	ration at 11' d	ue to refusal								
12'												
13'												
— 14' —												
15' —												
<del></del>												
Notes:							l					
	Test Pit Plan	<u>Boulde</u> Letter	<u>Class</u> Size Range		ortions sed		A F = Fine	bbreviations		GROUNDW		
г		Designation A	Classification 6" - 17"	TRACE (TR.)		10%	F = Fine M = Medi C = Coar			( X ) Not En		red
	13'	3' B 18" - 36"					V = Very			Elapsed Time to		Depth to
			ion Effort Easy	SOME (SO.)	20 -	35%		ne to coarse ny		Reading (Hours)		Ground- water
Volume =	15 cu. yd.	M	Moderate Difficult	AND	35 -	50%	YEL = Ye		_			



#### Woods Hill Road Solar Project Woods Hill Road Pomfret, CT

 Test Pit No.
 TP-11

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 File No.
 R-02984

 Checked By:
 Dave Brogan

T&B Rep	Operator Roger Jarry  32 Degrees - Sunny Make Deere Model 60G Capacity Unknown Reach 20's						ft.	Date Ground Ele Time Start Time Com	ed	1	37 8:	/2015 /9± 15 50
Depth			Soil Descrip	tion			Sample No.	PID Reading (ppm)	Exca Effo		nt/	Note No.
— 0 —	1'		Topsoil					31.1	E			
- 1' <del></del>									E	5%	/A	
2' —	Brown, fine t	to coarse SANI	D, some Silt, lit	tle fine to co	arse Grav	el	S-1		E	5%	/A	
- 3' <del></del>	3.5'								E	5%	/A	
4' —									E	5%	/A	
— 5' <del>—</del>	Gray-brown, fir	ne to coarse SA	Silt	S-2		E	5%	/A				
6' —					E	5%	/A					
— 7' —	8'								E	5%	/A	
— 8' —		•••••							E	5-		1
<b>—</b> 9' <b>—</b>	Gray-brown, fine to	o coarse SAND	), some fine to Cobbles	lt, trace	S-3		E	10% 5- 10%	-			
10'			Copples				3-3		E	5.	-	
<del></del> 11' <del></del>					(GLACI	AL TILL)				10%	_	
<del></del> 12' <del></del>	Вс	ottom of exploi	ration at 11.2' o	due to refusa	al .	ĺ			E	10%	Ά/c	
— 13' —											$\dashv$	
<del></del> 14' <del></del>											$\dashv$	
<del></del> 15' <del></del>											$\dashv$	
<del></del> 16' <del></del>											$\dashv$	
Notes:												
	water seeping througl	h test pit sidewa	l at depth of 9'									
	Test Pit Plan	<u>Boulde</u> Letter	e <u>r Class</u> Size Range	Prop	oortions Jsed		A F = Fine	bbreviations		GROUNDWA		
ı	21	Designation A	Classification 6" - 17"	TRACE (TR.)	0 -	10%	M = Med C = Coar	se		( ) Not Enc	ounte	
	3' 3'	B C Excava	18" - 36" 36" + ation Effort	LITTLE (LI.) SOME (SO.)		20% 35%	V = Very F/M = Fir F/C = Fir GR = Gra	ne to medium ne to coarse	T F	Elapsed Fime to Reading (Hours)	t	Depth to Ground- water
/olume =	15 cu. yd.	E- M-	Easy Moderate	AND		50%	BN = Bro YEL = Ye	wn	F	0.25		9'
•		D-	Difficult									



#### Woods Hill Road Solar Project Woods Hill Road Pomfret, CT

 Test Pit No.
 TP-12

 Page No.
 1 of 1

 File No.
 R-02984

 Checked By:
 Dave Brogan

T&B Rep Weather	-	Michael Trovato Contractor Geosearch, Inc. Operator Roger Jarry  35 Degrees - Sunny Make Deere Model 60G Capacity Unknown Reach 20'5"				ft.	Date Ground Ele Time Start Time Comp	ed	3	/2015 73± :00 :45
Depth			Soil Descrip	otion		Sample No.	PID Reading (ppm)	Excav. Effort	Boulder Count/ Class	Note No.
<u> </u>	10''		Topsoil				(PP)	E	5%/A	
- 1' <del></del>								E	5%/A	
2'	Brown, fine t	to coarse SAN	D, some Silt, lit	ttle fine to coars	se Gravel	S-1		E	5%/A	
— 3' —								E	5%/A	
— 4' —	4'							E	5-	
— 5' —									10%/A 5-	
— 6' —	Light browi	n, SILT and fir	ne to medium S	Gravel	S-2		E	10%/A 5-		
— 7' —							E	10%/A 5-		
<del>-</del> 8'-	8'						E	10%/A		
<b>—</b> 9' <b>—</b>								E	15%/A	
<del></del> 10'	Gray-brown, fir	ne to coarse S.	AND, some fine	e to coarse Grav	el, little Silt	S-3		E	10- 15%/A	
								E	10- 15%/A	
— 11' <del>—</del>	Bo	ottom of explo	ration at 11.5'		(GLACIAL TILL)			Е	10- 15%/A	
<del></del> 12' <del></del>										
<del></del>										
<del></del>										
<del></del>										
<del></del> 16' <del></del>										
Notes:										
	Test Pit Plan	Proporti Used TRACE (TR.)	0 - 10%	F = Fine M = Med C = Coar V = Very	se	( ) ( X ) Elapse		ered Depth		
Volume =	14' C 36" + LITTLE (LI.) 10 - 20  Excavation Effort EEasy MModerate AND 35 - 50						ne to medium ne to coarse ay own Ilow	Time t Readir (Hours	o ng	to Ground- water
		D	Difficult							



## Woods Hill Road Solar Project Woods Hill Road Pomfret, CT

 Test Pit No.
 TP-13

 Page No.
 1 of 1

 File No.
 R-02984

 Checked By:
 Dave Brogan

T&B Rep.	Michael Tro	ovato	Contractor	Geosearch,	Inc.			Date			9/2015
			Operator	Roger Jarry				Ground Ele			56±
Weather	40 Degrees	s - Sunny	Make	Deere	Model	60G		Time Start			:55
			Capacity	Unknown	Reach	20'5''	ft.	Time Com	pleted	1	D: 35
Depth			Soil Descrip	tion			Sample No.	PID Reading	Excav.	Boulder Count/	Note
0			Topsoil					(ppm)	Effort E	Class 5%/A	No.
<del>-</del> 1' <del></del>	8''								E	5-	
2'	Brown SILT	and fine to med	dium SAND, lit	tle fine to co	arse Grav	el	S-1		E	10%/A 5-	
— 3' —	3.5'								E	10%/A 5- 10%/A	
4'									E	5- 10%/A	
5' —	Light brown, fine		ND, some Silt, s race Cobbles	some fine to	coarse Gr	avel,	S-2		Е	5- 10%/A	
- 6' - - 7' -							E	5- 10%/A			
/ 8'	7.5'					•••••••			E	5- 10%/A	
9'									E	5- 10%/A	
10'	Gray-brown, fir	ne to coarse SA	ND, some fine	Silt	S-3		Е	5- 10%/A			
— 11' —									E	5- 10%/A 5-	
<del></del> 12' <del></del>		Bottom (	of exploration a	at 12'	(GLACIA	AL TILL)			E	10%/A	
13'		Bottom	or exploration t	1. 12							
<del></del> 14' <del></del>											
<del></del> 15' <del></del>											
16'										+	
Notes:											
[	Test Pit Plan  3'	Letter Designation A B C	er Class Size Range Classification 6" - 17" 18" - 36" 36" +	10% 20% 35%	F = Fine M = Medi C = Coars V = Very F/M = Fir	ne to medium e to coarse	( )	to ng	I		
Volume =	16 cu. yd.	M-	Moderate	AND	35 -	50%	YEL = Ye		<u> </u>		
-		D-	Difficult								



#### Woods Hill Road Solar Project Woods Hill Road Pomfret, CT

Test Pit No.
Page No.
File No.
Checked By:
TP-14

Tof 1

R-02984

Dave Brogan

T&B Rep. Weather	Operator Roger Jarry 42 Degrees - Sunny Make Deere Model 60				60G 20'5''		Date Ground Ele Time Start Time Com	ed		12/9/ 32 10: 11:	45	
Depth			Soil Descrip				Sample No.	PID Reading (ppm)	Exc Effe		der int/	Note No.
— 0 — <sub>s</sub>	8''		Topsoil						E			
1'		ta assess CAND	CIL III			- 1			E	5%	/A	
- 2'-	Brown, line i	to coarse SAND	, some Siit, iit	tie tine to coa	arse Grav	ei	S-1		E	5%	-/A	
- 3' <del>-  </del>						•••••			E	5 10%		
- 4'-									E	5	-	
5'	Light brown SI	ILT and fine to	coarse SAND,	little fine to o	oarse Gra	ivel	S-2		E	5 10%		
— 6' —									Е	5 10%		
— 7'—									E	5	-	
- 8' - - 9' -	В	ottom of explor	ation at 8.8' d	ue to refusal	(GLACIA	AL TILL)			E	5 10%		
10'												
— 11' —												
12'												
13'												
14'												
— 15' —												
16'												
Notes:												
Т	Test Pit Plan	<u>Boulder</u> Letter Designation	Class Size Range Classification		ortions sed		F = Fine	bbreviations		GROUNDW/	tered	
	TRACE (TR.) 0 - 109  B 18" - 36" C 36" + LITTLE (LI.) 10 - 20'  Excavation Effort EEasy  SOME (SO.) 20 - 35'				20%		ne to medium ne to coarse		(X) Not End Elapsed Time to Reading (Hours)	[ t	red Depth o Ground- vater	
Volume =	16 cu. yd.	50%	YEL = Ye		F							



#### Woods Hill Road Solar Project Woods Hill Road Pomfret, CT

Test Pit No.
Page No.
File No.
Checked By:

**TP-15**1 of 1
R-02984
Dave Brogan

T&B Rep.	Michael Tro	ovato	Contractor	Geosearch,				Date			12/9/2	
Moothor	42 Dogrado	Cummu	Operator Make	Roger Jarry		400		Ground Ele			349 11:3	
Weather	43 Degrees	s - Suriny	Capacity	Deere Unknown	Model Reach	60G 20'5''	ft.	Time Start Time Com			12::	
			oupacity	OTIKTIOWIT	Reden	200		Time dom	picted		12	20
Depth			Soil Descrip	tion			Sample	PID		Bould	der	
							No.	Reading	Exca		unt/	Note
_								(ppm)	Effo		ass	No.
— 0 —			Topsoil				1	(66)				
	10''		торзоп						Ε	59	%/A	
_ <sub>1'</sub> —	10											
•									Ε	5-10	0%/A	
_ 2' —												
2									Ε	5-10	0%/A	
— 3'—	Brown fine t	to coarse SAND,	some Silt litt	le fine to cos	arse Grav	ام				U I	,,0,,,	
3	Brown, fille	to course shirts,	, some siit, iitt	ic fine to coc	ii se di av	Ci	S-1		Е	5 10	0%/A	
_ 4										3-10	) /0/ A	
— 4' —										E 1/	0%/A	
									E	3-10	)70/A	
<b>—</b> 5' <b>—</b>	5.5'								_		204.44	
ļ.				• • • • • • • • • • • • • • • • • • • •					Е	5-10	0%/A	
6'											2011	
									Е	5-10	0%/A	
— 7' —												
									E	5-10	0%/A	
8'	Gray-brown, fine to	o coarse SAND,		coarse Grave	I, little Si	It, trace						
			Cobbles				S-2		Е	5-10	0%/A	
9' —												
									Ε	5-10	0%/A	
10'										_		
									Ε	5-10	0%/A	
— 11' —					(01.401							
-	D -				(GLACIA	AL IILL)			Ε	5-10	0%/A	
12'	BC	ottom of explora	ition at 11.2° c	iue to refusa	i							
											ŀ	
13'												
											ŀ	
— 14' —												
• •												
— 15' —												
10											ŀ	
<del></del> 16' <del></del>												
16											ŀ	
Notes:												
	Test Pit Plan		01						Т	656:	A/A ===	
		<u>Boulder</u> Letter	Class Size Range	Prop	ortions sed			bbreviations		GROUND		
		Designation	Classification			100/	F = Fine M = Med	ium		( ) Enco		red
Г	3'	A B	6" - 17" 18" - 36"	TRACE (TR.)	0 -	10%	C = Coar	se				
L	13'	C	36" +	LITTLE (LI.)	10 -	20%	V = Very F/M = Fit	ne to medium		Elapsed Time to		Depth to
	-						F/C = Fir	ne to coarse		Reading		Ground-
		<u>Excavati</u>		SOME (SO.)	20 -	35%	GR = Gra	ay		(Hours)		water
Volume =	16 cu. yd.		Easy Moderate	AND	25	50%	BN = Bro YEL = Ye		H		Т	
volume -	cu. yu.		Difficult	AIND	30 -	3070	1		H		+-	
				1								



#### Woods Hill Road Solar Project Woods Hill Road Pomfret, CT

Test Pit No.
Page No.
File No.
Checked By:

TP-16
1 of 1
R-02984
Dave Brogan

T&B Rep.	Michael Tro	ovato	Contractor	Geosearch,				Date		12	/9/2015
	40.5		Operator	Roger Jarry		100		Ground Ele			374±
Weather	43 Degrees	s - Sunny	Make	Deere Unknown	Model Reach	60G 20'5''	ft.	Time Start			12:25 13:15
			Capacity	UTIKTIOWIT	Reacii	20 5	11.	Time Com	pieteu		13.13
Depth			Soil Descrip	tion			Sample No.	PID Reading (ppm)	Excav Effort		t/ Note
	1'		Topsoil						Е	5%/	4
- 1' - 2'									Е	5%/	4
- 3'-	Brown, fine t	to coarse SAND	), some Silt, lit	tle fine to coa	arse Grav	el	S-1		Е	5%/	١.
_ 4' <del>_</del>									Е	5%/	١
	5'								Е	5%/	١
— 6' —									Е	5-10%	/A
— 7' —							E	5-10%			
<u> </u>	Gray-brown, fine		ND, some Silt, :	ravel,	S-2		E	5-10%			
— 9' —							E	5-10%			
10'									E E	5-10% 5-10%	+
— 11' —						AL TILL)			E	5-10%	
12'	Вс	ottom of explor	ation at 11.2' o	due to refusa	I					3-1076	/A
13'											
14'											
— 15' —											
16'											
Notes:										1	•
Letter Designation A B C  Excava			Size Range Classification 6" - 17" 18" - 36" 36" +	Prop U TRACE (TR.) LITTLE (LI.) SOME (SO.)	10 - 20 -	10% 20% 35%	F = Fine M = Med C = Coar V = Very F/M = Fin F/C = Fir GR = Gra BN = Bro	ne to medium ne to coarse ay own	EI Ti Ri	GROUNDWAT  ( ) Encounte ( X ) Not Enco  apsed me to eading Hours)	ered
Volume =	15 cu. yd.		Moderate Difficult	AND	35 -	50%	YEL = Ye	llow	<u> </u>		



#### Woods Hill Road Solar Project Woods Hill Road Pomfret, CT

Test Pit No.
Page No.
File No.
Checked By:

TP-17
1 of 1
R-02984
Dave Brogan

T0D D	NAV-III		Combussia	C				Data		40/0/	2015
T&B Rep.	Michael Tro	vato	Contractor	Geosearch, Roger Jarry				Date	21/	12/9/	
Weather	42 Degrees	Suppy	Operator Make	Deere				Ground Elev. Time Started		323± 13:20	
vvcatrici	42 Degrees	- Suring	Capacity	Unknown	Reach	60G 20'5''	ft.	Time Com		14:	
Depth			Soil Descrip	tion			Sample			Boulder	
							No.	Reading	Excav.	Count/	Note
_ 0 _								(ppm)	Effort	Class	No.
	41		Topsoil						Ε	5%/A	
_ ₁' <del>_  </del>	1.										
									Е	5%/A	
2'	Brown, fine t	o coarse SAND	some Silt. lit	tle fine to co	arse Grav	el					
01	,		, ,				S-1		E	5%/A	
— 3'—									E	5%/A	
_ 4'	4'								L	370/A	
7									Ε	5-10%/A	
<del></del> 5' <del></del>											
									Е	5-10%/A	
6'	Light brown, fine	e to coarse SAN	D. some Silt.	some fine to	coarse Gr	ravel.					
7'	<b>3</b>		ace Cobbles			•	S-2		E	5-10%/A	
_ / _									E	5-10%/A	
8'											
									Ε	5-10%/A	
9' —					(GLACIA	AL TILL)					
	В	ottom of explor	ation at 9.8' c	lue to refusal					E	5-10%/A	
10'											
— 11' —											
12'											
4.01											
13'											
<del></del>											
— 15' —											
<del></del>											
Notes:											
	Test Pit Plan	5 / 1	. 01				ı		I	CDOUNDWATER	
		<u>Boulder</u> Letter	Size Range	Prop	oortions Jsed		A F = Fine	bbreviations		GROUNDWATER ) Encountered	
_		Designation A	Classification 6" - 17"	TRACE (TR.)	0 -	10%	M = Med C = Coar			X ) Not Encounte	red
L	3'	B C	18" - 36" 36" +	LITTLE (LI.)		20%	V = Very			psed	Depth
	13'	C	30 +			2070		ne to medium ne to coarse		ne to ading	to Ground-
			on Effort Easy	SOME (SO.)	20 -	35%	GR = Gra	ay		ours)	water
Volume =	14 cu. yd.	M	Moderate	AND	35 -	50%	YEL = Ye				
-		D	Difficult								



#### Woods Hill Road Solar Project Woods Hill Road Pomfret, CT

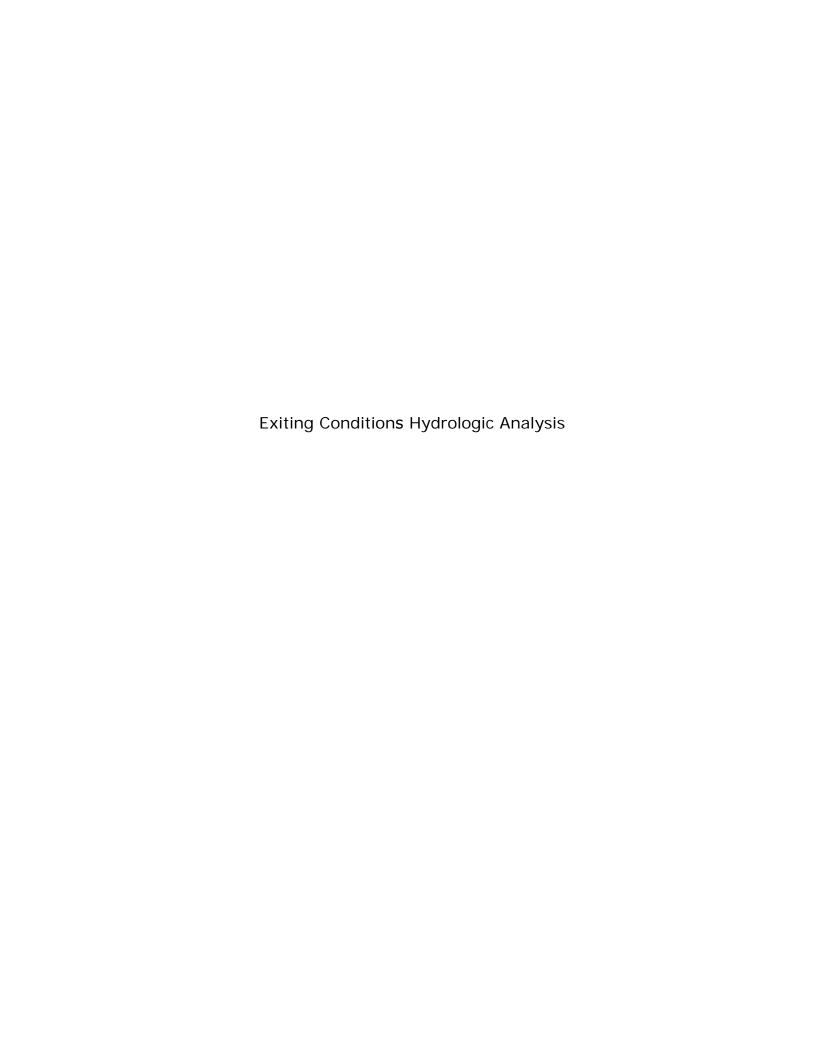
Test Pit No.
Page No.
File No.
Checked By:

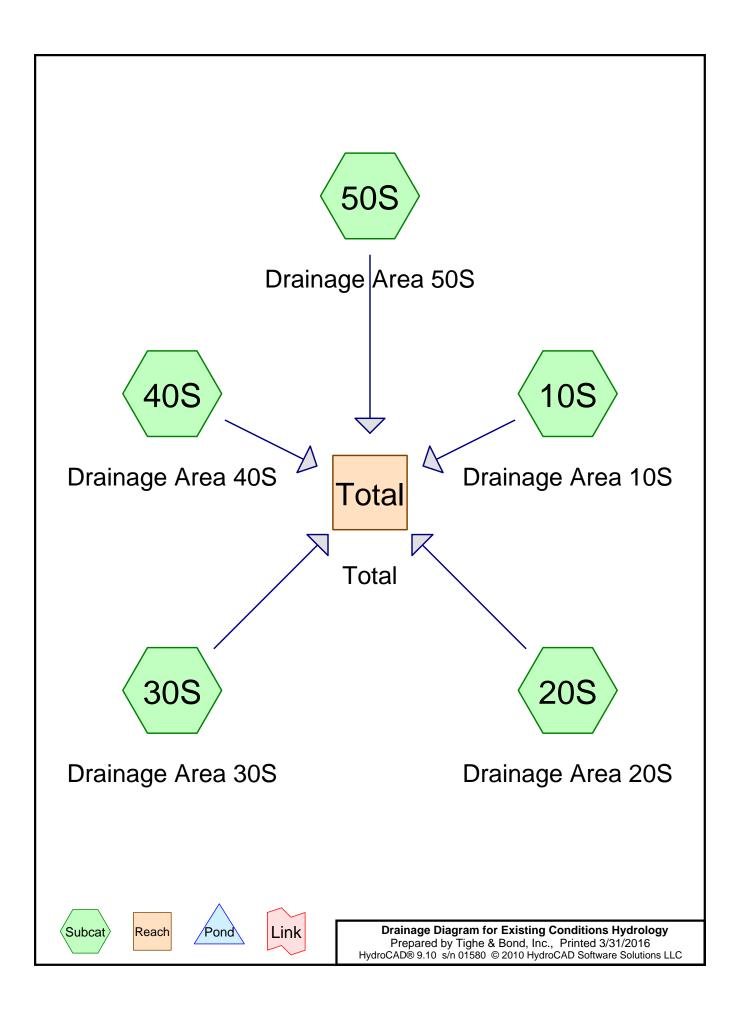
**TP-18**1 of 1
R-02984
Dave Brogan

T&B Rep.	Michael Tro	vato	Contractor	Geosearch,				Date		1:	2/9/2	
\^/+l	42 Damas	C	Operator	Roger Jarry		400		Ground Ele		355± 14:10		
Weather	42 Degrees	s - Sunny	Make Capacity	Deere Unknown	Model Reach	60G 20'5''	ft.	Time Start			14:1	
			Capacity	OTIKTIOWIT	Reacii	203	11.	Time Com	pieteu		14.0	
Depth			Soil Descrip	tion			Sample No.	PID Reading (ppm)	Excav Effort		ıt/	Note No.
<u> </u>	8''		Topsoil					(66)	E	5%/		
_ 1' <del></del>	E 5-10%/A											
2'	Brown, fine to coarse SAND, some Silt, little fine to coarse Gravel  S-1  E 5-10%/A											
— 3' —	3.5' E 5-10%/A											
— 4' —									Е	15-20 <sup>9</sup>	%/A-	
5' —	Light brown, fine	to medium SA	ND, some Silt	some fine to	o coarse C	iravel	S-2		Е	15-209 B	%/A-	
<del>-</del> 6' <del>-</del>									E	15-209 B	%/A-	
	7.5'								Е	15-209 B	%/A-	
— 8' —	Gray-brown, fin	ne to coarse SAI	ND, some fine	to coarse Gr	avel, little	Silt	6.0		E	15-20 <sup>9</sup> B	%/A-	
9' —							S-3		Е	15-209 B	%/A-	
10'	Вс	ottom of explora	ation at 10.8' o	due to refusa	(GLACIA	L TILL)			Е	15-209 B	%/A-	
— 11' —												
12'												
— 13' —												
— 14' — — 15' —												
— 16' —												
10												
Notes:												
	Test Pit Plan  3'	Boulder Letter Designation A B C	Class Size Range Classification 6" - 17" 18" - 36" 36" +		10 -	20%	F = Fine M = Med C = Coar V = Very F/M = Fin	ne to medium ne to coarse	E Ti R	GROUNDWA ( ) Encount ( X ) Not Encount ( Iapsed ime to eading Hours)	tered ounter	ed Depth to Ground- water
Volume =	16 cu. yd.	E M	Easy Moderate Difficult	AND	35 -		BN = Bro YEL = Ye	wn	È			
										1		

## **APPENDIX C:**

Hydrologic and Hydraulic Calculations





Printed 3/31/2016 Page 2

## **Area Listing (all nodes)**

Area	CN	Description
(acres)		(subcatchment-numbers)
0.165	36	Woods, Fair, HSG A (40S)
3.882	58	Meadow, non-grazed, HSG B (10S, 20S, 30S, 40S)
41.255	60	Woods, Fair, HSG B (10S, 20S, 30S, 40S)
3.690	60	Woods, Fair, HSG B/D (10S, 40S)
1.047	71	Meadow, non-grazed, HSG C (10S, 30S, 40S)
10.445	71	Meadow, non-grazed, HSG C/D (10S, 20S, 30S, 40S, 50S)
4.206	73	Woods, Fair, HSG C (10S, 30S, 40S, 50S)
37.197	73	Woods, Fair, HSG C/D (10S, 20S, 30S, 40S, 50S)
4.315	75	Small grain, straight row, Good, HSG B (40S)
0.743	78	Meadow, non-grazed, HSG D (30S, 40S)
1.882	78	Row crops, straight row, Good, HSG B (10S, 20S)
9.611	79	Woods, Fair, HSG D (10S, 20S, 30S, 40S)
7.003	83	Small grain, straight row, Good, HSG C (40S)
39.425	83	Small grain, straight row, Good, HSG C/D (40S, 50S)
0.289	85	Gravel roads, HSG B (10S, 20S, 30S, 40S)
0.754	85	Row crops, straight row, Good, HSG C (10S, 30S)
50.889	85	Row crops, straight row, Good, HSG C/D (10S, 20S, 30S)
2.475	87	Small grain, straight row, Good, HSG D (40S)
0.111	89	Gravel roads, HSG C (40S)
0.714	89	Gravel roads, HSG C/D (10S, 20S, 30S, 40S)
0.765	89	Row crops, straight row, Good, HSG D (30S)
0.022	91	Gravel roads, HSG D (40S)
0.086	98	Paved parking, HSG C (30S, 40S)
0.485	98	Paved parking, HSG C/D (30S, 40S)
0.003	98	Wetlands, HSG A (40S)
0.389	98	Wetlands, HSG B (30S, 40S)
0.651	98	Wetlands, HSG B/D (40S)
0.030	98	Wetlands, HSG C (40S)
4.385	98	Wetlands, HSG C/D (10S, 40S)
5.247	98	Wetlands, HSG D (30S, 40S)
232.160	77	TOTAL AREA

Woods Hill Solar Project Type III 24-hr 2-Year Rainfall=3.20" Printed 3/31/2016

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Page 3

## **Summary for Subcatchment 10S: Drainage Area 10S**

Runoff = 33.23 cfs @ 12.49 hrs, Volume= 4.146 af, Depth> 0.88"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Type III 24-hr 2-Year Rainfall=3.20"

Page 4

### **Existing Conditions Hydrology**

Prepared by Tighe & Bond, Inc.

2,075

0.08% Impervious Area

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Description Area (sf) CN Small grain, straight row, Good, HSG A 63 75 Small grain, straight row, Good, HSG B 0 Small grain, straight row, Good, HSG B/D 0 75 0 83 Small grain, straight row, Good, HSG C 0 Small grain, straight row, Good, HSG C/D 83 Small grain, straight row, Good, HSG D 0 87 67 Row crops, straight row, Good, HSG A 3,394 Row crops, straight row, Good, HSG B 78 Row crops, straight row, Good, HSG B/D 78 32,191 85 Row crops, straight row, Good, HSG C 763,011 Row crops, straight row, Good, HSG C/D 85 89 Row crops, straight row, Good, HSG D 0 30 Meadow, non-grazed, HSG A 18,771 58 Meadow, non-grazed, HSG B Meadow, non-grazed, HSG B/D 58 4,831 71 Meadow, non-grazed, HSG C 113,028 71 Meadow, non-grazed, HSG C/D 78 Meadow, non-grazed, HSG D 0 Gravel roads, HSG A 76 0 2,254 85 Gravel roads, HSG B Gravel roads, HSG B/D 0 85 89 Gravel roads, HSG C 0 10,236 Gravel roads, HSG C/D 89 Gravel roads, HSG D 91 Woods, Fair, HSG A 36 612,342 60 Woods, Fair, HSG B 160,683 Woods, Fair, HSG B/D 60 25,798 73 Woods, Fair, HSG C 524,435 73 Woods, Fair, HSG C/D 180,299 79 Woods, Fair, HSG D Wetlands, HSG A 0 98 0 98 Wetlands, HSG B 0 Wetlands, HSG B/D 98 0 98 Wetlands, HSG C 2,075 Wetlands, HSG C/D 98 98 Wetlands, HSG D 0 Paved parking, HSG A 0 98 0 98 Paved parking, HSG B 0 98 Paved parking, HSG B/D 0 98 Paved parking, HSG C 0 98 Paved parking, HSG C/D Paved parking, HSG D 98 2,453,348 73 Weighted Average 99.92% Pervious Area 2,451,273

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## **Existing Conditions Hydrology**

Prepared by Tighe & Bond, Inc.

2,478 Total

32.0

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.2	50	0.0555	0.10		Sheet Flow,
					Woods: Light underbrush n= 0.400 P2= 3.20"
1.6	110	0.0555	1.18		Shallow Concentrated Flow,
					Woodland Kv= 5.0 fps
3.5	385	0.0416	1.84		Shallow Concentrated Flow,
					Cultivated Straight Rows Kv= 9.0 fps
4.7	336	0.0179	1.20		Shallow Concentrated Flow,
					Cultivated Straight Rows Kv= 9.0 fps
6.0	685	0.0453	1.92		Shallow Concentrated Flow,
					Cultivated Straight Rows Kv= 9.0 fps
8.0	912	0.1458	1.91		Shallow Concentrated Flow,
					Woodland Kv= 5.0 fps

## **Subcatchment 10S: Drainage Area 10S**

#### **Hydrograph** 33.23 cfs - Runoff 35 Type III 24-hr 2-Year 30 Rainfall=3.20" Runoff Area=2,453,348 sf 25 Runoff Volume=4.146 af 20 Runoff Depth>0.88" Flow Length=2,478' 15 Tc=32.0 min CN=73 10 5 0 5 6 9 10 11 12 13 14 15 16 17 18 19 20 Time (hours)

## Existing Conditions Hydrology Prepared by Tighe & Bond, Inc.

Woods Hill Solar Project Type III 24-hr 2-Year Rainfall=3.20" Printed 3/31/2016

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## **Summary for Subcatchment 20S: Drainage Area 20S**

Runoff = 11.20 cfs @ 12.39 hrs, Volume= 1.303 af, Depth> 0.70"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Type III 24-hr 2-Year Rainfall=3.20"

#### Woods Hill Solar Project Type III 24-hr 2-Year Rainfall=3.20" Printed 3/31/2016 Page 7

# Existing Conditions Hydrology Prepared by Tighe & Bond, Inc. HydroCAD® 9.10 s/n 01580 © 2010 HydroCAD Software Solutions LLC

	Area (sf)	CN	Description
	0	63	Small grain, straight row, Good, HSG A
	0	75	Small grain, straight row, Good, HSG B
*	0	75	Small grain, straight row, Good, HSG B/D
	0	83	Small grain, straight row, Good, HSG C
*	0	83	Small grain, straight row, Good, HSG C/D
	0	87	Small grain, straight row, Good, HSG D
	0	67	Row crops, straight row, Good, HSG A
	78,604	78	Row crops, straight row, Good, HSG B
*	0	78	Row crops, straight row, Good, HSG B/D
	0	85	Row crops, straight row, Good, HSG C
*	264,893	85	Row crops, straight row, Good, HSG C/D
	0	89	Row crops, straight row, Good, HSG D
	0	30	Meadow, non-grazed, HSG A
*	81,395	58	Meadow, non-grazed, HSG B
*	0	58	Meadow, non-grazed, HSG B/D
	0	71	Meadow, non-grazed, HSG C
*	12,661	71	Meadow, non-grazed, HSG C/D
	0	78	Meadow, non-grazed, HSG D
	0	76	Gravel roads, HSG A
	6,195	85	Gravel roads, HSG B
*	0	85	Gravel roads, HSG B/D
	0	89	Gravel roads, HSG C
*	2,947	89	Gravel roads, HSG C/D
	0	91	Gravel roads, HSG D
	0	36	Woods, Fair, HSG A
	510,799	60	Woods, Fair, HSG B
*	0	60	Woods, Fair, HSG B/D
	0	73	Woods, Fair, HSG C
*	14,248	73	Woods, Fair, HSG C/D
	7,744	79	Woods, Fair, HSG D
*	0	98	Wetlands, HSG A
<b>^</b>	0	98	Wetlands, HSG B
, +	0	98	Wetlands, HSG B/D
*	0	98	Wetlands, HSG C
*	0	98	Wetlands, HSG C/D
•	0	98	Wetlands, HSG D
	0	98	Paved parking, HSG A
*	0	98	Paved parking, HSG B
	0	98	Paved parking, HSG B/D
*	0	98	Paved parking, HSG C
	0	98	Paved parking, HSC D
	0	98	Paved parking, HSG D
	979,486	69	Weighted Average
	979,486		100.00% Pervious Area

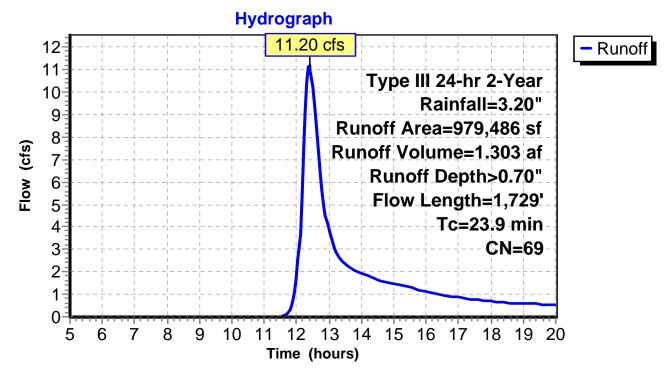
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	Tc	Length	Slope	Velocity	Capacity	Description
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
	6.2	50	0.0200	0.13		Sheet Flow,
						Cultivated: Residue>20% n= 0.170 P2= 3.20"
	6.4	726	0.0441	1.89		Shallow Concentrated Flow,
						Cultivated Straight Rows Kv= 9.0 fps
	11.3	953	0.0797	1.41		Shallow Concentrated Flow,
						Woodland Kv= 5.0 fps
	23.9	1.729	Total		•	

## Subcatchment 20S: Drainage Area 20S



Woods Hill Solar Project Type III 24-hr 2-Year Rainfall=3.20" Printed 3/31/2016

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## **Summary for Subcatchment 30S: Drainage Area 30S**

Runoff = 39.30 cfs @ 12.42 hrs, Volume= 4.545 af, Depth> 1.35"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Type III 24-hr 2-Year Rainfall=3.20"

Existing Conditions Hydrology

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*	0 0 0 0	63 75 75 83	Small grain, straight row, Good, HSG A Small grain, straight row, Good, HSG B
*	0 0 0	75	
*	0 0		
*	0	QΩ	Small grain, straight row, Good, HSG B/D
*			Small grain, straight row, Good, HSG C
		83	Small grain, straight row, Good, HSG C/D
	0	87	Small grain, straight row, Good, HSG D
	0	67	Row crops, straight row, Good, HSG A
*	0	78 70	Row crops, straight row, Good, HSG B
•	0	78	Row crops, straight row, Good, HSG B/D
*	665	85 85	Row crops, straight row, Good, HSG C
	1,188,822	85	Row crops, straight row, Good, HSG C/D
	33,310 0	89 30	Row crops, straight row, Good, HSG D
*	23,989	58	Meadow, non-grazed, HSG A Meadow, non-grazed, HSG B
*	25,909	58	Meadow, non-grazed, HSG B/D
	9,399	71	Meadow, non-grazed, HSG C
*	115,340	71	Meadow, non-grazed, HSG C/D
	13,942	78	Meadow, non-grazed, HSG D
	0	76	Gravel roads, HSG A
	2,490	85	Gravel roads, HSG B
*	0	85	Gravel roads, HSG B/D
	0	89	Gravel roads, HSG C
*	641	89	Gravel roads, HSG C/D
	0	91	Gravel roads, HSG D
	0	36	Woods, Fair, HSG A
	181,042	60	Woods, Fair, HSG B
*	0	60	Woods, Fair, HSG B/D
	13,965	73	Woods, Fair, HSG C
*	82,828	73	Woods, Fair, HSG C/D
•	42,854	79	Woods, Fair, HSG D
*	0 5 446	98	Wetlands, HSG A
*	5,446	98	Wetlands, HSG B
*	0 0	98 98	Wetlands, HSG B/D Wetlands, HSG C
*	0	98	Wetlands, HSG C/D
*	34,318	98	Wetlands, HSG D
	0	98	Paved parking, HSG A
	0	98	Paved parking, HSG B
*	Ö	98	Paved parking, HSG B/D
	2,987	98	Paved parking, HSG C
*	11,318	98	Paved parking, HSG C/D
	<sup>'</sup> 0	98	Paved parking, HSG D
	1,763,356	81	Weighted Average
	1,709,287		96.93% Pervious Area
	54,069		3.07% Impervious Area

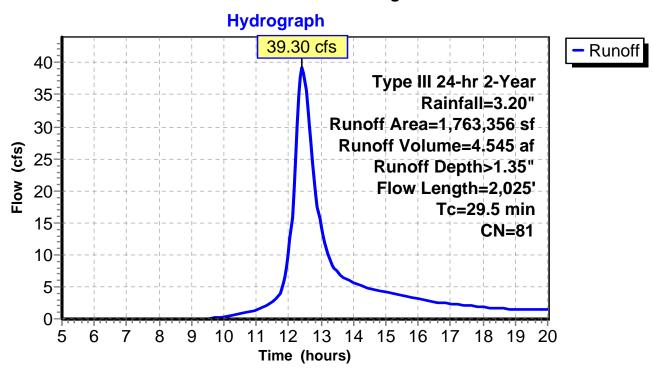
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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.0	50	0.0150	0.12		Sheet Flow,
					Cultivated: Residue>20% n= 0.170 P2= 3.20"
11.6	1,188	0.0362	1.71		Shallow Concentrated Flow,
					Cultivated Straight Rows Kv= 9.0 fps
10.9	787	0.0577	1.20		Shallow Concentrated Flow,
					Woodland Kv= 5.0 fps
29.5	2 025	Total		•	

#### **Subcatchment 30S: Drainage Area 30S**



Woods Hill Solar Project Type III 24-hr 2-Year Rainfall=3.20" Printed 3/31/2016

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## **Summary for Subcatchment 40S: Drainage Area 40S**

Runoff = 45.77 cfs @ 13.18 hrs, Volume= 9.550 af, Depth> 1.13"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Type III 24-hr 2-Year Rainfall=3.20"

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Description Area (sf) CN Small grain, straight row, Good, HSG A 63 187,953 75 Small grain, straight row, Good, HSG B Small grain, straight row, Good, HSG B/D 75 305,031 83 Small grain, straight row, Good, HSG C 1,290,370 83 Small grain, straight row, Good, HSG C/D 107,792 Small grain, straight row, Good, HSG D 87 67 Row crops, straight row, Good, HSG A 0 0 78 Row crops, straight row, Good, HSG B Row crops, straight row, Good, HSG B/D 0 78 0 85 Row crops, straight row, Good, HSG C 0 85 Row crops, straight row, Good, HSG C/D 0 89 Row crops, straight row, Good, HSG D 0 30 Meadow, non-grazed, HSG A 44,928 58 Meadow, non-grazed, HSG B Meadow, non-grazed, HSG B/D 58 31,396 71 Meadow, non-grazed, HSG C 162,114 71 Meadow, non-grazed, HSG C/D 18,415 78 Meadow, non-grazed, HSG D Gravel roads, HSG A 76 1,654 85 Gravel roads, HSG B Gravel roads, HSG B/D 85 4.831 89 Gravel roads, HSG C 17,267 Gravel roads, HSG C/D 89 Gravel roads, HSG D 966 91 Woods, Fair, HSG A 7,185 36 492,897 60 Woods, Fair, HSG B Woods, Fair, HSG B/D 75 60 133,015 73 Woods, Fair, HSG C 73 Woods, Fair, HSG C/D 986,850 187,750 Woods, Fair, HSG D 79 Wetlands, HSG A 115 98 11,508 98 Wetlands, HSG B 28,352 Wetlands, HSG B/D 98 1,289 98 Wetlands, HSG C 188,916 Wetlands, HSG C/D 98 194,241 98 Wetlands, HSG D Paved parking, HSG A 0 98 0 98 Paved parking, HSG B Paved parking, HSG B/D 0 98 754 98 Paved parking, HSG C 9,828 98 Paved parking, HSG C/D Paved parking, HSG D 98 4,415,492 78 Weighted Average 90.15% Pervious Area 3,980,489 435,003 9.85% Impervious Area

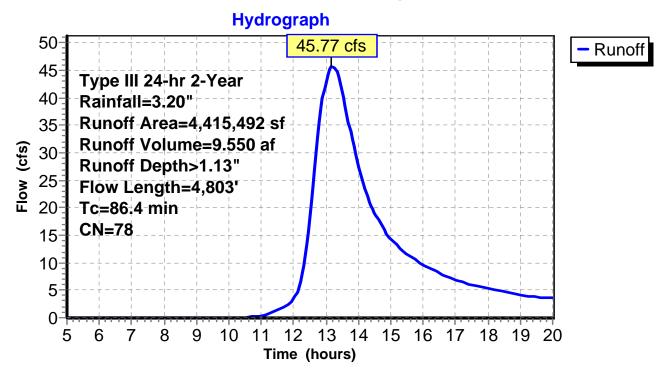
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_	Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
	8.2	50	0.0200	0.10		Sheet Flow,
						Grass: Dense n= 0.240 P2= 3.20"
	13.1	833	0.0228	1.06		Shallow Concentrated Flow,
						Short Grass Pasture Kv= 7.0 fps
	12.6	674	0.0163	0.89		Shallow Concentrated Flow,
						Short Grass Pasture Kv= 7.0 fps
	52.5	3,246	0.0425	1.03		Shallow Concentrated Flow,
_						Woodland Kv= 5.0 fps
	86.4	4,803	Total			

## Subcatchment 40S: Drainage Area 40S



Woods Hill Solar Project Type III 24-hr 2-Year Rainfall=3.20" Printed 3/31/2016

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# **Summary for Subcatchment 50S: Drainage Area 50S**

Runoff = 11.76 cfs @ 12.38 hrs, Volume= 1.294 af, Depth> 1.35"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Type III 24-hr 2-Year Rainfall=3.20"

Existing Conditions Hydrology

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	Area (sf)	CN	Description
	0	63	Small grain, straight row, Good, HSG A
	0	75	Small grain, straight row, Good, HSG B
*	0	75	Small grain, straight row, Good, HSG B/D
	0	83	Small grain, straight row, Good, HSG C
*	427,001	83	Small grain, straight row, Good, HSG C/D
	0	87	Small grain, straight row, Good, HSG D
	0	67	Row crops, straight row, Good, HSG A
	0	78	Row crops, straight row, Good, HSG B
*	0	78	Row crops, straight row, Good, HSG B/D
	0	85	Row crops, straight row, Good, HSG C
*	0	85	Row crops, straight row, Good, HSG C/D
	0	89	Row crops, straight row, Good, HSG D
	0	30	Meadow, non-grazed, HSG A
*	0	58	Meadow, non-grazed, HSG B
*	0	58	Meadow, non-grazed, HSG B/D
	0	71	Meadow, non-grazed, HSG C
^	51,839	71	Meadow, non-grazed, HSG C/D
	0	78 70	Meadow, non-grazed, HSG D
	0	76	Gravel roads, HSG A
*	0	85 85	Gravel roads, HSG B
	0	85	Gravel roads, HSG B/D
*	0 0	89	Gravel roads, HSG C/D
	0	89 91	Gravel roads, HSG C/D
	0	36	Gravel roads, HSG D Woods, Fair, HSG A
	0	60	Woods, Fair, HSG B
*	0	60	Woods, Fair, HSG B/D
	10,433	73	Woods, Fair, HSG C
*	11,932	73	Woods, Fair, HSG C/D
	0	79	Woods, Fair, HSG D
*	Ö	98	Wetlands, HSG A
*	0	98	Wetlands, HSG B
*	0	98	Wetlands, HSG B/D
*	0	98	Wetlands, HSG C
*	0	98	Wetlands, HSG C/D
*	0	98	Wetlands, HSG D
	0	98	Paved parking, HSG A
	0	98	Paved parking, HSG B
*	0	98	Paved parking, HSG B/D
	0	98	Paved parking, HSG C
*	0	98	Paved parking, HSG C/D
	0	98	Paved parking, HSG D
	501,205	81	Weighted Average
	501,205		100.00% Pervious Area

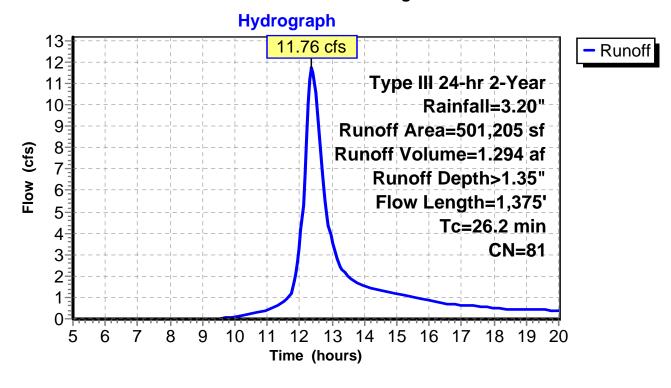
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	Tc	Length	Slope	Velocity	Capacity	Description
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
	8.2	50	0.0100	0.10		Sheet Flow,
						Cultivated: Residue>20% n= 0.170 P2= 3.20"
	9.8	607	0.0132	1.03		Shallow Concentrated Flow,
						Cultivated Straight Rows Kv= 9.0 fps
	8.2	718	0.0265	1.47		Shallow Concentrated Flow,
						Cultivated Straight Rows Kv= 9.0 fps
	26.2	1.375	Total			

## **Subcatchment 50S: Drainage Area 50S**



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## **Existing Conditions Hydrology**

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### **Summary for Reach Total: Total**

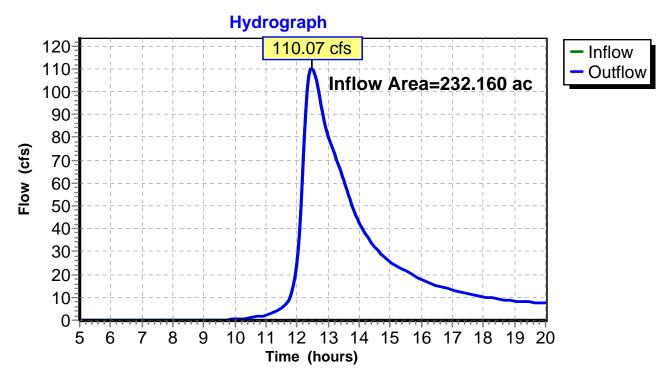
Inflow Area = 232.160 ac, 4.86% Impervious, Inflow Depth > 1.08" for 2-Year event

Inflow = 110.07 cfs @ 12.48 hrs, Volume= 20.838 af

Outflow = 110.07 cfs @ 12.48 hrs, Volume= 20.838 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

#### **Reach Total: Total**



# Existing Conditions Hydrology Prepared by Tighe & Bond, Inc.

Woods Hill Solar Project Type III 24-hr 10-Year Rainfall=4.80" Printed 3/31/2016

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# **Summary for Subcatchment 10S: Drainage Area 10S**

Runoff = 75.90 cfs @ 12.46 hrs, Volume= 9.122 af, Depth> 1.94"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Type III 24-hr 10-Year Rainfall=4.80"

Existing Conditions Hydrology

Prepared by Tighe & Bond, Inc.

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	Area (sf)	CN	Description
-	0	63	Small grain, straight row, Good, HSG A
	0	75	Small grain, straight row, Good, HSG B
*	0	75	Small grain, straight row, Good, HSG B/D
	0	83	Small grain, straight row, Good, HSG C
*	0	83	Small grain, straight row, Good, HSG C/D
	0	87	Small grain, straight row, Good, HSG D
	0	67	Row crops, straight row, Good, HSG A
4	3,394	78 70	Row crops, straight row, Good, HSG B
^	0	78 05	Row crops, straight row, Good, HSG B/D
*	32,191	85 85	Row crops, straight row, Good, HSG C
	763,011	85	Row crops, straight row, Good, HSG C/D
	0	89 30	Row crops, straight row, Good, HSG D
*	18,771	58	Meadow, non-grazed, HSG A Meadow, non-grazed, HSG B
*	0	58	Meadow, non-grazed, HSG B/D
	4,831	71	Meadow, non-grazed, HSG C
*	113,028	71	Meadow, non-grazed, HSG C/D
	0	78	Meadow, non-grazed, HSG D
	0	76	Gravel roads, HSG A
	2,254	85	Gravel roads, HSG B
*	0	85	Gravel roads, HSG B/D
	0	89	Gravel roads, HSG C
*	10,236	89	Gravel roads, HSG C/D
	0	91	Gravel roads, HSG D
	0	36	Woods, Fair, HSG A
	612,342	60	Woods, Fair, HSG B
*	160,683	60	Woods, Fair, HSG B/D
	25,798	73	Woods, Fair, HSG C
*	524,435	73	Woods, Fair, HSG C/D
*	180,299	79	Woods, Fair, HSG D
*	0	98 98	Wetlands, HSG A Wetlands, HSG B
*	0	98	Wetlands, HSG B/D
*	0	98	Wetlands, HSG C
*	2,075	98	Wetlands, FISC C Wetlands, HSG C/D
*	2,079	98	Wetlands, HSG D
	Ö	98	Paved parking, HSG A
	Ő	98	Paved parking, HSG B
*	0	98	Paved parking, HSG B/D
	0	98	Paved parking, HSG C
*	0	98	Paved parking, HSG C/D
	0	98	Paved parking, HSG D
	2,453,348	73	Weighted Average
	2,451,273		99.92% Pervious Area
	2,075		0.08% Impervious Area

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	Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
	8.2	50	0.0555	0.10		Sheet Flow,
	1.6	110	0.0555	1.18		Woods: Light underbrush n= 0.400 P2= 3.20" <b>Shallow Concentrated Flow,</b> Woodland Kv= 5.0 fps
	3.5	385	0.0416	1.84		Shallow Concentrated Flow,
	4.7	336	0.0179	1.20		Cultivated Straight Rows Kv= 9.0 fps  Shallow Concentrated Flow,  Cultivated Straight Rows Kv= 9.0 fps
	6.0	685	0.0453	1.92		Shallow Concentrated Flow,
	8.0	912	0.1458	1.91		Cultivated Straight Rows Kv= 9.0 fps  Shallow Concentrated Flow,  Woodland Kv= 5.0 fps
_	32.0	2,478	Total	_		

# **Subcatchment 10S: Drainage Area 10S**

#### **Hydrograph** 75.90 cfs - Runoff 80-Type III 24-hr 10-Year 70 Rainfall=4.80" 60 Runoff Area=2,453,348 sf Runoff Volume=9.122 af 50 Runoff Depth>1.94" 40 Flow Length=2,478' Tc=32.0 min 30 CN=73 20 10 0 6 9 10 11 12 13 14 15 16 17 18 19 20 Time (hours)

Woods Hill Solar Project Type III 24-hr 10-Year Rainfall=4.80" Printed 3/31/2016

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## **Summary for Subcatchment 20S: Drainage Area 20S**

Runoff = 28.87 cfs @ 12.35 hrs, Volume= 3.096 af, Depth> 1.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Type III 24-hr 10-Year Rainfall=4.80"

# Existing Conditions Hydrology Prepared by Tighe & Bond, Inc. HydroCAD® 9.10 s/n 01580 © 2010 HydroCAD Software Solutions LLC

	Area (sf)	CN	Description
	0	63	Small grain, straight row, Good, HSG A
	0	75	Small grain, straight row, Good, HSG B
*	0	75	Small grain, straight row, Good, HSG B/D
	0	83	Small grain, straight row, Good, HSG C
*	0	83	Small grain, straight row, Good, HSG C/D
	0	87	Small grain, straight row, Good, HSG D
	0	67	Row crops, straight row, Good, HSG A
	78,604	78	Row crops, straight row, Good, HSG B
*	0	78	Row crops, straight row, Good, HSG B/D
	0	85	Row crops, straight row, Good, HSG C
*	264,893	85	Row crops, straight row, Good, HSG C/D
	0	89	Row crops, straight row, Good, HSG D
	0	30	Meadow, non-grazed, HSG A
*	81,395	58	Meadow, non-grazed, HSG B
*	0	58	Meadow, non-grazed, HSG B/D
	0	71	Meadow, non-grazed, HSG C
*	12,661	71	Meadow, non-grazed, HSG C/D
	0	78	Meadow, non-grazed, HSG D
	0	76	Gravel roads, HSG A
	6,195	85	Gravel roads, HSG B
*	0	85	Gravel roads, HSG B/D
	0	89	Gravel roads, HSG C
*	2,947	89	Gravel roads, HSG C/D
	0	91	Gravel roads, HSG D
	0	36	Woods, Fair, HSG A
	510,799	60	Woods, Fair, HSG B
*	0	60	Woods, Fair, HSG B/D
•	0	73	Woods, Fair, HSG C
	14,248	73	Woods, Fair, HSG C/D
*	7,744	79	Woods, Fair, HSG D
*	0	98	Wetlands, HSG A
*	0	98	Wetlands, HSC B/D
*	0	98	Wetlands, HSG B/D
*	0 0	98 98	Wetlands, HSG C Wetlands, HSG C/D
*	0	98	Wetlands, HSG D
	0	98	Paved parking, HSG A
	0	98	Paved parking, HSG B
*	0	98	Paved parking, HSG B/D
	0	98	Paved parking, HSG C
*	0	98	Paved parking, HSG C/D
	0	98	Paved parking, HSG D
	979,486	69	Weighted Average
		งษ	100.00% Pervious Area
	979,486		100.00 /0 F CIVIOUS AICA

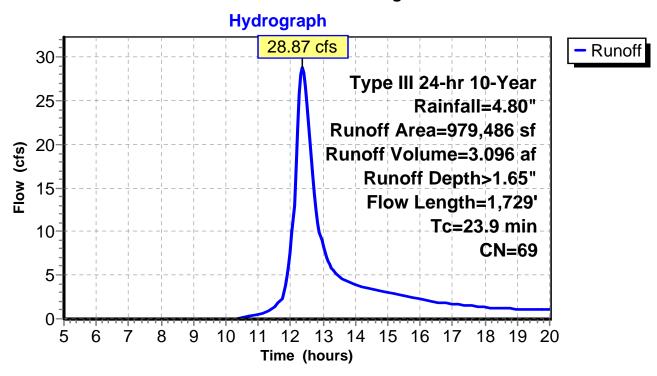
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	Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
_	(111111)	(leet)	(11/11)	(11/560)	(615)	
	6.2	50	0.0200	0.13		Sheet Flow,
						Cultivated: Residue>20% n= 0.170 P2= 3.20"
	6.4	726	0.0441	1.89		Shallow Concentrated Flow,
						Cultivated Straight Rows Kv= 9.0 fps
	11.3	953	0.0797	1.41		Shallow Concentrated Flow,
						Woodland Kv= 5.0 fps
_	23.9	1.729	Total	•	•	

## **Subcatchment 20S: Drainage Area 20S**



# Existing Conditions Hydrology Prepared by Tighe & Bond, Inc.

Woods Hill Solar Project Type III 24-hr 10-Year Rainfall=4.80" Printed 3/31/2016

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# **Summary for Subcatchment 30S: Drainage Area 30S**

Runoff = 75.84 cfs @ 12.41 hrs, Volume= 8.788 af, Depth> 2.61"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Type III 24-hr 10-Year Rainfall=4.80"

Existing Conditions Hydrology

Prepared by Tighe & Bond, Inc.

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	Area (sf)	CN	Description
	0	63	Small grain, straight row, Good, HSG A
	0	75	Small grain, straight row, Good, HSG B
*	0	75	Small grain, straight row, Good, HSG B/D
	0	83	Small grain, straight row, Good, HSG C
*	0	83	Small grain, straight row, Good, HSG C/D
	0	87	Small grain, straight row, Good, HSG D
	0	67	Row crops, straight row, Good, HSG A
	0	78	Row crops, straight row, Good, HSG B
*	0	78	Row crops, straight row, Good, HSG B/D
	665	85	Row crops, straight row, Good, HSG C
*	1,188,822	85	Row crops, straight row, Good, HSG C/D
	33,310	89	Row crops, straight row, Good, HSG D
*	0	30	Meadow, non-grazed, HSG A
*	23,989	58 50	Meadow, non-grazed, HSG B
	0 200	58	Meadow, non-grazed, HSG B/D
*	9,399 115,340	71 71	Meadow, non-grazed, HSC C/D
	•	71 70	Meadow, non-grazed, HSG C/D
	13,942 0	78 76	Meadow, non-grazed, HSG D Gravel roads, HSG A
	2,490	85	Gravel roads, HSG B
*	2,490	85	Gravel roads, HSG B/D
	0	89	Gravel roads, HSG C
*	641	89	Gravel roads, HSG C/D
	0	91	Gravel roads, HSG D
	0	36	Woods, Fair, HSG A
	181,042	60	Woods, Fair, HSG B
*	0	60	Woods, Fair, HSG B/D
	13,965	73	Woods, Fair, HSG C
*	82,828	73	Woods, Fair, HSG C/D
	42,854	79	Woods, Fair, HSG D
*	0	98	Wetlands, HSG A
*	5,446	98	Wetlands, HSG B
*	0	98	Wetlands, HSG B/D
*	0	98	Wetlands, HSG C
*	0	98	Wetlands, HSG C/D
*	34,318	98	Wetlands, HSG D
	0	98	Paved parking, HSG A
	0	98	Paved parking, HSG B
*	0	98	Paved parking, HSG B/D
•	2,987	98	Paved parking, HSG C
^	11,318	98	Paved parking, HSG C/D
	0	98	Paved parking, HSG D
	1,763,356	81	Weighted Average
	1,709,287		96.93% Pervious Area
	54,069		3.07% Impervious Area

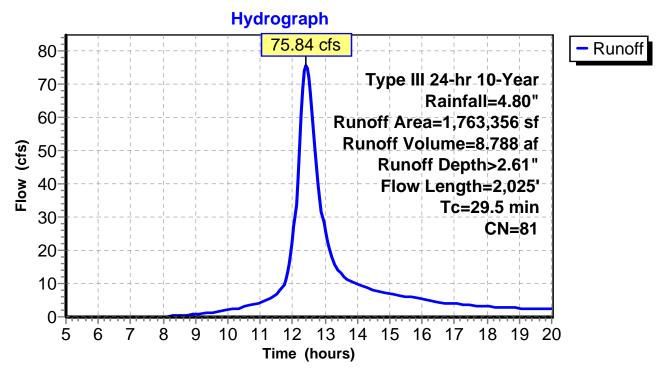
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	Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
_					(613)	
	7.0	50	0.0150	0.12		Sheet Flow,
						Cultivated: Residue>20% n= 0.170 P2= 3.20"
	11.6	1.188	0.0362	1.71		Shallow Concentrated Flow,
		,				Cultivated Straight Rows Kv= 9.0 fps
	10.9	787	0.0577	1.20		Shallow Concentrated Flow,
	10.9	101	0.0377	1.20		
_						Woodland Kv= 5.0 fps
	29.5	2.025	Total			

# Subcatchment 30S: Drainage Area 30S



# Existing Conditions Hydrology Prepared by Tighe & Bond, Inc.

Woods Hill Solar Project Type III 24-hr 10-Year Rainfall=4.80" Printed 3/31/2016

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# **Summary for Subcatchment 40S: Drainage Area 40S**

Runoff = 94.44 cfs @ 13.16 hrs, Volume= 19.393 af, Depth> 2.30"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Type III 24-hr 10-Year Rainfall=4.80"

Existing Conditions Hydrology

Prepared by Tighe & Bond, Inc.

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	Area (sf)	CN	Description
	0	63	Small grain, straight row, Good, HSG A
	187,953	75	Small grain, straight row, Good, HSG B
*	0	75	Small grain, straight row, Good, HSG B/D
	305,031	83	Small grain, straight row, Good, HSG C
*	1,290,370	83	Small grain, straight row, Good, HSG C/D
	107,792	87	Small grain, straight row, Good, HSG D
	0	67	Row crops, straight row, Good, HSG A
	0	78	Row crops, straight row, Good, HSG B
*	0	78	Row crops, straight row, Good, HSG B/D
	0	85	Row crops, straight row, Good, HSG C
*	0	85	Row crops, straight row, Good, HSG C/D
	0	89	Row crops, straight row, Good, HSG D
	0	30	Meadow, non-grazed, HSG A
·	44,928	58	Meadow, non-grazed, HSG B
•	0	58	Meadow, non-grazed, HSG B/D
*	31,396	71	Meadow, non-grazed, HSG C
	162,114	71 70	Meadow, non-grazed, HSG C/D
	18,415	78 76	Meadow, non-grazed, HSG D
	0 1,654	76 85	Gravel roads, HSG A Gravel roads, HSG B
*	1,054	85	Gravel roads, HSG B/D
	4,831	89	Gravel roads, HSG C
*	17,267	89	Gravel roads, HSG C/D
	966	91	Gravel roads, HSG D
	7,185	36	Woods, Fair, HSG A
	492,897	60	Woods, Fair, HSG B
*	75	60	Woods, Fair, HSG B/D
	133,015	73	Woods, Fair, HSG C
*	986,850	73	Woods, Fair, HSG C/D
	187,750	79	Woods, Fair, HSG D
*	115	98	Wetlands, HSG A
*	11,508	98	Wetlands, HSG B
*	28,352	98	Wetlands, HSG B/D
*	1,289	98	Wetlands, HSG C
*	188,916	98	Wetlands, HSG C/D
*	194,241	98	Wetlands, HSG D
	0	98	Paved parking, HSG A
	0	98	Paved parking, HSG B
*	0	98	Paved parking, HSG B/D
•	754	98	Paved parking, HSG C
*	9,828	98	Paved parking, HSG C/D
	0	98	Paved parking, HSG D
	4,415,492	78	Weighted Average
	3,980,489		90.15% Pervious Area
	435,003		9.85% Impervious Area

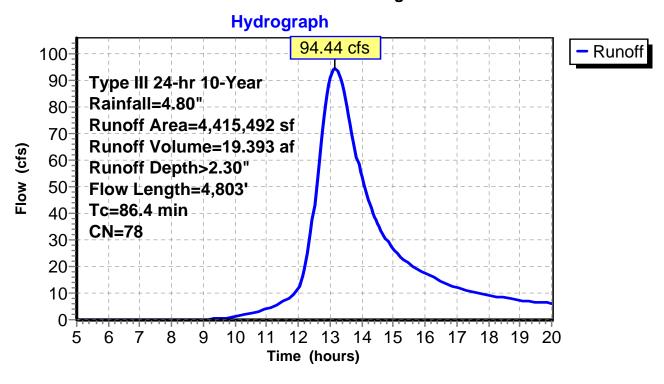
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	Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
	8.2	50	0.0200	0.10		Sheet Flow,
						Grass: Dense n= 0.240 P2= 3.20"
	13.1	833	0.0228	1.06		Shallow Concentrated Flow,
						Short Grass Pasture Kv= 7.0 fps
	12.6	674	0.0163	0.89		Shallow Concentrated Flow,
						Short Grass Pasture Kv= 7.0 fps
	52.5	3,246	0.0425	1.03		Shallow Concentrated Flow,
_						Woodland Kv= 5.0 fps
	86.4	4,803	Total			

## Subcatchment 40S: Drainage Area 40S



Woods Hill Solar Project Type III 24-hr 10-Year Rainfall=4.80" Printed 3/31/2016

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## **Summary for Subcatchment 50S: Drainage Area 50S**

Runoff = 22.73 cfs @ 12.36 hrs, Volume= 2.501 af, Depth> 2.61"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Type III 24-hr 10-Year Rainfall=4.80"

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### **Existing Conditions Hydrology**

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501,205

100.00% Pervious Area

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Description Area (sf) CN Small grain, straight row, Good, HSG A 0 63 75 Small grain, straight row, Good, HSG B 0 Small grain, straight row, Good, HSG B/D 0 75 0 83 Small grain, straight row, Good, HSG C 427,001 Small grain, straight row, Good, HSG C/D 83 Small grain, straight row, Good, HSG D 87 0 67 Row crops, straight row, Good, HSG A 0 78 Row crops, straight row, Good, HSG B Row crops, straight row, Good, HSG B/D 0 78 0 85 Row crops, straight row, Good, HSG C 0 85 Row crops, straight row, Good, HSG C/D 0 89 Row crops, straight row, Good, HSG D 0 30 Meadow, non-grazed, HSG A 0 58 Meadow, non-grazed, HSG B 0 58 Meadow, non-grazed, HSG B/D 0 71 Meadow, non-grazed, HSG C 51,839 71 Meadow, non-grazed, HSG C/D Meadow, non-grazed, HSG D 0 78 Gravel roads, HSG A 76 0 0 85 Gravel roads, HSG B Gravel roads, HSG B/D 0 85 0 89 Gravel roads, HSG C 0 Gravel roads, HSG C/D 89 0 91 Gravel roads, HSG D Woods, Fair, HSG A 0 36 0 60 Woods, Fair, HSG B Woods, Fair, HSG B/D 0 60 10,433 73 Woods, Fair, HSG C 11,932 73 Woods, Fair, HSG C/D 79 Woods, Fair, HSG D 0 98 Wetlands, HSG A 0 0 98 Wetlands, HSG B 0 Wetlands, HSG B/D 98 0 98 Wetlands, HSG C 0 98 Wetlands, HSG C/D 0 98 Wetlands, HSG D 0 98 Paved parking, HSG A 0 98 Paved parking, HSG B 0 98 Paved parking, HSG B/D 0 98 Paved parking, HSG C 0 98 Paved parking, HSG C/D Paved parking, HSG D 98 501,205 81 Weighted Average

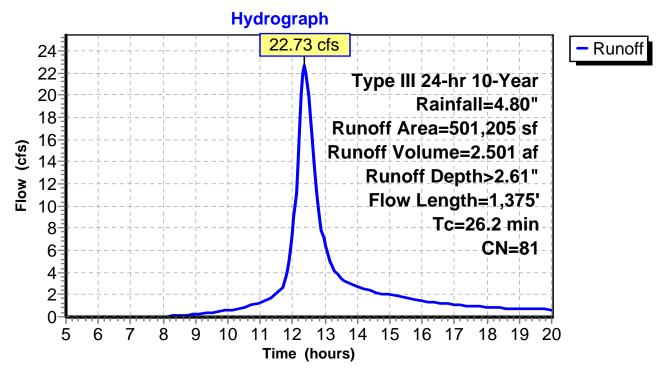
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	Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
	8.2	50	0.0100	0.10		Sheet Flow,
						Cultivated: Residue>20% n= 0.170 P2= 3.20"
	9.8	607	0.0132	1.03		Shallow Concentrated Flow,
						Cultivated Straight Rows Kv= 9.0 fps
	8.2	718	0.0265	1.47		Shallow Concentrated Flow,
						Cultivated Straight Rows Kv= 9.0 fps
_	26.2	1.375	Total		•	

# Subcatchment 50S: Drainage Area 50S



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## **Existing Conditions Hydrology**

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### **Summary for Reach Total: Total**

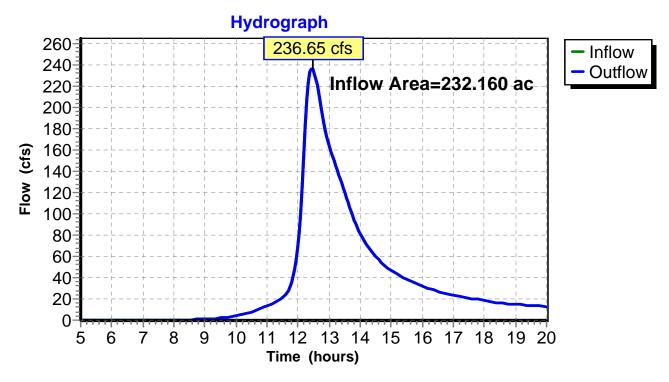
Inflow Area = 232.160 ac, 4.86% Impervious, Inflow Depth > 2.22" for 10-Year event

Inflow = 236.65 cfs @ 12.45 hrs, Volume= 42.900 af

Outflow = 236.65 cfs @ 12.45 hrs, Volume= 42.900 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

#### **Reach Total: Total**



# Existing Conditions Hydrology Prepared by Tighe & Bond, Inc.

Woods Hill Solar Project Type III 24-hr 25-Year Rainfall=5.50" Printed 3/31/2016

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## **Summary for Subcatchment 10S: Drainage Area 10S**

Runoff = 96.39 cfs @ 12.46 hrs, Volume= 11.552 af, Depth> 2.46"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Type III 24-hr 25-Year Rainfall=5.50"

Existing Conditions Hydrology

Type III 24-hr 25

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	Area (sf)	CN	Description
	0	63	Small grain, straight row, Good, HSG A
	0	75	Small grain, straight row, Good, HSG B
*	0	75	Small grain, straight row, Good, HSG B/D
	0	83	Small grain, straight row, Good, HSG C
*	0	83	Small grain, straight row, Good, HSG C/D
	0	87	Small grain, straight row, Good, HSG D
	0	67	Row crops, straight row, Good, HSG A
	3,394	78	Row crops, straight row, Good, HSG B
•	0	78 05	Row crops, straight row, Good, HSG B/D
*	32,191	85	Row crops, straight row, Good, HSG C
	763,011	85	Row crops, straight row, Good, HSG C/D
	0	89	Row crops, straight row, Good, HSG D
*	0 10 771	30	Meadow, non-grazed, HSG A
*	18,771	58 50	Meadow, non-grazed, HSC B/D
	0 4,831	58 71	Meadow, non-grazed, HSG B/D Meadow, non-grazed, HSG C
*	113,028	71	Meadow, non-grazed, HSG C/D
	0	78	Meadow, non-grazed, HSG D
	0	76	Gravel roads, HSG A
	2,254	85	Gravel roads, HSG B
*	0	85	Gravel roads, HSG B/D
	0	89	Gravel roads, HSG C
*	10,236	89	Gravel roads, HSG C/D
	, O	91	Gravel roads, HSG D
	0	36	Woods, Fair, HSG A
	612,342	60	Woods, Fair, HSG B
*	160,683	60	Woods, Fair, HSG B/D
	25,798	73	Woods, Fair, HSG C
*	524,435	73	Woods, Fair, HSG C/D
	180,299	79	Woods, Fair, HSG D
*	0	98	Wetlands, HSG A
*	0	98	Wetlands, HSG B
*	0	98	Wetlands, HSG B/D
*	0	98	Wetlands, HSG C
*	2,075	98	Wetlands, HSG C/D
	0	98	Wetlands, HSG D
	0	98 98	Paved parking, HSC B
*	0 0	98	Paved parking, HSG B
	0	98	Paved parking, HSG B/D Paved parking, HSG C
*	0	98	Paved parking, HSG C/D
	0	98	Paved parking, HSG D
	2,453,348	73	Weighted Average
	2,451,273	73	99.92% Pervious Area
	2,431,273		0.08% Impervious Area
	2,013		0.00 /0 Importious / trou

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Pa	g	е	3	1

	Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
	8.2	50	0.0555	0.10		Sheet Flow,
						Woods: Light underbrush n= 0.400 P2= 3.20"
	1.6	110	0.0555	1.18		Shallow Concentrated Flow,
	3.5	385	0.0416	1.84		Woodland Kv= 5.0 fps  Shallow Concentrated Flow,
	0.0	300	0.0410	1.04		Cultivated Straight Rows Kv= 9.0 fps
	4.7	336	0.0179	1.20		Shallow Concentrated Flow,
						Cultivated Straight Rows Kv= 9.0 fps
	6.0	685	0.0453	1.92		Shallow Concentrated Flow,
	0.0	040	0.4450	4.04		Cultivated Straight Rows Kv= 9.0 fps
	8.0	912	0.1458	1.91		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
_	32.0	2,478	Total			**************************************

# **Subcatchment 10S: Drainage Area 10S**

#### **Hydrograph** 96.39 cfs - Runoff 100 Type III 24-hr 25-Year 90 Rainfall=5.50" 80 Runoff Area=2,453,348 sf 70 Runoff Volume=11.552 af 60 Runoff Depth>2.46" Flow Length=2,478' 50-Tc=32.0 min 40 CN=73 30 20 10 0 5 6 8 9 10 11 12 13 14 15 16 17 18 19 20 Time (hours)

Woods Hill Solar Project Type III 24-hr 25-Year Rainfall=5.50" Printed 3/31/2016

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## **Summary for Subcatchment 20S: Drainage Area 20S**

Runoff = 37.62 cfs @ 12.35 hrs, Volume= 3.995 af, Depth> 2.13"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Type III 24-hr 25-Year Rainfall=5.50"

Existing Conditions Hydrology

Type III 24-hr 25Prepared by Tighe & Bond, Inc.

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	Area (sf)	CN	Description
	0	63	Small grain, straight row, Good, HSG A
	0	75	Small grain, straight row, Good, HSG B
*	0	75	Small grain, straight row, Good, HSG B/D
	0	83	Small grain, straight row, Good, HSG C
*	0	83	Small grain, straight row, Good, HSG C/D
	0	87	Small grain, straight row, Good, HSG D
	0	67	Row crops, straight row, Good, HSG A
	78,604	78	Row crops, straight row, Good, HSG B
*	0	78	Row crops, straight row, Good, HSG B/D
	0	85	Row crops, straight row, Good, HSG C
*	264,893	85	Row crops, straight row, Good, HSG C/D
	0	89	Row crops, straight row, Good, HSG D
	0	30	Meadow, non-grazed, HSG A
*	81,395	58	Meadow, non-grazed, HSG B
*	0	58	Meadow, non-grazed, HSG B/D
	0	71	Meadow, non-grazed, HSG C
*	12,661	71	Meadow, non-grazed, HSG C/D
	0	78	Meadow, non-grazed, HSG D
	0	76	Gravel roads, HSG A
	6,195	85	Gravel roads, HSG B
•	0	85	Gravel roads, HSG B/D
*	0	89	Gravel roads, HSG C
	2,947	89	Gravel roads, HSG C/D
	0 0	91	Gravel roads, HSG D
	510,799	36 60	Woods, Fair, HSC R
*	0	60	Woods, Fair, HSG B Woods, Fair, HSG B/D
	0	73	Woods, Fair, HSG C
*	14,248	73	Woods, Fair, HSG C/D
	7,744	79	Woods, Fair, HSG D
*	0	98	Wetlands, HSG A
*	0	98	Wetlands, HSG B
*	Ö	98	Wetlands, HSG B/D
*	Ö	98	Wetlands, HSG C
*	0	98	Wetlands, HSG C/D
*	0	98	Wetlands, HSG D
	0	98	Paved parking, HSG A
	0	98	Paved parking, HSG B
*	0	98	Paved parking, HSG B/D
	0	98	Paved parking, HSG C
*	0	98	Paved parking, HSG C/D
	0	98	Paved parking, HSG D
	979,486	69	Weighted Average
	979,486		100.00% Pervious Area

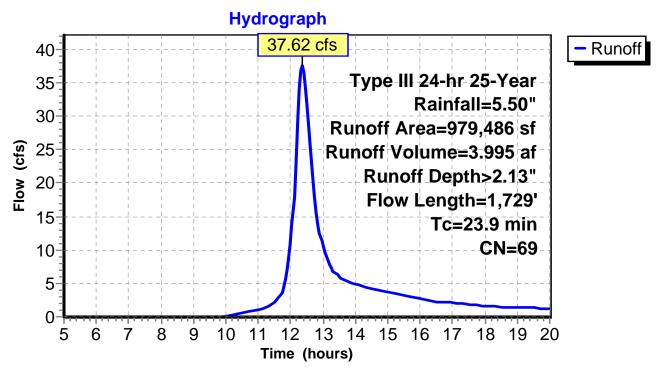
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	Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
_	(111111)	(leet)	(11/11)	(11/560)	(615)	
	6.2	50	0.0200	0.13		Sheet Flow,
						Cultivated: Residue>20% n= 0.170 P2= 3.20"
	6.4	726	0.0441	1.89		Shallow Concentrated Flow,
						Cultivated Straight Rows Kv= 9.0 fps
	11.3	953	0.0797	1.41		Shallow Concentrated Flow,
_						Woodland Kv= 5.0 fps
_	23.9	1.729	Total	•	•	

# Subcatchment 20S: Drainage Area 20S



# Existing Conditions Hydrology Prepared by Tighe & Bond, Inc.

Woods Hill Solar Project Type III 24-hr 25-Year Rainfall=5.50" Printed 3/31/2016

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# **Summary for Subcatchment 30S: Drainage Area 30S**

Runoff = 92.46 cfs @ 12.41 hrs, Volume= 10.764 af, Depth> 3.19"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Type III 24-hr 25-Year Rainfall=5.50"

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### **Existing Conditions Hydrology**

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1,763,356

1,709,287 54,069 81

Weighted Average 96.93% Pervious Area

3.07% Impervious Area

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Description Area (sf) CN Small grain, straight row, Good, HSG A 63 75 Small grain, straight row, Good, HSG B 0 Small grain, straight row, Good, HSG B/D 0 75 0 83 Small grain, straight row, Good, HSG C 0 Small grain, straight row, Good, HSG C/D 83 0 Small grain, straight row, Good, HSG D 87 0 67 Row crops, straight row, Good, HSG A 0 Row crops, straight row, Good, HSG B 78 Row crops, straight row, Good, HSG B/D 0 78 665 85 Row crops, straight row, Good, HSG C Row crops, straight row, Good, HSG C/D 1,188,822 85 33,310 89 Row crops, straight row, Good, HSG D 30 Meadow, non-grazed, HSG A 23,989 58 Meadow, non-grazed, HSG B Meadow, non-grazed, HSG B/D 58 9,399 71 Meadow, non-grazed, HSG C 115,340 71 Meadow, non-grazed, HSG C/D Meadow, non-grazed, HSG D 13,942 78 Gravel roads, HSG A 76 2,490 85 Gravel roads, HSG B Gravel roads, HSG B/D 0 85 0 89 Gravel roads, HSG C 641 Gravel roads, HSG C/D 89 Gravel roads, HSG D 0 91 Woods, Fair, HSG A 36 Woods, Fair, HSG B 181,042 60 Woods, Fair, HSG B/D 60 13,965 73 Woods, Fair, HSG C 82,828 73 Woods, Fair, HSG C/D 42,854 79 Woods, Fair, HSG D Wetlands, HSG A 98 5,446 98 Wetlands, HSG B Wetlands, HSG B/D 0 98 0 98 Wetlands, HSG C 98 Wetlands, HSG C/D 0 34,318 98 Wetlands, HSG D Paved parking, HSG A 98 0 0 98 Paved parking, HSG B Paved parking, HSG B/D 0 98 2.987 98 Paved parking, HSG C 11,318 Paved parking, HSG C/D 98 Paved parking, HSG D 98

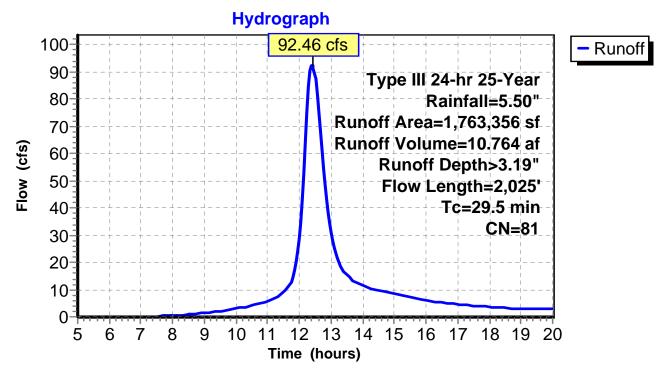
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	Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
	7.0	50	0.0150	0.12		Sheet Flow,
						Cultivated: Residue>20% n= 0.170 P2= 3.20"
	11.6	1,188	0.0362	1.71		Shallow Concentrated Flow,
						Cultivated Straight Rows Kv= 9.0 fps
	10.9	787	0.0577	1.20		Shallow Concentrated Flow,
_						Woodland Kv= 5.0 fps
	29.5	2.025	Total			

# Subcatchment 30S: Drainage Area 30S



Woods Hill Solar Project Type III 24-hr 25-Year Rainfall=5.50" Printed 3/31/2016

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## **Summary for Subcatchment 40S: Drainage Area 40S**

Runoff = 117.04 cfs @ 13.15 hrs, Volume= 24.061 af, Depth> 2.85"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Type III 24-hr 25-Year Rainfall=5.50"

Existing Conditions Hydrology

Prepared by Tighe & Bond, Inc.

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	A === (=f)	ON	Description
	Area (sf)	CN	Description
	0	63	Small grain, straight row, Good, HSG A
	187,953	75	Small grain, straight row, Good, HSG B
*	0	75	Small grain, straight row, Good, HSG B/D
	305,031	83	Small grain, straight row, Good, HSG C
*	1,290,370	83	Small grain, straight row, Good, HSG C/D
	107,792	87	Small grain, straight row, Good, HSG D
	0	67	Row crops, straight row, Good, HSG A
	0	78	Row crops, straight row, Good, HSG B
*	0	78	Row crops, straight row, Good, HSG B/D
	0	85	Row crops, straight row, Good, HSG C
*	0	85	Row crops, straight row, Good, HSG C/D
	0	89	Row crops, straight row, Good, HSG D
	0	30	Meadow, non-grazed, HSG A
*	44,928	58	Meadow, non-grazed, HSG B
*	0	58	Meadow, non-grazed, HSG B/D
	31,396	71	Meadow, non-grazed, HSG C
*	162,114	71	Meadow, non-grazed, HSG C/D
	18,415	78	Meadow, non-grazed, HSG D
	0	76	Gravel roads, HSG A
	1,654	85	Gravel roads, HSG B
*	0	85	Gravel roads, HSG B/D
	4,831	89	Gravel roads, HSG C
*	17,267	89	Gravel roads, HSG C/D
	966	91	Gravel roads, HSG D
	7,185	36	Woods, Fair, HSG A
	492,897	60	Woods, Fair, HSG B
*	75	60	Woods, Fair, HSG B/D
	133,015	73	Woods, Fair, HSG C
*	986,850	73	Woods, Fair, HSG C/D
	187,750	79	Woods, Fair, HSG D
*	115	98	Wetlands, HSG A
^ +	11,508	98	Wetlands, HSG B
*	28,352	98	Wetlands, HSG B/D
^ +	1,289	98	Wetlands, HSG C
*	188,916	98	Wetlands, HSG C/D
^	194,241	98	Wetlands, HSG D
	0	98	Paved parking, HSG A
4	0	98	Paved parking, HSG B
^	0	98	Paved parking, HSG B/D
4	754	98	Paved parking, HSG C
^	9,828	98	Paved parking, HSG C/D
	0	98	Paved parking, HSG D
	4,415,492	78	Weighted Average
	3,980,489		90.15% Pervious Area
	435,003		9.85% Impervious Area

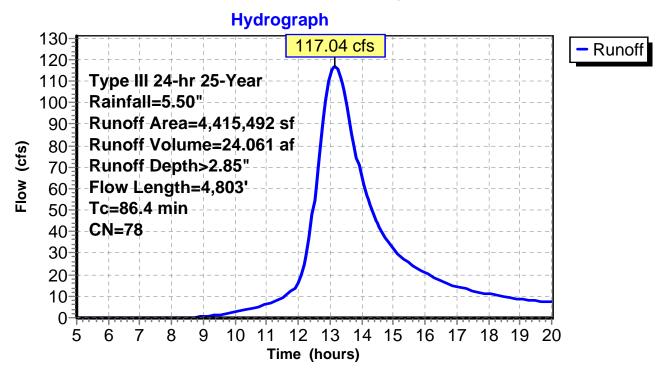
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_	Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
	8.2	50	0.0200	0.10		Sheet Flow,
						Grass: Dense n= 0.240 P2= 3.20"
	13.1	833	0.0228	1.06		Shallow Concentrated Flow,
						Short Grass Pasture Kv= 7.0 fps
	12.6	674	0.0163	0.89		Shallow Concentrated Flow,
						Short Grass Pasture Kv= 7.0 fps
	52.5	3,246	0.0425	1.03		Shallow Concentrated Flow,
_						Woodland Kv= 5.0 fps
	86.4	4,803	Total			

# Subcatchment 40S: Drainage Area 40S



# Existing Conditions Hydrology Prepared by Tighe & Bond, Inc.

Woods Hill Solar Project Type III 24-hr 25-Year Rainfall=5.50" Printed 3/31/2016

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## **Summary for Subcatchment 50S: Drainage Area 50S**

Runoff = 27.71 cfs @ 12.36 hrs, Volume= 3.063 af, Depth> 3.19"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Type III 24-hr 25-Year Rainfall=5.50"

Existing Conditions Hydrology

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	Area (sf)	CN	Description
	Ó	63	Small grain, straight row, Good, HSG A
	0	75	Small grain, straight row, Good, HSG B
*	0	75	Small grain, straight row, Good, HSG B/D
	0	83	Small grain, straight row, Good, HSG C
*	427,001	83	Small grain, straight row, Good, HSG C/D
	0	87	Small grain, straight row, Good, HSG D
	0	67	Row crops, straight row, Good, HSG A
	0	78	Row crops, straight row, Good, HSG B
*	0	78	Row crops, straight row, Good, HSG B/D
	0	85	Row crops, straight row, Good, HSG C
*	0	85	Row crops, straight row, Good, HSG C/D
	0	89	Row crops, straight row, Good, HSG D
	0	30	Meadow, non-grazed, HSG A
*	0	58	Meadow, non-grazed, HSG B
*	0	58	Meadow, non-grazed, HSG B/D
	0	71	Meadow, non-grazed, HSG C
*	51,839	71	Meadow, non-grazed, HSG C/D
	0	78	Meadow, non-grazed, HSG D
	0	76	Gravel roads, HSG A
	0	85	Gravel roads, HSG B
*	0	85	Gravel roads, HSG B/D
	0	89	Gravel roads, HSG C
*	0	89	Gravel roads, HSG C/D
	0	91	Gravel roads, HSG D
	0	36	Woods, Fair, HSG A
	0	60	Woods, Fair, HSG B
*	0	60	Woods, Fair, HSG B/D
	10,433	73	Woods, Fair, HSG C
*	11,932	73	Woods, Fair, HSG C/D
	0	79	Woods, Fair, HSG D
*	0	98	Wetlands, HSG A
*	0	98	Wetlands, HSG B
*	0	98	Wetlands, HSG B/D
*	0	98	Wetlands, HSG C
*	0	98	Wetlands, HSG C/D
	0	98	Wetlands, HSG D
	0	98	Paved parking, HSG A
*	0	98	Paved parking, HSG B
**	0	98	Paved parking, HSG B/D
*	0	98	Paved parking, HSC C/D
	0	98	Paved parking, HSG D
	0	98	Paved parking, HSG D
	501,205	81	Weighted Average
	501,205		100.00% Pervious Area

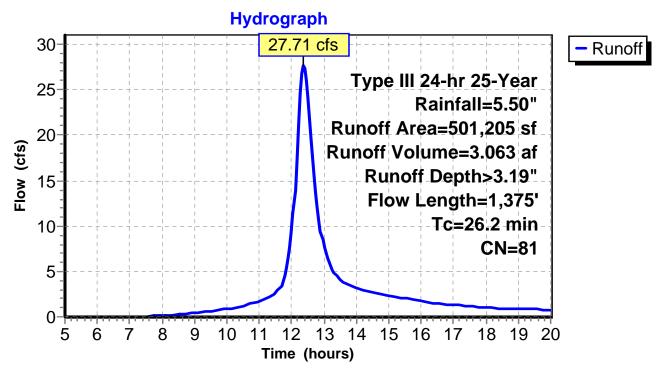
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	Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
	8.2	50	0.0100	0.10		Sheet Flow,
						Cultivated: Residue>20% n= 0.170 P2= 3.20"
	9.8	607	0.0132	1.03		Shallow Concentrated Flow,
						Cultivated Straight Rows Kv= 9.0 fps
	8.2	718	0.0265	1.47		Shallow Concentrated Flow,
						Cultivated Straight Rows Kv= 9.0 fps
_	26.2	1.375	Total		•	

# Subcatchment 50S: Drainage Area 50S



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# **Existing Conditions Hydrology**

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### **Summary for Reach Total: Total**

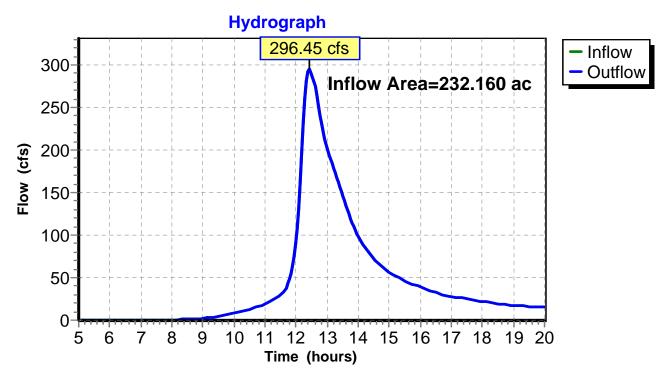
Inflow Area = 232.160 ac, 4.86% Impervious, Inflow Depth > 2.76" for 25-Year event

Inflow = 296.45 cfs @ 12.45 hrs, Volume= 53.435 af

Outflow = 296.45 cfs @ 12.45 hrs, Volume= 53.435 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

#### **Reach Total: Total**



Woods Hill Solar Project Type III 24-hr 100-Year Rainfall=6.90" Printed 3/31/2016

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#### **Summary for Subcatchment 10S: Drainage Area 10S**

Runoff = 139.18 cfs @ 12.45 hrs, Volume= 16.702 af, Depth> 3.56"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Type III 24-hr 100-Year Rainfall=6.90"

Existing Conditions Hydrology

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	Tc	Length	Slope	Velocity	Capacity	Description
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
	8.2	50	0.0555	0.10		Sheet Flow,
						Woods: Light underbrush n= 0.400 P2= 3.20"
	1.6	110	0.0555	1.18		Shallow Concentrated Flow,
						Woodland Kv= 5.0 fps
	3.5	385	0.0416	1.84		Shallow Concentrated Flow,
						Cultivated Straight Rows Kv= 9.0 fps
	4.7	336	0.0179	1.20		Shallow Concentrated Flow,
						Cultivated Straight Rows Kv= 9.0 fps
	6.0	685	0.0453	1.92		Shallow Concentrated Flow,
						Cultivated Straight Rows Kv= 9.0 fps
	8.0	912	0.1458	1.91		Shallow Concentrated Flow,
						Woodland Kv= 5.0 fps
	32.0	2.478	Total			

#### **Subcatchment 10S: Drainage Area 10S**

#### **Hydrograph** 139.18 cfs - Runoff 140 Type III 24-hr 100-Year 120 Rainfall=6.90" Runoff Area=2,453,348 sf 100 Runoff Volume=16.702 af Flow (cfs) Runoff Depth>3.56" 80 Flow Length=2,478' 60 Tc=32.0 min CN=73 40 20 0 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 Time (hours)

### Existing Conditions Hydrology Prepared by Tighe & Bond, Inc.

Woods Hill Solar Project Type III 24-hr 100-Year Rainfall=6.90" Printed 3/31/2016

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#### **Summary for Subcatchment 20S: Drainage Area 20S**

Runoff = 56.19 cfs @ 12.34 hrs, Volume= 5.932 af, Depth> 3.17"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Type III 24-hr 100-Year Rainfall=6.90"

Existing Conditions Hydrology

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	Area (sf)	CN	Description
	0	63	Small grain, straight row, Good, HSG A
	0	75	Small grain, straight row, Good, HSG B
*	0	75	Small grain, straight row, Good, HSG B/D
	0	83	Small grain, straight row, Good, HSG C
*	0	83	Small grain, straight row, Good, HSG C/D
	0	87	Small grain, straight row, Good, HSG D
	0	67	Row crops, straight row, Good, HSG A
	78,604	78	Row crops, straight row, Good, HSG B
*	0	78	Row crops, straight row, Good, HSG B/D
	0	85	Row crops, straight row, Good, HSG C
*	264,893	85	Row crops, straight row, Good, HSG C/D
	0	89	Row crops, straight row, Good, HSG D
	0	30	Meadow, non-grazed, HSG A
*	81,395	58	Meadow, non-grazed, HSG B
*	0	58	Meadow, non-grazed, HSG B/D
	0	71	Meadow, non-grazed, HSG C
*	12,661	71	Meadow, non-grazed, HSG C/D
	0	78	Meadow, non-grazed, HSG D
	0	76	Gravel roads, HSG A
	6,195	85	Gravel roads, HSG B
*	0	85	Gravel roads, HSG B/D
	0	89	Gravel roads, HSG C
*	2,947	89	Gravel roads, HSG C/D
	0	91	Gravel roads, HSG D
	0	36	Woods, Fair, HSG A
	510,799	60	Woods, Fair, HSG B
*	0	60	Woods, Fair, HSG B/D
	0	73	Woods, Fair, HSG C
*	14,248	73	Woods, Fair, HSG C/D
	7,744	79	Woods, Fair, HSG D
*	0	98	Wetlands, HSG A
*	0	98	Wetlands, HSG B
*	0	98	Wetlands, HSG B/D
· •	0	98	Wetlands, HSG C
	0	98	Wetlands, HSG C/D
•	0	98	Wetlands, HSG D
	0	98	Paved parking, HSG A
*	0	98	Paved parking, HSG B
	0	98	Paved parking, HSG B/D
*	0	98	Paved parking, HSG C
	0	98	Paved parking, HSC D
	0	98	Paved parking, HSG D
	979,486	69	Weighted Average
	979,486		100.00% Pervious Area

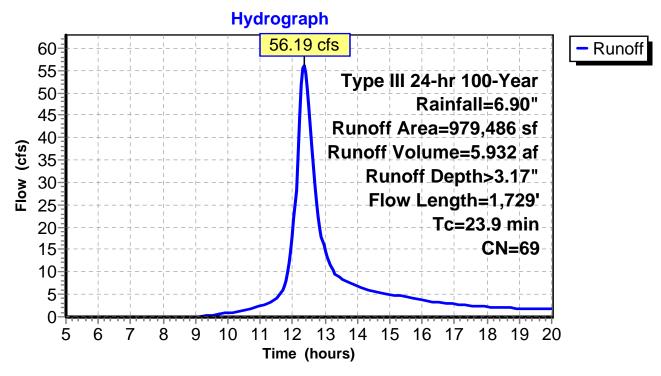
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	Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
_	(111111)	(leet)	(11/11)	(11/560)	(615)	
	6.2	50	0.0200	0.13		Sheet Flow,
						Cultivated: Residue>20% n= 0.170 P2= 3.20"
	6.4	726	0.0441	1.89		Shallow Concentrated Flow,
						Cultivated Straight Rows Kv= 9.0 fps
	11.3	953	0.0797	1.41		Shallow Concentrated Flow,
						Woodland Kv= 5.0 fps
_	23.9	1.729	Total	•	•	

#### Subcatchment 20S: Drainage Area 20S



Woods Hill Solar Project Type III 24-hr 100-Year Rainfall=6.90" Printed 3/31/2016

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#### **Summary for Subcatchment 30S: Drainage Area 30S**

Runoff = 126.15 cfs @ 12.40 hrs, Volume= 14.845 af, Depth> 4.40"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Type III 24-hr 100-Year Rainfall=6.90"

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Description Area (sf) CN Small grain, straight row, Good, HSG A 63 75 Small grain, straight row, Good, HSG B 0 Small grain, straight row, Good, HSG B/D 0 75 0 83 Small grain, straight row, Good, HSG C 0 Small grain, straight row, Good, HSG C/D 83 0 Small grain, straight row, Good, HSG D 87 Row crops, straight row, Good, HSG A 0 67 0 Row crops, straight row, Good, HSG B 78 Row crops, straight row, Good, HSG B/D 0 78 Row crops, straight row, Good, HSG C 665 85 Row crops, straight row, Good, HSG C/D 1,188,822 85 33,310 89 Row crops, straight row, Good, HSG D Meadow, non-grazed, HSG A 30 23,989 58 Meadow, non-grazed, HSG B Meadow, non-grazed, HSG B/D 58 9,399 71 Meadow, non-grazed, HSG C 115,340 71 Meadow, non-grazed, HSG C/D 78 Meadow, non-grazed, HSG D 13,942 Gravel roads, HSG A 76 2,490 85 Gravel roads, HSG B Gravel roads, HSG B/D 0 85 0 89 Gravel roads, HSG C 641 Gravel roads, HSG C/D 89 Gravel roads, HSG D 0 91 Woods, Fair, HSG A 36 181,042 60 Woods, Fair, HSG B Woods, Fair, HSG B/D 60 13,965 73 Woods, Fair, HSG C 82,828 73 Woods, Fair, HSG C/D 42,854 79 Woods, Fair, HSG D Wetlands, HSG A 98 5,446 98 Wetlands, HSG B Wetlands, HSG B/D 0 98 0 98 Wetlands, HSG C 98 Wetlands, HSG C/D 0 34,318 98 Wetlands, HSG D Paved parking, HSG A 98 0 0 98 Paved parking, HSG B Paved parking, HSG B/D 98 2.987 98 Paved parking, HSG C 11,318 Paved parking, HSG C/D 98 Paved parking, HSG D 98 1,763,356 81 Weighted Average 96.93% Pervious Area 1,709,287 54,069 3.07% Impervious Area

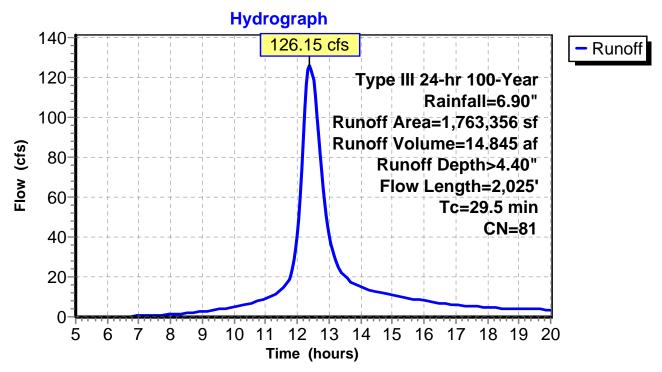
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	Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
	7.0	50	0.0150	0.12		Sheet Flow,
						Cultivated: Residue>20% n= 0.170 P2= 3.20"
	11.6	1,188	0.0362	1.71		Shallow Concentrated Flow,
						Cultivated Straight Rows Kv= 9.0 fps
	10.9	787	0.0577	1.20		Shallow Concentrated Flow,
_						Woodland Kv= 5.0 fps
	29.5	2,025	Total			

#### Subcatchment 30S: Drainage Area 30S



Woods Hill Solar Project Type III 24-hr 100-Year Rainfall=6.90" Printed 3/31/2016

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#### **Summary for Subcatchment 40S: Drainage Area 40S**

Runoff = 163.41 cfs @ 13.15 hrs, Volume= 33.793 af, Depth> 4.00"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Type III 24-hr 100-Year Rainfall=6.90"

Existing Conditions Hydrology

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	Area (sf)	CN	Description
	0	63	Small grain, straight row, Good, HSG A
	187,953	75	Small grain, straight row, Good, HSG B
*	0	75	Small grain, straight row, Good, HSG B/D
	305,031	83	Small grain, straight row, Good, HSG C
*	1,290,370	83	Small grain, straight row, Good, HSG C/D
	107,792	87	Small grain, straight row, Good, HSG D
	0	67	Row crops, straight row, Good, HSG A
	0	78	Row crops, straight row, Good, HSG B
*	0	78	Row crops, straight row, Good, HSG B/D
	0	85	Row crops, straight row, Good, HSG C
*	0	85	Row crops, straight row, Good, HSG C/D
	0	89	Row crops, straight row, Good, HSG D
	0	30	Meadow, non-grazed, HSG A
·	44,928	58	Meadow, non-grazed, HSG B
•	0	58	Meadow, non-grazed, HSG B/D
*	31,396	71	Meadow, non-grazed, HSG C
	162,114	71 70	Meadow, non-grazed, HSG C/D
	18,415	78 76	Meadow, non-grazed, HSG D
	0 1,654	76 85	Gravel roads, HSG A Gravel roads, HSG B
*	1,054	85	Gravel roads, HSG B/D
	4,831	89	Gravel roads, HSG C
*	17,267	89	Gravel roads, HSG C/D
	966	91	Gravel roads, HSG D
	7,185	36	Woods, Fair, HSG A
	492,897	60	Woods, Fair, HSG B
*	75	60	Woods, Fair, HSG B/D
	133,015	73	Woods, Fair, HSG C
*	986,850	73	Woods, Fair, HSG C/D
	187,750	79	Woods, Fair, HSG D
*	115	98	Wetlands, HSG A
*	11,508	98	Wetlands, HSG B
*	28,352	98	Wetlands, HSG B/D
*	1,289	98	Wetlands, HSG C
*	188,916	98	Wetlands, HSG C/D
*	194,241	98	Wetlands, HSG D
	0	98	Paved parking, HSG A
	0	98	Paved parking, HSG B
*	0	98	Paved parking, HSG B/D
	754	98	Paved parking, HSG C
*	9,828	98	Paved parking, HSG C/D
	0	98	Paved parking, HSG D
	4,415,492	78	Weighted Average
	3,980,489		90.15% Pervious Area
	435,003		9.85% Impervious Area

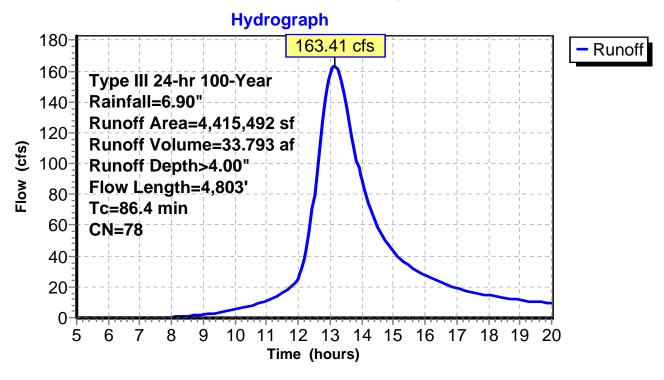
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_	Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
	8.2	50	0.0200	0.10		Sheet Flow,
						Grass: Dense n= 0.240 P2= 3.20"
	13.1	833	0.0228	1.06		Shallow Concentrated Flow,
						Short Grass Pasture Kv= 7.0 fps
	12.6	674	0.0163	0.89		Shallow Concentrated Flow,
						Short Grass Pasture Kv= 7.0 fps
	52.5	3,246	0.0425	1.03		Shallow Concentrated Flow,
_						Woodland Kv= 5.0 fps
	86.4	4,803	Total			

#### Subcatchment 40S: Drainage Area 40S



Woods Hill Solar Project Type III 24-hr 100-Year Rainfall=6.90" Printed 3/31/2016

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#### **Summary for Subcatchment 50S: Drainage Area 50S**

Runoff = 37.80 cfs @ 12.36 hrs, Volume= 4.224 af, Depth> 4.41"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Type III 24-hr 100-Year Rainfall=6.90"

Existing Conditions Hydrology

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	Area (sf)	CN	Description
	0	63	Small grain, straight row, Good, HSG A
	0	75	Small grain, straight row, Good, HSG B
*	0	75	Small grain, straight row, Good, HSG B/D
	Ö	83	Small grain, straight row, Good, HSG C
*	427,001	83	Small grain, straight row, Good, HSG C/D
	0	87	Small grain, straight row, Good, HSG D
	0	67	Row crops, straight row, Good, HSG A
	0	78	Row crops, straight row, Good, HSG B
*	0	78	Row crops, straight row, Good, HSG B/D
	0	85	Row crops, straight row, Good, HSG C
*	0	85	Row crops, straight row, Good, HSG C/D
	0	89	Row crops, straight row, Good, HSG D
	0	30	Meadow, non-grazed, HSG A
*	0	58	Meadow, non-grazed, HSG B
*	0	58	Meadow, non-grazed, HSG B/D
	0	71	Meadow, non-grazed, HSG C
*	51,839	71	Meadow, non-grazed, HSG C/D
	0	78	Meadow, non-grazed, HSG D
	0	76	Gravel roads, HSG A
	0	85	Gravel roads, HSG B
*	0	85	Gravel roads, HSG B/D
	0	89	Gravel roads, HSG C
*	0	89	Gravel roads, HSG C/D
	0	91	Gravel roads, HSG D
	0	36	Woods, Fair, HSG A
	0	60	Woods, Fair, HSG B
*	0	60	Woods, Fair, HSG B/D
	10,433	73	Woods, Fair, HSG C
*	11,932	73	Woods, Fair, HSG C/D
	0	79	Woods, Fair, HSG D
*	0	98	Wetlands, HSG A
*	0	98	Wetlands, HSG B
*	0	98	Wetlands, HSG B/D
*	0	98	Wetlands, HSG C
*	0	98	Wetlands, HSG C/D
*	0	98	Wetlands, HSG D
	0	98	Paved parking, HSG A
	0	98	Paved parking, HSG B
*	0	98	Paved parking, HSG B/D
	0	98	Paved parking, HSG C
*	0	98	Paved parking, HSG C/D
	0	98	Paved parking, HSG D
	501,205	81	Weighted Average
	501,205		100.00% Pervious Area

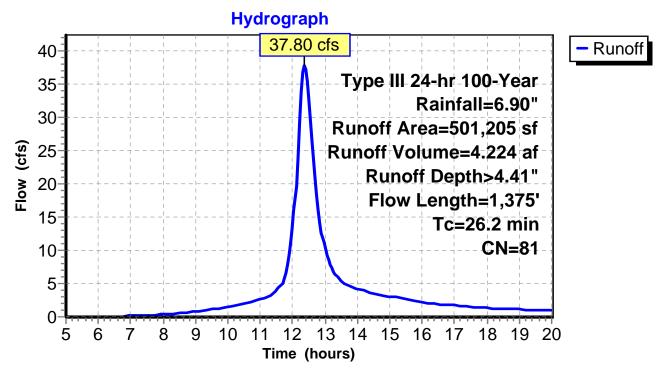
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	Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
	8.2	50	0.0100	0.10		Sheet Flow,
						Cultivated: Residue>20% n= 0.170 P2= 3.20"
	9.8	607	0.0132	1.03		Shallow Concentrated Flow,
						Cultivated Straight Rows Kv= 9.0 fps
	8.2	718	0.0265	1.47		Shallow Concentrated Flow,
_						Cultivated Straight Rows Kv= 9.0 fps
_	26.2	1.375	Total		•	

#### Subcatchment 50S: Drainage Area 50S



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#### **Summary for Reach Total: Total**

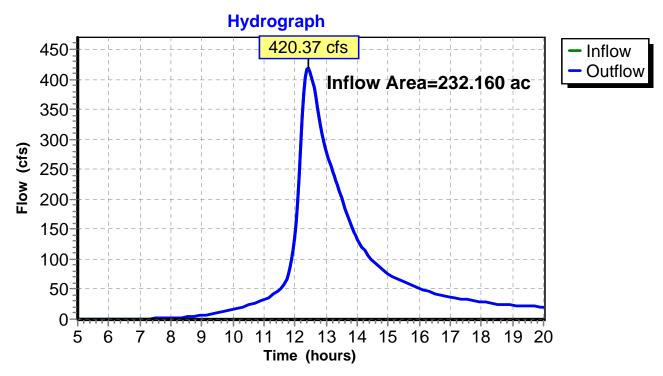
Inflow Area = 232.160 ac, 4.86% Impervious, Inflow Depth > 3.90" for 100-Year event

Inflow = 420.37 cfs @ 12.44 hrs, Volume= 75.496 af

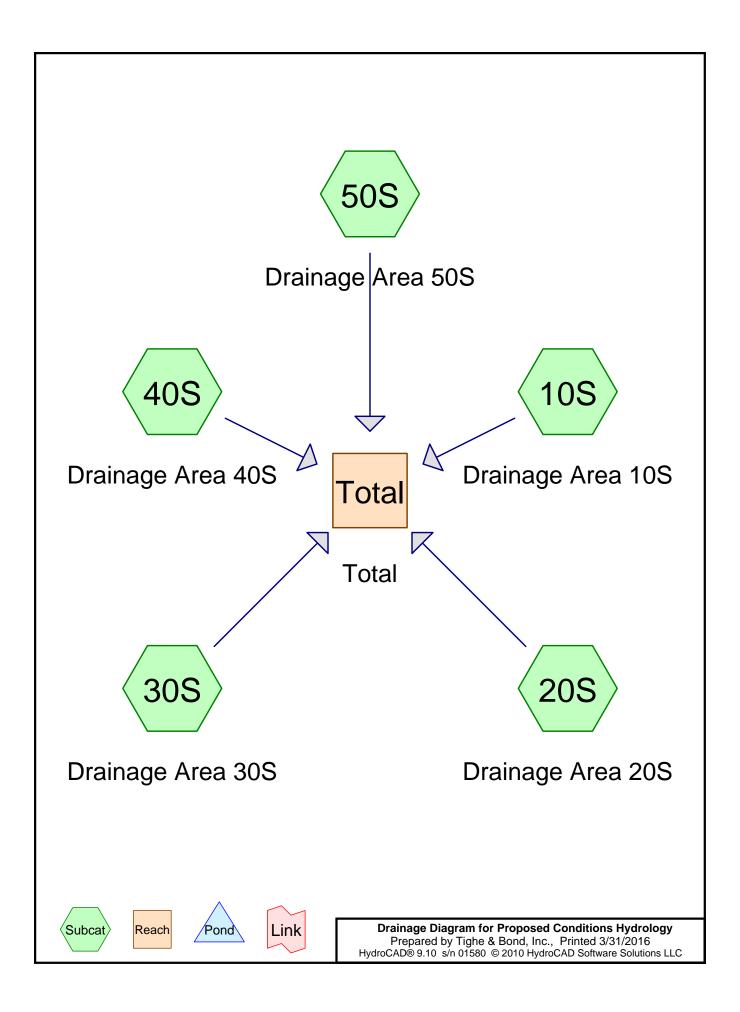
Outflow = 420.37 cfs @ 12.44 hrs, Volume= 75.496 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

#### **Reach Total: Total**







#### **Area Listing (all nodes)**

Area	CN	Description
(acres)		(subcatchment-numbers)
0.165	36	Woods, Fair, HSG A (40S)
3.699	58	Meadow, non-grazed, HSG B (10S, 20S, 30S, 40S)
15.357	58	Solar Meadow, HSG B (20S, 30S, 40S)
32.100	60	Woods, Fair, HSG B (10S, 20S, 30S, 40S)
3.690	60	Woods, Fair, HSG B/D (10S, 40S)
2.355	71	Meadow, non-grazed, HSG C (10S, 30S, 40S)
30.168	71	Meadow, non-grazed, HSG C/D (10S, 20S, 30S, 40S, 50S)
7.309	71	Solar Meadow, HSG C (30S, 40S, 50S)
72.741	71	Solar Meadow, HSG C/D (10S, 20S, 30S, 40S, 50S)
2.919	73	Woods, Fair, HSG C (10S, 30S, 40S, 50S)
30.546	73	Woods, Fair, HSG C/D (10S, 20S, 30S, 40S, 50S)
2.011	78	Meadow, non-grazed, HSG D (30S, 40S)
1.807	78	Solar Meadow, HSG D (30S, 40S)
9.611	79	Woods, Fair, HSG D (10S, 20S, 30S, 40S)
0.223	85	Existing Gravel roads, HSG B (10S, 20S, 30S, 40S)
0.032	89	Existing Gravel roads, HSG C (40S)
0.375	89	Existing Gravel roads, HSG C/D (10S, 30S, 40S)
0.075	89	Gravel roads, HSG C (30S, 40S)
1.956	89	Gravel roads, HSG C/D (30S, 40S, 50S)
0.022	91	Existing Gravel roads, HSG D (40S)
0.138	91	Gravel roads, HSG D (40S)
0.042	98	Conc Pad, HSG C (40S)
0.605	98	Conc Pad, HSG C/D (30S, 40S, 50S)
0.026	98	Conc Pad, HSG D (40S)
0.086	98	Paved parking, HSG C (30S, 40S)
0.485	98	Paved parking, HSG C/D (30S, 40S)
0.244	98	Solar Panel, HSG B (20S, 30S, 40S)
0.389	98	Solar Panel, HSG C (40S, 50S)
2.279	98	Solar Panel, HSG C/D (10S, 20S, 30S, 40S, 50S)
0.003	98	Wetlands, HSG A (40S)
0.389	98	Wetlands, HSG B (30S, 40S)
0.651	98	Wetlands, HSG B/D (40S)
0.030	98	Wetlands, HSG C (40S)
4.385	98	Wetlands, HSG C/D (10S, 40S)
5.247	98	Wetlands, HSG D (30S, 40S)
232.160	71	TOTAL AREA

## **Proposed Conditions Hydrology** Prepared by Tighe & Bond, Inc.

Woods Hill Solar Project Type III 24-hr 2-Year Rainfall=3.20" Printed 3/31/2016

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#### **Summary for Subcatchment 10S: Drainage Area 10S**

Runoff = 24.45 cfs @ 12.53 hrs, Volume= 3.248 af, Depth> 0.69"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Type III 24-hr 2-Year Rainfall=3.20"

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#### **Proposed Conditions Hydrology**

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Description Area (sf) CN Meadow, non-grazed, HSG A 30 22,165 Meadow, non-grazed, HSG B 58 Meadow, non-grazed, HSG B/D 58 37,022 71 Meadow, non-grazed, HSG C 569,524 71 Meadow, non-grazed, HSG C/D 78 Meadow, non-grazed, HSG D 0 76 Existing Gravel roads, HSG A 0 2,254 Existing Gravel roads, HSG B 85 85 Existing Gravel roads, HSG B/D 0 0 89 Existing Gravel roads, HSG C 8,341 Existing Gravel roads, HSG C/D 89 Existing Gravel roads, HSG D 0 91 Woods, Fair, HSG A 0 36 612,342 Woods, Fair, HSG B 60 Woods, Fair, HSG B/D 160,683 60 25,798 73 Woods, Fair, HSG C 510,524 73 Woods, Fair, HSG C/D 180,299 Woods, Fair, HSG D 79 Wetlands, HSG A 0 98 98 Wetlands, HSG B 0 Wetlands, HSG B/D 0 98 0 98 Wetlands, HSG C 2,075 Wetlands, HSG C/D 98 Wetlands, HSG D 0 98 Paved parking, HSG A 0 98 Paved parking, HSG B 0 98 0 Paved parking, HSG B/D 98 0 98 Paved parking, HSG C 0 Paved parking, HSG C/D 98 0 Paved parking, HSG D 98 0 76 Gravel roads, HSG A 0 85 Gravel roads, HSG B 0 85 Gravel roads, HSG B/D 0 89 Gravel roads, HSG C 0 Gravel roads, HSG C/D 89 0 91 Gravel roads, HSG D 0 98 Solar Panel, HSG A 0 98 Solar Panel, HSG B 0 98 Solar Panel, HSG B/D 0 98 Solar Panel, HSG C 11,353 Solar Panel, HSG C/D 98 Solar Panel, HSG D 0 98 Conc Pad, HSG A 0 98 98 Conc Pad, HSG B 0 0 Conc Pad, HSG B/D 98 0 98 Conc Pad, HSG C 0 98 Conc Pad, HSG C/D 0 98 Conc Pad, HSG D 0 30 Solar Meadow, HSG A Solar Meadow, HSG B 0 58 Solar Meadow, HSG B/C 0 58

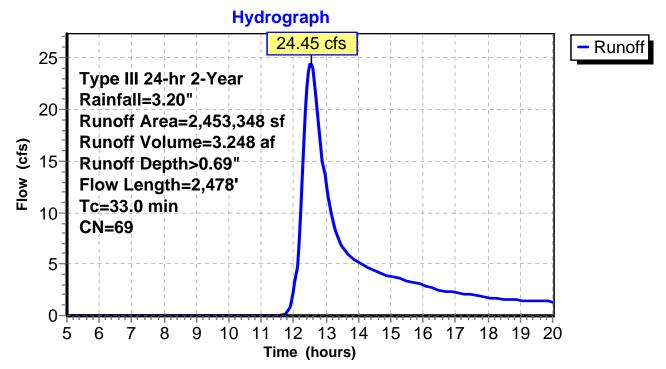
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* *	2,4	0 10,968 0 53,348 39,920 13,428	71 S 78 S 69 W 9	olar Mead <u>olar Mead</u> /eighted A 9.45% Per	ow, HSG C ow, HSG C ow, HSG D verage vious Area ervious Area	/D
	Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
	8.2	50	0.0555	0.10	, ,	Sheet Flow,
	1.6	110	0.0555	1.18		Woods: Light underbrush n= 0.400 P2= 3.20" <b>Shallow Concentrated Flow,</b> Woodland Kv= 5.0 fps
	4.5	385	0.0416	1.43		Shallow Concentrated Flow,
						Short Grass Pasture Kv= 7.0 fps
	4.7	336	0.0179	1.20		Shallow Concentrated Flow,
	6.0	685	0.0453	1.92		Cultivated Straight Rows Kv= 9.0 fps  Shallow Concentrated Flow,  Cultivated Straight Rows Kv= 9.0 fps
	8.0	912	0.1458	1.91		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
	33.0	2,478	Total			

### **Subcatchment 10S: Drainage Area 10S**



## **Proposed Conditions Hydrology** Prepared by Tighe & Bond, Inc.

Woods Hill Solar Project Type III 24-hr 2-Year Rainfall=3.20" Printed 3/31/2016

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#### **Summary for Subcatchment 20S: Drainage Area 20S**

Runoff = 7.19 cfs @ 12.40 hrs, Volume= 0.919 af, Depth> 0.49"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Type III 24-hr 2-Year Rainfall=3.20"

# Proposed Conditions Hydrology Prepared by Tighe & Bond, Inc. HydroCAD® 9.10 s/n 01580 © 2010 HydroCAD Software Solutions LLC

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	Area (sf)	CN	Description
	0	30	Meadow, non-grazed, HSG A
*	104,360	58	
*	_	58	Meadow, non-grazed, HSG B
	0	71	Meadow, non-grazed, HSG B/D
*		71	Meadow, non-grazed, HSG C
	30,235		Meadow, non-grazed, HSG C/D
*	0	78 76	Meadow, non-grazed, HSG D
*	5,146	85	Existing Gravel roads, HSG A Existing Gravel roads, HSG B
*	_	85	Existing Gravel roads, HSG B/D
*	0 0	89	Existing Gravel roads, HSG C
*	0	89	Existing Gravel roads, HSG C/D
*	0	91	Existing Gravel roads, HSG D
	0	36	
		60	Woods, Fair, HSG A
*	421,044	60	Woods, Fair, HSG B
	0 0	73	Woods, Fair, HSG B/D
*	1,630	73 73	Woods, Fair, HSG C
	•		Woods, Fair, HSC D
*	7,744	79 98	Woods, Fair, HSG D
*	0	98	Wetlands, HSG A
*	0	98	Wetlands, HSG B
*	0		Wetlands, HSG B/D
*	0 0	98 98	Wetlands, HSG C
*	0	98	Wetlands, HSG C/D
		98	Wetlands, HSG D
	0 0	98	Paved parking, HSG A
*	0	98	Paved parking, HSG B/D
	0		Paved parking, HSC C
*	0	98 98	Paved parking, HSG C/D
	0	98	Paved parking, HSG D
	0	76	Paved parking, HSG D Gravel roads, HSG A
	0	85	Gravel roads, HSG B
*	0	85	Gravel roads, HSG B/D
	0	89	·
*	0	89	Gravel roads, HSG C/D Gravel roads, HSG C/D
	0	91	Gravel roads, HSG D
*	0	98	Solar Panel, HSG A
*	2,218	98	Solar Panel, HSG B
*	2,210	98	Solar Panel, HSG B/D
*	0	98	Solar Panel, HSG C
*	12,922	98	Solar Panel, HSG C/D
*	12,922	98	Solar Panel, HSG D
*	0	98	Conc Pad, HSG A
*	0	98	Conc Pad, HSG B
*		98	Conc Pad, HSG B/D
*	0	98	·
*	0	98	Conc Pad, HSG C/D
*	0	98	Conc Pad, HSG D
*	0	30	Conc Pad, HSG D Solar Meadow, HSG A
*	-	58	Solar Meadow, HSG B
*	144,225		
	0	58	Solar Meadow, HSG B/C

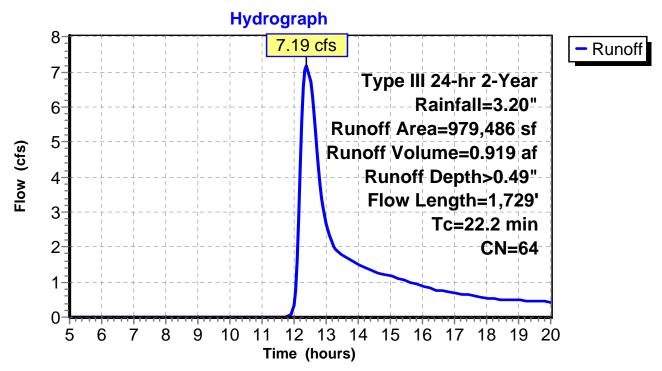
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* * *	* 249,962 71 Solar Meadow, HSG C/D  * 0 78 Solar Meadow, HSG D  979,486 64 Weighted Average						
964,346 98.45% Pervious Area 15,140 1.55% Impervious Area							
	Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description	
	2.7	50	0.0200	0.31		Sheet Flow, Cultivated: Residue<=20% n= 0.060 P2= 3.20"	
	8.2	726	0.0441	1.47		Shallow Concentrated Flow,	
	11.3	953	0.0797	1.41		Short Grass Pasture Kv= 7.0 fps  Shallow Concentrated Flow,  Woodland Kv= 5.0 fps	
	22.2	1,729	Total				

#### Subcatchment 20S: Drainage Area 20S



Woods Hill Solar Project
Type III 24-hr 2-Year Rainfall=3.20"
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#### **Summary for Subcatchment 30S: Drainage Area 30S**

Runoff = 21.80 cfs @ 12.52 hrs, Volume= 2.809 af, Depth> 0.83"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Type III 24-hr 2-Year Rainfall=3.20"

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	Area (sf)	CN	Description
	0	30	Meadow, non-grazed, HSG A
*	10,416	58	Meadow, non-grazed, HSG B
*	0	58	Meadow, non-grazed, HSG B/D
	9,556	71	Meadow, non-grazed, HSG C
*	309,762	71	Meadow, non-grazed, HSG C/D
	39,913	78	Meadow, non-grazed, HSG D
*	0	76	Existing Gravel roads, HSG A
*	867	85	Existing Gravel roads, HSG B
*	0	85	Existing Gravel roads, HSG B/D
*	0	89	Existing Gravel roads, HSG C
*	521	89	Existing Gravel roads, HSG C/D
*	0	91	Existing Gravel roads, HSG D
	0	36	Woods, Fair, HSG A
	79,826	60	Woods, Fair, HSG B
*	0	60	Woods, Fair, HSG B/D
	7,593	73	Woods, Fair, HSG C
*	36,966	73	Woods, Fair, HSG C/D
	42,854	79	Woods, Fair, HSG D
*	0	98	Wetlands, HSG A
*	5,446	98	Wetlands, HSG B
*	0	98	Wetlands, HSG B/D
*	0	98	Wetlands, HSG C
*	0	98	Wetlands, HSG C/D
*	34,318	98	Wetlands, HSG D
	0	98	Paved parking, HSG A
	0	98	Paved parking, HSG B
*	0	98	Paved parking, HSG B/D
	2,987	98	Paved parking, HSG C
*	11,318	98	Paved parking, HSG C/D
	0	98	Paved parking, HSG D
	0	76	Gravel roads, HSG A
•	0	85	Gravel roads, HSG B
^	0	85	Gravel roads, HSG B/D
*	1,305	89	Gravel roads, HSG C
	40,032	89	Gravel roads, HSG C/D
*	0	91	Gravel roads, HSG D
*	0 2.514	98	Solar Panel, HSC P
*	2,514	98 98	Solar Panel, HSG B
*	0	98	Solar Panel, HSG B/D Solar Panel, HSG C
*	22,328	98	Solar Panel, HSG C/D
*	22,320	98	Solar Panel, HSG D
*	0	98	Conc Pad, HSG A
*	0	98	Conc Pad, HSG B
*	0	98	Conc Pad, HSG B/D
*	0	98	Conc Pad, HSG C
*	7,357	98	Conc Pad, HSG C/D
*	0,557	98	Conc Pad, HSG D
*	0	30	Solar Meadow, HSG A
*	113,898	58	Solar Meadow, HSG B
*	0	58	Solar Meadow, HSG B/C
	J		

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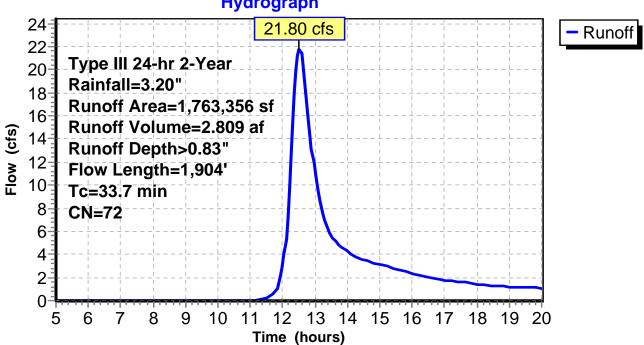
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P	ac	ıе	1	

* *	1,7	5,575 70,665 7,339 63,356 677,088 86,268	71 S 78 S 72 W 9	olar Mead <u>olar Mead</u> /eighted A 5.11% Per	ow, HSG C ow, HSG C ow, HSG D verage vious Area ervious Area	/D
	Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
_	9.2	50	0.0150	0.09	,	Sheet Flow,
	7.7	576	0.0321	1.25		Grass: Dense n= 0.240 P2= 3.20" <b>Shallow Concentrated Flow,</b> Short Grass Pasture Kv= 7.0 fps
	0.1	12	0.0321	2.88		Shallow Concentrated Flow,
	• • • • • • • • • • • • • • • • • • • •		0.00			Unpaved Kv= 16.1 fps
	5.7	479	0.0397	1.39		Shallow Concentrated Flow,
_	11.0	787	0.0570	1.19		Short Grass Pasture Kv= 7.0 fps  Shallow Concentrated Flow,  Woodland Kv= 5.0 fps
	33.7	1,904	Total			

#### **Subcatchment 30S: Drainage Area 30S**

#### **Hydrograph**



## **Proposed Conditions Hydrology** Prepared by Tighe & Bond, Inc.

Woods Hill Solar Project
Type III 24-hr 2-Year Rainfall=3.20"
Printed 3/31/2016
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#### **Summary for Subcatchment 40S: Drainage Area 40S**

Runoff = 33.52 cfs @ 13.24 hrs, Volume= 7.256 af, Depth> 0.86"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Type III 24-hr 2-Year Rainfall=3.20"

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0

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Solar Meadow, HSG B/C

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Page 13 Description Area (sf) CN Meadow, non-grazed, HSG A 30 Meadow, non-grazed, HSG B 24,167 58 Meadow, non-grazed, HSG B/D 58 56,000 71 Meadow, non-grazed, HSG C 202,090 71 Meadow, non-grazed, HSG C/D Meadow, non-grazed, HSG D 47,695 78 76 Existing Gravel roads, HSG A 1,466 Existing Gravel roads, HSG B 85 Existing Gravel roads, HSG B/D 0 85 1,396 89 Existing Gravel roads, HSG C Existing Gravel roads, HSG C/D 7,491 89 Existing Gravel roads, HSG D 966 91 Woods, Fair, HSG A 7,185 36 285,061 Woods, Fair, HSG B 60 Woods, Fair, HSG B/D 75 60 90,632 73 Woods, Fair, HSG C 73 Woods, Fair, HSG C/D 780,531 Woods, Fair, HSG D 187,750 79 Wetlands, HSG A 115 98 11,508 Wetlands, HSG B 98 Wetlands, HSG B/D 28,352 98 1,289 98 Wetlands, HSG C Wetlands, HSG C/D 188,916 98 194,241 Wetlands, HSG D 98 Paved parking, HSG A 0 98 Paved parking, HSG B 0 98 Paved parking, HSG B/D 0 98 754 98 Paved parking, HSG C 9,828 Paved parking, HSG C/D 98 Paved parking, HSG D 0 98 Gravel roads, HSG A 0 76 0 85 Gravel roads, HSG B 85 Gravel roads, HSG B/D 0 1,942 89 Gravel roads, HSG C Gravel roads, HSG C/D 27,289 89 6,016 Gravel roads, HSG D 91 Solar Panel, HSG A 98 5,893 98 Solar Panel, HSG B Solar Panel, HSG B/D 98 15,758 98 Solar Panel, HSG C 44,893 Solar Panel, HSG C/D 98 Solar Panel, HSG D 0 98 0 Conc Pad, HSG A 98 0 98 Conc Pad, HSG B Conc Pad, HSG B/D 0 98 1,844 98 Conc Pad, HSG C 6,013 98 Conc Pad, HSG C/D 1,140 98 Conc Pad, HSG D Solar Meadow, HSG A 30 Solar Meadow, HSG B 410,845 58

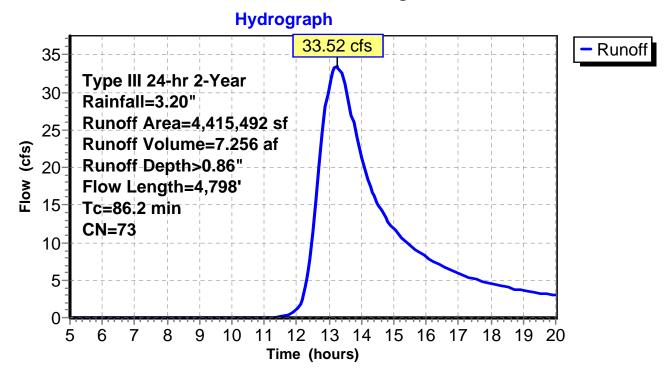
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*	3	06,701	71 S	olar Mead	ow, HSG C	
*		88,294			ow, HSG C	
*	ŕ	71,356			ow, HSG D	
	4,415,492		73 V	/eighted A	verage	
	,	04,948	88.44% Pervious Area			
	5	10,544	1	1.56% lmp	ervious Are	ea
	Tc	Length	Slope	Velocity	Capacity	Description
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
	8.2	50	0.0200	0.10		Sheet Flow,
						Grass: Dense n= 0.240 P2= 3.20"
	13.1	833	0.0228	1.06		Shallow Concentrated Flow,
						Short Grass Pasture Kv= 7.0 fps
	0.1	12	0.0228	2.43		Shallow Concentrated Flow,
	40.0	057	0.0400	0.00		Unpaved Kv= 16.1 fps
	12.3	657	0.0163	0.89		Shallow Concentrated Flow,
	EO E	2 246	0.0425	1.02		Short Grass Pasture Kv= 7.0 fps
	52.5	3,246	0.0425	1.03		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
_	86.2	4 798	Total			vvoodiand Kv= 3.0 ips
	Xn /	4 / YX	LOTAL			

#### **Subcatchment 40S: Drainage Area 40S**



## **Proposed Conditions Hydrology** Prepared by Tighe & Bond, Inc.

Woods Hill Solar Project
Type III 24-hr 2-Year Rainfall=3.20"
Printed 3/31/2016
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#### **Summary for Subcatchment 50S: Drainage Area 50S**

Runoff = 8.26 cfs @ 12.31 hrs, Volume= 0.852 af, Depth> 0.89"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Type III 24-hr 2-Year Rainfall=3.20"

# Proposed Conditions Hydrology Prepared by Tighe & Bond, Inc. HydroCAD® 9.10 s/n 01580 © 2010 HydroCAD Software Solutions LLC

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	Area (sf)	CN	Description
	0	30	Meadow, non-grazed, HSG A
*	0	58	Meadow, non-grazed, HSG B
*	0	58	Meadow, non-grazed, HSG B/D
	0	71	Meadow, non-grazed, HSG C
*	202,519	71	Meadow, non-grazed, HSG C/D
	0	78	Meadow, non-grazed, HSG D
*	0	76	Existing Gravel roads, HSG A
*	0	85	Existing Gravel roads, HSG B
*	0	85	Existing Gravel roads, HSG B/D
*	0	89	Existing Gravel roads, HSG C
*	0	89	Existing Gravel roads, HSG C/D
*	0	91	Existing Gravel roads, HSG D
	0	36	Woods, Fair, HSG A
	0	60	Woods, Fair, HSG B
*	0	60	Woods, Fair, HSG B/D
	3,138	73	Woods, Fair, HSG C
*	923	73	Woods, Fair, HSG C/D
	0	79	Woods, Fair, HSG D
*	0	98	Wetlands, HSG A
*	0	98	Wetlands, HSG B
*	0	98	Wetlands, HSG B/D
*	0	98	Wetlands, HSG C
*	0	98	Wetlands, HSG C/D
*	0	98	Wetlands, HSG D
	0	98	Paved parking, HSG A
	0	98	Paved parking, HSG B
*	0	98	Paved parking, HSG B/D
	0	98	Paved parking, HSG C
*	0	98	Paved parking, HSG C/D
	0	98	Paved parking, HSG D
	0	76	Gravel roads, HSG A
	0	85	Gravel roads, HSG B
*	0	85	Gravel roads, HSG B/D
	0	89	Gravel roads, HSG C
*	17,873	89	Gravel roads, HSG C/D
	0	91	Gravel roads, HSG D
*	0	98	Solar Panel, HSG A
*	0	98	Solar Panel, HSG B
*	0	98	Solar Panel, HSG B/D
*	1,171	98	Solar Panel, HSG C
*	7,768	98	Solar Panel, HSG C/D
*	0	98	Solar Panel, HSG D
*	0	98	Conc Pad, HSG A
*	0	98	Conc Pad, HSG B
*	0	98	Conc Pad, HSG B/D
*	0	98	Conc Pad, HSG C
*	12,977	98	Conc Pad, HSG C/D
*	0	98	Conc Pad, HSG D
*	0	30	Solar Meadow, HSG A
*	0	58	Solar Meadow, HSG B
*	0	58	Solar Meadow, HSG B/C

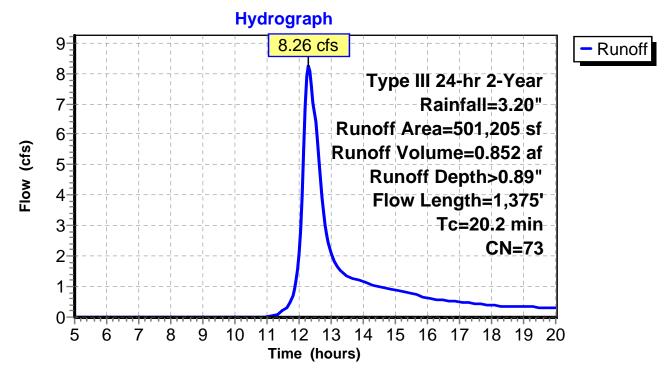
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* *	* 248,712 71 Solar Meadow, HSG C/D				ow, HSG C ow, HSG D verage vious Area	A/D
	Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
	4.3	50	0.1000	0.19	•	Sheet Flow, Grass: Dense n= 0.240 P2= 3.20"
	12.6	607	0.0132	0.80		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
	3.3	718	0.2650	3.60		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
_	20.2	1,375	Total			7.0 1ps

#### Subcatchment 50S: Drainage Area 50S



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#### **Proposed Conditions Hydrology**

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#### **Summary for Reach Total: Total**

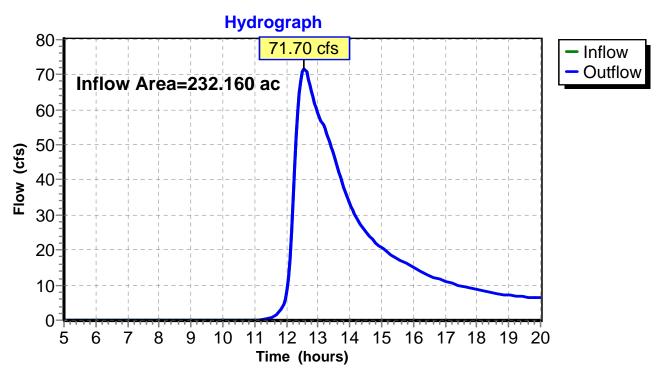
Inflow Area = 232.160 ac, 6.40% Impervious, Inflow Depth > 0.78" for 2-Year event

Inflow = 71.70 cfs @ 12.57 hrs, Volume= 15.083 af

Outflow = 71.70 cfs @ 12.57 hrs, Volume= 15.083 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

#### **Reach Total: Total**



## **Proposed Conditions Hydrology** Prepared by Tighe & Bond, Inc.

Woods Hill Solar Project
Type III 24-hr 10-Year Rainfall=4.80"
Printed 3/31/2016
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#### **Summary for Subcatchment 10S: Drainage Area 10S**

Runoff = 62.71 cfs @ 12.49 hrs, Volume= 7.724 af, Depth> 1.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Type III 24-hr 10-Year Rainfall=4.80"

Proposed Conditions Hydrology

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	Area (sf)	CN	Description
			· ·
*	0	30	Meadow, non-grazed, HSG A
*	22,165	58	Meadow, non-grazed, HSG B
	0	58	Meadow, non-grazed, HSG B/D
*	37,022	71	Meadow, non-grazed, HSG C
	569,524	71	Meadow, non-grazed, HSG C/D
*	0	78 70	Meadow, non-grazed, HSG D
*	0	76	Existing Gravel roads, HSG A
*	2,254	85	Existing Gravel roads, HSG B
*	0	85	Existing Gravel roads, HSG B/D
*	0	89	Existing Gravel roads, HSG C
	8,341	89	Existing Gravel roads, HSG C/D
^	0	91	Existing Gravel roads, HSG D
	0	36	Woods, Fair, HSG A
	612,342	60	Woods, Fair, HSG B
•	160,683	60	Woods, Fair, HSG B/D
*	25,798	73	Woods, Fair, HSG C
•	510,524	73	Woods, Fair, HSG C/D
•	180,299	79	Woods, Fair, HSG D
	0	98	Wetlands, HSG A
<u>.</u>	0	98	Wetlands, HSG B
•	0	98	Wetlands, HSG B/D
·	0	98	Wetlands, HSG C
	2,075	98	Wetlands, HSG C/D
	0	98	Wetlands, HSG D
	0	98	Paved parking, HSG A
	0	98	Paved parking, HSG B
•	0	98	Paved parking, HSG B/D
•	0	98	Paved parking, HSG C
•	0	98	Paved parking, HSG C/D
	0	98	Paved parking, HSG D
	0	76	Gravel roads, HSG A
*	0	85	Gravel roads, HSG B
	0	85	Gravel roads, HSG B/D
*	0	89	Gravel roads, HSG C
	0	89	Gravel roads, HSG C/D
*	0	91	Gravel roads, HSG D
*	0	98	Solar Panel, HSC B
*	0	98	Solar Panel, HSG B
*	0	98	Solar Panel, HSG B/D
*	0	98	Solar Panel, HSC C/D
*	11,353	98	Solar Panel, HSG C/D
· •	0	98	Solar Panel, HSG D
·	0	98	Conc Pad, HSG A
*	0	98	Conc Pad, HSG B
*	0	98	Conc Pad, HSG B/D
*	0	98	Conc Pad, HSG C
	0	98	Conc Pad, HSG C/D
<b>^</b>	0	98	Conc Pad, HSG D
~ +	0	30	Solar Meadow, HSG A
*	0	58	Solar Meadow, HSG B
*	0	58	Solar Meadow, HSG B/C

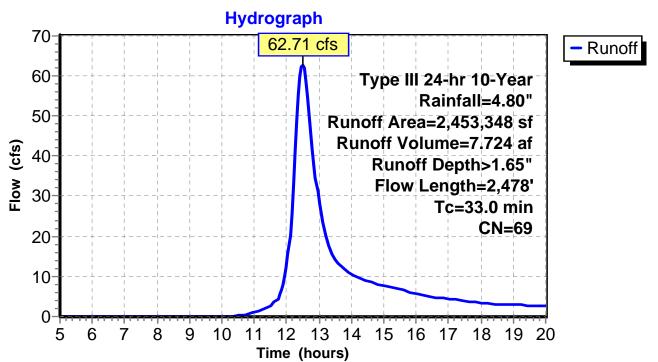
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* *	2,4	0 10,968 0 53,348 39,920 13,428	71 S 78 S 69 W 9	olar Mead <u>olar Mead</u> /eighted A 9.45% Pei	ow, HSG Cow, HSG Cow, HSG Cow, HSG Cow, HSG Cow, Verage revious Area	c/D )
	Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
	8.2	50	0.0555	0.10		Sheet Flow,
	1.6	110	0.0555	1.18		Woods: Light underbrush n= 0.400 P2= 3.20" <b>Shallow Concentrated Flow,</b> Woodland Kv= 5.0 fps
	4.5	385	0.0416	1.43		Shallow Concentrated Flow,
	4.7	336	0.0179	1.20		Short Grass Pasture Kv= 7.0 fps  Shallow Concentrated Flow, Cultivated Straight Rows Kv= 9.0 fps
	6.0	685	0.0453	1.92		Shallow Concentrated Flow,
_	8.0	912	0.1458	1.91		Cultivated Straight Rows Kv= 9.0 fps  Shallow Concentrated Flow,  Woodland Kv= 5.0 fps
	33.0	2,478	Total			

# **Subcatchment 10S: Drainage Area 10S**



Woods Hill Solar Project Type III 24-hr 10-Year Rainfall=4.80" Printed 3/31/2016

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#### **Summary for Subcatchment 20S: Drainage Area 20S**

Runoff = 22.85 cfs @ 12.34 hrs, Volume= 2.456 af, Depth> 1.31"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Type III 24-hr 10-Year Rainfall=4.80"

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	Area (sf)	CN	Description
	0	30	Meadow, non-grazed, HSG A
*	104,360	58	Meadow, non-grazed, HSG B
*	0	58	Meadow, non-grazed, HSG B/D
	0	71	Meadow, non-grazed, HSG C
*	30,235	71	Meadow, non-grazed, HSG C/D
	0	78	Meadow, non-grazed, HSG D
*	0	76	Existing Gravel roads, HSG A
*	5,146	85	Existing Gravel roads, HSG B
*	0	85	Existing Gravel roads, HSG B/D
*	0	89	Existing Gravel roads, HSG C
*	0	89	Existing Gravel roads, HSG C/D
*	0	91	Existing Gravel roads, HSG D
	0	36	Woods, Fair, HSG A
	421,044	60	Woods, Fair, HSG B
*	0	60	Woods, Fair, HSG B/D
	0	73	Woods, Fair, HSG C
*	1,630	73	Woods, Fair, HSG C/D
	7,744	79	Woods, Fair, HSG D
*	0	98	Wetlands, HSG A
*	0	98	Wetlands, HSG B
*	0	98	Wetlands, HSG B/D
*	0	98	Wetlands, HSG C
*	0	98	Wetlands, HSG C/D
*	0	98	Wetlands, HSG D
	0	98	Paved parking, HSG A
	0	98	Paved parking, HSG B
*	0	98	Paved parking, HSG B/D
	0	98	Paved parking, HSG C
*	0	98	Paved parking, HSG C/D
	0	98	Paved parking, HSG D
	0	76	Gravel roads, HSG A
	0	85	Gravel roads, HSG B
*	0	85	Gravel roads, HSG B/D
4.	0	89	Gravel roads, HSG C
*	0	89	Gravel roads, HSG C/D
	0	91	Gravel roads, HSG D
*	0	98	Solar Panel, HSG A
*	2,218	98	Solar Panel, HSG B
*	0	98	Solar Panel, HSG B/D
*	0	98	Solar Panel, HSG C
~ +	12,922	98	Solar Panel, HSG C/D
~ +	0	98	Solar Panel, HSG D
*	0	98	Conc Pad, HSG A
*	0	98	Conc Pad, HSG B
*	0	98	Conc Pad, HSG B/D
*	0	98	Conc Pad, HSG C
*	0	98	Conc Pad, HSG C/D
*	0	98	Conc Pad, HSG D
*	0	30	Solar Meadow, HSG A
*	144,225	58 59	Solar Meadow, HSG B
	0	58	Solar Meadow, HSG B/C

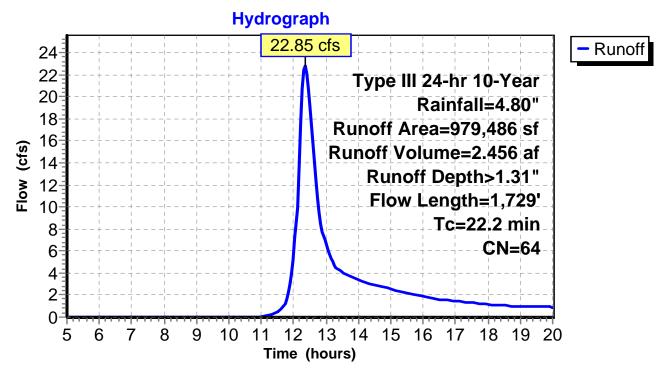
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* 0 71 Solar Meadow, HSG C  * 249,962 71 Solar Meadow, HSG C/D  * 0 78 Solar Meadow, HSG D  979,486 64 Weighted Average						C/D
	964,346				vious Area	
		15,140	1	.55% Impe	ervious Area	a
	Тс	Length	Slope	Velocity	Capacity	Description
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
	2.7	50	0.0200	0.31		Sheet Flow,
						Cultivated: Residue<=20% n= 0.060 P2= 3.20"
	8.2	726	0.0441	1.47		Shallow Concentrated Flow,
						Short Grass Pasture Kv= 7.0 fps
	11.3	953	0.0797	1.41		Shallow Concentrated Flow,
_						Woodland Kv= 5.0 fps
	22.2	1,729	Total			

## Subcatchment 20S: Drainage Area 20S



Woods Hill Solar Project Type III 24-hr 10-Year Rainfall=4.80" Printed 3/31/2016

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### **Summary for Subcatchment 30S: Drainage Area 30S**

Runoff = 51.10 cfs @ 12.49 hrs, Volume= 6.295 af, Depth> 1.87"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Type III 24-hr 10-Year Rainfall=4.80"

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Description Area (sf) CN Meadow, non-grazed, HSG A 30 10,416 Meadow, non-grazed, HSG B 58 Meadow, non-grazed, HSG B/D 58 9,556 71 Meadow, non-grazed, HSG C 309,762 71 Meadow, non-grazed, HSG C/D 78 Meadow, non-grazed, HSG D 39,913 76 Existing Gravel roads, HSG A 0 867 Existing Gravel roads, HSG B 85 85 Existing Gravel roads, HSG B/D 0 0 89 Existing Gravel roads, HSG C 521 Existing Gravel roads, HSG C/D 89 Existing Gravel roads, HSG D 0 91 Woods, Fair, HSG A 0 36 79,826 Woods, Fair, HSG B 60 Woods, Fair, HSG B/D 60 7,593 73 Woods, Fair, HSG C 36,966 73 Woods, Fair, HSG C/D Woods, Fair, HSG D 42,854 79 Wetlands, HSG A 0 98 5,446 Wetlands, HSG B 98 Wetlands, HSG B/D 0 98 0 98 Wetlands, HSG C Wetlands, HSG C/D 0 98 34,318 Wetlands, HSG D 98 Paved parking, HSG A 0 98 Paved parking, HSG B 0 98 Paved parking, HSG B/D 0 98 2,987 98 Paved parking, HSG C 11,318 Paved parking, HSG C/D 98 Paved parking, HSG D 0 98 Gravel roads, HSG A 0 76 0 85 Gravel roads, HSG B 85 Gravel roads, HSG B/D 0 1,305 89 Gravel roads, HSG C 40,032 Gravel roads, HSG C/D 89 Gravel roads, HSG D 0 91 Solar Panel, HSG A 98 0 2,514 98 Solar Panel, HSG B Solar Panel, HSG B/D 0 98 0 98 Solar Panel, HSG C 22,328 Solar Panel, HSG C/D 98 Solar Panel, HSG D 0 98 Conc Pad, HSG A 0 98 98 Conc Pad, HSG B 0 Conc Pad, HSG B/D 0 98 0 98 Conc Pad, HSG C 7,357 Conc Pad, HSG C/D 98 98 Conc Pad, HSG D 0 30 Solar Meadow, HSG A 0 Solar Meadow, HSG B 113,898 58

Solar Meadow, HSG B/C

0

58

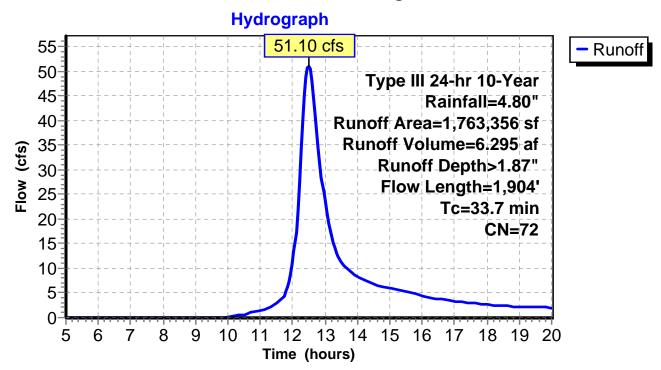
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* *	1,7 1,6	5,575 70,665 7,339 63,356 77,088	71 S 78 S 72 V 9	olar Mead olar Mead Veighted A 5.11% Pei	vious Area	C/D )
		86,268	4	.89% Impe	ervious Area	a
	Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
	9.2	50	0.0150	0.09	,	Sheet Flow,
	7.7	576	0.0321	1.25		Grass: Dense n= 0.240 P2= 3.20"  Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
	0.1	12	0.0321	2.88		Shallow Concentrated Flow,
						Unpaved Kv= 16.1 fps
	5.7	479	0.0397	1.39		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
	11.0	787	0.0570	1.19		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
	33.7	1,904	Total	·		

#### Subcatchment 30S: Drainage Area 30S



Woods Hill Solar Project
Type III 24-hr 10-Year Rainfall=4.80"
Printed 3/31/2016
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#### **Summary for Subcatchment 40S: Drainage Area 40S**

Runoff = 77.45 cfs @ 13.17 hrs, Volume= 16.038 af, Depth> 1.90"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Type III 24-hr 10-Year Rainfall=4.80"

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Description Area (sf) CN Meadow, non-grazed, HSG A 30 Meadow, non-grazed, HSG B 24,167 58 Meadow, non-grazed, HSG B/D 58 56,000 71 Meadow, non-grazed, HSG C 202,090 71 Meadow, non-grazed, HSG C/D Meadow, non-grazed, HSG D 47,695 78 76 Existing Gravel roads, HSG A 1,466 Existing Gravel roads, HSG B 85 85 Existing Gravel roads, HSG B/D 0 1,396 89 Existing Gravel roads, HSG C Existing Gravel roads, HSG C/D 7,491 89 Existing Gravel roads, HSG D 966 91 Woods, Fair, HSG A 7,185 36 285,061 Woods, Fair, HSG B 60 Woods, Fair, HSG B/D 75 60 90,632 73 Woods, Fair, HSG C 73 Woods, Fair, HSG C/D 780,531 Woods, Fair, HSG D 187,750 79 Wetlands, HSG A 115 98 11,508 Wetlands, HSG B 98 Wetlands, HSG B/D 28,352 98 1,289 98 Wetlands, HSG C Wetlands, HSG C/D 188,916 98 194,241 Wetlands, HSG D 98 Paved parking, HSG A 0 98 Paved parking, HSG B 0 98 Paved parking, HSG B/D 0 98 754 98 Paved parking, HSG C 9,828 Paved parking, HSG C/D 98 Paved parking, HSG D 0 98 Gravel roads, HSG A 0 76 0 85 Gravel roads, HSG B 85 Gravel roads, HSG B/D 0 1,942 89 Gravel roads, HSG C Gravel roads, HSG C/D 27,289 89 6,016 Gravel roads, HSG D 91 Solar Panel, HSG A 98 5,893 98 Solar Panel, HSG B Solar Panel, HSG B/D 98 15,758 98 Solar Panel, HSG C 44,893 Solar Panel, HSG C/D 98 Solar Panel, HSG D 0 98 0 Conc Pad, HSG A 98 0 98 Conc Pad, HSG B Conc Pad, HSG B/D 0 98 1,844 98 Conc Pad, HSG C 6,013 98 Conc Pad, HSG C/D 1,140 98 Conc Pad, HSG D 30 Solar Meadow, HSG A Solar Meadow, HSG B 410,845 58 Solar Meadow, HSG B/C 0 58

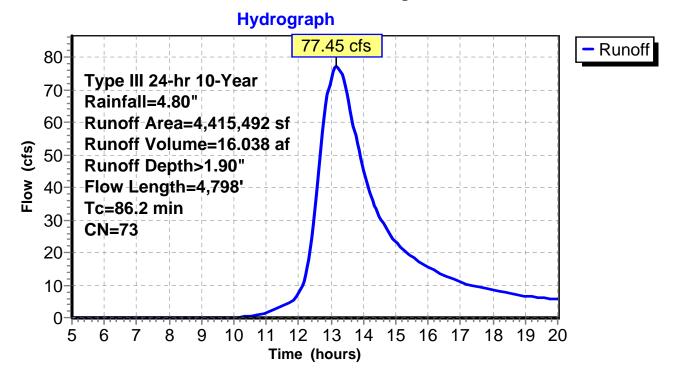
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						· · · · · · · · · · · · · · · · · · ·
*	3	06,701	71 S	olar Mead	ow, HSG C	
*		88,294			ow, HSG C	
*	•	71,356	78 S	olar Mead	ow, HSG D	
	4.4	15,492	73 V	Veighted A	verage	
		04,948			vious Area	
	•	10,544	1	1.56% lmg	ervious Ar	ea
				•		
	Tc	Length	Slope	Velocity	Capacity	Description
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
	8.2	50	0.0200	0.10		Sheet Flow,
						Grass: Dense n= 0.240 P2= 3.20"
	13.1	833	0.0228	1.06		Shallow Concentrated Flow,
						Short Grass Pasture Kv= 7.0 fps
	0.1	12	0.0228	2.43		Shallow Concentrated Flow,
						Unpaved Kv= 16.1 fps
	12.3	657	0.0163	0.89		Shallow Concentrated Flow,
	50.5	0.040	0.0405	4.00		Short Grass Pasture Kv= 7.0 fps
	52.5	3,246	0.0425	1.03		Shallow Concentrated Flow,
_		4 =0.5	<del>-</del>			Woodland Kv= 5.0 fps
	86.2	4 798	Total			

#### **Subcatchment 40S: Drainage Area 40S**



Woods Hill Solar Project Type III 24-hr 10-Year Rainfall=4.80" Printed 3/31/2016

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### **Summary for Subcatchment 50S: Drainage Area 50S**

Runoff = 18.92 cfs @ 12.29 hrs, Volume= 1.872 af, Depth> 1.95"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Type III 24-hr 10-Year Rainfall=4.80"

· · · · · · ·	0.10	0/11 0 10	301 @ 2010 Hydrocad Software Solutions LLC	raye 32
	Area (sf)	CN	Description	
	0	30	Meadow, non-grazed, HSG A	
*	0	58	Meadow, non-grazed, HSG B	
*	0	58	Meadow, non-grazed, HSG B/D	
	0	71	Meadow, non-grazed, HSG C	
*	202,519	71	Meadow, non-grazed, HSG C/D	
	0	78	Meadow, non-grazed, HSG D	
*	0	76	Existing Gravel roads, HSG A	
*	0	85	Existing Gravel roads, HSG B	
*	0	85	Existing Gravel roads, HSG B/D	
*	0	89	Existing Gravel roads, HSG C	
*	0	89	Existing Gravel roads, HSG C/D	
*	0	91	Existing Gravel roads, HSG D	
	0	36	Woods, Fair, HSG A	
	0	60	Woods, Fair, HSG B	
*	0	60	Woods, Fair, HSG B/D	
	3,138	73	Woods, Fair, HSG C	
*	923	73	Woods, Fair, HSG C/D	
	0	79	Woods, Fair, HSG D	
*	0	98	Wetlands, HSG A	
*	0	98	Wetlands, HSG B	
*	0	98	Wetlands, HSG B/D	
*	0	98	Wetlands, HSG C	
*	0	98	Wetlands, HSG C/D	
*	0	98	Wetlands, HSG D	
	0	98	Paved parking, HSG A	
	0	98	Paved parking, HSG B	
*	0	98	Paved parking, HSG B/D	
	0	98	Paved parking, HSG C	
*	0	98	Paved parking, HSG C/D	
	0	98	Paved parking, HSG D	
	0	76	Gravel roads, HSG A	
	0	85	Gravel roads, HSG B	
*	0	85	Gravel roads, HSG B/D	
	0	89	Gravel roads, HSG C	
*	17,873	89	Gravel roads, HSG C/D	
	0	91	Gravel roads, HSG D	
*	0	98	Solar Panel, HSG A	
*	0	98	Solar Panel, HSG B	
*	0	98	Solar Panel, HSG B/D	
*	1,171	98	Solar Panel, HSG C	
*	7,768	98	Solar Panel, HSG C/D	
*	0	98	Solar Panel, HSG D	
*	0	98	Conc Pad, HSG A	
*	0	98	Conc Pad, HSG B	
*	0	98	Conc Pad, HSG B/D	
*	0	98	Conc Pad, HSG C	
*	12,977	98	Conc Pad, HSG C/D	
*	0	98	Conc Pad, HSG D	
*	0	30	Solar Meadow, HSG A	
*	0	58	Solar Meadow, HSG B	
*	0	58	Solar Meadow, HSG B/C	

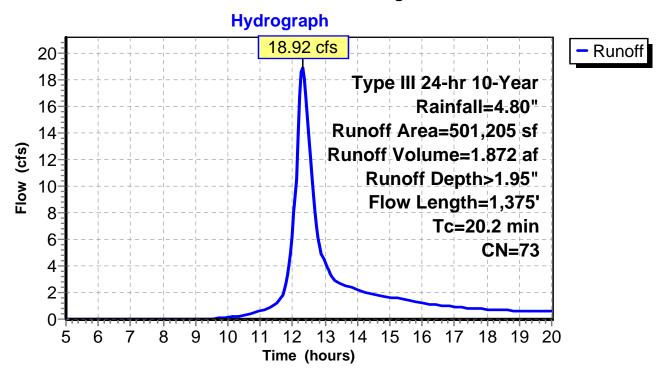
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* *	5 4	6,124 48,712 0 01,205 79,289 21,916	71 S 78 S 73 V 9	olar Mead olar Mead Veighted A 5.63% Per	ow, HSG C ow, HSG D ow, HSG D verage vious Area ervious Area	A/D
	Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
	4.3	50	0.1000	0.19	•	Sheet Flow, Grass: Dense n= 0.240 P2= 3.20"
	12.6	607	0.0132	0.80		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
	3.3	718	0.2650	3.60		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
_	20.2	1,375	Total			7.0 1ps

#### Subcatchment 50S: Drainage Area 50S



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### **Proposed Conditions Hydrology**

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#### **Summary for Reach Total: Total**

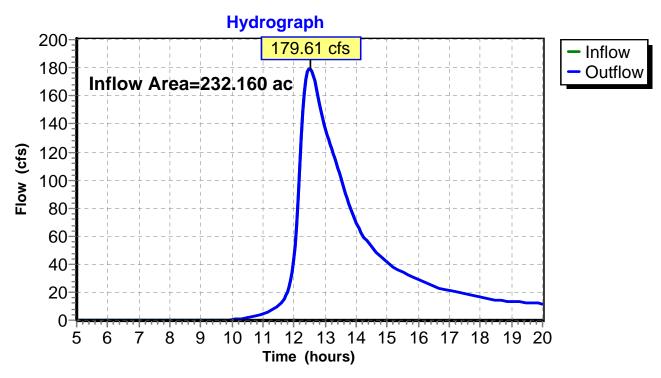
Inflow Area = 232.160 ac, 6.40% Impervious, Inflow Depth > 1.78" for 10-Year event

Inflow = 179.61 cfs @ 12.51 hrs, Volume= 34.384 af

Outflow = 179.61 cfs @ 12.51 hrs, Volume= 34.384 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

#### **Reach Total: Total**



Woods Hill Solar Project Type III 24-hr 25-Year Rainfall=5.50" Printed 3/31/2016

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### **Summary for Subcatchment 10S: Drainage Area 10S**

Runoff = 81.66 cfs @ 12.48 hrs, Volume= 9.971 af, Depth> 2.12"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Type III 24-hr 25-Year Rainfall=5.50"

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Solar Meadow, HSG B/C

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Page 36 Description Area (sf) CN Meadow, non-grazed, HSG A 30 22,165 Meadow, non-grazed, HSG B 58 Meadow, non-grazed, HSG B/D 58 37,022 71 Meadow, non-grazed, HSG C 569,524 71 Meadow, non-grazed, HSG C/D 78 Meadow, non-grazed, HSG D 76 Existing Gravel roads, HSG A 0 2,254 Existing Gravel roads, HSG B 85 85 Existing Gravel roads, HSG B/D 0 0 89 Existing Gravel roads, HSG C 8,341 Existing Gravel roads, HSG C/D 89 Existing Gravel roads, HSG D 0 91 Woods, Fair, HSG A 0 36 612,342 Woods, Fair, HSG B 60 Woods, Fair, HSG B/D 160,683 60 25,798 73 Woods, Fair, HSG C 510,524 73 Woods, Fair, HSG C/D 180,299 Woods, Fair, HSG D 79 Wetlands, HSG A 0 98 98 Wetlands, HSG B 0 Wetlands, HSG B/D 0 98 0 98 Wetlands, HSG C 2,075 Wetlands, HSG C/D 98 Wetlands, HSG D 0 98 Paved parking, HSG A 0 98 0 98 Paved parking, HSG B 0 Paved parking, HSG B/D 98 0 98 Paved parking, HSG C 0 Paved parking, HSG C/D 98 0 Paved parking, HSG D 98 0 76 Gravel roads, HSG A 0 85 Gravel roads, HSG B 0 85 Gravel roads, HSG B/D 0 89 Gravel roads, HSG C 0 Gravel roads, HSG C/D 89 0 91 Gravel roads, HSG D 0 98 Solar Panel, HSG A 0 98 Solar Panel, HSG B 0 98 Solar Panel, HSG B/D 0 98 Solar Panel, HSG C 11,353 Solar Panel, HSG C/D 98 Solar Panel, HSG D 0 98 98 Conc Pad, HSG A 0 98 Conc Pad, HSG B 0 0 Conc Pad, HSG B/D 98 0 98 Conc Pad, HSG C 0 98 Conc Pad, HSG C/D 0 98 Conc Pad, HSG D 0 30 Solar Meadow, HSG A Solar Meadow, HSG B 0 58

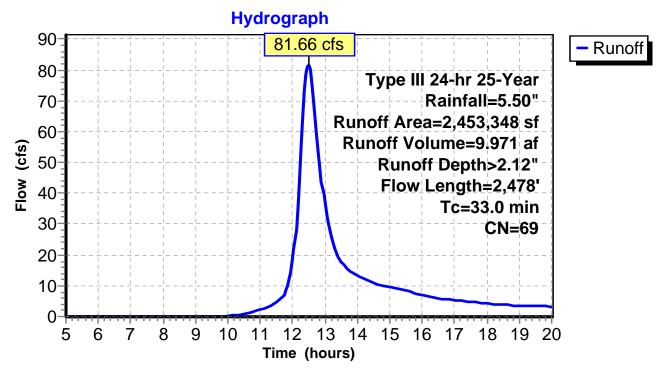
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Page 37

* * *	2,4 2,4	0 10,968 0 53,348 39,920 13,428	71 S 78 S 69 W 9	olar Mead <u>olar Mead</u> Veighted A 9.45% Per	ow, HSG C ow, HSG C ow, HSG D verage vious Area ervious Area	c/D )
	Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
	8.2	50	0.0555	0.10	, ,	Sheet Flow,
	1.6	110	0.0555	1.18		Woods: Light underbrush n= 0.400 P2= 3.20" <b>Shallow Concentrated Flow,</b> Woodland Kv= 5.0 fps
	4.5	385	0.0416	1.43		Shallow Concentrated Flow,
			0.0470	4.00		Short Grass Pasture Kv= 7.0 fps
	4.7	336	0.0179	1.20		Shallow Concentrated Flow, Cultivated Straight Rows Kv= 9.0 fps
	6.0	685	0.0453	1.92		Shallow Concentrated Flow,
						Cultivated Straight Rows Kv= 9.0 fps
	8.0	912	0.1458	1.91		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
_	33.0	2,478	Total			

# **Subcatchment 10S: Drainage Area 10S**



Woods Hill Solar Project Type III 24-hr 25-Year Rainfall=5.50" Printed 3/31/2016

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### **Summary for Subcatchment 20S: Drainage Area 20S**

Runoff = 30.99 cfs @ 12.33 hrs, Volume= 3.258 af, Depth> 1.74"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Type III 24-hr 25-Year Rainfall=5.50"

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	Area (sf)	CN	Description
	Aita (SI)0	30	· ·
*	104,360	58	Meadow, non-grazed, HSG A
*	_	58	Meadow, non-grazed, HSG B
	0	71	Meadow, non-grazed, HSG B/D
*		71	Meadow, non-grazed, HSG C
	30,235	71 78	Meadow, non-grazed, HSG C/D
*	0	76 76	Meadow, non-grazed, HSG D
*	5,146	85	Existing Gravel roads, HSG A Existing Gravel roads, HSG B
*	0,140	85	Existing Gravel roads, HSG B/D
*	0	89	Existing Gravel roads, HSG C
*	0	89	Existing Gravel roads, HSG C/D
*	0	91	
	0	36	Existing Gravel roads, HSG D
		60	Woods, Fair, HSG A
*	421,044	60	Woods, Fair, HSG B
	0 0	73	Woods, Fair, HSG B/D
*	1,630	73 73	Woods, Fair, HSG C
	•		Woods, Fair, HSC D
*	7,744	79 98	Woods, Fair, HSG D
*	0	98	Wetlands, HSG A
*	0	98	Wetlands, HSG B
*	0		Wetlands, HSG B/D
*	0 0	98 98	Wetlands, HSG C
*	0	98	Wetlands, HSG C/D
		98	Wetlands, HSG D
	0 0	98	Paved parking, HSG A
*	0	98	Paved parking, HSG B/D
	0		Paved parking, HSC C
*	0	98 98	Paved parking, HSG C/D
	0	98	Paved parking, HSG D
	0	76	Paved parking, HSG D Gravel roads, HSG A
	0	85	Gravel roads, HSG B
*	0	85	Gravel roads, HSG B/D
	0	89	·
*	0	89	Gravel roads, HSG C/D Gravel roads, HSG C/D
	0	91	Gravel roads, HSG D
*	0	98	Solar Panel, HSG A
*	2,218	98	Solar Panel, HSG B
*	2,210	98	Solar Panel, HSG B/D
*	0	98	Solar Panel, HSG C
*	12,922	98	Solar Panel, HSG C/D
*	0	98	Solar Panel, HSG D
*	0	98	·
*	0	98	Conc Pad, HSG A Conc Pad, HSG B
*	0	98	Conc Pad, HSG B/D
*		98	·
*	0	98	Conc Pad, HSG C/D
*	0	98	Conc Pad, HSG D
*	0	30	Conc Pad, HSG D Solar Meadow, HSG A
*	-	58	Solar Meadow, HSG B
*	144,225		
	0	58	Solar Meadow, HSG B/C

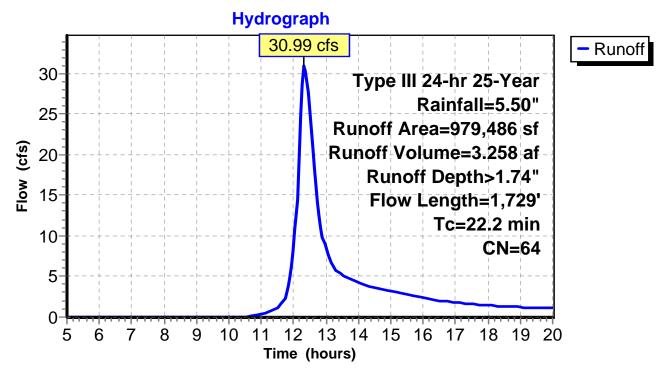
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*		0	71 S	Solar Mead	ow, HSG C	
*	2	49,962	71 S	Solar Mead	ow, HSG C	C/D
*		0			ow, HSG D	
_				Veighted A		
		79,486				
964,346 98.45% Pervious Area						
15,140 1.55% Impervious Area						a
	Tc	Length	Slope	Velocity	Capacity	Description
	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
_	2.7	50	0.0200	0.31		Sheet Flow,
						Cultivated: Residue<=20% n= 0.060 P2= 3.20"
	8.2	726	0.0441	1.47		Shallow Concentrated Flow,
						Short Grass Pasture Kv= 7.0 fps
	11.3	953	0.0797	1.41		Shallow Concentrated Flow,
	11.5	900	0.0131	1.41		Woodland Kv= 5.0 fps
_						vvoodiand rv= 5.0 ips
	22.2	1 729	Total			

## Subcatchment 20S: Drainage Area 20S



Woods Hill Solar Project Type III 24-hr 25-Year Rainfall=5.50" Printed 3/31/2016

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#### **Summary for Subcatchment 30S: Drainage Area 30S**

Runoff = 65.27 cfs @ 12.48 hrs, Volume= 8.008 af, Depth> 2.37"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Type III 24-hr 25-Year Rainfall=5.50"

30

58

58

0

0

113,898

Solar Meadow, HSG A

Solar Meadow, HSG B

Solar Meadow, HSG B/C

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Page 42 Description Area (sf) CN Meadow, non-grazed, HSG A 30 10,416 Meadow, non-grazed, HSG B 58 Meadow, non-grazed, HSG B/D 58 9,556 71 Meadow, non-grazed, HSG C 309,762 71 Meadow, non-grazed, HSG C/D 78 Meadow, non-grazed, HSG D 39,913 76 Existing Gravel roads, HSG A 0 867 Existing Gravel roads, HSG B 85 85 Existing Gravel roads, HSG B/D 0 0 89 Existing Gravel roads, HSG C 521 Existing Gravel roads, HSG C/D 89 Existing Gravel roads, HSG D 0 91 Woods, Fair, HSG A 0 36 79,826 Woods, Fair, HSG B 60 Woods, Fair, HSG B/D 60 7,593 73 Woods, Fair, HSG C 36,966 73 Woods, Fair, HSG C/D Woods, Fair, HSG D 42,854 79 Wetlands, HSG A 0 98 5,446 Wetlands, HSG B 98 Wetlands, HSG B/D 0 98 0 98 Wetlands, HSG C Wetlands, HSG C/D 0 98 34,318 Wetlands, HSG D 98 Paved parking, HSG A 0 98 Paved parking, HSG B 0 98 Paved parking, HSG B/D 0 98 2,987 98 Paved parking, HSG C 11,318 Paved parking, HSG C/D 98 Paved parking, HSG D 0 98 Gravel roads, HSG A 0 76 0 85 Gravel roads, HSG B 85 Gravel roads, HSG B/D 0 1,305 89 Gravel roads, HSG C 40,032 Gravel roads, HSG C/D 89 Gravel roads, HSG D 0 91 Solar Panel, HSG A 98 0 2,514 98 Solar Panel, HSG B Solar Panel, HSG B/D 0 98 0 98 Solar Panel, HSG C 22,328 Solar Panel, HSG C/D 98 Solar Panel, HSG D 0 98 98 Conc Pad, HSG A 0 98 Conc Pad, HSG B 0 Conc Pad, HSG B/D 0 98 0 98 Conc Pad, HSG C 7,357 Conc Pad, HSG C/D 98 98 Conc Pad, HSG D 0

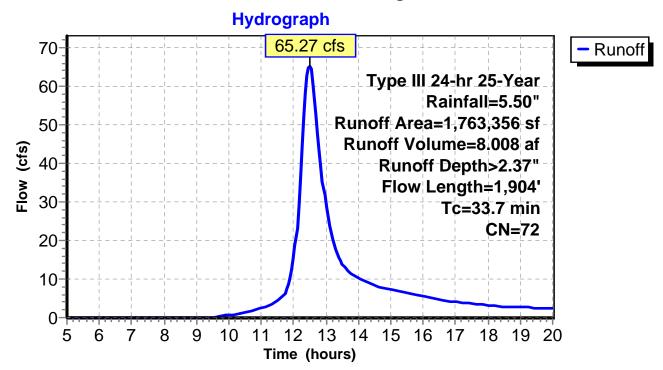
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* *	1,7 1,6	5,575 970,665 7,339 63,356 977,088 86,268	71 S 78 S 72 V 9	olar Mead <u>olar Mead</u> /eighted A 5.11% Per	ow, HSG C ow, HSG D ow, HSG D verage vious Area ervious Area	c/D )
	Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
_	9.2	50	0.0150	0.09	(0.0)	Sheet Flow,
	0.2	00	0.0100	0.00		Grass: Dense n= 0.240 P2= 3.20"
	7.7	576	0.0321	1.25		Shallow Concentrated Flow,
						Short Grass Pasture Kv= 7.0 fps
	0.1	12	0.0321	2.88		Shallow Concentrated Flow,
						Unpaved Kv= 16.1 fps
	5.7	479	0.0397	1.39		Shallow Concentrated Flow,
						Short Grass Pasture Kv= 7.0 fps
	11.0	787	0.0570	1.19		Shallow Concentrated Flow,
_						Woodland Kv= 5.0 fps
	33.7	1,904	Total			

#### Subcatchment 30S: Drainage Area 30S



Woods Hill Solar Project Type III 24-hr 25-Year Rainfall=5.50" Printed 3/31/2016

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#### **Summary for Subcatchment 40S: Drainage Area 40S**

Runoff = 98.64 cfs @ 13.16 hrs, Volume= 20.333 af, Depth> 2.41"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Type III 24-hr 25-Year Rainfall=5.50"

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Page 45 Description Area (sf) CN Meadow, non-grazed, HSG A 30 Meadow, non-grazed, HSG B 24,167 58 Meadow, non-grazed, HSG B/D 58 56,000 71 Meadow, non-grazed, HSG C 202,090 71 Meadow, non-grazed, HSG C/D Meadow, non-grazed, HSG D 47,695 78 76 Existing Gravel roads, HSG A 1,466 Existing Gravel roads, HSG B 85 85 Existing Gravel roads, HSG B/D 0 1,396 89 Existing Gravel roads, HSG C Existing Gravel roads, HSG C/D 7,491 89 Existing Gravel roads, HSG D 966 91 Woods, Fair, HSG A 7,185 36 285,061 Woods, Fair, HSG B 60 Woods, Fair, HSG B/D 75 60 90,632 73 Woods, Fair, HSG C 73 Woods, Fair, HSG C/D 780,531 Woods, Fair, HSG D 187,750 79 Wetlands, HSG A 115 98 11,508 Wetlands, HSG B 98 Wetlands, HSG B/D 28,352 98 1,289 98 Wetlands, HSG C Wetlands, HSG C/D 188,916 98 194,241 Wetlands, HSG D 98 Paved parking, HSG A 0 98 Paved parking, HSG B 0 98 Paved parking, HSG B/D 0 98 754 98 Paved parking, HSG C 9,828 Paved parking, HSG C/D 98 Paved parking, HSG D 0 98 Gravel roads, HSG A 0 76 0 85 Gravel roads, HSG B 85 Gravel roads, HSG B/D 0 1,942 89 Gravel roads, HSG C Gravel roads, HSG C/D 27,289 89 6,016 Gravel roads, HSG D 91 Solar Panel, HSG A 98 5,893 98 Solar Panel, HSG B Solar Panel, HSG B/D 98 15,758 98 Solar Panel, HSG C 44,893 Solar Panel, HSG C/D 98 Solar Panel, HSG D 0 98 0 Conc Pad, HSG A 98 0 98 Conc Pad, HSG B Conc Pad, HSG B/D 0 98 1,844 98 Conc Pad, HSG C 6,013 98 Conc Pad, HSG C/D 1,140 98 Conc Pad, HSG D 30 Solar Meadow, HSG A Solar Meadow, HSG B 410,845 58

Solar Meadow, HSG B/C

0

58

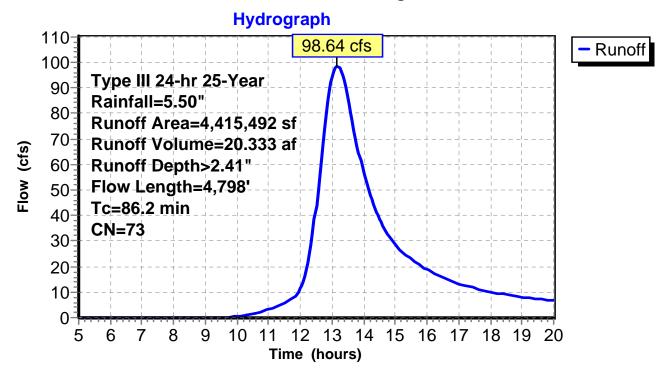
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						•
*	3	06,701	71 S	olar Mead	ow, HSG C	
*		88,294			ow, HSG C	
*	•	71,356	78 S	olar Mead	ow, HSG D	
	4.4	15,492	73 V	Veighted A	verage	
		04,948			vious Area	
	•	10,544	1	1.56% lmg	ervious Ar	ea
				•		
	Tc	Length	Slope	Velocity	Capacity	Description
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
	8.2	50	0.0200	0.10		Sheet Flow,
						Grass: Dense n= 0.240 P2= 3.20"
	13.1	833	0.0228	1.06		Shallow Concentrated Flow,
						Short Grass Pasture Kv= 7.0 fps
	0.1	12	0.0228	2.43		Shallow Concentrated Flow,
						Unpaved Kv= 16.1 fps
	12.3	657	0.0163	0.89		Shallow Concentrated Flow,
	50.5	0.040	0.0405	4.00		Short Grass Pasture Kv= 7.0 fps
	52.5	3,246	0.0425	1.03		Shallow Concentrated Flow,
_		4 =0.5	<del>-</del>			Woodland Kv= 5.0 fps
	86.2	4 798	Total			

#### **Subcatchment 40S: Drainage Area 40S**



Woods Hill Solar Project Type III 24-hr 25-Year Rainfall=5.50" Printed 3/31/2016

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#### **Summary for Subcatchment 50S: Drainage Area 50S**

Runoff = 24.04 cfs @ 12.29 hrs, Volume= 2.370 af, Depth> 2.47"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Type III 24-hr 25-Year Rainfall=5.50"

Proposed Conditions Hydrology

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	Area (sf)	CN	Description
	0	30	Meadow, non-grazed, HSG A
*	0	58	Meadow, non-grazed, HSG B
*	0	58	Meadow, non-grazed, HSG B/D
	0	71	Meadow, non-grazed, HSG C
*	202,519	71	Meadow, non-grazed, HSG C/D
	0	78	Meadow, non-grazed, HSG D
*	0	76	Existing Gravel roads, HSG A
*	0	85	Existing Gravel roads, HSG B
*	0	85	Existing Gravel roads, HSG B/D
*	0	89	Existing Gravel roads, HSG C
*	0	89	Existing Gravel roads, HSG C/D
*	0	91	Existing Gravel roads, HSG D
	0	36	Woods, Fair, HSG A
	0	60	Woods, Fair, HSG B
*	0	60	Woods, Fair, HSG B/D
	3,138	73	Woods, Fair, HSG C
*	923	73	Woods, Fair, HSG C/D
	0	79	Woods, Fair, HSG D
*	0	98	Wetlands, HSG A
*	0	98	Wetlands, HSG B
*	0	98	Wetlands, HSG B/D
*	0	98	Wetlands, HSG C
*	0	98	Wetlands, HSG C/D
*	0	98	Wetlands, HSG D
	0	98	Paved parking, HSG A
	0	98	Paved parking, HSG B
*	0	98	Paved parking, HSG B/D
	0	98	Paved parking, HSG C
*	0	98	Paved parking, HSG C/D
	0	98	Paved parking, HSG D
	0	76	Gravel roads, HSG A
	0	85	Gravel roads, HSG B
*	0	85	Gravel roads, HSG B/D
	0	89	Gravel roads, HSG C
*	17,873	89	Gravel roads, HSG C/D
	0	91	Gravel roads, HSG D
*	0	98	Solar Panel, HSG A
*	0	98	Solar Panel, HSG B
*	0	98	Solar Panel, HSG B/D
*	1,171	98	Solar Panel, HSG C
*	7,768	98	Solar Panel, HSG C/D
*	0	98	Solar Panel, HSG D
*	0	98	Conc Pad, HSG A
*	0	98	Conc Pad, HSG B
*	0	98	Conc Pad, HSG B/D
*	0	98	Conc Pad, HSG C
*	12,977	98	Conc Pad, HSG C/D
*	0	98	Conc Pad, HSG D
*	0	30	Solar Meadow, HSG A
*	0	58	Solar Meadow, HSG B
*	0	58	Solar Meadow, HSG B/C

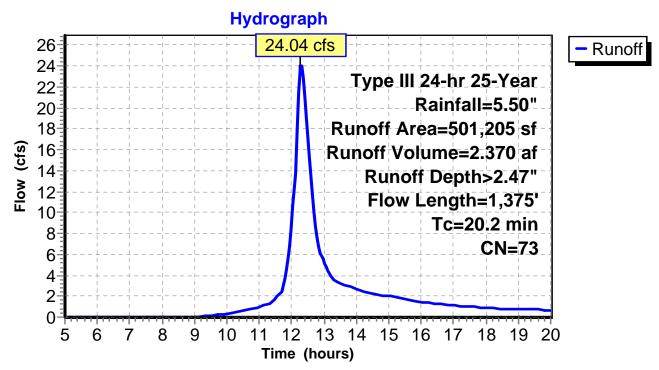
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*		6,124	71 S	Solar Mead	ow, HSG C		
*	2	48,712	71 S	Solar Mead	ow, HSG C	C/D	
*		0			ow, HSG D		
		01,205 79,289		Veighted A 5.63% Per	verage vious Area		_
		21,916	_		ervious Area		
	Tc	Length	Slope	Velocity	Capacity	Description	
	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	·	
	4.3	50	0.1000	0.19		Sheet Flow,	
						Grass: Dense n= 0.240 P2= 3.20"	
	12.6	607	0.0132	0.80		Shallow Concentrated Flow,	
						Short Grass Pasture Kv= 7.0 fps	
	3.3	718	0.2650	3.60		Shallow Concentrated Flow,	
_						Short Grass Pasture Kv= 7.0 fps	_
	20.2	1 375	Total				

# Subcatchment 50S: Drainage Area 50S



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### **Proposed Conditions Hydrology**

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#### **Summary for Reach Total: Total**

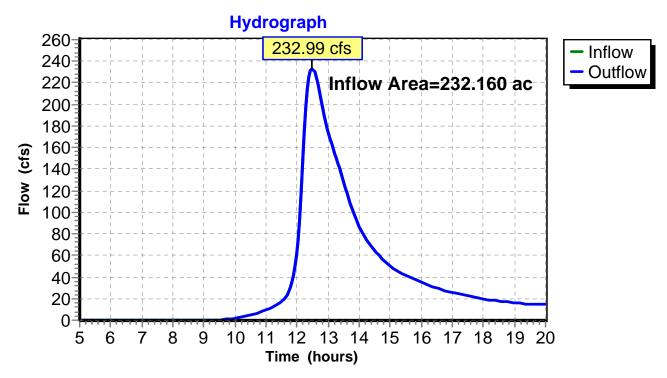
Inflow Area = 232.160 ac, 6.40% Impervious, Inflow Depth > 2.27" for 25-Year event

Inflow = 232.99 cfs @ 12.50 hrs, Volume= 43.941 af

Outflow = 232.99 cfs @ 12.50 hrs, Volume= 43.941 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

#### **Reach Total: Total**



Woods Hill Solar Project
Type III 24-hr 100-Year Rainfall=6.90"
Printed 3/31/2016
LC Page 51

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#### **Summary for Subcatchment 10S: Drainage Area 10S**

Runoff = 122.01 cfs @ 12.47 hrs, Volume= 14.808 af, Depth> 3.16"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Type III 24-hr 100-Year Rainfall=6.90"

Proposed Conditions Hydrology

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Area (sf) CN Description  0 30 Meadow, non-grazed, HSG A  * 22,165 58 Meadow, non-grazed, HSG B  * 0 58 Meadow, non-grazed, HSG B/D  37,022 71 Meadow, non-grazed, HSG C  * 569,524 71 Meadow, non-grazed, HSG C/D  0 78 Meadow, non-grazed, HSG D  * 0 76 Existing Gravel roads, HSG A  * 2,254 85 Existing Gravel roads, HSG B  * 0 85 Existing Gravel roads, HSG B/D  * 0 89 Existing Gravel roads, HSG C  * 8,341 89 Existing Gravel roads, HSG C  * 8,341 89 Existing Gravel roads, HSG D  0 36 Woods, Fair, HSG A  612,342 60 Woods, Fair, HSG B  * 160,683 60 Woods, Fair, HSG B  * 160,683 60 Woods, Fair, HSG C  * 510,524 73 Woods, Fair, HSG C  * 510,524 73 Woods, Fair, HSG D  * 0 98 Wetlands, HSG B  * 0 98 Wetlands, HSG B  * 0 98 Wetlands, HSG B/D
* 22,165 58 Meadow, non-grazed, HSG B  * 0 58 Meadow, non-grazed, HSG B/D  37,022 71 Meadow, non-grazed, HSG C  * 569,524 71 Meadow, non-grazed, HSG C/D  0 78 Meadow, non-grazed, HSG D  * 0 76 Existing Gravel roads, HSG A  * 2,254 85 Existing Gravel roads, HSG B  * 0 85 Existing Gravel roads, HSG B/D  * 0 89 Existing Gravel roads, HSG C/D  * 8,341 89 Existing Gravel roads, HSG C/D  * 0 91 Existing Gravel roads, HSG D  0 36 Woods, Fair, HSG A  612,342 60 Woods, Fair, HSG B  * 160,683 60 Woods, Fair, HSG B  * 160,524 73 Woods, Fair, HSG C  * 510,524 73 Woods, Fair, HSG C  * 510,524 73 Woods, Fair, HSG C  * 0 98 Wetlands, HSG B  * 0 98 Wetlands, HSG B  * 0 98 Wetlands, HSG B  * Wetlands, HSG B  * Wetlands, HSG B/D
* 0 58 Meadow, non-grazed, HSG B/D 37,022 71 Meadow, non-grazed, HSG C  * 569,524 71 Meadow, non-grazed, HSG C/D 0 78 Meadow, non-grazed, HSG D  * 0 76 Existing Gravel roads, HSG A  * 2,254 85 Existing Gravel roads, HSG B  * 0 85 Existing Gravel roads, HSG B/D  * 0 89 Existing Gravel roads, HSG C  * 8,341 89 Existing Gravel roads, HSG C/D  * 0 91 Existing Gravel roads, HSG D 0 36 Woods, Fair, HSG A 612,342 60 Woods, Fair, HSG B  * 160,683 60 Woods, Fair, HSG B/D 25,798 73 Woods, Fair, HSG C/D  * 510,524 73 Woods, Fair, HSG C/D 180,299 79 Woods, Fair, HSG D  * 0 98 Wetlands, HSG B  * 0 98 Wetlands, HSG B  * 0 98 Wetlands, HSG B/D
37,022       71       Meadow, non-grazed, HSG C         * 569,524       71       Meadow, non-grazed, HSG D         0       78       Meadow, non-grazed, HSG D         * 0       76       Existing Gravel roads, HSG A         * 2,254       85       Existing Gravel roads, HSG B/D         * 0       85       Existing Gravel roads, HSG C/D         * 8,341       89       Existing Gravel roads, HSG C/D         * 0       91       Existing Gravel roads, HSG D         0       36       Woods, Fair, HSG A         612,342       60       Woods, Fair, HSG B         * 160,683       60       Woods, Fair, HSG B/D         25,798       73       Woods, Fair, HSG C/D         * 510,524       73       Woods, Fair, HSG D         * 0       98       Wetlands, HSG B         * 0       98       Wetlands, HSG B         * 0       98       Wetlands, HSG B/D
* 569,524 71 Meadow, non-grazed, HSG C/D 0 78 Meadow, non-grazed, HSG D  * 0 76 Existing Gravel roads, HSG A  * 2,254 85 Existing Gravel roads, HSG B  * 0 85 Existing Gravel roads, HSG B/D  * 0 89 Existing Gravel roads, HSG C  * 8,341 89 Existing Gravel roads, HSG C/D  * 0 91 Existing Gravel roads, HSG D  0 36 Woods, Fair, HSG A 612,342 60 Woods, Fair, HSG B  * 160,683 60 Woods, Fair, HSG B/D 25,798 73 Woods, Fair, HSG C  * 510,524 73 Woods, Fair, HSG C/D 180,299 79 Woods, Fair, HSG D  * 0 98 Wetlands, HSG A  * 0 98 Wetlands, HSG B  * 0 98 Wetlands, HSG B/D
0       78       Meadow, non-grazed, HSG D         *       0       76       Existing Gravel roads, HSG A         *       2,254       85       Existing Gravel roads, HSG B/D         *       0       85       Existing Gravel roads, HSG C/D         *       0       89       Existing Gravel roads, HSG C/D         *       0       91       Existing Gravel roads, HSG D         0       36       Woods, Fair, HSG A         612,342       60       Woods, Fair, HSG B         *       160,683       60       Woods, Fair, HSG B/D         25,798       73       Woods, Fair, HSG C         *       510,524       73       Woods, Fair, HSG D         *       0       98       Wetlands, HSG B         *       0       98       Wetlands, HSG B         *       0       98       Wetlands, HSG B/D
<ul> <li>* 2,254 85 Existing Gravel roads, HSG B</li> <li>* 0 85 Existing Gravel roads, HSG B/D</li> <li>* 0 89 Existing Gravel roads, HSG C</li> <li>* 8,341 89 Existing Gravel roads, HSG C/D</li> <li>* 0 91 Existing Gravel roads, HSG D</li> <li>* 0 36 Woods, Fair, HSG A</li> <li>612,342 60 Woods, Fair, HSG B/D</li> <li>* 160,683 60 Woods, Fair, HSG B/D</li> <li>* 25,798 73 Woods, Fair, HSG C</li> <li>* 510,524 73 Woods, Fair, HSG D</li> <li>* 0 98 Wetlands, HSG A</li> <li>* 0 98 Wetlands, HSG B</li> <li>* 0 98 Wetlands, HSG B</li> <li>* 0 98 Wetlands, HSG B/D</li> <li>* 0 98 Wetlands, HSG B/D</li> </ul>
<ul> <li>* 2,254 85 Existing Gravel roads, HSG B</li> <li>* 0 85 Existing Gravel roads, HSG B/D</li> <li>* 0 89 Existing Gravel roads, HSG C</li> <li>* 8,341 89 Existing Gravel roads, HSG C/D</li> <li>* 0 91 Existing Gravel roads, HSG D</li> <li>0 36 Woods, Fair, HSG A</li> <li>612,342 60 Woods, Fair, HSG B</li> <li>* 160,683 60 Woods, Fair, HSG B/D</li> <li>25,798 73 Woods, Fair, HSG C</li> <li>* 510,524 73 Woods, Fair, HSG C/D</li> <li>180,299 79 Woods, Fair, HSG D</li> <li>* 0 98 Wetlands, HSG A</li> <li>* 0 98 Wetlands, HSG B</li> <li>* 0 98 Wetlands, HSG B</li> <li>* 0 98 Wetlands, HSG B/D</li> </ul>
<ul> <li>* 0 85 Existing Gravel roads, HSG B/D</li> <li>* 0 89 Existing Gravel roads, HSG C</li> <li>* 8,341 89 Existing Gravel roads, HSG C/D</li> <li>* 0 91 Existing Gravel roads, HSG D</li> <li>0 36 Woods, Fair, HSG A</li> <li>612,342 60 Woods, Fair, HSG B</li> <li>* 160,683 60 Woods, Fair, HSG B/D</li> <li>25,798 73 Woods, Fair, HSG C</li> <li>* 510,524 73 Woods, Fair, HSG C/D</li> <li>* 180,299 79 Woods, Fair, HSG D</li> <li>* 0 98 Wetlands, HSG A</li> <li>* 0 98 Wetlands, HSG B</li> <li>* 0 98 Wetlands, HSG B/D</li> </ul>
<ul> <li>* 0 89 Existing Gravel roads, HSG C</li> <li>* 8,341 89 Existing Gravel roads, HSG C/D</li> <li>* 0 91 Existing Gravel roads, HSG D</li> <li>0 36 Woods, Fair, HSG A</li> <li>612,342 60 Woods, Fair, HSG B</li> <li>* 160,683 60 Woods, Fair, HSG B/D</li> <li>25,798 73 Woods, Fair, HSG C</li> <li>* 510,524 73 Woods, Fair, HSG C/D</li> <li>180,299 79 Woods, Fair, HSG D</li> <li>* 0 98 Wetlands, HSG A</li> <li>* 0 98 Wetlands, HSG B</li> <li>* 0 98 Wetlands, HSG B</li> <li>* 0 98 Wetlands, HSG B/D</li> </ul>
<ul> <li>* 8,341 89 Existing Gravel roads, HSG C/D</li> <li>* 0 91 Existing Gravel roads, HSG D</li> <li>0 36 Woods, Fair, HSG A</li> <li>612,342 60 Woods, Fair, HSG B</li> <li>* 160,683 60 Woods, Fair, HSG B/D</li> <li>25,798 73 Woods, Fair, HSG C</li> <li>* 510,524 73 Woods, Fair, HSG C/D</li> <li>180,299 79 Woods, Fair, HSG D</li> <li>* 0 98 Wetlands, HSG A</li> <li>* 0 98 Wetlands, HSG B</li> <li>* 0 98 Wetlands, HSG B</li> <li>* 0 98 Wetlands, HSG B/D</li> </ul>
<ul> <li>* 0 91 Existing Gravel roads, HSG D</li> <li>0 36 Woods, Fair, HSG A</li> <li>612,342 60 Woods, Fair, HSG B</li> <li>* 160,683 60 Woods, Fair, HSG B/D</li> <li>25,798 73 Woods, Fair, HSG C</li> <li>* 510,524 73 Woods, Fair, HSG C/D</li> <li>180,299 79 Woods, Fair, HSG D</li> <li>* 0 98 Wetlands, HSG A</li> <li>* 0 98 Wetlands, HSG B</li> <li>* 0 98 Wetlands, HSG B/D</li> </ul>
0 36 Woods, Fair, HSG A 612,342 60 Woods, Fair, HSG B  * 160,683 60 Woods, Fair, HSG B/D 25,798 73 Woods, Fair, HSG C  * 510,524 73 Woods, Fair, HSG C/D 180,299 79 Woods, Fair, HSG D  * 0 98 Wetlands, HSG A  * 0 98 Wetlands, HSG B  * 0 98 Wetlands, HSG B/D
612,342 60 Woods, Fair, HSG B  * 160,683 60 Woods, Fair, HSG B/D 25,798 73 Woods, Fair, HSG C  * 510,524 73 Woods, Fair, HSG C/D 180,299 79 Woods, Fair, HSG D  * 0 98 Wetlands, HSG A  * 0 98 Wetlands, HSG B  * 0 98 Wetlands, HSG B/D
<ul> <li>* 160,683 60 Woods, Fair, HSG B/D 25,798 73 Woods, Fair, HSG C</li> <li>* 510,524 73 Woods, Fair, HSG C/D 180,299 79 Woods, Fair, HSG D</li> <li>* 0 98 Wetlands, HSG A</li> <li>* 0 98 Wetlands, HSG B</li> <li>* 0 98 Wetlands, HSG B/D</li> </ul>
25,798 73 Woods, Fair, HSG C  * 510,524 73 Woods, Fair, HSG C/D 180,299 79 Woods, Fair, HSG D  * 0 98 Wetlands, HSG A  * 0 98 Wetlands, HSG B  * 0 98 Wetlands, HSG B/D
<ul> <li>* 510,524 73 Woods, Fair, HSG C/D</li> <li>180,299 79 Woods, Fair, HSG D</li> <li>* 0 98 Wetlands, HSG A</li> <li>* 0 98 Wetlands, HSG B</li> <li>* 0 98 Wetlands, HSG B/D</li> </ul>
180,299 79 Woods, Fair, HSG D  * 0 98 Wetlands, HSG A  * 0 98 Wetlands, HSG B  * 0 98 Wetlands, HSG B/D
<ul> <li>* 0 98 Wetlands, HSG A</li> <li>* 0 98 Wetlands, HSG B</li> <li>* 0 98 Wetlands, HSG B/D</li> </ul>
<ul> <li>* 0 98 Wetlands, HSG B</li> <li>* 0 98 Wetlands, HSG B/D</li> </ul>
* 0 98 Wetlands, HSG B/D
* 0 98 Wetlands, HSG C
* 2,075 98 Wetlands, HSG C/D
* 0 98 Wetlands, HSG D
0 98 Paved parking, HSG A
0 98 Paved parking, HSG B
* 0 98 Paved parking, HSG B/D
0 98 Paved parking, HSG C
* 0 98 Paved parking, HSG C/D
0 98 Paved parking, HSG D
0 76 Gravel roads, HSG A
0 85 Gravel roads, HSG B
* 0 85 Gravel roads, HSG B/D
0 89 Gravel roads, HSG C
* 0 89 Gravel roads, HSG C/D
0 91 Gravel roads, HSG D
* 0 98 Solar Panel, HSG A
* 0 98 Solar Panel, HSG B
* 0 98 Solar Panel, HSG B/D
* 0 98 Solar Panel, HSG C
* 11,353 98 Solar Panel, HSG C/D
* 0 98 Solar Panel, HSG D
* 0 98 Conc Pad, HSG A
* 0 98 Conc Pad, HSG B
* 0 98 Conc Pad, HSG B/D
* 0 98 Conc Pad, HSG C
* 0 98 Conc Pad, HSG C/D
* 0 98 Conc Pad, HSG D
* 0 30 Solar Meadow, HSG A
* 0 58 Solar Meadow, HSG B
* 0 58 Solar Meadow, HSG B/C

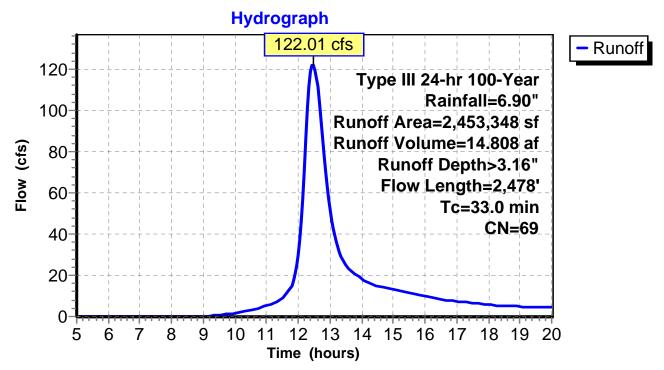
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* *	2,4	0 10,968 0 53,348 39,920 13,428	71 S 78 S 69 W 9	olar Mead <u>olar Mead</u> /eighted A 9.45% Per	ow, HSG Cow, HSG Cow, HSG Dow, HSG Dow, HSG Down Market Properties of the company	/D
	Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
	8.2	50	0.0555	0.10	,	Sheet Flow,
	1.6	110	0.0555	1.18		Woods: Light underbrush n= 0.400 P2= 3.20" <b>Shallow Concentrated Flow,</b> Woodland Kv= 5.0 fps
	4.5	385	0.0416	1.43		Shallow Concentrated Flow,
						Short Grass Pasture Kv= 7.0 fps
	4.7	336	0.0179	1.20		Shallow Concentrated Flow,
	6.0	685	0.0453	1.92		Cultivated Straight Rows Kv= 9.0 fps  Shallow Concentrated Flow,  Cultivated Straight Rows Kv= 9.0 fps
	8.0	912	0.1458	1.91		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
	33.0	2,478	Total			

# **Subcatchment 10S: Drainage Area 10S**



Woods Hill Solar Project Type III 24-hr 100-Year Rainfall=6.90" Printed 3/31/2016

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#### **Summary for Subcatchment 20S: Drainage Area 20S**

Runoff = 48.83 cfs @ 12.32 hrs, Volume= 5.024 af, Depth> 2.68"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Type III 24-hr 100-Year Rainfall=6.90"

Proposed Conditions Hydrology
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	Area (sf)	CN	Description
	0	30	Meadow, non-grazed, HSG A
*	104,360	58	Meadow, non-grazed, HSG B
*	, O	58	Meadow, non-grazed, HSG B/D
	Ö	71	Meadow, non-grazed, HSG C
*	30,235	71	Meadow, non-grazed, HSG C/D
	0	78	Meadow, non-grazed, HSG D
*	0	76	Existing Gravel roads, HSG A
*	5,146	85	Existing Gravel roads, HSG B
*	0	85	Existing Gravel roads, HSG B/D
*	0	89	Existing Gravel roads, HSG C
*	0	89	Existing Gravel roads, HSG C/D
*	0	91	Existing Gravel roads, HSG D
	0	36	Woods, Fair, HSG A
	421,044	60	Woods, Fair, HSG B
*	, O	60	Woods, Fair, HSG B/D
	0	73	Woods, Fair, HSG C
*	1,630	73	Woods, Fair, HSG C/D
	7,744	79	Woods, Fair, HSG D
*	, O	98	Wetlands, HSG A
*	0	98	Wetlands, HSG B
*	0	98	Wetlands, HSG B/D
*	0	98	Wetlands, HSG C
*	0	98	Wetlands, HSG C/D
*	0	98	Wetlands, HSG D
	0	98	Paved parking, HSG A
	0	98	Paved parking, HSG B
*	0	98	Paved parking, HSG B/D
	0	98	Paved parking, HSG C
*	0	98	Paved parking, HSG C/D
	0	98	Paved parking, HSG D
	0	76	Gravel roads, HSG A
	0	85	Gravel roads, HSG B
*	0	85	Gravel roads, HSG B/D
	0	89	Gravel roads, HSG C
*	0	89	Gravel roads, HSG C/D
	0	91	Gravel roads, HSG D
*	0	98	Solar Panel, HSG A
*	2,218	98	Solar Panel, HSG B
*	0	98	Solar Panel, HSG B/D
*	0	98	Solar Panel, HSG C
*	12,922	98	Solar Panel, HSG C/D
*	0	98	Solar Panel, HSG D
*	0	98	Conc Pad, HSG A
*	0	98	Conc Pad, HSG B
*	0	98	Conc Pad, HSG B/D
*	0	98	Conc Pad, HSG C
*	0	98	Conc Pad, HSG C/D
*	0	98	Conc Pad, HSG D
*	0	30	Solar Meadow, HSG A
*	144,225	58	Solar Meadow, HSG B
*	0	58	Solar Meadow, HSG B/C

### **Proposed Conditions Hydrology**

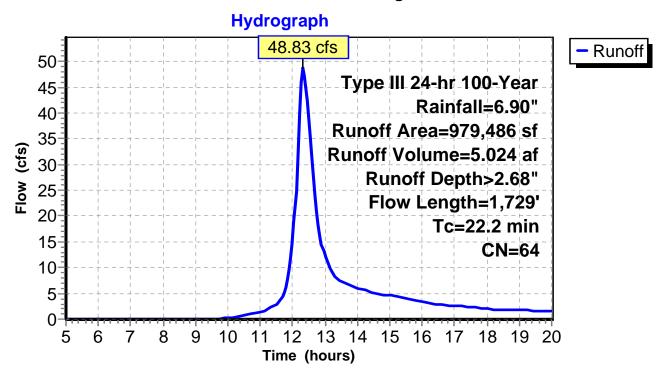
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* * *	9	0 49,962 0 79,486 64,346 15,140	71 S 78 S 64 V 9	Solar Mead Solar Mead Veighted A 8.45% Per	ow, HSG C ow, HSG D ow, HSG D verage vious Area ervious Area	C/D )
	Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
	2.7	50	0.0200	0.31	, ,	Sheet Flow, Cultivated: Residue<=20% n= 0.060 P2= 3.20"
	8.2	726	0.0441	1.47		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
	11.3	953	0.0797	1.41		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
	22.2	1,729	Total			·

### Subcatchment 20S: Drainage Area 20S



## **Proposed Conditions Hydrology** Prepared by Tighe & Bond, Inc.

Woods Hill Solar Project Type III 24-hr 100-Year Rainfall=6.90" Printed 3/31/2016

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### **Summary for Subcatchment 30S: Drainage Area 30S**

Runoff = 95.06 cfs @ 12.47 hrs, Volume= 11.654 af, Depth> 3.45"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Type III 24-hr 100-Year Rainfall=6.90"

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	Area (sf)	CN	Description
	0	30	Meadow, non-grazed, HSG A
*	10,416	58	Meadow, non-grazed, HSG B
*	0	58	Meadow, non-grazed, HSG B/D
	9,556	71	Meadow, non-grazed, HSG C
*	309,762	71	Meadow, non-grazed, HSG C/D
	39,913	78	Meadow, non-grazed, HSG D
*	00,010	76	Existing Gravel roads, HSG A
*	867	85	Existing Gravel roads, HSG B
*	0	85	Existing Gravel roads, HSG B/D
*	Ö	89	Existing Gravel roads, HSG C
*	521	89	Existing Gravel roads, HSG C/D
*	0	91	Existing Gravel roads, HSG D
	Ö	36	Woods, Fair, HSG A
	79,826	60	Woods, Fair, HSG B
*	0	60	Woods, Fair, HSG B/D
	7,593	73	Woods, Fair, HSG C
*	36,966	73	Woods, Fair, HSG C/D
	42,854	79	Woods, Fair, HSG D
*	0	98	Wetlands, HSG A
*	5,446	98	Wetlands, HSG B
*	0,1.0	98	Wetlands, HSG B/D
*	Ö	98	Wetlands, HSG C
*	Ö	98	Wetlands, HSG C/D
*	34,318	98	Wetlands, HSG D
	0 .,0 .0	98	Paved parking, HSG A
	Ö	98	Paved parking, HSG B
*	Ö	98	Paved parking, HSG B/D
	2,987	98	Paved parking, HSG C
*	11,318	98	Paved parking, HSG C/D
	0	98	Paved parking, HSG D
	0	76	Gravel roads, HSG A
	0	85	Gravel roads, HSG B
*	0	85	Gravel roads, HSG B/D
	1,305	89	Gravel roads, HSG C
*	40,032	89	Gravel roads, HSG C/D
	0	91	Gravel roads, HSG D
*	0	98	Solar Panel, HSG A
*	2,514	98	Solar Panel, HSG B
*	0	98	Solar Panel, HSG B/D
*	0	98	Solar Panel, HSG C
*	22,328	98	Solar Panel, HSG C/D
*	0	98	Solar Panel, HSG D
*	0	98	Conc Pad, HSG A
*	0	98	Conc Pad, HSG B
*	0	98	Conc Pad, HSG B/D
*	0	98	Conc Pad, HSG C
*	7,357	98	Conc Pad, HSG C/D
*	0	98	Conc Pad, HSG D
*	0	30	Solar Meadow, HSG A
*	113,898	58	Solar Meadow, HSG B
*	0	58	Solar Meadow, HSG B/C

### **Proposed Conditions Hydrology**

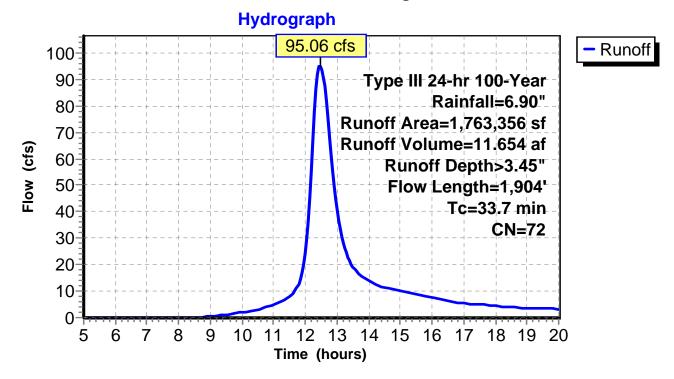
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*	5,575	71 S	Solar Mead	ow, HSG C		
* 9	70,665			ow, HSG C		
*	7,339			ow, HSG D		
1.7	63,356	72 V	Veighted A	verage		_
	77,088			vious Area		
	86,268	4	.89% Impe	ervious Area	3	
	•					
Tc	Length	Slope	Velocity	Capacity	Description	
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)		
9.2	50	0.0150	0.09		Sheet Flow,	
					Grass: Dense n= 0.240 P2= 3.20"	
7.7	576	0.0321	1.25		Shallow Concentrated Flow,	
					Short Grass Pasture Kv= 7.0 fps	
0.1	12	0.0321	2.88		Shallow Concentrated Flow,	
					Unpaved Kv= 16.1 fps	
5.7	479	0.0397	1.39		Shallow Concentrated Flow,	
					Short Grass Pasture Kv= 7.0 fps	
11.0	787	0.0570	1.19		Shallow Concentrated Flow,	
					Woodland Kv= 5.0 fps	_
33.7	1.904	Total				

### Subcatchment 30S: Drainage Area 30S



## **Proposed Conditions Hydrology** Prepared by Tighe & Bond, Inc.

Woods Hill Solar Project Type III 24-hr 100-Year Rainfall=6.90" Printed 3/31/2016

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### **Summary for Subcatchment 40S: Drainage Area 40S**

Runoff = 143.02 cfs @ 13.14 hrs, Volume= 29.448 af, Depth> 3.49"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Type III 24-hr 100-Year Rainfall=6.90"

Proposed Conditions Hydrology

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	Area (sf)	CN	Description
			Description Needow page ground LISC A
*	0	30	Meadow, non-grazed, HSG A
	24,167	58	Meadow, non-grazed, HSG B
•	0	58	Meadow, non-grazed, HSG B/D
*	56,000	71	Meadow, non-grazed, HSG C
•	202,090	71	Meadow, non-grazed, HSG C/D
+	47,695	78 70	Meadow, non-grazed, HSG D
<u>.</u>	0	76	Existing Gravel roads, HSG A
<u>.</u>	1,466	85	Existing Gravel roads, HSG B
*	0	85	Existing Gravel roads, HSG B/D
<u>.</u>	1,396	89	Existing Gravel roads, HSG C
*	7,491	89	Existing Gravel roads, HSG C/D
*	966	91	Existing Gravel roads, HSG D
	7,185	36	Woods, Fair, HSG A
	285,061	60	Woods, Fair, HSG B
*	75	60	Woods, Fair, HSG B/D
	90,632	73	Woods, Fair, HSG C
*	780,531	73	Woods, Fair, HSG C/D
*	187,750	79	Woods, Fair, HSG D
*	115	98	Wetlands, HSG A
*	11,508	98	Wetlands, HSG B
*	28,352	98	Wetlands, HSG B/D
*	1,289	98	Wetlands, HSG C
*	188,916	98	Wetlands, HSG C/D
*	194,241	98	Wetlands, HSG D
	0	98	Paved parking, HSG A
	0	98	Paved parking, HSG B
*	0	98	Paved parking, HSG B/D
	754	98	Paved parking, HSG C
^	9,828	98	Paved parking, HSG C/D
	0	98	Paved parking, HSG D
	0	76	Gravel roads, HSG A
	0	85	Gravel roads, HSG B
^	0	85	Gravel roads, HSG B/D
	1,942	89	Gravel roads, HSG C
•	27,289	89	Gravel roads, HSG C/D
*	6,016	91	Gravel roads, HSG D
·	0	98	Solar Panel, HSG A
<u>.</u>	5,893	98	Solar Panel, HSG B
·	0	98	Solar Panel, HSG B/D
*	15,758	98	Solar Panel, HSG C
<u>.</u>	44,893	98	Solar Panel, HSG C/D
<u>.</u>	0	98	Solar Panel, HSG D
·	0	98	Conc Pad, HSG A
^ +	0	98	Conc Pad, HSG B
•	0	98	Conc Pad, HSG B/D
*	1,844	98	Conc Pad, HSG C
*	6,013	98	Conc Pad, HSG C/D
*	1,140	98	Conc Pad, HSG D
*	0	30	Solar Meadow, HSG A
*	410,845	58	Solar Meadow, HSG B
*	0	58	Solar Meadow, HSG B/C

### **Proposed Conditions Hydrology**

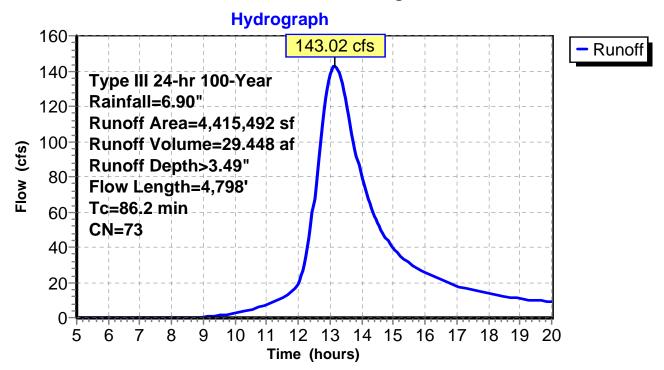
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*		06,701 88,294			ow, HSG C ow, HSG C	
*		71,356			ow, HSG D	
	4,415,492 3,904,948 510,544		73 V 8	Veighted A 8.44% Per	,	
	Tc	Length	Slope	Velocity	Capacity	Description
	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	'
	8.2	50	0.0200	0.10		Sheet Flow,
	13.1	833	0.0228	1.06		Grass: Dense n= 0.240 P2= 3.20"  Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
	0.1	12	0.0228	2.43		Shallow Concentrated Flow,
	0.1		0.0220	2.10		Unpaved Kv= 16.1 fps
	12.3	657	0.0163	0.89		Shallow Concentrated Flow,
	52.5	3,246	0.0425	1.03		Short Grass Pasture Kv= 7.0 fps  Shallow Concentrated Flow,  Woodland Kv= 5.0 fps
	86.2	4,798	Total			

### **Subcatchment 40S: Drainage Area 40S**



## **Proposed Conditions Hydrology** Prepared by Tighe & Bond, Inc.

Woods Hill Solar Project Type III 24-hr 100-Year Rainfall=6.90" Printed 3/31/2016

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### **Summary for Subcatchment 50S: Drainage Area 50S**

Runoff = 34.73 cfs @ 12.28 hrs, Volume= 3.426 af, Depth> 3.57"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Type III 24-hr 100-Year Rainfall=6.90"

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	Area (sf)	CN	Description
	0	30	Meadow, non-grazed, HSG A
*	0	58	Meadow, non-grazed, HSG B
*	0	58	Meadow, non-grazed, HSG B/D
	0	71	Meadow, non-grazed, HSG C
*	202,519	71	Meadow, non-grazed, HSG C/D
	0	78	Meadow, non-grazed, HSG D
*	0	76	Existing Gravel roads, HSG A
*	0	85	Existing Gravel roads, HSG B
*	0	85	Existing Gravel roads, HSG B/D
*	0	89	Existing Gravel roads, HSG C
*	0	89	Existing Gravel roads, HSG C/D
*	0	91	Existing Gravel roads, HSG D
	0	36	Woods, Fair, HSG A
	0	60	Woods, Fair, HSG B
*	0	60	Woods, Fair, HSG B/D
	3,138	73	Woods, Fair, HSG C
*	923	73	Woods, Fair, HSG C/D
	0	79	Woods, Fair, HSG D
*	0	98	Wetlands, HSG A
*	0	98	Wetlands, HSG B
*	0	98	Wetlands, HSG B/D
*	0	98	Wetlands, HSG C
*	0	98	Wetlands, HSG C/D
*	0	98	Wetlands, HSG D
	0	98	Paved parking, HSG A
	0	98	Paved parking, HSG B
*	0	98	Paved parking, HSG B/D
	0	98	Paved parking, HSG C
*	0	98	Paved parking, HSG C/D
	0	98	Paved parking, HSG D
	0	76	Gravel roads, HSG A
	0	85	Gravel roads, HSG B
*	0	85	Gravel roads, HSG B/D
	0	89	Gravel roads, HSG C
*	17,873	89	Gravel roads, HSG C/D
	0	91	Gravel roads, HSG D
*	0	98	Solar Panel, HSG A
*	0	98	Solar Panel, HSG B
*	0	98	Solar Panel, HSG B/D
*	1,171	98	Solar Panel, HSG C
*	7,768	98	Solar Panel, HSG C/D
*	0	98	Solar Panel, HSG D
*	0	98	Conc Pad, HSG A
*	0	98	Conc Pad, HSG B
*	0	98	Conc Pad, HSG B/D
*	0	98	Conc Pad, HSG C
*	12,977	98	Conc Pad, HSG C/D
*	0	98	Conc Pad, HSG D
*	0	30	Solar Meadow, HSG A
*	0	58	Solar Meadow, HSG B
*	0	58	Solar Meadow, HSG B/C

### **Proposed Conditions Hydrology**

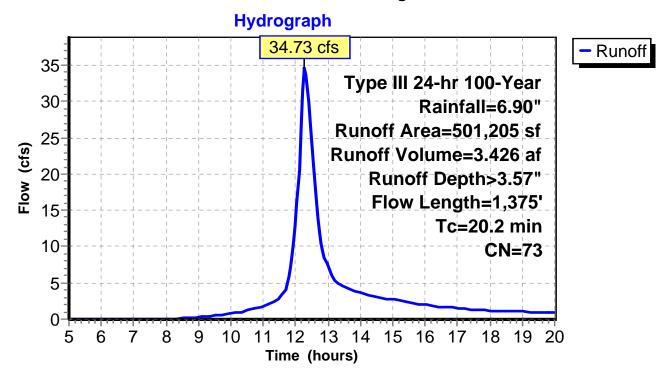
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* *		6,124 48,712 0	71 S 78 S	olar Mead olar Mead	ow, HSG C ow, HSG C ow, HSG D	:/D
		01,205		Veighted A		
		79,289			vious Area	
		21,916	4	.37% Impe	ervious Area	d
	Тс	Length	Slope	Velocity	Capacity	Description
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
	4.3	50	0.1000	0.19		Sheet Flow,
						Grass: Dense n= 0.240 P2= 3.20"
	12.6	607	0.0132	0.80		Shallow Concentrated Flow,
						Short Grass Pasture Kv= 7.0 fps
	3.3	718	0.2650	3.60		Shallow Concentrated Flow,
						Short Grass Pasture Kv= 7.0 fps
	20.2	1,375	Total			

### **Subcatchment 50S: Drainage Area 50S**



### **Proposed Conditions Hydrology**

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### **Summary for Reach Total: Total**

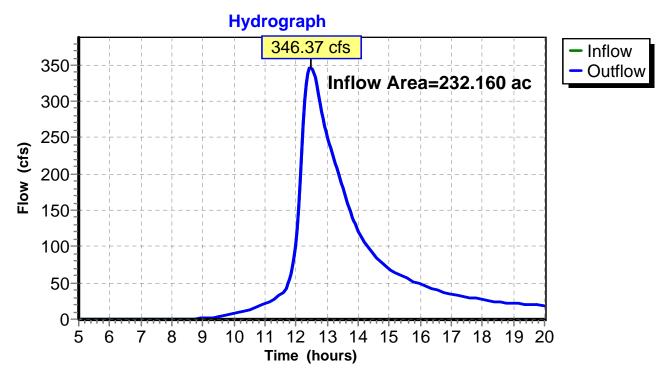
Inflow Area = 232.160 ac, 6.40% Impervious, Inflow Depth > 3.33" for 100-Year event

Inflow = 346.37 cfs @ 12.48 hrs, Volume= 64.361 af

Outflow = 346.37 cfs @ 12.48 hrs, Volume= 64.361 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

### **Reach Total: Total**



### **EXHIBIT O:**

Noise Study







The noise modeling methodology for the infrastructure of the project is based on the ISO 9613 international standard [1] that uses divergent principles attenuation with additional attenuation introduced by obstacles and attenuation air. The acoustic modeling was done using the CADNA/A software program version 4.0.135 from DataKustik GmbH. The input variables of the model are sound power of the noise sources provided for each source of emission (in this case, inverters and transformers). Software modeling was done assuming the for worst case scenario at each point of receptor:

- Every receptor was modeled as being downwind from every source of sound emission. In other words, downwind propagation is modelled in all directions therefore predicted values are over-estimations upwind and crosswind of the proposed noise source.
- Trees and other non-terrain shielding effects have not been considered

[1] International Organization for Standardization. ISO 9613-2: Acoustics – Attenuation of Sound During Propagation Outdoors – Part 2: General Method of Calculation. 15 December 1996.

#### ISO 9613-2

Ambient air temperature: 10°C

• Ambient barometric pressure: 101.32 kPa

• Humidity: 70%

• Overall ground factor: 0.5

Topography included

### Octave band data used:

Name	ID	Octave :	Octave Spectrum (dB)										
		Weight.	31.5	63	125	250	500	1000	2000	4000	8000	Α	lin
SC2200	SC2200	Α	51.1	65.5	74.2	84.2	87.6	86.6	85.2	90.2	77.7	94.4	99.2
Substation	Substation	Α	46.8	66.0	78.1	80.6	86.0	83.2	79.4	74.2	65.1	89.6	98.2

### Conservative assumptions:

Ground numerical coefficient (G) also known as ground absorption factor can range from 0 to 1. A G=0 equates to hard ground (water, ice, concrete and other ground surfaces with a low porosity), while a G=1 equates to porous ground (ground covered by grass, trees, or other vegetation). A site like Woods Hills (very similar to that of Deerfield Wind Energy, Michigan) though the ground use on and around the site is farming, a mixed (semi-reflective) overall ground factor of G=0.7 would typically be used. RES, for a conservative approach used G=0.5.

### Octave band data:

The maximum acoustic emission was assumed for both inverter and substation (as shown in the table above) plus a 2 dBA was added for uncertainty level.

### Substation:

Acoustic emission per substation's manufacturer (Siemens, who also references NEMA TR-1 and the IEEE C57.12.90) is said to be 63dB. However, due to the fact that only the broadband value was deliver and not the octave band spectrum RES



assumed our standard (more conservative) substation for typical solar farm of said size, which has an overall broadband of 89.6dBA plus the 2 dBA added (total of 91.6dBA) as mentioned above.

Receptors:

Assumed all two story tall buildings, 4.5m.

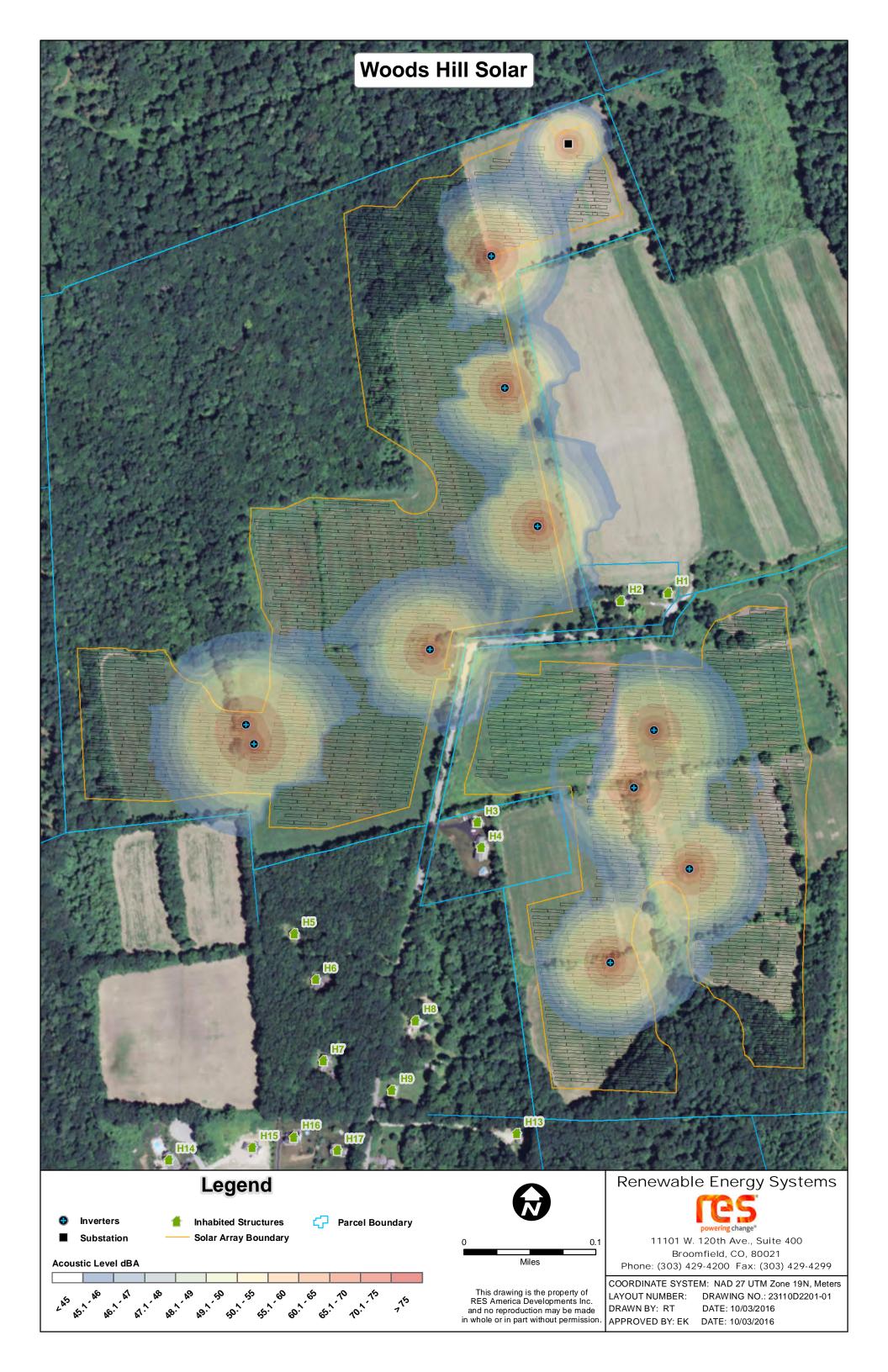
Source:

Substation 3m tall Inverters 2m tall



Project:	Woods Hills Solar	
Projection:	UTM	
Zone:	17 North	
Datum:	NAD27	
Planar Units:	Meters	

ID	Х	Υ	dBA
H1	257657.3	4635078.0	42.6
H2	257600.0	4635068.0	44.0
Н3	257425.0	4634797.0	42.6
H4	257429.4	4634766.0	42.2
H5	257201.6	4634661.0	37.7
Н6	257227.9	4634605.0	36.4
H7	257237.0	4634506.0	35.6
Н8	257349.3	4634555.0	36.0
Н9	257320.6	4634470.0	34.5
H10	257551.9	4634294.0	35.5
H11	257582.0	4634260.0	34.7
H12	257596.5	4634160.0	32.7
H13	257473.1	4634417.0	37.6
H14	257048.1	4634385.0	30.5
H15	257150.0	4634400.0	32.4
H16	257201.1	4634413.0	34.5
H17	257254.3	4634397.0	33.7
H18	257081.8	4634336.0	31.9



### **EXHIBIT P**:

FAA Notice of Proposed Construction





From: noreply@faa.gov
To: Jean E. Christy
Subject: Status of FAA Filing

**Date:** Tuesday, March 22, 2016 12:59:16 PM

Your filing is assigned Aeronautical Study Number(s) (ASN): 2016-ANE-654-OE, 2016-ANE-655-OE, 2016-ANE-656-OE, 2016-ANE-657-OE, 2016-ANE-658-OE, 2016-ANE-659-OE.

To review your electronic record, go to our website <u>oeaaa.faa.gov</u> and select the Search Archives link to locate your case using the assigned Aeronautical Study Number (ASN). Copies of your letter are available on the website for your convenience.

The FAA verified your filing and an aeronautical study has been initiated. Please allow a minimum 45 days for the FAA to complete the study. Please refer to the assigned ASN on all future inquiries regarding this filing.

For Wind Turbine proposals only, please ensure Wind Turbine Data as described on the project summary page in your registered e-filing account has been uploaded to your filing.

To ensure e-mail notifications are delivered to your inbox please add noreply@faa.gov to your address book. Notifications sent from this address are system generated FAA e-mails and replies to this address will NOT be read or forwarded for review. Each system generated e-mail will contain specific FAA contact information in the text of the message.



R-02984-01-05 March 22, 2016

FAA Obstruction Evaluation Group 10101 Hillwood Parkway Fort Worth, TX 76177

Re: Obstruction Evaluation Filing

Woods Hill Solar Project, Pomfret, Connecticut

To Whom It May Concern:

The Woods Hill Road Solar Project is located at 90 and 101 Woods Hill Road in Pomfret, Connecticut. The project includes the construction of a 22 MW<sub>(DC)</sub> / 17.61 MW <sub>(AC)</sub> ground-mounted solar photovoltaic system. The project is proximate to Danielson Airport, located approximately 4,000 feet southeast of the proposed project. As such, the project is required to file a Form 7460-1 Obstruction Evaluation (OE) with the Federal Aviation Administration (FAA).

The proposed boundary corner points are provided on separate documents attached to the filing through the online OE portal and include latitude/longitude data for each submittal point. Site Plans, showing the overall solar project, are also provided herein.

The proposed solar panels are JA Solar, 315W 72-cell modules utilizing 156-millimeter polycrystalline silicon cells. Panel specifications are provided as part of this letter in the System Design Plans. The PV module reflectivity is minimal as the panels are intended to absorb as much light as possible. The attached panel specifications indicate that the modules have anti-reflective coating. Panels will be mounted on a fixed-tile system and will not rotate. Details on the racking system are provided herein. The tilt angle is 25° from horizontal. The horizontal azimuth/bearing that the panels are facing is 180° (due south).

We anticipate this information is adequate for your review of the project. Please do not hesitate to contact us should you need any additional information.

Very truly yours,

TIGHE & BOND, INC.

Jean E. Christy, P.E.

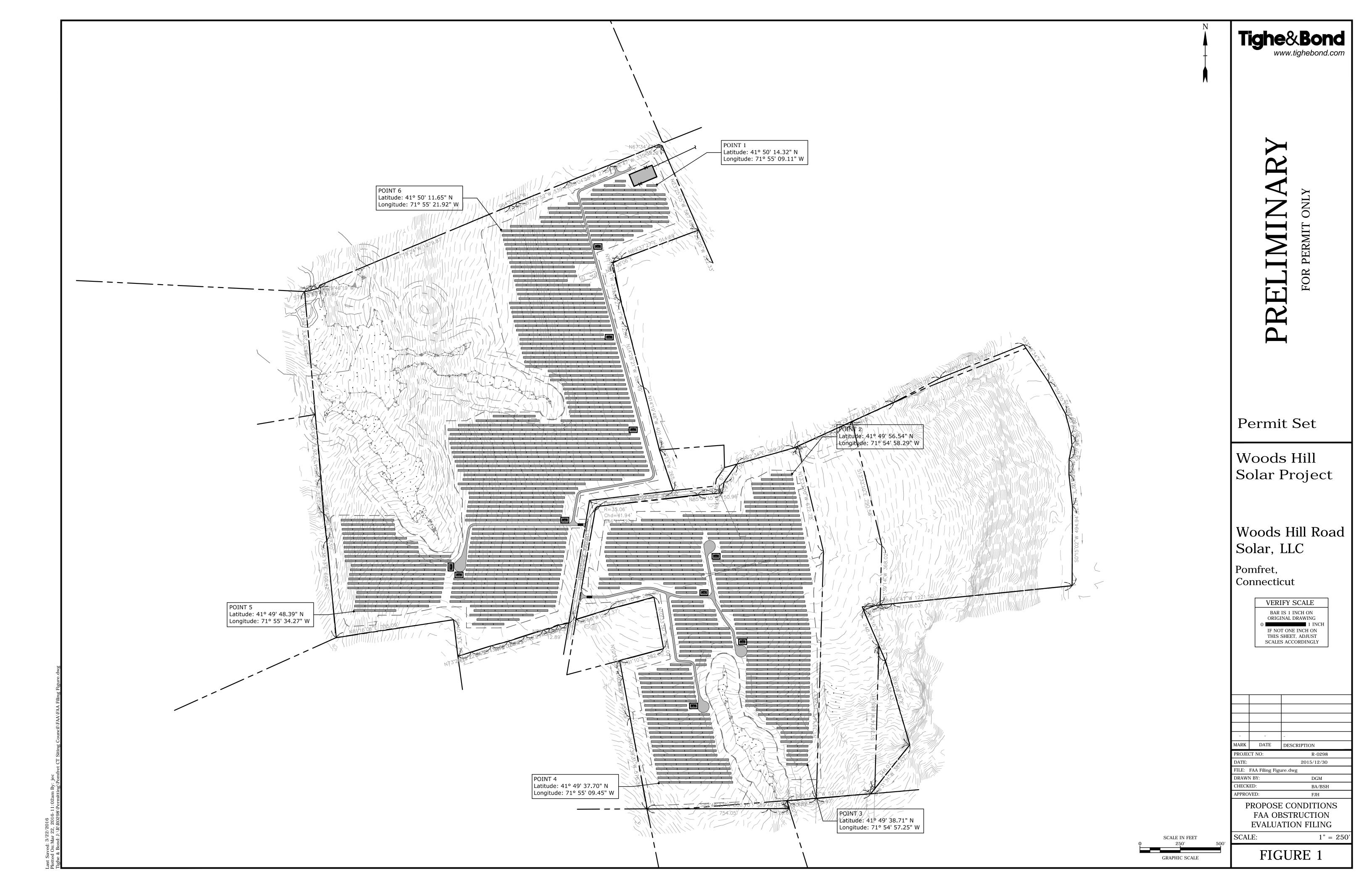
Project Engineer

Enclosures: Proposed Boundary Corner Point Plan

Site Plans

Panel Specification Sheet

J:\R\R0298\Permitting\Pomfret CT Siting Council\FAA\Woods Hill Solar FAA Filing.doc







### JA Solar Holdings Co., Ltd.

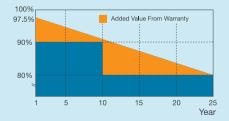
JA Solar Holdings Co., Ltd. is a world-leading manufacturer of high-performance photovoltaic products that convert sunlight into electricity for residential, commercial, and utility-scale power generation. The company was founded on May 18, 2005, and was publicly listed on NASDAQ on February 7, 2007. JA Solar is one of the world's largest producers of solar cells and modules. Its standard and high-efficiency product offerings are among the most powerful and cost-effective in the industry.

Add: NO.36, Jiang Chang San Road, Zhabei, Shanghai 200436, China

Tel: +86 21 6095 5888 / +86 21 6095 5999 Fax: +86 21 6095 5858 / +86 21 6095 5959 Email: sales@jasolar.com market@jasolar.com

### **Superior Warranty**

- 10-year product warranty
- 25-year linear power output warranty





### **Key Features**



Multicrystalline modules designed for commercial and solar farm grid-tied applications



High output, 16.51% highest conversion efficiency



Designed for IEC DC 1000V applications



Anti-reflective and anti-soiling surface reduces power loss from dirt and dust



Outstanding performance in low-light irradiance environments



Excellent mechanical load resistance: Certified to withstand high wind loads (2400Pa) and snow loads (5400Pa)



High salt and ammonia resistance certified by TÜV NORD

### **Reliable Quality**

- Positive power tolerance: 0~+5W
- 100% EL double-inspection ensures modules are defects free
- Modules binned by current to improve system performance
- Potential Induced Degradation (PID) Resistant

### **Comprehensive Certificates**

- IEC 61215, IEC 61730, UL1703, CEC Listed, MCS and CE
- ISO 9001: 2008: Quality management systems
- ISO 14001: 2004: Environmental management systems
- BS OHSAS 18001: 2007: Occupational health and safety management systems
- Environmental policy: The first solar company in China to complete Intertek's carbon footprint evaluation program and receive green leaf mark verification for our products

















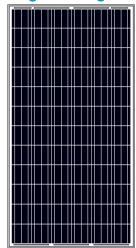


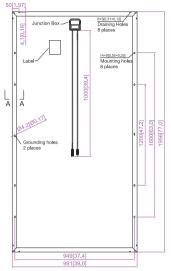


# JAP6 72/300-320/3BB



### **Engineering Drawings**







■ customized cable length available upon request

### **MECHANICAL PARAMETERS**

Cell (mm)	Poly 156x156
Weight (kg)	26 (approx)
Glass Thickness	4 mm
Dimensions (L×W×H) (mm)	1956×991×45
Cable Cross Section Size (mm²)	4
No. of Cells and Connections	72 (6×12)
Junction Box	IP67, 3 diodes
Connector	MC4 Compatible
Packaging Configuration	23 Per Pallet

### **WORKING CONDITIONS**

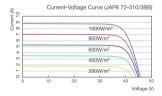
Maximum System Voltage	DC 1000V (IEC)
Operating Temperature	-40°C∼+85°C
Maximum Series Fuse	15A
Maximum Static Load, Front (e.g., snow and wind) Maximum Static Load, Back (e.g., wind)	5400Pa (112 lb/ft²) 2400Pa (50 lb/ft²)
NOCT	45±2°C
Application Class	Class A

### **ELECTRICAL PARAMETERS**

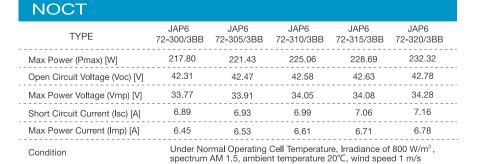
Condition

TYPE	JAP6 72-300/3BB	JAP6 72 <b>-</b> 305/3BB	JAP6 72-310/3BB	JAP6 72-315/3BB	JAP6 72-320/3BB	
Rated Maximum Power at STC (W)	300	305	310	315	320	
Open Circuit Voltage (Voc/V)	45.20	45.35	45.45	45.60	45.82	
Maximum Power Voltage (Vmp/V)	36.41	36.71	37.00	37.28	37.56	
Short Circuit Current (Isc/A)	8.73	8.79	8.85	8.91	9.03	
Maximum Power Current (Imp/A)	8.24	8.31	8.38	8.45	8.52	
Module Efficiency [%]	15.48	15.73	15.99	16.25	16.51	
Power Tolerance (W)			<b>-</b> 0∼+5W			
Temperature Coefficient of Isc (alsc)		+0.058%/°C				
Temperature Coefficient of Voc (βVoc)		-0.330%/°C				
Temperature Coefficient of Pmax (	Pmp)		-0.410%/°C			
STC Irradiance 1000W/m², Cell Temperature 25°C, Air Mass 1.5				s 1.5		

		_		_
 - / -	$\sim$ 1	JR	<b>N</b> /	
1		115	<b>N/</b>	_







Current-Voltage Curve (JAP6 72-310/3BB)

### **EXHIBIT Q:**

Carbon Debt Analysis









### **EXHIBIT R:**

Phase 1 Environmental Site Assessment Reports







R-02184-04 January 26, 2016

Daniel Boyd Sr. Director, Development RES America Developments, Inc. 11101 W. 120<sup>th</sup> Avenue, Suite 400 Broomfield, CO 80021

Tom Swank, Chairman SunEast Power, LLC 142 Ferry Road, Suite 12 Old Saybrook, CT 06475

Re: Phase I Environmental Site Assessment Woods Hill Road Solar Project 90 Woods Hill Road Pomfret, Connecticut

Dear Mr. Boyd and Mr. Swank:

Please find enclosed the Phase I Environmental Site Assessment (ESA) report for the property located at 90 Woods Hill Road in Pomfret, Connecticut.

We appreciate the opportunity to provide our services. If you have any questions or comments, please call Jim Olsen at (860) 704-4761.

Very truly yours,

TIGHE & BOND, INC.

Nicholas A. Granata, LEP Senior Environmental Scientist

James T. Olsen, LEP Vice President



**Tighe**&Bond

90 Woods Hill Road Pomfret, Connecticut

## Phase I Environmental Site Assessment

Prepared For:

RES America Developments, Inc. SunEast Power, LLC

January 2016

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Appendix B Property Cards, Survey, and User Questionnaire

Appendix C Site Photographs

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Appendix E Historic Topographic Maps and Historic Aerial Photographs

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### List of Acronyms and Definitions

AAI All Appropriate Inquiries

AOC Area of Concern MSL Mean Sea Level

APA Aguifer Protection Area

AST Aboveground Storage Tank

ASTM American Society for Testing and Materials

**Below Ground Surface** Bgs

**CERCLIS** Comprehensive Environmental Response, Compensation

and Liability Information System

CERC-NFRAP Comprehensive Environmental Response Compensation and

Liability Information System Archived sites

**CFR** Code of Federal Regulations CGS Connecticut General Statute COC Contaminant of Concern Corrective Action sites COR

**CPCS** Contaminated or Potentially Contaminated sites

**CTDEEP** CT Department of Energy and Environmental Protection DECD CT Department of Economic and Community Development

DOT Department of Transportation

Federal EC/IC Federal Engineering and Institutional Controls State EC/IC State Engineering and Institutional Controls

**EDR** Environmental Data Resources Inc.

**ERNS Emergency Response Notification System** 

**ESA Environmental site Assessment** 

**ETPH** Extractable Total Petroleum Hydrocarbons **FEMA** Federal Emergency Management Agency

**GA PMC** Groundwater Area Pollutant Mobility Criteria

**HBMA** Hazardous Building Martials Assessment Licensed Environmental Professional **LEP LUST** 

Leaking Underground Storage Tank

**LWDS** CT Leachate and Waste Water Discharge Inventory Data

Layer

**NDDH** Northeast District Department of Health

**NPL National Priorities List**  Table of Contents Tighe&Bond

NRCS Natural Resource Conservation Survey

Pci/L Picocuries per liter

RCRA Resource Conservation and Recovery Act

RCRA COR ACT Recovery Act Corrective Actions

RCRA GEN RECRIS Generator sites

RCRA TSD RECRIS Treatment, Storage, and Disposal Facilities

REC Recognized Environmental Condition

RECRIS Resource Conservation and Recovery Information System

SDADB Site Discovery and Assessment Database
SPLP Synthetic Precipitation Leaching Procedure

SVOCs Semi-Volatile Organic Compounds

SWL Solid Waste Landfill

USEPA United States Environmental Protection Agency

USGS United States Geological Survey

UST Underground Storage Tank

VCP Voluntary Remediation Program sites

VOCs Volatile Organic Compounds

WQS Water Quality Standards

WSS Web Soil Survey

# Section 1 Introduction

### 1.1 Purpose

Tighe & Bond, Inc. (Tighe & Bond) has completed a Phase I Environmental Site Assessment (ESA) on behalf of RES America Developments, Inc. (RES, Client) for the property located at 90 Woods Hill Road, in Pomfret, Connecticut. The site includes an approximately 114-acre parcel of land located to the west of Woods Hill Road.

The purpose of the Phase I ESA was to assess the site for evidence of recent or historical Recognized Environmental Conditions (RECs) / Areas of Concern (AOCs) in general accordance with guidelines described in ASTM E1527-13 and CTDEEP Site Characterization Guidance Document. It is our understanding that this Phase I ESA was conducted in order to facilitate the possible development of the site as a commercial scale solar PV project.

The site location is shown on Figure 1 (Appendix A).

### 1.2 Scope of Work

The Phase I ESA was conducted in accordance with our proposal dated May 20, 2015. This Phase I ESA was conducted to identify Recognized Environmental Conditions (RECs), also identified as Areas of Concern (AOCs), as applicable resulting from past or present activities on the site and to determine if any of the surrounding properties have the potential to impact the environmental integrity of the site. The assessment consisted of a reconnaissance of accessible areas at the site, a review of State and Federal environmental databases as they pertain to the site and surrounding properties, a review of historical aerial photographs, topographic maps, Sanborn maps, and city directories for the site and surrounding properties, a review of available state and local records, and interviews with individuals knowledgeable about the site.

This Phase I ESA was conducted in a manner consistent with industry standard and practice and in general accordance with the Standards of the American Society for Testing and Materials (ASTM) E1527-13 Standard Practice for Environmental site Assessments, EPA's All Appropriate Inquiry, and the Connecticut Department of Energy and Environmental Protection (CTDEEP) site Characterization Guidance Document, dated September 2007 (revised December 2010).

# Section 2 Site Description

### 2.1 Location and Legal Description

The site consists of a parcel designated with Property Identification Number CT-112-43-A-004.00 by the Town of Pomfret's Tax Assessor's office. According to the Town of Pomfret's Tax Assessor's Parcel Maps, the site is comprised of approximately 114 acres of land and is currently owned by Charles H Tyler & William F III.

Refer to Figure 1 and Figure 2 for a Site Location Map and an Aerial Photograph, respectively. A copy of the Property Card and a legal description of the site is included in Appendix B.

### 2.2 Site and Vicinity Characteristics

The site is located to the west of Woods Hill Road. The site is bounded to the west and north by undeveloped land; to the east by agricultural land and a residential property; and to the south by agricultural land and residential properties.

The site and the areas north and east of the site are zoned by the Town of Pomfret Zoning Map as Commercial Business. The areas west and south of the site are zoned as rural residential.

### 2.3 Current Use

The site is currently unoccupied and has is used as an agricultural farm for harvesting hay.

### 2.4 Site Improvements

The majority of the site is cleared agricultural land, with the exception of wooded area in the northwest portion. Access to the site is provided by Woods Hill Road.

A site aerial is provided as Figure 2 (Appendix A). Photographs taken at the time of the site visit are provided in Appendix C.

### 2.5 Surrounding Area Uses

The following uses were noted for properties abutting the site:

- North: Undeveloped forested land.
- South: Residential properties along Woods Hill Road and agricultural land.
- East: Agricultural land, a residential property, and the Quinebaug River.
- West: Undeveloped forested land and White Brook.

# Section 3 User Provided Information

### 3.1 Land Records

Tighe & Bond did review deeds for the site as part of this Phase I ESA for the purpose of identifying general ownership history. A legal title and lien search was not part of this scope of work.

Any environmental liens or activity and use limitations information in the possession of the User is required to be reported to the Environmental Professional conducting the Phase I ESA per ASTM E1527-13. According to the RES, no environmental liens or activity and use limitations exist for the site.

### 3.2 Specialized Knowledge

Specialized knowledge is defined by ASTM E1527-13 as "any specialized knowledge or experience that is material to RECs or AOCs in connection with the property."

No information related to "specialized knowledge" for environmental issues was provided by the User as part of this Phase I ESA. The User was not aware of other former activities at the site except agricultural use.

### 3.3 Common Information

If the User is aware of any commonly known or reasonably ascertainable information within the local community about the property that is material to RECs or AOCs in connection with the property, it is the User's responsibility to communicate such information. This information may include past uses of the property, specific chemicals that were used on a site, spills or releases, or environmental cleanups that have taken place.

No information related to "common information" for environmental issues was provided by the User as part of this Phase I ESA. The User was unaware of spills, releases, or environmental cleanups having taken place at the site.

### 3.4 Value Reduction of Environmental Issues

In a transaction involving the purchase of a parcel of commercial real estate, the User shall consider the relationship of the purchase price of the property to the fair market value of the property if the property was not affected by hazardous substances or petroleum products. The User should try to identify an explanation for a lower price which does not reasonably reflect fair market value if the property were not contaminated. The User is not aware of any value reduction for environmental issues.

### 3.5 Owner and Occupant Information

The site is currently owned by Charles H Tyler & William F III. Refer to Section 7 for a more detailed discussion.

### Section 4 Previous Environmental Reports

Previous environmental assessments for the site were not identified or provided during this ESA.

# Section 5 Records Review

# 5.1 Standard Environmental Records Search

A database search report that identifies sites listed on state and federal databases within the ASTM-required radii was obtained for the site from Environmental Data Resources Inc. (EDR) on October 19, 2015. A copy of the complete EDR report is provided as Appendix D.

The report includes the following databases specified by the ASTM Phase I protocol:

<u>Database</u>	Search Radius	Total sites Identified
National Priority List (NPL)	1 mile	0
NPL Delisted	0.5 mile	0
Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS)	0.5 mile	1
No Further Remedial Action Planned (CERC-NFRAP) Comprehensive Environmental Response Compensation and Liability Information System Archived sites	0.5 mile	1
Resource Conservation and Recovery Information System (RECRIS), Resource Conservation and Recovery Act Corrective Actions (RCRA CORRACT)	1 mile	1
RECRIS Treatment, Storage, and Disposal Facilities (RCRA TSD)	0.5 mile	1
RECRIS Generator sites (RCRA GEN)	0.25 mile	0
Federal Engineering and Institutional Controls (Federal IC/EC)	0.50 mile	0
Emergency Response Notification System (ERNS)	0.12 mile	0
State- and tribal-equivalent CERCLIS	1 mile	2
CT Leachate and Waste Water Discharge Inventory Data Layer (LWDS)	0.25 mile	0
State/Tribal Leaking Underground Storage Tank (LUST)	0.5 mile	1
Regulated State Underground Storage Tank (UST) and Aboveground Storage Tank database (AST)	0.25 mile	0
State Engineering or Institutional Controls (State IC/EC)	0.25 mile	0
Voluntary Remediation Program sites (VCP)	0.5 mile	0
US Brownfields sites	0.5 mile	0
CTDEEP Contaminated and Potentially Contaminated sites (State sites)	0.5 mile	0
CT Significant Environmental Hazard	0.25 mile	0

A description of the databases, additional sources searched, and a complete listing of sites identified on the databases is provided in the EDR report.

Tighe & Bond evaluated the following to determine whether additional environmental records with respect to these facilities, including the orphan (non-geocoded) sites, should be reviewed.

- Case status (i.e., whether a No Further Action letter has been issued or a case has been closed)
- Type of database and whether the presence of soil or groundwater contamination is known
- Distance of the property from the site
- Whether the property is hydrogeologically up gradient or down gradient of the site based on local topography and an inferred northwestern groundwater flow direction

Tighe & Bond reviewed the information provided using the above criteria and the findings are discussed in the following sections.

# 5.1.1 Subject Site

The site was not identified in any of the environmental databases queried in the EDR report.

# **5.1.2 Surrounding Properties**

Three properties were identified in the EDR, there information is summarized below. The three properties are located hydrogeologically down-gradient to the site; as such, it is unlikely that releases at these properties would impact the site.

### 5.1.2.1 Maiorino Residence, 426 Church Street - 0.2 Miles South

This property was listed in the Leaking UST (LUST), and CPCS databases. On March 17, 1997 a LUST was reported noting that 500 gallons of #2 Fuel Oil leaked out of fuel lines into a tank grave. A former UST was previously removed from the ground; however, the lines were left in place and the contents leaked into the soil. The soil and septic system were removed from the ground. The LUST status is listed as "Pending". The property was cross listed in the CPCS database with the same description, with the status listed as "Investigation".

# 5.1.2.2 Rogers Corporation, 1 Technology Drive - 0.4 Miles Northeast

This property was listed in several databases including the Manifest, RCRA-LQG, ENF, CERC-NFRAP, RCRA-TSDF, CORRACTS, Financial Assurance, 2020 Corrective Action, and US AIRS databases. The Manifest database listing indicates that the Rogers Corporation generates several different hazardous wastes including Petroleum Oil, Mercury, non-listed corrosive wastes, and non-listed ignitable wastes. The CERC-NFRAP database indicates that the property has been archived and a preliminary assessment and site inspection have been conducted. The property is listed as low priority for further assessment. The listing on the RCRA-TSDF database indicates that Rogers Corporation is a Large Quantity Generator and engaged in the treatment, storage, or disposal of hazardous waste. The database lists details about each type of hazardous waste generated by the facility. The listing on the CORRACTS database indicates that the facility was assigned a high corrective action priority for unlaminated plastics film and

sheet manufacturing. Actions indicate that the current human exposures are under control and the migration of contaminated groundwater is under control.

The RCRA-LQG, ENR, Financial Assurance, 2020 Cor Action, and US AIRS databases have no additional details for the property.

# 5.1.2.3 CT DOT Searles Rd Disposal Facility, Pomfret Rd - 0.5 Miles Southwest

This property was listed on the SDADB, CPCS, SHWS, and CERCLIS databases. The SDADB database listing indicates that the property disposed of Chlorinated Volatile Organic Compound Solvent wastes into a landfill. The property is listed under the Superfund remediation program. The CPCS database listing indicates that the property is under study by the DOT and the site type definition is listed as "Inventory of Hazardous Waste Disposal Sites". No additional information was provided on the SHWS database. The CERCLIS database indicates that the property cleanup is State-Lead and EPA Fund-Financed. The property is also listed as a low priority for further assessment.

# 5.1.3 Orphan Site Summary

Due to poor or inadequate address information, six orphan properties were not mapped as part of the EDR report. As such, distance, topographical, and presumed hydrogeological measurements relative to the site are unknown. Based on our review of information provided for these properties, three of the properties are already mapped and include Rogers Corporation (which was listed two times) and the CT DOT Searles Rd Disposal Facility. Three additional properties do not appear to be within the one mile search radius of the site.

# 5.2 Additional Environmental Records Sources

Tighe & Bond visited the CTDEEP Public File Room on October 20, 2015 and conducted a municipal file review on November 4, 2015 to request available files for the site. Environmentally pertinent information was not identified on file for the site.

# 5.3 Physical Setting

# 5.3.1 Soil Information

According to the Natural Resources Conservation Service (NRCS) Web Soil Survey (WSS) for the State of Connecticut (NRCS Webpage, 2009), the soils at the site are identified within the table below.

Soil Type	Approx. Area	Description
Woodbridge fine sandy loam	31%	Moderately well drained fine sandy loam found on drumlins, ground moraines, and hills
Woodbridge fine sandy loam, extremely stony	27%	Moderately well drained fine sandy loam found on drumlins, ground moraines, and hills
Canton and Charlton soils, extremely stony	9%	Well drained gravelly loam found on hills
Ridgebury, Leicester, and Whitman soils, extremely stony	8%	Poorly drained, sandy loam, found in depressions, drainage ways, ground moraines, and hills
Paxton and Montauk fine sandy loams	7%	Well drained fine sandy loam found on drumlins, ground moraines, and hills

Woodbridge fine sandy loam	6%	Moderately well drained fine sandy loam found on drumlins, ground moraines, and hills
Canton and Charlton soils	<5%	Well drained gravelly loam found on hills
Ridgebury fine sandy loam	<5%	Poorly drained fine sandy loam found in depressions and drainage ways
Woodbridge fine sandy loam, very stony	<5%	Moderately well drained fine sandy loam found on drumlins, ground moraines, and hills
Paxton and Montauk fine sandy loams, very stony	<2%	Well drained fine sandy loam found on drumlins, ground moraines, and hills
Rippowam fine sandy loam	<2%	Poorly drained fine sandy loam found in flood plains

Surficial materials underlying the site consist of thick till, sand and gravel, and sand and gravel overlying sand. A description of these surficial materials is as follows:

**Thick Till:** Areas where till is greater than 10 to 15 feet thick and includes drumlins. Predominately lower till; moderately to very compact, fine grained, less stony than upper till.

**Sand and Gravel:** Composed of mixtures of gravel and sand within individual layers and as alternating layers. Sand and gravel layers generally range from 25 to 50 percent gravel particles and from 50 to 75 percent sand particles. Layers are well to poorly sorted.

**Sand and Gravel overlying Sand:** Sand and gravel is generally less than 20 feet thick, horizontally bedded, and overlies thicker, inclined layers of sand (deltaic deposits).

A soils map of the site is provided as Figure 3. A surficial materials map of the site is provided as Figure 4.

# 5.3.2 Geology

According to the *Bedrock Geologic Map of Connecticut* (U.S. Geological Survey, 1985), approximately 90% of the site is located within the Quinebaug Formation. The USGS Mineral resources spatial data for Connecticut on-line describes this unit as gray to darkgray, medium-grained, well-layered gneiss.

Approximately 10% of the eastern part of the site is located within the Felsic gneiss member of the Quinebaug Formation. The USGS Mineral resources spatial data for Connecticut on-line describes this unit as light to medium-gray, fine to medium-grained gneiss.

A bedrock geology map of the site is provided as Figure 5.

## 5.3.3 Flood Plain, Wetlands, and Aguifer Protection Area Information

A review of the Federal Emergency Management Agency (FEMA) Flood Insurance Maps indicates that the site is not located within a flood zone for the Quinebaug River and White Brook. According to the National Wetlands Inventory and CTDEEP Wetlands GIS databases, wetlands are present on the site. Several wetland areas are present across the site.

According to information provided by the Town of Pomfret's Inland Wetlands & Watercourse Department there are three main areas of wetlands. The town of Pomfret, CT is not included in the current CTDEEP GIS data for Aquifer Protection Areas (APAs).

Flood Plains, Wetlands, Aquifer Protection areas are provided as Figure 6 (Environmental Resources Map).

## 5.3.4 Groundwater Classification and Flow

According to the CTDEEP Bureau of Water Protection & Land Reuse, groundwater at the site is classified as GA. CTDEEP Water Quality Standards (WQS; effective April 12, 1996) indicate that GA groundwater is designated for use with existing private and potential public or private supplies of water suitable for drinking without treatment. Discharge in GA groundwater areas is restricted to treated domestic sewage, certain agricultural wastes, certain water treatment wastewaters and discharge from septage treatment facilities subject to stringent treatment and discharge requirements, and other wastes of natural origin that easily biodegrade and present no threat to groundwater.

Based on topography of the site, shallow overburden groundwater on the site is inferred to flow generally northwest towards White Brook.

The White Brook and other unnamed wetland areas on the site are classified as Class A. CTDEEP indicates that Class A surface water is designated for use as potential drinking water supply; fish and wildlife habitat; recreational use; agricultural and industrial supply and other legitimate uses including navigation. Discharges are restricted to discharges from public or private drinking water treatment systems, dredging and dewatering, emergency and clean water discharges.

According to CTDEEP, the Quinebaug River is classified as B. CTDEEP indicates that Class B surface water is designated uses are habitat for fish and aquatic life and wildlife; recreation; navigation; and industrial and agricultural waters supply. Discharges are restricted to discharges from public or private drinking water systems, dredging and dewatering, emergency and clean water discharges, cooling waters, and discharges from industrial and municipal wastewater treatment facilities.

Figure 7 shows the water classification areas and surface water bodies for the site.

# 5.4 Historic Use Information

Historical street directories, aerial photographs, topographic maps, and Sanborn fire insurance maps were reviewed for the site and surrounding areas.

### 5.4.1 Directories

Historical street directories from 1936 to 2015 were researched at the Connecticut State Library in Hartford, Connecticut on October 27, 2015. Woods Hill road was not listed until the 1997 directory. From 1997 through 2012, Nabozny is listed as the occupant of 13 Woods Hill Road. From 1999 through 2002, Tyler W. F. Jr. is listed as the occupant for 90 Woods Hill Road. Woods Hill Road is not listed in the 2014/2015 directory.

Additionally, street directories from 1993 to 2013 were requested as part of the EDR report. The site was not listed in any of the directories researched. Copies of these documents are provided with the EDR report in Appendix D.

# 5.4.2 Aerial Photographs

Historical aerial photographs of the site and surrounding area dated 1941, 1951, 1963, 1969, 1980, 1986, 1990, 1991, 1996, 2005, 2006, 2008, 2010, and 2012 were reviewed through the EDR report. Below is a summary of the site and surrounding properties. Aerial photographs are included in Appendix E.

	Aerial Photograpl	hs
Year	The Site	Surrounding Properties
1941	The majority of the site is cleared agricultural land. Quinebaug River is also depicted in this aerial.	The site is surrounded by undeveloped wooded land. Several buildings appear across Quinebaug River to the northeast of the site. A structure is depicted at the terminus of Woods Hill Road.
1951	The site appears similar to the 1941 aerial. The northwestern area of the site is starting to become forested.	The surrounding area appears similar to the 1941 aerial. A portion of the forested land south of the site is now cleared agricultural land. Four structures are depicted at the terminus of Woods Hill Road.
1963	The site appears similar to the 1951 aerial photograph.	The surrounding area appears similar to the 1951 aerial.
1969	The site appears similar to the 1963 aerial.	The surrounding area appears similar to the 1963 aerial. A few structures are depicted on the east side of Woods Hill Road.
1980	No changes are apparent; however, the photograph is of poor quality. The northwestern area of the site appears forested in this aerial.	The surrounding area appears similar to the 1969 aerial.
1986	The site appears similar to 1980 photograph.	The surrounding area appears similar to the 1980 aerial. Only one structure is depicted at the terminus of Woods Hill Road.
1990 to 1996	The site appears similar to the 1986 photograph.	The surrounding area appears similar to the 1986 aerial. The area south of the site is cleared and several residences are depicted in this aerial.
2005 to 2012	The site appears similar to the 1996 photograph.	Surrounding properties appear similar to the 1996 photograph.

# 5.4.3 Topographic Maps

Tighe & Bond reviewed available online historic USGS topographic maps for the years: 1893, 1915, 1943, 1947, 1955, and 1970. A summary of the site and surrounding properties is listed below.

	Topographic Maps	
Year	The Site	Surrounding Properties
1893	The site elevation varies from approximately 240 to 390 feet above mean sea level (MSL). The site slopes to the northwest towards White Brook. The Quinebaug River and White Brook are depicted on the map. Woods Hill Road is also depicted on the map. In the northwestern extent of the site wetlands are depicted along White Brook.	Topography slopes away from the site towards Quinebaug River to the east, White Brook to the west, and Long Brook to the south. Surrounding properties have sparse buildings. One building is depicted at the terminus of Woods Hill Road to the east of the site.
1915	The site appears similar to the 1893 topographic map.	The surrounding area appears similar to the 1893 map.

	Topographic Maps	
Year	The Site	Surrounding Properties
1943	Woods Hill Road and the aforementioned building are not depicted on the map.	The surrounding area appears similar to the 1915 topographic map. No buildings are depicted on surrounding properties.
1947	The site elevation varies from approximately 200 to 390 feet above mean seal level (MSL). There is one location marked 391 feet above MSL on the eastern boundary of the site. The site slopes to the northwest towards White Brook. The Quinebaug River and White Brook are depicted on the map. The electrical line easement that runs through eastern adjacent parcel is also depicted on the map. One building is depicted to the east of the site.	The surrounding area appears similar to the 1943 topographic map. Topography slopes away from the site towards wetland areas to the west, south, and east of the site. The building is located at the terminus of Woods Hill Road.
1955	The site appears similar to the 1947 topographic map.	The surrounding area appears similar to the 1947 topographic map. Three buildings are depicted east of the site.
1970	The site appears similar to the 1955 topographic map. One of the buildings depicted in the 1955 map is no longer present. Only two buildings are depicted east of the site.	The surrounding area appears similar to the 1955 topographic map.

# 5.4.4 Sanborn Fire Insurance Maps

Sanborn fire insurance maps of the site were requested through the EDR report. No Sanborn maps were available for the site.

# 5.5 Historic Adjoining Property Use

Historically, properties surrounding the site have consisted of residential land, agricultural land, undeveloped/forested land, and a large Connecticut Light & Power transmission line and right of way to the east.

# Section 6 Site Reconnaissance

# 6.1 Methodology

Tighe & Bond conducted a Phase I ESA site reconnaissance on November 4, 2015. Reconnaissance at the site included a walk-through for the purpose of identifying RECs and AOCs. Photographs taken during the reconnaissance are included in Appendix C.

A visual assessment of adjoining properties from the subject property line, public rights-of-way or other vantage points (e.g. aerial photography) including a visual assessment where hazardous substances may be or may have been stored, treated, handled or disposed was also conducted.

# 6.2 Site Setting

The site was comprised of undeveloped agricultural land and forested areas on the northwest side. The site topography sloped gradually west. Several stone walls were observed throughout the site. A vehicle access road was observed along the perimeter of the agricultural land. An existing footpath was used to walk through the forested areas. Several wetland areas were observed in the forested area.

# 6.3 Observations

Tighe & Bond personnel viewed visible and accessible parts of the site and made the following observations:

- Several stone walls were observed throughout the site along property boundaries and within the forested area.
- Organic soil piles were observed in the northeast area of the site along the wooded tree line. One plastic container and a plastic trash can were observed in the area around the soil piles.
- A camper trailer was located on the agricultural land on the southeast side of the site adjacent to Wood Hill Road.
- An existing footpath used to walk through the forested areas. Several hunting platforms were observed in trees. Forested areas were observed from the footpath, which was surrounded by trees and brier. The ground was covered in leaves at the time of the site walk.
- Several survey flags and wetland marking flags were observed throughout the forested area. Areas with perennial streams were observed and were dry at the time of the site walk.
- Two piles of rocks and wooden boards were observed it the forested area on the western side of the site. A piece of scrap metal was observed in the forested area on the northern side of the site.

Photographs taken during the site reconnaissance are included in Appendix C.

# 6.4 PCB and Petroleum Containing Equipment

PCB containing equipment was not observed during the site reconnaissance.

# 6.5 Hazardous Substances and Waste

Hazardous substances or waste were not observe at the site.

# 6.6 Adjoining Property Observations

The purpose of the reconnaissance was to observe general land use in the area of the site and confirm the location of the facilities identified on the environmental database search. In general, the surrounding property uses consist of undeveloped forested land, agricultural land, and residential properties. The following information pertaining to the adjacent properties was compiled from the site reconnaissance and the Town of Pomfret's Tax Assessor GIS database.

- North: Undeveloped forested land.
- South: Agricultural land, Woods Hill Road, and residential property.
- East: Undeveloped forested land, agricultural land, a large Connecticut Light & Power transmission line, a residential property, and Woods Hill Road.
- West: Undeveloped forested land.

# Section 7 Interviews

# 7.1 Owner

The site is currently owned by the Charles H Tyler & William F III. Employees of the Town of Pomfret and Charles Tyler were interviewed as part of this Phase I ESA. Charles Tyler completed the User Questionnaire.

Based on responses included in the User Questionnaire the above individuals are not aware of any existing or former USTs or ASTs, current buildings, or spills and/or releases at the site. Additionally, they have no documentation of on-site environmental violations at a local, state, or federal level. The site is currently used as an agricultural farm to harvest hay.

According to the Charles Tyler and the Town of Pomfret there has been no generation or disposal of hazardous materials on or after November 19, 1980. Additionally, no dry cleaning, vehicular body repair, or furniture stripping was conducted on or after May 1, 1967 at the site.

A copy of the user questionnaire is included in Appendix B.

# 7.2 Occupants

There are no occupants for the site.

# 7.3 Local Government

Federal, state, and local agencies were contacted or visited by Tighe & Bond on November 4, 2015 regarding records of environmental concerns, violations, and/or permits.

### 7.3.1 Tax Assessor

Tighe & Bond reviewed the tax assessor database for the Town of Pomfret, CT. The property field card and parcel map are included in Appendix B.

# 7.3.2 Building/Planning/Zoning, and Health Departments

Tighe & Bond met with personnel from the Building and Planning & Zoning Departments to review available files pertaining to the site. Available files pertaining to the site were reviewed; environmentally pertinent information was not identified. Tighe & Bond met with personnel from the Northeast District Department of Health (NDDH) in Brooklyn, Connecticut. Environmental issues were not identified for the site in the files reviewed.

# 7.3.3 Fire Department

Tighe & Bond spoke to the Fire Marshal via telephone on November 5, 2015. The Fire Marshall did not have files or information for the site.

# Section 8 Additional Services

# 8.1 Hazardous Building Materials

A Hazardous Building Materials Assessment (HBMA) was not included as part of this Phase I ESA.

# 8.2 Radon

The Connecticut Department of Public Health *Indoor Radon Potential Map of Connecticut* dated 1997 was reviewed to determine radon propensity at the site. The radon potential rating indicates the percentage of tested homes in these areas with basement air radon levels greater than 4.0 picocuries per liter (pCi/L, the USEPA action level). Based on this map, the area in which the site is identified as low-moderate to moderate (16% to 22%).

As per USEPA guidelines, the only way to assess potential radon gas exposure risks is to conduct a radon assessment. In addition, the USEPA recommends that follow-up tests on buildings should be conducted when major modifications are made either to the building structure or HVAC system or the HVAC system's operation settings.

Radon testing was not conducted as part of this Phase I ESA.

# 8.3 Regulatory Compliance

An assessment of regulatory compliance was not completed as part of this Phase I ESA.

# 8.4 Cultural and Historic Resources

An assessment of historic and archaeological resources on the site was not completed as part of this Phase I ESA.

# 8.5 Industrial Hygiene, Indoor Air, and Mold

An assessment of industrial hygiene, indoor air and mold was not completed as part of this Phase I ESA.

# 8.6 Health and Safety

An assessment of Occupational Safety and Health Administration compliance was not completed as part of this Phase I ESA.

# 8.7 Ecological Resources and Endangered Species

An assessment of potential ecological resources was completed as part of this Phase I ESA. According to CTDEEP mapping for State and Federal Listed Species and Significant Natural Communities for the Town of Pomfret, the site is located within a listed species natural community. Portions of the site to the north of Woods Hill Road includes rare species habitat mapped pursuant to the Natural Diversity Database Program. Figure 6 (Environmental Resources Map) depicts the site relative to this area.

# Section 9 Summary and Recommendations

# 9.1 Summary

Tighe & Bond, Inc. (Tighe & Bond) has completed a Phase I Environmental site Assessment (ESA) on behalf of RES America Developments, Inc. for the site located at 90 Woods Hill Road, in Pomfret, Connecticut. The site consists of an approximately 114-acre parcel of land located to the west of Woods Hill Road.

The purpose of the Phase I ESA was to assess the property or evidence of recent or historical RECs/AOCs in general accordance with guidelines described in ASTM E1527-13 and CTDEEP Site Characterization Guidance Document. It is our understanding that this ESA was conducted in order to facilitate the possible development of the site as a commercial scale solar PV project.

The site is located to the west of Woods Hill Road. The majority of the site is cleared agricultural land, with the exception of wooded area in the northwestern portion. Access to the site is provided by Woods Hill Road. Site operations include agricultural farming for harvesting of hay from at least 1941. Previous uses of the site were not identified or reported during this ESA.

The site is bounded to the west and north by undeveloped land; to the east by agricultural land; and to the south by agricultural land and residential properties.

Previous environmental assessments for the site were not identified or provided during this FSA.

Published geological mapping indicates the site is underlain by thick till, sand, and gravel deposits. The bedrock underlying the site is mapped as gneiss. The site is identified in an area classified by the CTDEEP as GA. GA classified groundwater is generally inferred to be suitable for drinking without treatment. Based on topography of the site, shallow overburden groundwater is inferred to flow generally northwest towards White Brook, which is classified by the CTDEEP as a Class B surface water body. Wetlands and watercourses were observed on the site, particularly within forested areas along the northwest corner of the site.

Based on information obtained during this Phase I ESA Tighe & Bond has identified the following RECs and / or AOCs at the site:

# REC-1/AOC-1: Pesticide and Herbicide Application at the site

Based on historical aerial photographs and the site reconnaissance, several areas of agricultural fields are present throughout the site from circa 1941 to present day and have been reported to be used for harvesting of hay. Observations from the site walk indicate cleared areas of the site were grassy fields indicative of hay harvesting. It is possible that pesticides were applied to the site in order to control pests and vermin and herbicides may have been used as weed control.

Contaminants of concern (COCs) include Pesticides and Herbicides.

During the completion of this Phase I ESA Tighe & Bond did not identify historical or controlled RECs in connection with the site.

The following de-minims environmental conditions were identified for site during the completion of this Phase I ESA:

• The presence of minor amounts of miscellaneous solid waste (wood, plastic and metal) identified at site.

The following business environmental risks were identified for the site during the completion of this Phase I ESA:

• The presence of wetlands and watercourses at the site.

Tighe & Bond has performed this Phase I ESA in general accordance with guidelines described in ASTM E1527-13, EPA's All Appropriate Inquire Rule, and CTDEEP Site Characterization Guidance Document to identify RECs and AOCs at the site in a manner consistent with standard practice in the industry. However, as indicated in the ASTM standard, "No environmental site assessment can wholly eliminate uncertainty regarding the potential for RECs and AOCs in connection with a property. Performance of this practice is intended to reduce, but not eliminate, uncertainty regarding the potential for RECs and AOCs in connection with a property, and the practice recognizes "reasonable limits of time and cost."

# 9.2 Recommendations

Tighe & Bond recommends soil testing be conducted determine if the site has been impacted by releases associated with the on-site RECs / AOCs (application of pesticides and / or herbicides).

# Section 10 Environmental Certification

# 10.1 Deviations

This Phase I ESA conforms to ASTM with the following deviations noted:

 An title and lien search was not completed as this information was not provided by the User.

It is the opinion of the reviewing Environmental Professional that the above-deficiencies will not detrimentally affect the identification of RECs/AOCs. This opinion is based on the following factors:

• The lack of title and lien search should not have an effect on the identification of RECs/AOCs since sufficient information for the site was available.

# 10.2 Limitations

This report is prepared on behalf of and for the exclusive use of RES America Developments, Inc. (Client) and is subject to and issued in accordance with the Agreement and the provisions thereof. This report and any findings contained therein shall not, in whole or in part, be provided to or used by any other person, firm, entity or governmental agency in whole or in part, without the prior written consent of Client and Tighe & Bond. However, Tighe & Bond acknowledges and agrees that, subject to the Limitations set forth herein and prior written approval by Tighe & Bond, this report may be provided to specific financial institutions, attorneys, title insurers, lessees and/or governmental agencies identified by Client at or about the time of issuance of the report in connection with the conveyance, mortgaging, leasing, or similar transaction involving the real property which is the subject matter of a report and any work product. Use of this report for any purpose by any persons, firm, entity, or governmental agency shall be deemed acceptance of the restrictions and conditions contained therein, these Limitations and the provisions of Tighe & Bond's Agreement with Client. No warranty, express or implied, is made by way of Tighe & Bond's performance of services or providing an environmental site assessment, including but not limited to any warranty with the contents of a report or with any and all work product.

In preparing a report, Tighe & Bond, Inc. may rely on certain information provided by governmental agencies or personnel as well as information and/or representations provided by other persons, firms, or entities, and on information in the files of governmental agencies made available to Tighe & Bond at the time of the site assessment. To the extent that such information, representations, or files may be inaccurate, missing, incomplete or not provided to Tighe & Bond, Tighe & Bond is not responsible. Although there may be some degree of overlap in the information provided by these various sources, Tighe & Bond does not assume responsibility for independently verifying the accuracy, authenticity, or completeness of any and all information reviewed by or received from others during the course of the site assessment.

Unless otherwise noted, a survey (which includes observations, sampling and analysis) for the presence of polychlorinated biphenyls (PCBs) and asbestos contained in building materials, mold and/or lead-based paint is not conducted as part of an assessment.

Unless otherwise noted, an evaluation (which includes observation, sampling and analysis) for Vapor Intrusion Conditions (VIC) is not conducted as part of an assessment. No attempt is made to assess the compliance status of any past or present Owner or Operator of a site with any Federal, state, or local laws or regulations, unless specifically indicated otherwise in writing.

Findings, observations, and conclusions presented in this report, including but not limited to the extent of any subsurface explorations or other tests performed by Tighe & Bond, are limited by the scope of services outlined in the Agreement, which may establish schedule and/or budgetary constraints for an environmental assessment or phase thereof. Furthermore, while it is anticipated that each assessment will be performed in accordance with generally accepted professional practices and applicable standards (such as ASTM, etc.) and then applicable state and Federal regulations, as may be further described in the report and/or the Agreement, Tighe & Bond does not assume responsibility for the impacts of any changes in environmental standards, practices, or regulations subsequent to performance of its services.

The assessment presented in each report is based solely upon information obtained or received prior to issuance of the report. If additional environmental or other relevant information is developed at a later date, Client agrees to bring such information to the attention of Tighe & Bond promptly. Upon evaluation of such information, Tighe & Bond reserves the right to recommend modification of this report and its conclusions. In addition, dense forested areas on the site created some visual and access limitations during the site reconnaissance.

If included, any database search is conducted under the Notice of Disclaimer/Waiver of Liability included in the database search report.

# 10.3 Reliance

The Environmental Professional Hereby certifies that this Phase I ESA has been conducted in accordance with EPA's AAI Final Rule and ASTM E1527-13. This Phase I ESA has been prepared for the sole use of RES America Developments, Inc. This Phase I ESA should not be relied upon by other parties without the express written consent of Tighe & Bond and RES America Developments, Inc.

In accordance with Section 4.6 of ASTM E1527-13 and 40 CFR §312.20, a Phase I ESA conducted within one year prior to the date of property acquisition is considered to be valid. However, the following components must be conducted or updated within 180 days prior to the date of property acquisition/real estate transaction:

- Interviews with past and present owners, operators and occupants;
- Searches for recorded environmental cleanup liens;
- Review of governmental records;
- Site Reconnaissance of the property and adjoining properties; and
- The declaration by the Environmental Professional

Vucholas (Junata

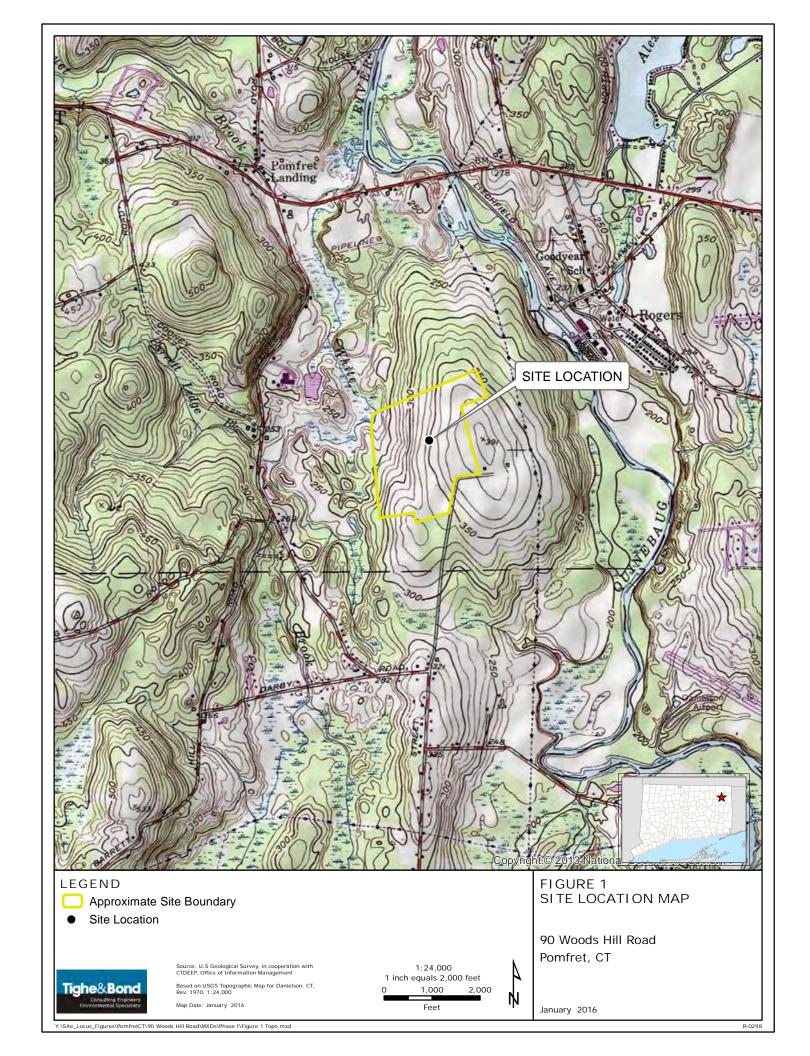
# 10.4 Environmental Professional Signature

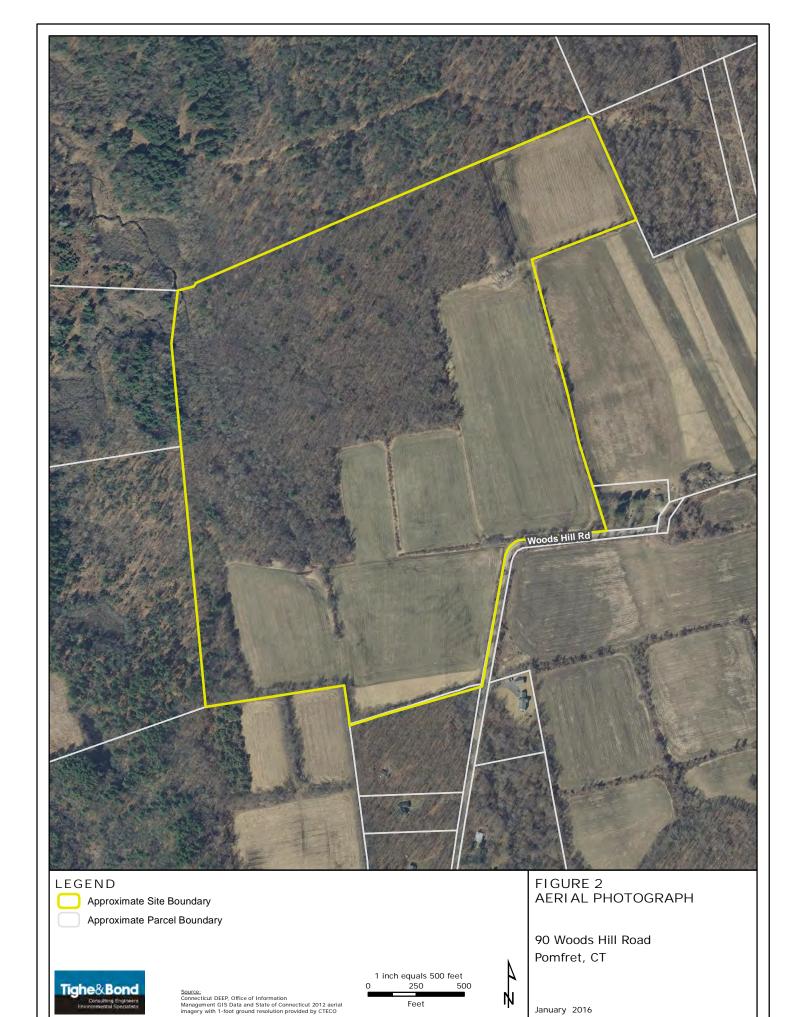
The author of this report declares that, to the best of my professional knowledge and belief, I meet the definition of Environmental Professional as defined in 40 CFR 312. The author of this report has the specific qualification based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. The author has developed and performed the all appropriate inquiries in the conformance with the standards and practices set for the in 40 CFR 312.

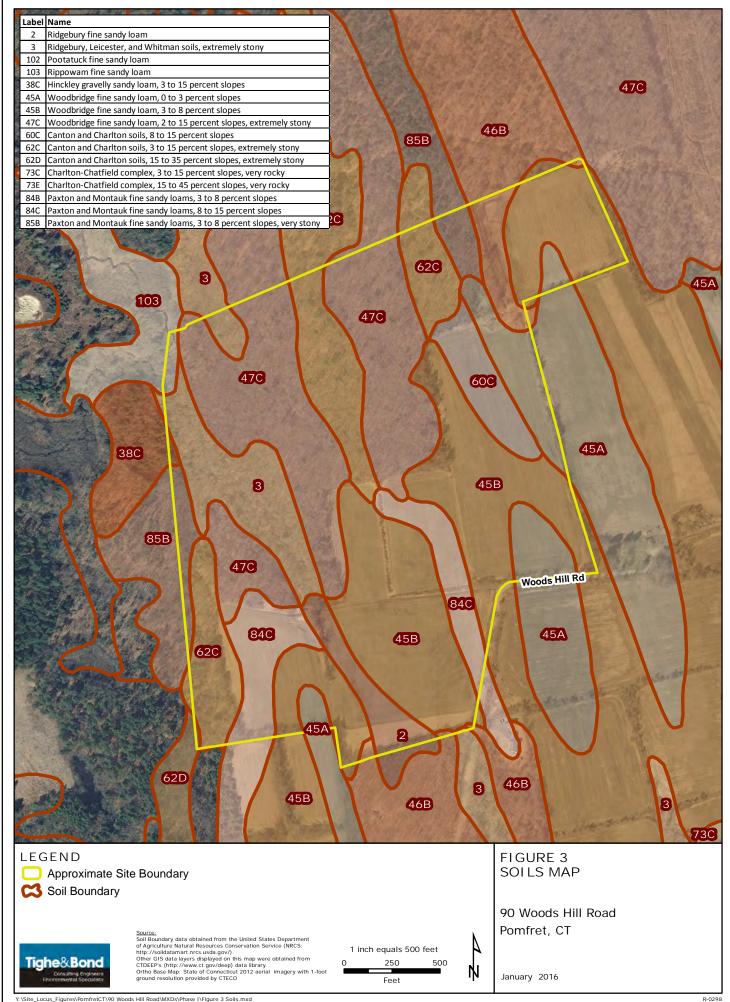
Nicholas A. Granata, LEP

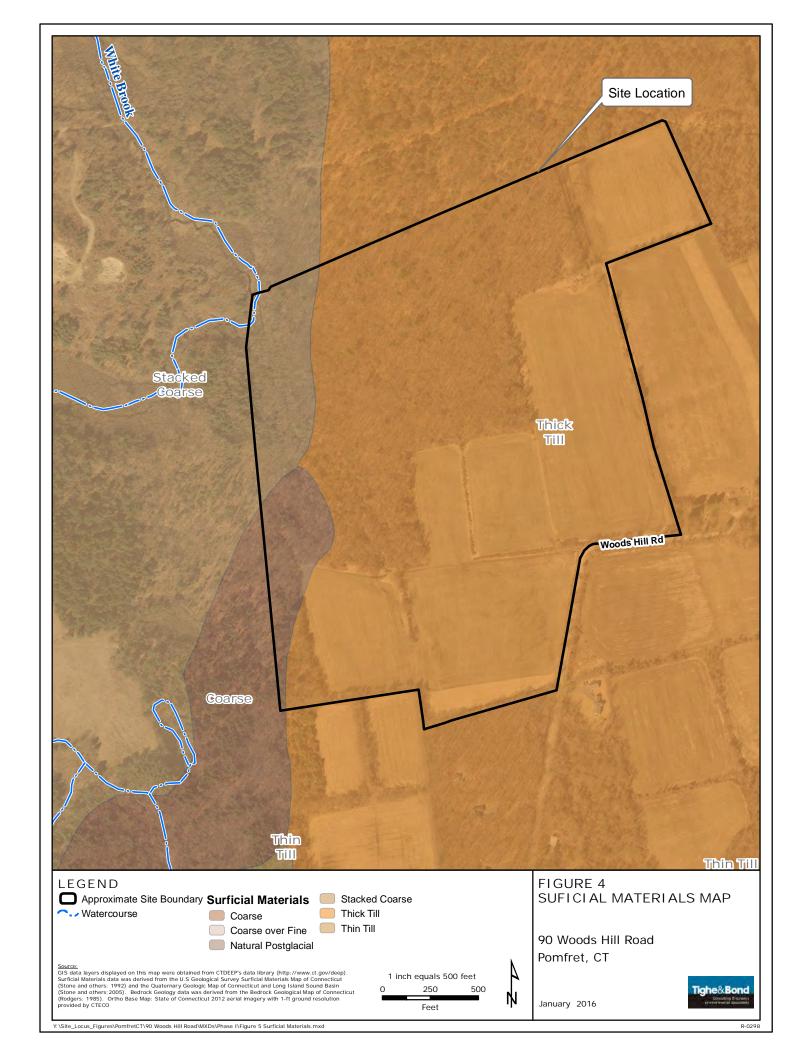
Senior Environmental Scientist

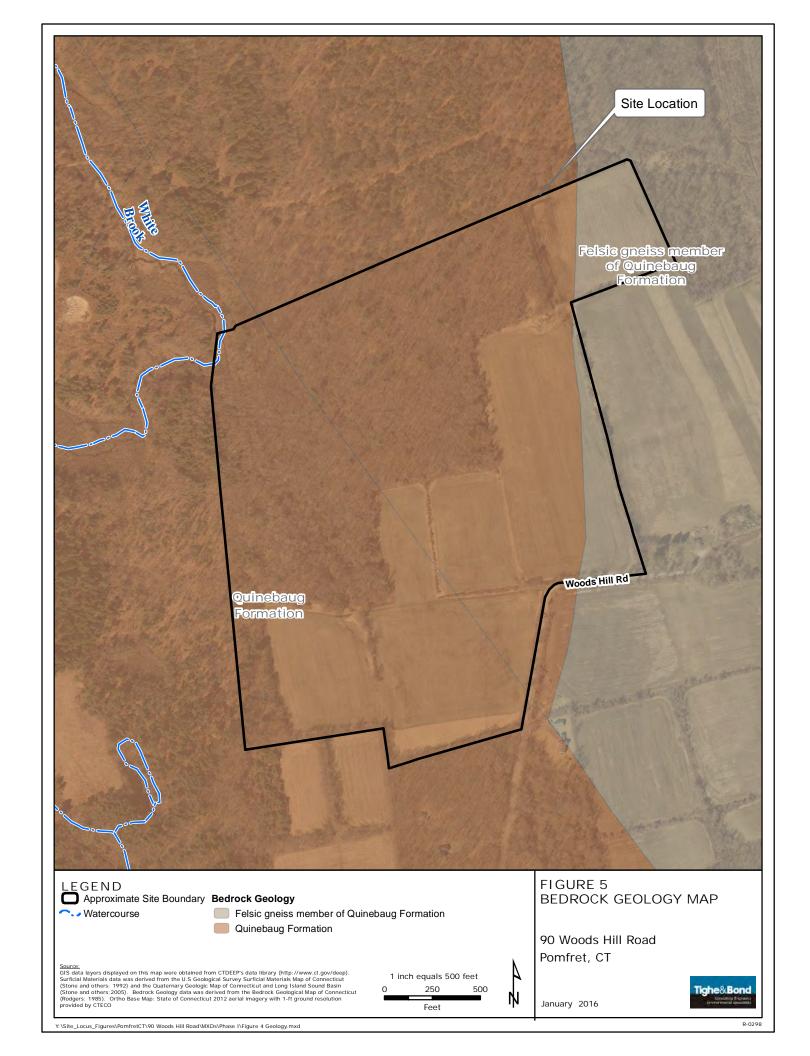


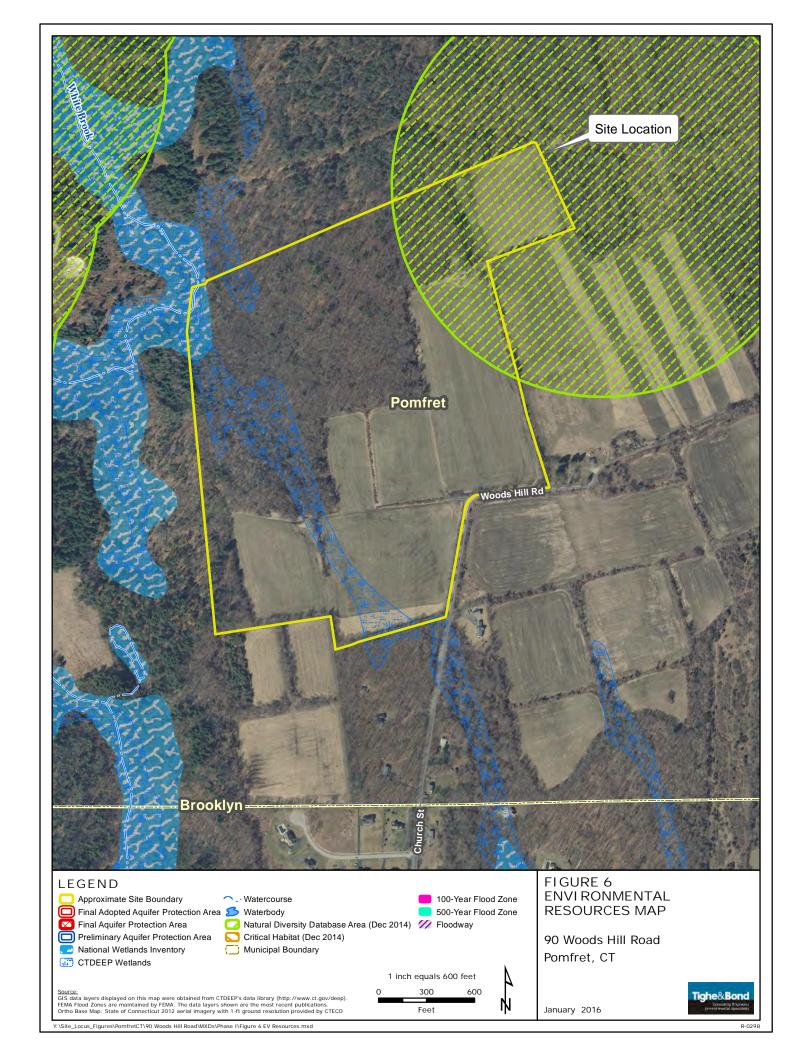


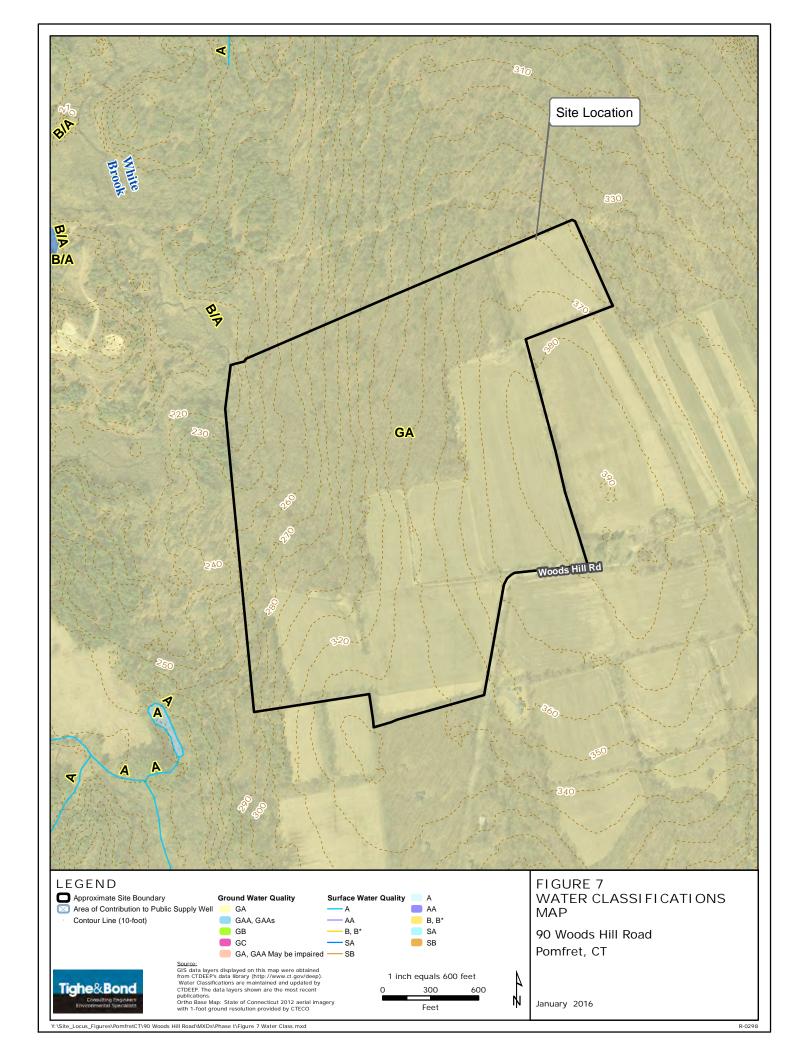












Part   Part	CURRENTOWNER		UTILITIES		STRT./ROAD	7	LOCATION			CURRENT ASSE	4SSESSMENT			
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RECORDING   ASSOCIATION   Code   Co		Other ID: CENSUS EASEMENTS ADD'L EASEME 10 MILL EXP	9025		490 PENALT'IE DEV RIGHTS COM/IND US SURVEY # DEV LOT #	XPIRED							Z	SION
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Particle   ASSESSING NEIGHBORHOOD   Pack	Туре			Code	Description	N	umber	Amount	Comm. Int.	I nis signature	аскпомівад	es a visit by a Da	nta Collector	or Assessor
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Element Cd. Cd.	CONSTRUCTION DETAIL  Cd. Ch. Description	CONSTRUCTION DETAIL (CONTINUED)  Element Cd. Ch. Description	
Model 00	Vacant	MIXED USE   Percentage   100	
Code Description Da	BUILDING & YARD ITEMS(L) / XF-BU Cost to Cu Sub Sub Descript L/B Units Unit Price  BUILDING SUB-AREA SUMMA  Description Living Area Gross A	OB-OUTBUILDING & YARD ITEMS(L) / XF-BUILDING EXTRA FEATURES(B)  Secription Sub Descript L/B Unit Price Xr   Gde   Dp Rt   Cnd   %Cnd   Apr Value    BUILDING SUB-AREA SUMMARY SECTION   Cndeprec. Value    Description Living Area   Gross Area   Eff. Area   Unit Cost   Unit	No Photo On Record

Ashford Brooklyn Canterbury Chaplin Eastford Hampton Killingly Plainfield Pomfret Putnam Scotland Sterling Thompson Union Voluntown Woodstock

Parcel Information: Report Generated: 10/19/2015 12:05:32 PM

GIS ID: CT-112-43-A-004.00 Assessment: \$14,050.00

Owner Name: TYLER CHARLES H & WILLIAM F III Appraissal: \$673,500.00

Street Address: 90 WOODS HILL RD Mailing Address: 495 NO SOCIETY RD

CANTERBURY CT 06331

Land: 113.60 Buildings:

Land Value: Improvement Value: Total Value:

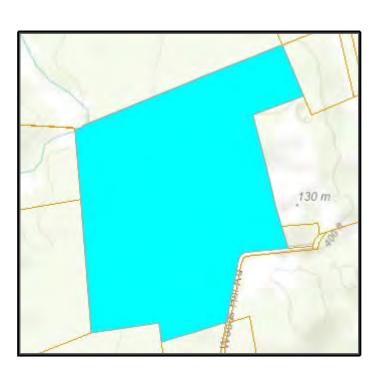
**Appraised** \$673,500.00 \$0.00 \$673,500.00

**Assessed** \$0.00 \$14,050.00

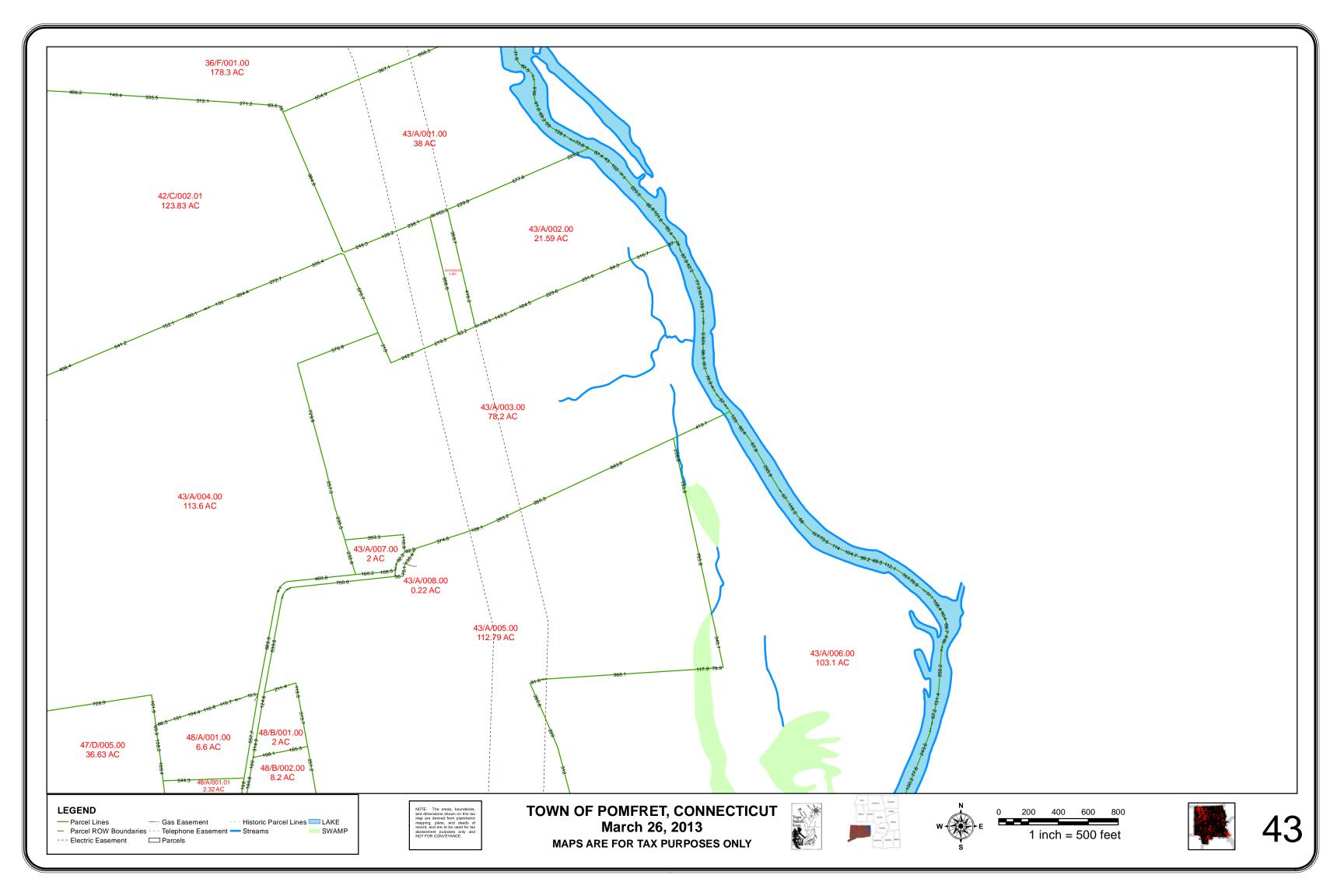
Sale Date: Sale Price:

**Year Built: Primary Structure Area:** sq. ft.

# No Photo Available



Taxlot highlighted in blue



Site:				×	
	100				



# **Phase I Questionnaire**

Per the ASTM E1527-13 Standard for Phase I Environmental Site Assessments, the following questionnaire is being provided to you because you are the Owner, are the User, or may have specialized knowledge about the site listed above. Please answer the questions to the best of your knowledge. If needed, please attach additional pages or information.

# Please fill out the following information about yourself:

Name: Charles H. ("Tim") Tyler

Company:

Date Provided: \_\_\_\_\_

Years employed with the company:

Job title: Property Owner

# **General Information**

Site Name: Tyler Parcel - Pomfret

Address: 90 Woods Hill Rd, Pomfret, CT General use of property: Agricultural

Site Contact: Tim Tyler

Title:

Phone No: 860-234-1695

Duration of time that site contact has been in this position:

Please provide additional site contacts knowledgeable on site activities

E-mail	Phone	Title	Name
			itairio
29 <u> </u>	THORE	Title	Name

### **Site Information**

Are you the current owner or tenant of this site? Owner

Are you aware of any previous environmental site assessments or remediation conducted at the site? If yes, please list activities conducted and dates. **No** 

What is the age of the building(s) on the site? N/A



Please list all of the business(s) operated on the site. Agricultural Use Only

Please provide specifics about site utilities. Provide specifics about the type of utility and how long the service has been active. If there was a septic tank and leach field, please describe location. **None Known** 

Are you aware of the current or historic use of underground storage tanks (USTs) on the site? If so, please describe. **None Known** 

Size of UST (gallons)	Contents of UST	Year Installed	Year Removed

Are you aware of the current or historic use of aboveground storage tanks (ASTs) on the site? If so, please describe. **None Known** 

Contents of AST	Year Installed	Year Removed
	Contents of AST	Contents of AST Year Installed

Are you aware of the current or historic use of 55-gallon drums or any other storage media on the site? If so, please describe. **None Known** 

Location of Drums	Contents of Drums	Location Stored	Number at location
		30, 800, 5	

Are you aware of any chemical or oil spills on the site? This includes, but is not limited to, gasoline, heating oil, diesel, and paint. If so please provide specifics in the table below. **None Known** 

Date of Spill	Contents of Spill	Spill Location

-2- 8/12/2015



# **Regulatory Information**

What Regulatory Permits pertain to the site? None Known

Frequency of inspections by regulators (if any)? N/A

Is the key site contact aware of any environmental violations recorded at local, state or federal agencies? If yes, describe. Post & Pre-Construction? **None Known** 

Is documentation of violations available for site from key site contact? N/A

# **Process Information**

Has any of the following occurred at the property? (Circle Yes or No)-

- 1) On or after November 19, 1980, there was generated, except as the result of remediation of polluted soil, groundwater or sediment, more than one hundred kilograms of hazardous waste in any one month. **Yes No**
- 2) Hazardous waste generated at a different location was recycled, reclaimed, reused, stored, handled, treated, transported or disposed of. **Yes No**
- 3) The process of dry cleaning was conducted on or after May 1, 1967. Yes No
- 4) Furniture stripping was conducted on or after May 1, 1967. Yes No
- 5) A vehicle body repair facility was located on or after May 1, 1967. Yes No

# **Hazardous Waste Generation**

Are there any manufacturing processes or activities involving hazardous materials conducted at the site? During Construction or Post-Construction? If so describe. **None Known** 

Are there any incoming raw materials delivered to the site that may be classified as hazardous? During Construction or Post-Construction? If so describe. (Name, use, approximate quantity used yearly and provide applicable documentation with questionnaire)

None Known

Are MSDS sheets available for review at the site? Y/N. If so where are they located and please provide copies with questionnaire) **N/A** 

-3-

8/12/2015



Are there any hazardous wastes generated and approximate quantity generated yearly. During Construction or Post-Construction? (Name, Approximate Quantity Generated Annually, Disposal Contractor and please provide applicable documentation with questionnaire) **None Known** 

Is there anyone else at the site that would have relevant information pertaining to any generation of hazardous wastes at the site? Who? Where located? **No** 

# **Additional Questions**

Are there any environmental liens that are filed or recorded against the site? <b>None Know</b>	Are there any	environmental	liens that are filed	l or recorded	against the site?	None Know
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Are there any activity and/or use limitations that are placed on the site or that have been filed or recorded against the site? **None Known** 

Do you have any specialized knowledge or experience related to the property? **Property used exclusively for agricultural purposes (hay field)** 

Does the purchase price being paid for this site reasonably reflect the fair market value of the site? If you conclude that there is a difference, have you considered whether the lower purchase/offer prices is because contamination is known or believed to be present at the site? **N/A Site being leased** 

Are you aware of commonly known or reasonable ascertainable information about the site that would help Tighe & Bond identify conditions indicative of releases or threatened releases? **No** 

-4- 8/12/2015



Do you know specific chemicals that are present or once were present at the site? <b>None Known</b>
Do you know of spills or other chemical releases that have taken place at the site? <b>None Known</b>
Do you know of any environmental cleanups that have taken place at the site? <b>None Known</b>
Based on your knowledge and experience related to the property are there any obvious indicators that point to the presence or likely presence of releases at the site? <b>None Known</b>
(Please note: Any supporting documents such as MSDS, waste manifests, or site maps will be needed for completion of Phase I report)
Site Contact: Print / Signature Date

# Warranty Seed - Buttutory Form #301164

County of Windham and State of Connecticut for consideration paid, grant to RICHARD DEGAETANO and SUSAN M. DEGAETANO, as joint tenants with full rights of survivorship, of the Town of Rehoboth and Commonwealth of Massachusetts with WARRANTY COVENANTS, THAT WE, NATHAN A. BRAMLETT and PAMELA J. BRAMLETT of the Town of Killingly,

A certain piece or parcel of land with the buildings thereon, if any, lying situate and being in the Town of Pomfret, County of Windham and State of Connecticut and kown as Lot 2, Tract I on a certain map or plan entitled: "Subdivision Plan Property of: Gertrude K, and Virginia Blumberg, to be conveyed to: Connecticut Valley Land Co., Inc., Fay and Paine Roads, Pomfret, Connecticut, Tract I, Messier & Associates, Inc., Engineers-Surveyors, Date: 11/88, Scale: 1" = 100°, Sheet I of 3, Robert R. Messier, L.S., Rev I, 3/21/89, Rev. 2, 4/18/89" (hereinafter the "Subdivision Plan") which plan is to be filed in the Office of the Pomfret Town Clerk, being more particularly bounded and described as follows:

180.00 feet to a point; thence, running S 84 degrees 31' 00" W along said Lot 3, a distance of 285.77 feet to to an I.P.; thence, running S. 89 degrees 48' 54" W along the northerly line of Lot 4, a distance of 594.02 feet to a point; thence, running N 09 degrees 53' 03" W along the easterly line of Lot 3, a distance of degrees 01'53" W along land now or formerly of Paul W. and Susan W. Graseck, a distance of 287.50 feet degrees 55' 38" E along land of said Motasky, a distance of 183.88 feet to an I.P.; thence, running S 14 degrees 41' 09" E along land of said Motasky, a distance of 154.17 feet to a point; thence, running S 83 degrees 41' 56" E along land of said Motasky, a distance of 77.59 feet to a point; thence, running S 81 formerly of Randall E. and Sandra J. Motasky, a distance of 158.93 feet to a point; thence, running S 81 said Paine Road, a distance of 40.12 feet to a point; thence running N 84 degrees 31' 00" E along the southerly line of Lot 1, a distance of 285.77 feet to a point; thence, running N 43 degrees 04" 51" E along said Lot 1, a distance of 193.57 feet to an I.P.; thence, running S 82 degrees 29' 33" E along land now or Beginning at a point on the apparent easterly streetline of Paine Road, said point being the southwesterly corner of the herein described parcel of land; thence running N 09 degrees 53' 03" W along a point on the apparent easterly streetline of Paine Road, said point being the point of beginning.

Said premises are conveyed subject to a Declaration of Easements, Covenants and Restrictions dated May 12, 1989 and recorded in the Pomfret Land Records, to which reference may be had.

The Grantees herein assume and agree to pay all taxes due the Town of Pomfret and the Pomfret Fire District on the Grand List of October 1, 2003 and thereafter.

CONVEYANCE TAX RECEIVED TOWN S. 263 2 naon STATES 525 Signed this 28th day of October 2004 David M. Huber Witnessed by:

Personally appeared, NATHAN A. BRAMLETT and PAMELA J. BRAMLETT, signers and sealers of the foregoing instrument, and acknowledged the same to be their free act and deed, before me

October 28, 2004

SS.: Killingby

State of Connecticut

County of Windham

David M. Hubert Commissioner of Superior Court

> Latest mailing address of Grantee: 60 Fairview Avenue, Rehoboth, MA 02769

RECEIVED 10/39 1050 PM. TOWN OF POWERET OF

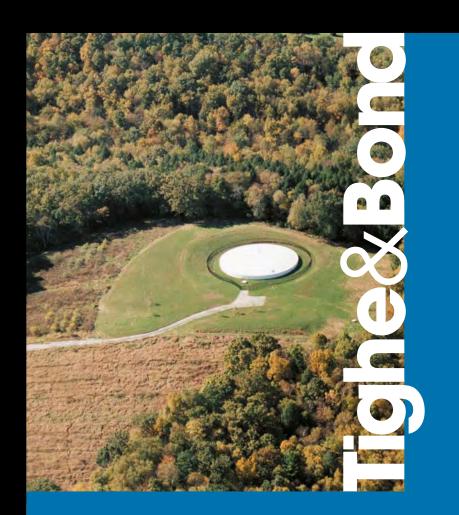
# SCHEDULE's

A Certain tract or parcel of land situated in the Town of Pomfret, County Mindham and State of Connecticut, which was conveyed by Warranty Deed of Earway C. Kimball to Harold Cunningham, dated May 8, 1937, recorded in Pomfret Land Records, Volume 31, Pages 364-365, and therein bounded and described as

and Church Street, so-called, thence westerly along said Weldon land and a stone wall to a corner in wall at land now or formerly of Michael Barrington; thence well to a corner in wall and said Harrington land to a corner in wall; thence westerly along wall and said Harrington land to a corner in wall; thence westerly along wall and and Harrington land to a corner in wall; thence westerly along vall land said Harrington land to a corner in wall and land now or Mathew Chase; thence northerly along wall and said Searles land to the Mathew Chase; thence asterly along wall and land now or formerly of the Estate of thence southerly along wall and said Chase land to corner in wall; thence southerly along wall and said Chase land to another wall; thence westerly along wall the wall; thence southerly along wall the vesterly formerly of Harvey C. Kimball, the within grantor, and this day deeded to that is thence westerly along wall; thence westerly charles L. Kimball; thence westerly along wall, the within grantor, and this day deeded to formerly of Harvey C. Kimball, the within Brantor, and this day decued to Street, and following said Street, southerly to the point of beginning. C

Baid

RECEIVED



# **Photographic Log**

Tighe&Bond

Job Number: R-0298

**Client:** RES America Developments, Inc.

Site: 90 Woods Hill Road, Pomfret, CT

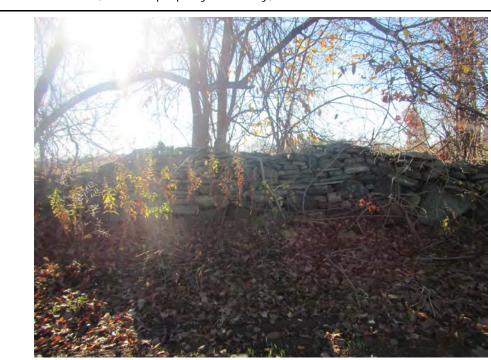
**Photograph No.:** 1 **Date:** 11/4/2015

**Description:** Cleared agricultural land, view northeast



**Photograph No.:** 2 **Date:** 11/4/2015

**Description:** Stone wall, eastern property boundary, view east



# **Photographic Log**

Tighe&Bond

Client: RES America Developments, Inc. Job Number: R-0298

Site: 90 Woods Hill Road, Pomfret, CT

**Photograph No.:** 3 **Date:** 11/4/2015

**Description:** Organic soil piles, northwest area of the site, view north



**Photograph No.:** 4 **Date:** 11/4/2015

**Description:** Camper trailer on southwestern side of site, along Woods Hill Road, view east



# **Photographic Log**

Tighe&Bond

Client: RES America Developments, Inc. Job Number: R-0298

Site: 90 Woods Hill Road, Pomfret, CT

**Photograph No.:** 5 **Date:** 11/4/2015

**Description:** Pink flags marking out wetland areas, western area of the site, view north



**Photograph No.:** 6 **Date:** 11/4/2015

**Description:** Forested area, existing footpath, western side of site, view north



# **Photographic Log**

Tighe&Bond

Client: RES America Developments, Inc. Job Number: R-0298

Site: 90 Woods Hill Road, Pomfret, CT

**Photograph No.:** 7 **Date:** 11/4/2015

**Description:** Pile of rocks and wooden boards, western side of site, forested area, view west



**Photograph No.:** 8 **Date:** 11/4/2015

**Description:** Scrap metal, northern side of site, forested area, view north



# **Photographic Log**

Tighe&Bond

Job Number: R-0298

Client: RES America Developments, Inc.

Site: 90 Woods Hill Road, Pomfret, CT

**Photograph No.:** 9 **Date:** 11/4/2015

Description: Forested area, northwest corner of site, survey flag, briers



**Photograph No.:** 10 **Date:** 11/4/2015

**Description:** Eastern adjacent property, residential property, view east



# **Photographic Log**

Tighe&Bond

Job Number: R-0298

**Client:** RES America Developments, Inc.

Site: 90 Woods Hill Road, Pomfret, CT

**Photograph No.:** 11 **Date:** 11/4/2015

**Description:** Eastern Adjacent property, power line easement, view east



**Photograph No.:** 12 **Date:** 11/4/2015

**Description:** Southern adjacent property, residential property, view south

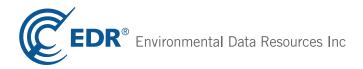


Nabozny Solar Site 101 Woods Hill Road Pomfret, CT 06259

Inquiry Number: 4441785.2s

October 19, 2015

# The EDR Radius Map™ Report with GeoCheck®



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Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-13) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

## TARGET PROPERTY INFORMATION

## **ADDRESS**

101 WOODS HILL ROAD POMFRET, CT 06259

# COORDINATES

Latitude (North): 41.8309000 - 41° 49' 51.24" Longitude (West): 71.9209000 - 71° 55' 15.24"

Universal Tranverse Mercator: Zone 19 UTM X (Meters): 257440.2 UTM Y (Meters): 4634913.5

Elevation: 364 ft. above sea level

## USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map: 5642109 DANIELSON, CT

Version Date: 2012

## **AERIAL PHOTOGRAPHY IN THIS REPORT**

Portions of Photo from: 20120721 Source: USDA

## MAPPED SITES SUMMARY

Target Property Address: 101 WOODS HILL ROAD POMFRET, CT 06259

Click on Map ID to see full detail.

MAP				RELATIVE	DIST (ft. & mi.)
ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	<b>ELEVATION</b>	DIRECTION (
A1	MAIORINO RESIDENCE	426 CHURCH	CT LUST, CT CPCS	Lower	868, 0.164, South
A2	MAIORINO RESIDENCE	426 CHURCH STREET	CT CPCS	Lower	868, 0.164, South
3	ROGERS CORP	ONE TECHNOLOGY DR	CERC-NFRAP, CORRACTS, RCRA-TSDF, RCRA-LQG,	US FINLower	2162, 0.409, NNE
4	CT DOT SEARLES ROAD	POMFRET ROAD	CERCLIS, CT SHWS, CT SDADB, CT CPCS	Lower	2489, 0.471, SW

## TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

## **DATABASES WITH NO MAPPED SITES**

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

## STANDARD ENVIRONMENTAL RECORDS

Fadaval NDL aita liat	
Federal NPL site list	N. C. 181 111
NPL Proposed NPI	_ National Priority List _ Proposed National Priority List Sites
NPL LIENS	
Federal Delisted NPL site lis	st
Delisted NPL	National Priority List Deletions
Federal CERCLIS list	
FEDERAL FACILITY	Federal Facility Site Information listing
Federal RCRA generators li	
	RCRA - Small Quantity Generators RCRA - Conditionally Exempt Small Quantity Generator
RURA-UESQU	- KCKA - Conditionally Exempt Small Quantity Generator
Federal institutional control	ls / engineering controls registries
LUCIS	Land Use Control Information System
	Engineering Controls Sites List
US INST CONTROL	Sites with Institutional Controls
Federal ERNS list	
ERNS	Emergency Response Notification System
State and tribal landfill and	or solid waste disposal site lists
CT SWF/LF	List of Landfills/Transfer Stations
State and tribal leaking stor	rage tank lists
INDIAN LUST	Leaking Underground Storage Tanks on Indian Land
State and tribal registered s	storage tank lists
FEMA UST	Underground Storage Tank Listing

## State and tribal institutional control / engineering control registries

CT ENG CONTROLS ..... Engineering Controls Listing CT AUL ..... ELUR Sites

## State and tribal voluntary cleanup sites

CT VCP......Voluntary Remediation Sites INDIAN VCP......Voluntary Cleanup Priority Listing

#### State and tribal Brownfields sites

CT BROWNFIELDS..... Brownfields Inventory

#### ADDITIONAL ENVIRONMENTAL RECORDS

#### Local Brownfield lists

US BROWNFIELDS..... A Listing of Brownfields Sites

#### Local Lists of Landfill / Solid Waste Disposal Sites

CT SWRCY...... Recycling Facilities

ODI...... Open Dump Inventory

## Local Lists of Hazardous waste / Contaminated Sites

#### Local Land Records

CT PROPERTY....... Property Transfer Filings
CT LIENS..... Environmental Liens Listing
LIENS 2..... CERCLA Lien Information

## Records of Emergency Release Reports

HMIRS..... Hazardous Materials Information Reporting System CT SPILLS..... Oil & Chemical Spill Database

CT SPILLS 90...... SPILLS 90 data from FirstSearch

#### Other Ascertainable Records

RCRA NonGen / NLR...... RCRA - Non Generators / No Longer Regulated

FUDS Formerly Used Defense Sites DOD Department of Defense Sites

SCRD DRYCLEANERS...... State Coalition for Remediation of Drycleaners Listing

EPA WATCH LIST..... EPA WATCH LIST

TSCA...... Toxic Substances Control Act

TRIS...... Toxic Chemical Release Inventory System

RAATS...... RCRA Administrative Action Tracking System

ICIS..... Integrated Compliance Information System

FTTS......FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide

Act)/TSCA (Toxic Substances Control Act)

COAL ASH EPA..... Coal Combustion Residues Surface Impoundments List

PCB TRANSFORMER\_\_\_\_\_PCB Transformer Registration Database

RADINFO...... Radiation Information Database

HIST FTTS..... FIFRA/TSCA Tracking System Administrative Case Listing

DOT OPS..... Incident and Accident Data

CONSENT..... Superfund (CERCLA) Consent Decrees

INDIAN RESERV...... Indian Reservations

UMTRA...... Uranium Mill Tailings Sites

LEAD SMELTERS..... Lead Smelter Sites

US MINES..... Mines Master Index File

FINDS..... Facility Index System/Facility Registry System

CT AIRS..... Permitted Air Sources Listing

CT DRYCLEANERS....... Drycleaner Facilities
CT LEAD...... Lead Inspection Database

CT LWDS..... Connecticut Leachate and Wastewater Discharge Sites

CT MANIFEST..... Hazardous Waste Manifest Data CT NPDES..... Wastewater Permit Listing

CT SEH..... List of Significant Environmental Hazards Report to DEEP

## **EDR HIGH RISK HISTORICAL RECORDS**

#### **EDR Exclusive Records**

EDR MGP...... EDR Proprietary Manufactured Gas Plants EDR US Hist Auto Stat..... EDR Exclusive Historic Gas Stations EDR US Hist Cleaners..... EDR Exclusive Historic Dry Cleaners

## **EDR RECOVERED GOVERNMENT ARCHIVES**

#### Exclusive Recovered Govt. Archives

#### SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.

Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in **bold italics** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

## STANDARD ENVIRONMENTAL RECORDS

#### Federal CERCLIS list

CERCLIS: The Comprehensive Environmental Response, Compensation and Liability Information System contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

A review of the CERCLIS list, as provided by EDR, and dated 10/25/2013 has revealed that there is 1 CERCLIS site within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
CT DOT SEARLES ROAD	POMFRET ROAD	SW 1/4 - 1/2 (0.471 mi.)	4	59

#### Federal CERCLIS NFRAP site List

CERC-NFRAP: Archived sites are sites that have been removed and archived from the inventory of CERCLIS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list this site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.

A review of the CERC-NFRAP list, as provided by EDR, and dated 10/25/2013 has revealed that there is 1 CERC-NFRAP site within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
ROGERS CORP	ONE TECHNOLOGY DR	NNE 1/4 - 1/2 (0.409 mi.)	3	14

#### Federal RCRA CORRACTS facilities list

CORRACTS: CORRACTS is a list of handlers with RCRA Corrective Action Activity. This report shows which nationally-defined corrective action core events have occurred for every handler that has had corrective action activity.

A review of the CORRACTS list, as provided by EDR, and dated 06/09/2015 has revealed that there is 1

CORRACTS site within approximately 1 mile of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
ROGERS CORP	ONE TECHNOLOGY DR	NNE 1/4 - 1/2 (0.409 mi.)	3	14

#### Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

A review of the RCRA-TSDF list, as provided by EDR, and dated 06/09/2015 has revealed that there is 1 RCRA-TSDF site within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
ROGERS CORP	ONE TECHNOLOGY DR	NNE 1/4 - 1/2 (0.409 mi.)	3	14

#### State- and tribal - equivalent CERCLIS

CT SHWS: The State Hazardous Waste Sites records are the states' equivalent to CERCLIS. These sites may or may not already be listed on the federal CERCLIS list. Priority sites planned for cleanup using state funds (state equivalent of Superfund) are identified along with sites where cleanup will be paid for by potentially responsible parties. The data come from the Department of Environmental Protection's Inventory of Hazardous Disposal Sites.

A review of the CT SHWS list, as provided by EDR, and dated 04/23/2010 has revealed that there is 1 CT SHWS site within approximately 1 mile of the target property.

Lower Elevation	Elevation Address		Map ID	Page	
CT DOT SEARLES ROAD State ID: 348	POMFRET ROAD	SW 1/4 - 1/2 (0.471 mi.)	4	59	
EPA ID: CTD982199150					

CT SDADB: Site Discovery and Assessment Database.

A review of the CT SDADB list, as provided by EDR, and dated 04/23/2010 has revealed that there is 1 CT SDADB site within approximately 0.5 miles of the target property.

Lower Elevation	Elevation Address		Map ID	Page	
CT DOT SEARLES ROAD Facility Id: 348	POMFRET ROAD	SW 1/4 - 1/2 (0.471 mi.)	4	59	

## State and tribal leaking storage tank lists

CT LUST: The Leaking Underground Storage Tank Incident Reports contain an inventory of reported leaking underground storage tank incidents. The data come from the Department of Environmental Protection's Leaking Underground Storage Tank List.

A review of the CT LUST list, as provided by EDR, and dated 07/24/2015 has revealed that there is 1 CT LUST site within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
MAIORINO RESIDENCE Lust Status: 1	426 CHURCH	S 1/8 - 1/4 (0.164 mi.)	A1	8
Lust Status: 2				
LUST ld: 45210 LUST ld: 29958				

#### ADDITIONAL ENVIRONMENTAL RECORDS

#### Other Ascertainable Records

CT CPCS: A list of Contaminated or Potentially Contaminated Sites within Connecticut. This list represents the "Hazardous Waste Facilities," as defined in Section 22a-134f of the Connecticut General Statutes (CGS). The list contains the following types of sites: Sites listed on the Inventory of Hazardous Waste Disposal Sites; Sites subject to the Property Transfer Act; Sites at which underground storage tanks are known to have leaked; Sites at which hazardous waste subject to the RCRA; Sites that are included in EPA's (CERCLIS); Sites that are the subject of an order issued by the Commissioner of DEP that requires investigation and remediation of a potential or known source of pollution; and Sites that have entered into one of the Department's Voluntary Remediation Programs.

A review of the CT CPCS list, as provided by EDR, and dated 06/15/2015 has revealed that there are 3 CT CPCS sites within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page	
MAIORINO RESIDENCE Lust Status: Investigation	426 CHURCH	S 1/8 - 1/4 (0.164 mi.)	A1	8	
MAIORINO RESIDENCE Lust Status: Pending	426 CHURCH STREET	S 1/8 - 1/4 (0.164 mi.)	A2	13	
CT DOT SEARLES ROAD	POMFRET ROAD	SW 1/4 - 1/2 (0.471 mi.)	4	59	

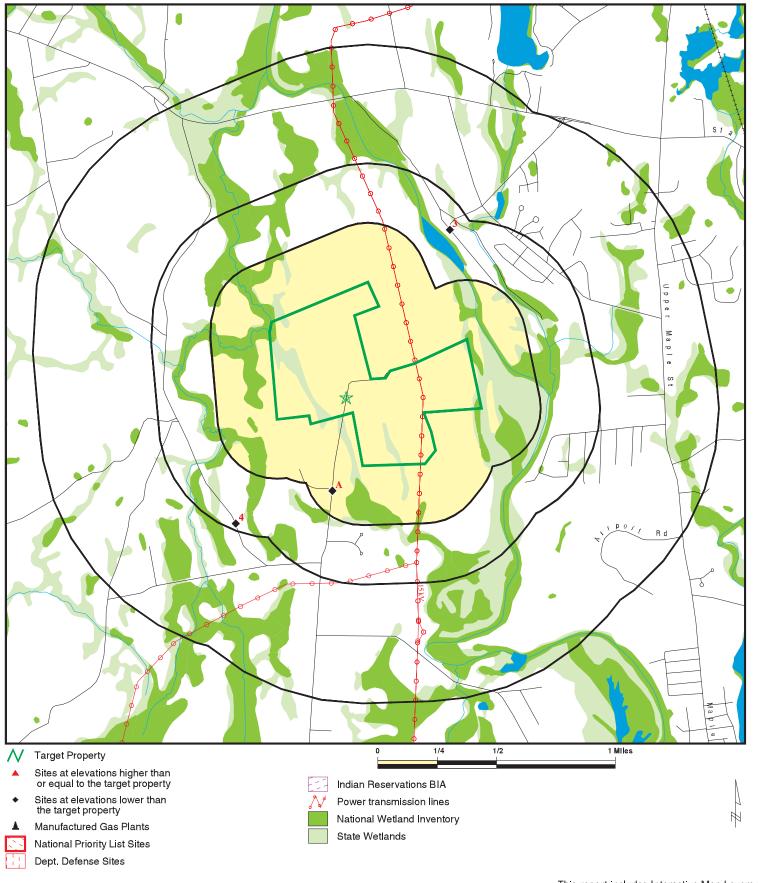
Due to poor or inadequate address information, the following sites were not mapped. Count: 6 records.

Site Name

BOUDREAU WELDING WILLIAM PRYM CO. INC. DAYVILLE SHELL 136299 ROGERS CORP ROGERS CORP CT DOT POMFRET (HART # 33) Database(s)

CT LUST, CT CPCS CT SHWS, CT SDADB, CT CPCS CT LUST, CT CPCS CT VCP, CT CPCS CT LUST, CT SPILLS CT VCP

# **OVERVIEW MAP - 4441785.2S**

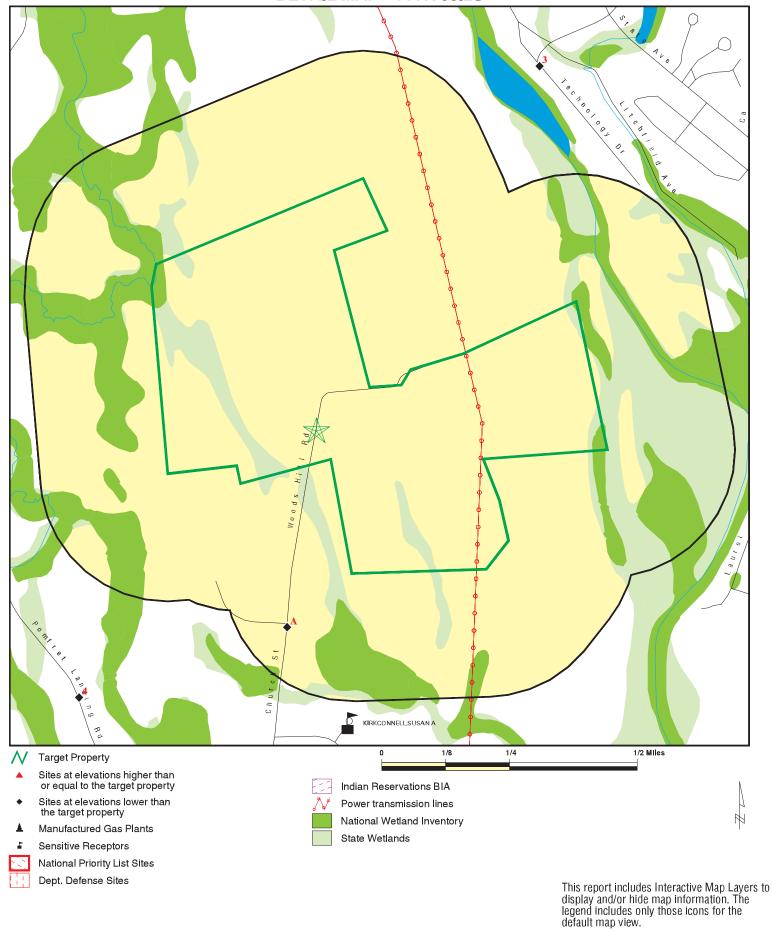


This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Nabozny Solar Site
ADDRESS: 101 Woods Hill Road
Pomfret CT 06259
LAT/LONG: 41.8309 / 71.9209

CLIENT: Tighe & Bond
CONTACT: Samantha Avis
INQUIRY #: 4441785.2s
DATE: October 19, 2015 7:15 pm

# **DETAIL MAP - 4441785.2S**



SITE NAME: Nabozny Solar Site
ADDRESS: 101 Woods Hill Road
Pomfret CT 06259
LAT/LONG: 41.8309 / 71.9209

CLIENT: Tighe & Bond
CONTACT: Samantha Avis
INQUIRY #: 4441785.2s
DATE: October 19, 2015 7:16 pm

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
Federal NPL site list								
NPL Proposed NPL NPL LIENS	1.000 1.000 TP		0 0 NR	0 0 NR	0 0 NR	0 0 NR	NR NR NR	0 0 0
Federal Delisted NPL sit	te list							
Delisted NPL	1.000		0	0	0	0	NR	0
Federal CERCLIS list								
FEDERAL FACILITY CERCLIS	0.500 0.500		0 0	0 0	0 1	NR NR	NR NR	0 1
Federal CERCLIS NFRA	P site List							
CERC-NFRAP	0.500		0	0	1	NR	NR	1
Federal RCRA CORRAC	TS facilities lis	st						
CORRACTS	1.000		0	0	1	0	NR	1
Federal RCRA non-COR	RACTS TSD fa	cilities list						
RCRA-TSDF	0.500		0	0	1	NR	NR	1
Federal RCRA generator	rs list							
RCRA-LQG RCRA-SQG RCRA-CESQG	0.250 0.250 0.250		0 0 0	0 0 0	NR NR NR	NR NR NR	NR NR NR	0 0 0
Federal institutional con engineering controls re								
LUCIS US ENG CONTROLS US INST CONTROL	0.500 0.500 0.500		0 0 0	0 0 0	0 0 0	NR NR NR	NR NR NR	0 0 0
Federal ERNS list								
ERNS	TP		NR	NR	NR	NR	NR	0
State- and tribal - equiva	alent CERCLIS							
CT SHWS CT SDADB	1.000 0.500		0 0	0 0	1 1	0 NR	NR NR	1 1
State and tribal landfill a solid waste disposal site								
CT SWF/LF	0.500		0	0	0	NR	NR	0
State and tribal leaking	storage tank lis	sts						
CT LUST INDIAN LUST	0.500 0.500		0 0	1 0	0 0	NR NR	NR NR	1 0
State and tribal registere	ed storage tani	k lists						
FEMA UST	0.250		0	0	NR	NR	NR	0

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
CT UST CT AST INDIAN UST	0.250 0.250 0.250		0 0 0	0 0 0	NR NR NR	NR NR NR	NR NR NR	0 0 0
State and tribal institution control / engineering con								
CT ENG CONTROLS CT AUL	0.500 0.500		0 0	0 0	0 0	NR NR	NR NR	0 0
State and tribal voluntary cleanup sites								
CT VCP INDIAN VCP	0.500 0.500		0 0	0 0	0 0	NR NR	NR NR	0 0
State and tribal Brownfiel	lds sites							
CT BROWNFIELDS	0.500		0	0	0	NR	NR	0
ADDITIONAL ENVIRONMENT	TAL RECORDS							
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
Local Lists of Landfill / So Waste Disposal Sites	olid							
CT SWRCY INDIAN ODI DEBRIS REGION 9 ODI	0.500 0.500 0.500 0.500		0 0 0	0 0 0 0	0 0 0 0	NR NR NR NR	NR NR NR NR	0 0 0 0
Local Lists of Hazardous Contaminated Sites	waste/							
US HIST CDL CT CDL US CDL	TP TP TP		NR NR NR	NR NR NR	NR NR NR	NR NR NR	NR NR NR	0 0 0
Local Land Records								
CT PROPERTY CT LIENS LIENS 2	TP TP TP		NR NR NR	NR NR NR	NR NR NR	NR NR NR	NR NR NR	0 0 0
Records of Emergency Re	elease Repor	ts						
HMIRS CT SPILLS CT SPILLS 90	TP TP TP		NR NR NR	NR NR NR	NR NR NR	NR NR NR	NR NR NR	0 0 0
Other Ascertainable Records								
RCRA NonGen / NLR FUDS DOD SCRD DRYCLEANERS US FIN ASSUR	0.250 1.000 1.000 0.500 TP		0 0 0 0 NR	0 0 0 0 NR	NR 0 0 0 NR	NR 0 0 NR NR	NR NR NR NR NR	0 0 0 0

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
EPA WATCH LIST 2020 COR ACTION TSCA TRIS SSTS ROD RMP RAATS PRP PADS ICIS FTTS MLTS COAL ASH DOE COAL ASH EPA PCB TRANSFORMER RADINFO HIST FTTS DOT OPS CONSENT INDIAN RESERV UMTRA LEAD SMELTERS US AIRS US MINES FINDS CT AIRS CT CPCS CT DRYCLEANERS CT ENF CT Financial Assurance CT LEAD CT LWDS CT MANIFEST NJ MANIFEST NJ MANIFEST	(Miles)  TP 0.250 TP TP TP 1.000 TP TP TP TP TP TP TP TP TP TP TP TP TP		NO NR NR NR NR NR O R R R R NR O O O R R O O R R R O O O R R R O	NO RRR O RRR O RRR O O O O O O O O O O O	RRRRORRRRORRROOORRRRROOORRRRRRRRRRRRRR	RR R R R O R R R R R R R R R R R R R R	RR R R R R R R R R R R R R R R R R R	Plotted  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
RI MANIFEST CT NPDES CT SEH	0.250 TP 0.500		0 NR 0	0 NR 0	NR NR 0	NR NR NR	NR NR NR	0 0 0
EDR HIGH RISK HISTORICAL RECORDS								
EDR Exclusive Records								
EDR MGP EDR US Hist Auto Stat EDR US Hist Cleaners	1.000 0.250 0.250		0 0 0	0 0 0	0 NR NR	0 NR NR	NR NR NR	0 0 0
EDR RECOVERED GOVERNMENT ARCHIVES								
Exclusive Recovered Gov	vt. Archives							
CT RGA HWS	TP		NR	NR	NR	NR	NR	0

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
CT RGA LUST	TP		NR	NR	NR	NR	NR	0
- Totals		0	0	3	7	0	0	10

# NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

Direction Distance

Elevation Site Database(s) EPA ID Number

A1 MAIORINO RESIDENCE CT LUST \$102571269
South 426 CHURCH CT CPCS N/A

1/8-1/4 BROOKLYN, CT 06234

0.164 mi.

Actual:

295 ft.

868 ft. Site 1 of 2 in cluster A

Relative: LUST: Lower LUST ld:

 LUST Id:
 0

 UST Facility Id:
 0

 LUST Case Id:
 45210

 Lust Status:
 Pending

Processing Status: continuing excavation by Shire

EPA Reportable: False False Motor Fuel: Diesel: False Gasoline: False Other: False Other Release: Not reported No Release: False Leak: False Tank: False Piping: False Overfill: False Removal: False Incident Date: 03/17/1997 Entry Date: Not reported Site Case Id: Not reported

UST Site Id: 0

Cost Recovery Spill Case #: 0

Old SITS Number: 0

Case Log Id: 388

Monthly Report Id: 0

UST Owner Id: 0

LUST Owner Id: AG

UST Event Id: 0

Contact Info: Aaron Green LUST Program

Contact EMail: Not reported UNKNOWN Site Contact City, St, Zip: 2nd Contact: Not reported 2nd Contact EMail: Not reported 2nd Contact Address: Not reported 2nd Contact City, St, Zip: UNKNOWN 2nd Contact Address 2: Not reported 2nd Contact City 2: Not reported 2nd Contact Phone Number: Not reported 2nd Contact Fax Number: Not reported 2nd Contact Type: Not reported Facility City Num: 19

Site Contact: Not reported Site Contact Address: Not reported Site Contact Add 2: Not reported Not reported Site Contact City 2: Site Contact Phone: Not reported Site Contact Fax: Not reported Site Contact Type: Not reported Department Contact 1: Not reported Department Contact 2: Not reported

OCSRD 3/27/97

Offsite Source: False

Referral Source:

TC4441785.2s Page 8

**EDR ID Number** 

Distance
Elevation Site

Database(s)

#### **MAIORINO RESIDENCE (Continued)**

Date Referred: 1997-03-27 00:00:00

Emergency: False Private Heating Fuel: True Commercial Heating Fuel: False Commercial HF < 2100 Gal.: False Commercial HF > 2100 Gal.: False Commercial HF - Size Unk: False No LUST Site: False Cost Recvry Prgm Candidate: False OCSRD Complete: False Follow Up Flag: False Alternate Water Supply: False Relocation: False Responsible Party: False Responsible EMail: Not reported Resp Party Name: Not reported Resp Party Address: Not reported Resp Party City, St, Zip: Not reported Resp Party Town Number: UNKNOWN Resp Party Phone: Not reported Resp Party Fax: Not reported Resp Party Name 2: Not reported Resp Party Address 2: Not reported Resp Party Phone 2: Not reported Investigator Id: 20 Follow Update: Not reported Area Lextent: Not reported Annual Precipitation: Not reported Affected Population: Not reported Population Setting: Not reported Ground Water Direction: Not reported **Ground Water Gradient:** Not reported Hydro Basin: Not reported Drastic: Not reported Geo Setting: Not reported Ground Water Classification: Not reported Receptor: Not reported **Ground Water Flow Direction:** Not reported Ground Water Depth: Not reported Areas Of Concern: Not reported Free Product Inches: Not reported Fund Date: Not reported Fund Planned: No Fund Obligated: No

Fund Outlayed: No Fund Judgment: No Fund Recovered: No Cellar Borings: False Install Micro Wells: False Ground Water Sample: False Soil Sample: True Soil Gas: False Site Inspect: False Soil Excavate: True Geo Probe: False False Survev: Potable Well Sample: False S102571269

**EDR ID Number** 

**EPA ID Number** 

Direction Distance

Elevation Site Database(s) EPA ID Number

## **MAIORINO RESIDENCE (Continued)**

S102571269

**EDR ID Number** 

Sample MWS: False Ground Water Gauging: False Soil Venting: False Active: False NOV Action: None NOV Issued: Not reported Not reported NOV Due: Not reported NOV Received: NOV Closed: Not reported NOV Disc Date: Not reported NOV Issued Date: Not reported NOV Compliance Sched: Not reported NOV Admin Order: Not reported NOV Referred To Ag: Not reported Stop All NOV Actions: False Release Invest Rpt: False DEP App Letter 1: False Correct Action Plan: False DEP App Letter 2: False Rem Sys Install: False Rem Sys Install Date: Not reported Closure Date: Not reported Rem Sys Monitoring Rpt: False **Qrtly Gwater Mon Rpts:** False Closure Req Rpt: False **DEP Closure Letter:** False Referred To: Not reported No Wells: Not reported Lph Wells: Not reported

No Wells:

Lph Wells:

User Stamp:

Date Stamp:

Correspondence:

Not reported

Not reported

Not reported

Not reported

Not reported

Environmental Impact: +- 500 gal. #2 lost to soil

FollowUp: Not reported GW Comments: Not reported Location Desc: Not reported NOV Comments: Not reported

Release Desc: +- 500 gal. #2 lost to soil

Running Comments: tank removed previously, lines not removed, leak via lines to grave,

soil & septic system removed

Work Performed: excavate soil

LUST Id: 1849 UST Facility Id: Not reported LUST Case Id: 29958 Lust Status: Investigation **Processing Status:** Not reported EPA Reportable: False Motor Fuel: False Diesel: False Gasoline: False Other: False Other Release: Not reported No Release: False Leak: False Tank: False Piping: False

Distance Elevation

on Site Database(s) EPA ID Number

#### **MAIORINO RESIDENCE (Continued)**

S102571269

**EDR ID Number** 

Overfill: False False Removal: Incident Date: 03/17/1997 Not reported Entry Date: Site Case Id: Not reported UST Site Id: Not reported Cost Recovery Spill Case #: Not reported Old SITS Number: Not reported Case Log Id: Not reported Monthly Report Id: Not reported UST Owner Id: LUST Owner Id:

Not reported UST Event Id: 1848 Contact Info: Not reported Contact EMail: Not reported UNKNOWN Site Contact City, St, Zip: 2nd Contact: Not reported 2nd Contact EMail: Not reported 2nd Contact Address: Not reported UNKNOWN 2nd Contact City, St, Zip: 2nd Contact Address 2: Not reported 2nd Contact City 2: Not reported 2nd Contact Phone Number: Not reported 2nd Contact Fax Number: Not reported 2nd Contact Type: Not reported Facility City Num: 19

Not reported

Site Contact:

Site Contact Address: Not reported Site Contact Add 2: Not reported Site Contact City 2: Not reported Site Contact Phone: Not reported Site Contact Fax: Not reported Site Contact Type: Not reported Department Contact 1: Not reported Department Contact 2: Not reported Referral Source: Not reported Offsite Source: False Date Referred: Not reported Emergency: False Private Heating Fuel: True Commercial Heating Fuel: False Commercial HF < 2100 Gal.: False Commercial HF > 2100 Gal.: False Commercial HF - Size Unk: False No LUST Site: False Cost Recvry Prgm Candidate: False OCSRD Complete: False Follow Up Flag: False Alternate Water Supply: False Relocation: False Responsible Party: False

Responsible Party:
Responsible EMail:
Resp Party Name:
Resp Party Address:
Resp Party City,St,Zip:
Resp Party Town Number:
Resp Party Phone:
Resp Party Phone:

Hase
Not reported
UNKNOWN
Not reported

Distance Elevation Site

ite Database(s) EPA ID Number

#### **MAIORINO RESIDENCE (Continued)**

S102571269

**EDR ID Number** 

Resp Party Fax:
Resp Party Name 2:
Resp Party Address 2:
Resp Party Phone 2:
Not reported
Not reported
Not reported
Not reported
20

Follow Update: Not reported Not reported Area Lextent: Not reported Annual Precipitation: Affected Population: Not reported Population Setting: Not reported **Ground Water Direction:** Not reported **Ground Water Gradient:** Not reported Hydro Basin: Not reported Drastic: Not reported Geo Setting: Not reported **Ground Water Classification:** Not reported Not reported Receptor: Ground Water Flow Direction: Not reported Ground Water Depth: Not reported Areas Of Concern: Not reported Free Product Inches: Not reported Fund Date: Not reported

Fund Planned: No Fund Obligated: No Fund Outlayed: No Fund Judgment: No Fund Recovered: No Cellar Borings: False Install Micro Wells: False Ground Water Sample: False Soil Sample: False Soil Gas: False Site Inspect: False Soil Excavate: False Geo Probe: False False Survey: Potable Well Sample: False Sample MWS: False Ground Water Gauging: False Soil Venting: False Active: False NOV Action: None NOV Issued: Not reported NOV Due: Not reported NOV Received: Not reported NOV Closed: Not reported NOV Disc Date: Not reported NOV Issued Date: Not reported NOV Compliance Sched: Not reported NOV Admin Order: Not reported NOV Referred To Aq: Not reported Stop All NOV Actions: False Release Invest Rpt: False DEP App Letter 1: False Correct Action Plan: False DEP App Letter 2: False

False

Rem Sys Install:

MAP FINDINGS Map ID

Direction Distance

**EDR ID Number** Elevation Site Database(s) **EPA ID Number** 

**MAIORINO RESIDENCE (Continued)** 

S102571269

Rem Sys Install Date: Not reported Not reported Closure Date: Rem Sys Monitoring Rpt: False **Qrtly Gwater Mon Rpts:** False Closure Req Rpt: False **DEP Closure Letter:** False Referred To: Not reported Not reported No Wells: Lph Wells: Not reported User Stamp: Not reported Date Stamp: Not reported

Correspondence: Action: Issued: Received:2/17/1999status date is date of data cleanup

**Environmental Impact:** Not reported FollowUp: Not reported **GW Comments:** Not reported Location Desc: Not reported **NOV Comments:** Not reported Release Desc: Not reported

**Running Comments:** tank removed previously, lines not removed, leak via lines to grave,

soil & septic system removed

Work Performed: Not reported

CPCS:

LUST Site Type: Lust Status code:

Lust Status: Investigation PTP Form: Not reported Program: Not reported

Comments: Tank Removed Previously, Lines Not Removed, Leak Via Lines To Grave,

Soil & Septic System Removed

Leaking Underground Storage Tanks Investigation Site Type Definition:

**A2 MAIORINO RESIDENCE** CT CPCS S105738870 South **426 CHURCH STREET** N/A

**BROOKLYN, CT 06234** 1/8-1/4 0.164 mi.

868 ft. Site 2 of 2 in cluster A

CPCS: Relative:

LUST Site Type: Lower Lust Status code:

Actual: Lust Status: Pending 295 ft. PTP Form: Not reported Program: Not reported Comments: Not reported

> Site Type Definition: Leaking Underground Storage Tanks Pending

MAP FINDINGS Map ID

Direction Distance

**EDR ID Number** Elevation Site Database(s) **EPA ID Number** 

**ROGERS CORP CERC-NFRAP** 1000217500 NNE ONE TECHNOLOGY DR CORRACTS CTD001141167

**RCRA-TSDF** 

**RCRA-LQG** 

1/4-1/2 ROGERS, CT 06263 0.409 mi.

2162 ft. **US FIN ASSUR** 2020 COR ACTION Relative: **US AIRS** Lower

**CT ENF CT Financial Assurance** Actual:

**RI MANIFEST** 230 ft. **NY MANIFEST NJ MANIFEST** 

CERC-NFRAP:

0102017 Site ID:

Federal Facility: Not a Federal Facility NPL Status: Not on the NPL Non NPL Status: Deferred to RCRA

**CERCLIS-NFRAP Site Contact Details:** 

Contact Sequence ID: 13326151.00000 Person ID: 13004278.00000

CERCLIS-NFRAP Site Alias Name(s):

ROGERS CORP Alias Name: Alias Address: Not reported WINDHAM, CT

Program Priority:

Description: **Environmental Justice Indicator** 

CERCLIS-NFRAP Assessment History:

Action: **DISCOVERY** 

Date Started: 07/12/85 Date Completed: Priority Level: Not reported

SITE INSPECTION Action:

Date Started: // Date Completed: 01/19/90

Deferred to RCRA (Subtitle C) Priority Level:

Action: ARCHIVE SITE

Date Started: Date Completed: 01/25/96 Priority Level: Not reported

PRELIMINARY ASSESSMENT Action:

Date Started: //

Date Completed: 03/25/86

Priority Level: Low priority for further assessment

CORRACTS:

EPA ID: CTD001141167

EPA Region:

Direction Distance

**EDR ID Number** Elevation Site **EPA ID Number** Database(s)

**ROGERS CORP (Continued)** 

1000217500

Area Name: **ENTIRE FACILITY** 

19940503 Actual Date:

CA075HI - CA Prioritization, Facility or area was assigned a high Action:

corrective action priority

NAICS Code(s): 326113 54171

> Unlaminated Plastics Film and Sheet (except Packaging) Manufacturing Research and Development in the Physical, Engineering, and Life

Sciences

Original schedule date: Not reported Schedule end date: Not reported

EPA ID: CTD001141167

EPA Region:

Area Name: **ENTIRE FACILITY** 

Actual Date: 19970805

Action: CA725IN - Current Human Exposures Under Control, More information is

needed to make a determination

NAICS Code(s): 326113 54171

> Unlaminated Plastics Film and Sheet (except Packaging) Manufacturing Research and Development in the Physical, Engineering, and Life

Sciences

Original schedule date: Not reported Schedule end date: Not reported

EPA ID: CTD001141167

EPA Region:

Area Name: **ENTIRE FACILITY** 

Actual Date: 19970805

Action: CA750IN - Migration of Contaminated Groundwater under Control, More

information is needed to make a determination

NAICS Code(s): 326113 54171

Unlaminated Plastics Film and Sheet (except Packaging) Manufacturing Research and Development in the Physical, Engineering, and Life

Sciences

Original schedule date: Not reported Schedule end date: Not reported

EPA ID: CTD001141167

EPA Region:

Area Name: **ENTIRE FACILITY** 

Actual Date: 19940411

Action: CA050RF - RFA Completed, Assessment was an RFA

NAICS Code(s): 326113 54171

> Unlaminated Plastics Film and Sheet (except Packaging) Manufacturing Research and Development in the Physical, Engineering, and Life

Sciences

Original schedule date: Not reported Schedule end date: Not reported

EPA ID: CTD001141167

EPA Region:

Area Name: **ENTIRE FACILITY** 

Actual Date: 19980515

CA100 - RFI Imposition Action:

NAICS Code(s): 326113 54171

> Unlaminated Plastics Film and Sheet (except Packaging) Manufacturing Research and Development in the Physical, Engineering, and Life

Direction Distance

Elevation Site **EPA ID Number** Database(s)

**ROGERS CORP (Continued)** 

1000217500

**EDR ID Number** 

Sciences

Original schedule date: Not reported Schedule end date: Not reported

EPA ID: CTD001141167

EPA Region:

**ENTIRE FACILITY** Area Name:

Actual Date: 20040421

Action: CA725YE - Current Human Exposures Under Control, Yes, Current Human

Exposures Under Control has been verified

326113 54171 NAICS Code(s):

> Unlaminated Plastics Film and Sheet (except Packaging) Manufacturing Research and Development in the Physical, Engineering, and Life

Original schedule date: 20040930 Schedule end date: Not reported

CTD001141167 EPA ID: EPA Region:

Area Name:

**ENTIRE FACILITY** 

Actual Date: 20040421

Action: CA750YE - Migration of Contaminated Groundwater under Control, Yes,

Migration of Contaminated Groundwater Under Control has been verified

NAICS Code(s): 326113 54171

Unlaminated Plastics Film and Sheet (except Packaging) Manufacturing

Research and Development in the Physical, Engineering, and Life

Sciences

Original schedule date: 20040930 Schedule end date: Not reported

RCRA-TSDF:

Date form received by agency: 02/19/2014

Facility name: ROGERS CORP

Facility address: ONE TECHNOLOGY DR

ROGERS, CT 06263

EPA ID: CTD001141167

MICHAL J WERBECKI Contact: Contact address: ONE TECHNOLOGY DR

ROGERS, CT 06263

Contact country: US

Contact telephone: (860) 779-4765

Contact email: MICHAL.WERBECKI@ROGERSCORPORATION.COM

EPA Region: Land type: Private Classification: **TSDF** 

Description: Handler is engaged in the treatment, storage or disposal of hazardous

Classification: Large Quantity Generator

Handler: generates 1,000 kg or more of hazardous waste during any Description:

calendar month; or generates more than 1 kg of acutely hazardous waste during any calendar month; or generates more than 100 kg of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month; or generates 1 kg or less of acutely hazardous waste during any calendar month, and accumulates more than 1 kg of acutely hazardous waste at any time; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting

Distance Elevation

Site Database(s) EPA ID Number

#### **ROGERS CORP (Continued)**

1000217500

**EDR ID Number** 

from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates more than 100 kg of that material at any time

Owner/Operator Summary:

Owner/Op end date:

Owner/operator name: ROGERS CORP
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 05/15/1935

Owner/operator name: ROGERS CORP
Owner/operator address: TECHNOLOGY DR
ROGERS, CT 06263

Not reported

Owner/operator country: US

Owner/operator telephone: (860) 774-9605

Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 05/15/1935
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No Mixed waste (haz. and radioactive): No Recycler of hazardous waste: No Transporter of hazardous waste: No Treater, storer or disposer of HW: Yes Underground injection activity: No On-site burner exemption: No Furnace exemption: No Used oil fuel burner: No Used oil processor: No User oil refiner: No Used oil fuel marketer to burner: No Used oil Specification marketer: No Used oil transfer facility: No Used oil transporter: No

. Waste code: D001

. Waste name: IGNITABLE WASTE

Waste code: D002

Waste name: CORROSIVE WASTE

Waste code: D003

Waste code:

Waste name: REACTIVE WASTE

D008

Waste name: LEAD

Waste code: D009
Waste name: MERCURY

Direction Distance Elevation

Site Database(s) EPA ID Number

ROGERS CORP (Continued)

1000217500

**EDR ID Number** 

. Waste code: D011 . Waste name: SILVER

Waste code: D022

. Waste name: CHLOROFORM

Waste code: D035

Waste name: METHYL ETHYL KETONE

. Waste code: D040

. Waste name: TRICHLORETHYLENE

Waste code: F003

. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL

ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL

ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT
MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT
NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS
CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED
SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR
MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL

BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

WIIXTORE

Waste code: F005

. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL

KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE,

2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF

THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: LABP. Waste name: LAB PACK

. Waste code: U044

. Waste name: CHLOROFORM (OR) METHANE, TRICHLORO-

Waste code: U159

Waste name: 2-BUTANONE (I,T) (OR) METHYL ETHYL KETONE (MEK) (I,T)

. Waste code: U220

. Waste name: BENZENE, METHYL- (OR) TOLUENE

Waste code: U223

Waste name: BENZENE, 1,3-DIISOCYANATOMETHYL- (R,T) (OR) TOLUENE DIISOCYANATE (R,T)

Waste code: U228

Waste name: ETHENE, TRICHLORO- (OR) TRICHLOROETHYLENE

. Waste code: U239

. Waste name: BENZENE, DIMETHYL- (I,T) (OR) XYLENE (I)

Historical Generators:

Date form received by agency: 02/23/2012

Site name: ROGERS CORP ROGERS

Distance EDR ID Number
Elevation Site EPA ID Number

ROGERS CORP (Continued) 1000217500

Classification: Large Quantity Generator

. Waste code: D001

Waste name: IGNITABLE WASTE

. Waste code: D002

. Waste name: CORROSIVE WASTE

Waste code: D003

Waste name: REACTIVE WASTE

Waste code: D008
Waste name: LEAD

Waste code: D009
Waste name: MERCURY

Waste code: D011
Waste name: SILVER

. Waste code: D018
. Waste name: BENZENE

Waste code: D035

. Waste name: METHYL ETHYL KETONE

. Waste code: D039

Waste name: TETRACHLOROETHYLENE

Waste code: D040

Waste name: TRICHLORETHYLENE

. Waste code: F003

. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL

ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL

ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT

MIXTURES.

Waste code: F005

Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL

KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE,

2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF

THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: LABP
. Waste name: LAB PACK

. Waste code: U080

Distance Elevation Site

Site Database(s) EPA ID Number

ROGERS CORP (Continued) 1000217500

. Waste name: METHANE, DICHLORO- (OR) METHYLENE CHLORIDE

. Waste code: U159

Waste name: 2-BUTANONE (I,T) (OR) METHYL ETHYL KETONE (MEK) (I,T)

Waste code: U220

. Waste name: BENZENE, METHYL- (OR) TOLUENE

. Waste code: U239

Waste name: BENZENE, DIMETHYL- (I,T) (OR) XYLENE (I)

Date form received by agency: 05/06/2010
Site name: ROGERS CORP
Classification: Large Quantity Generator

. Waste code: D001

Waste name: IGNITABLE WASTE

. Waste code: D002

Waste name: CORROSIVE WASTE

. Waste code: D003

. Waste name: REACTIVE WASTE

. Waste code: D008
. Waste name: LEAD
. Waste code: D009

. Waste name: MERCURY
. Waste code: D011

Waste name:

Waste code: D018
Waste name: BENZENE

Waste code: D035

. Waste name: METHYL ETHYL KETONE

**SILVER** 

Waste code: D039

Waste name: TETRACHLOROETHYLENE

Waste code: D040

Waste name: TRICHLORETHYLENE

Waste code: F003

. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL

 ${\sf ACETATE}, {\sf ETHYL} \ {\sf BENZENE}, \ {\sf ETHYL} \ {\sf ETHER}, \ {\sf METHYL} \ {\sf ISOBUTYL} \ {\sf KETONE}, \ {\sf N-BUTYL}$ 

ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL

BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT

MIXTURES.

**EDR ID Number** 

Distance Elevation

Site Database(s) EPA ID Number

**ROGERS CORP (Continued)** 

1000217500

**EDR ID Number** 

. Waste code: F005

. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL

KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE,

2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF

THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Waste code: LABP
Waste name: LAB PACK

Waste code: P098

. Waste name: POTASSIUM CYANIDE (OR) POTASSIUM CYANIDE K(CN)

Waste code: U159

Waste name: 2-BUTANONE (I,T) (OR) METHYL ETHYL KETONE (MEK) (I,T)

Waste code: U220

Waste name: BENZENE, METHYL- (OR) TOLUENE

Waste code: U239

. Waste name: BENZENE, DIMETHYL- (I,T) (OR) XYLENE (I)

Date form received by agency: 02/25/2008
Site name: ROGERS CORP
Classification: Large Quantity Generator

. Waste code: D001

. Waste name: IGNITABLE WASTE

Waste code: D002

Waste name: CORROSIVE WASTE

Waste code: D008
Waste name: LEAD

Waste code: D009
Waste name: MERCURY

Waste code: D035

. Waste name: METHYL ETHYL KETONE

Waste code: F003

. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL

ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR

MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT

MIXTURES.

Waste code: F005

. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL

Distance EDR ID Number Elevation Site EDR ID Number Database(s) EPA ID Number

**ROGERS CORP (Continued)** 

1000217500

KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF

THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: LABP
. Waste name: LAB PACK

Date form received by agency: 02/23/2006
Site name: ROGERS CORP
Classification: Large Quantity Generator

Waste code: D001

Waste name: IGNITABLE WASTE

Waste code: D002

Waste name: CORROSIVE WASTE

Waste code: D003

. Waste name: REACTIVE WASTE

. Waste code: D005 . Waste name: BARIUM

. Waste code: D009
. Waste name: MERCURY

Waste code: D035

Waste name: METHYL ETHYL KETONE

Waste code: F002

Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE,

METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE,

CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE,

ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2,

TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND

SPENT SOLVENT MIXTURES.

Waste code: F003

. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL

ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL

BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT

MIXTURES.

. Waste code: F005

. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL

Direction Distance Elevation

**EPA ID Number** Site Database(s)

## **ROGERS CORP (Continued)**

1000217500

**EDR ID Number** 

KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Waste code: LABP Waste name: LAB PACK

P098 Waste code:

POTASSIUM CYANIDE (OR) POTASSIUM CYANIDE K(CN) Waste name:

Waste code:

Waste name: 2-PROPANONE (I) (OR) ACETONE (I)

Waste code:

Waste name: METHANOL (I) (OR) METHYL ALCOHOL (I)

Date form received by agency: 03/03/2004 Site name: ROGERS CORP

Classification: Large Quantity Generator

Waste code: CR01

WASTE PCBs Waste name:

Waste code: CR02 Waste name: WASTE OIL

Waste code: D001

**IGNITABLE WASTE** Waste name:

Waste code:

Waste name: **CORROSIVE WASTE** 

Waste code: D003

REACTIVE WASTE Waste name:

Waste code: D006 CADMIUM Waste name:

Waste code: D009 Waste name: **MERCURY** 

F002 Waste code:

Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE,

METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE,

CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE,

ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2,

TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND

SPENT SOLVENT MIXTURES.

Waste code: F003

THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL Waste name:

Distance EDR ID Number
Elevation Site EDR ID Number
Database(s) EPA ID Number

**ROGERS CORP (Continued)** 

1000217500

ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: P022

. Waste name: CARBON DISULFIDE

Waste code: P098

Waste name: POTASSIUM CYANIDE (OR) POTASSIUM CYANIDE K(CN)

Waste code: U044

. Waste name: CHLOROFORM (OR) METHANE, TRICHLORO-

. Waste code: U057

. Waste name: CYCLOHEXANONE (I)

Waste code: U080

. Waste name: METHANE, DICHLORO- (OR) METHYLENE CHLORIDE

. Waste code: U122

Waste name: FORMALDEHYDE

. Waste code: U188 . Waste name: PHENOL

. Waste code: U201

. Waste name: 1,3-BENZENEDIOL (OR) RESORCINOL

. Waste code: U211

Waste name: CARBON TETRACHLORIDE (OR) METHANE, TETRACHLORO-

Waste code: U213

Waste name: FURAN, TETRAHYDRO-(I) (OR) TETRAHYDROFURAN (I)

Waste code: U225

Waste name: BROMOFORM (OR) METHANE, TRIBROMO-

Waste code: U228

Waste name: ETHENE, TRICHLORO- (OR) TRICHLOROETHYLENE

Date form received by agency: 02/25/2004
Site name: ROGERS CORP
Classification: Large Quantity Generator

. Waste code: D001

Waste name: IGNITABLE WASTE

. Waste code: D002

. Waste name: CORROSIVE WASTE

. Waste code: D003

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ROGERS CORP (Continued) 1000217500

. Waste name: REACTIVE WASTE

. Waste code: D009
. Waste name: MERCURY

. Waste code: F001

. Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS USED IN DEGREASING:

TETRACHLOROETHYLENE, TRICHLORETHYLENE, METHYLENE CHLORIDE, 1,1,1-TRICHLOROETHANE, CARBON TETRACHLORIDE AND CHLORINATED

FLUOROCARBONS; ALL SPENT SOLVENT MIXTURES/BLENDS USED IN DEGREASING CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED

IN F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE

SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Waste code: F003

Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL

ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL

ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT

MIXTURES.

Waste code: P098

. Waste name: POTASSIUM CYANIDE (OR) POTASSIUM CYANIDE K(CN)

Date form received by agency: 02/25/2000
Site name: ROGERS CORP
Classification: Large Quantity Generator

Date form received by agency: 02/27/1998
Site name: ROGERS CORP
Classification: Large Quantity Generator

Date form received by agency: 02/29/1996
Site name: ROGERS CORP.
Classification: Large Quantity Generator

Date form received by agency: 03/01/1994
Site name: ROGERS CORP
Classification: Large Quantity Generator

Date form received by agency: 02/28/1992
Site name: ROGERS CORP
Classification: Large Quantity Generator

Date form received by agency: 02/20/1990
Site name: ROGERS CORP
Classification: Large Quantity Generator

Date form received by agency: 11/18/1980
Site name: ROGERS CORP
Classification: Not a generator, verified

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ROGERS CORP (Continued) 1000217500

. Waste code: D000 . Waste name: Not Defined

. Waste code: D001

. Waste name: IGNITABLE WASTE

Waste code: D002

Waste name: CORROSIVE WASTE

. Waste code: D003

. Waste name: REACTIVE WASTE

. Waste code: D004 . Waste name: ARSENIC

. Waste code: D005 . Waste name: BARIUM

Waste code: D006
Waste name: CADMIUM

Waste code: D007

Waste name: CHROMIUM

Waste code: D008
Waste name: LEAD

Waste code: F001

. Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS USED IN DEGREASING:

TETRACHLOROETHYLENE, TRICHLORETHYLENE, METHYLENE CHLORIDE, 1,1,1-TRICHLOROETHANE, CARBON TETRACHLORIDE AND CHLORINATED

FLUOROCARBONS; ALL SPENT SOLVENT MIXTURES/BLENDS USED IN DEGREASING CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED

IN F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F002

Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE,

METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE,

CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE,

ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2,

TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND

SPENT SOLVENT MIXTURES.

. Waste code: F003

. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL

ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL

ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL

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**ROGERS CORP (Continued)** 

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BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F004

. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: CRESOLS, CRESYLIC ACID,

AND NITROBENZENE; AND THE STILL BOTTOMS FROM THE RECOVERY OF THESE SOLVENTS; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND

SPENT SOLVENT MIXTURES.

Waste code: F005

. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL

KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE,

2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF

THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Waste code: F006

. Waste name: WASTEWATER TREATMENT SLUDGES FROM ELECTROPLATING OPERATIONS, EXCEPT

FROM THE FOLLOWING PROCESSES: (1) SULFURIC ACID ANODIZING OF ALUMINUM; (2) TIN PLATING ON CARBON STEEL; (3) ZINC PLATING (SEGREGATED BASIS) ON CARBON STEEL; (4) ALUMINUM OR ZINC-ALUMINUM PLATING ON CARBON STEEL; (5) CLEANING/STRIPPING ASSOCIATED WITH TIN, ZINC, AND ALUMINUM PLATING ON CARBON STEEL; AND (6) CHEMICAL ETCHING AND MILLING OF

ALUMINUM.

. Waste code: F007

. Waste name: SPENT CYANIDE PLATING BATH SOLUTIONS FROM ELECTROPLATING OPERATIONS.

Waste code: F009

Waste name: SPENT STRIPPING AND CLEANING BATH SOLUTIONS FROM ELECTROPLATING

OPERATIONS IN WHICH CYANIDES ARE USED IN THE PROCESS.

. Waste code: P005

. Waste name: 2-PROPEN-1-OL (OR) ALLYL ALCOHOL

. Waste code: P012

. Waste name: ARSENIC OXIDE AS2O3 (OR) ARSENIC TRIOXIDE

Waste code: P014

. Waste name: BENZENETHIOL (OR) THIOPHENOL

Waste code: P030

Waste name: CYANIDES (SOLUBLE CYANIDE SALTS), NOT OTHERWISE SPECIFIED

Waste code: P054

. Waste name: AZIRIDINE (OR) ETHYLENEIMINE

Waste code: P065

. Waste name: FULMINIC ACID, MERCURY(2+) SALT (R,T) (OR) MERCURY FULMINATE (R,T)

Waste code: P105

. Waste name: SODIUM AZIDE

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. Waste code: P106

. Waste name: SODIUM CYANIDE (OR) SODIUM CYANIDE NA(CN)

. Waste code: U002

. Waste name: 2-PROPANONE (I) (OR) ACETONE (I)

Waste code: U007

Waste name: 2-PROPENAMIDE (OR) ACRYLAMIDE

Waste code: U008

. Waste name: 2-PROPENOIC ACID (I) (OR) ACRYLIC ACID (I)

Waste code: U009

. Waste name: 2-PROPENENITRILE (OR) ACRYLONITRILE

. Waste code: U012

. Waste name: ANILINE (I,T) (OR) BENZENAMINE (I,T)

Waste code: U019

. Waste name: BENZENE (I,T)

. Waste code: U030

. Waste name: 4-BROMOPHENYL PHENYL ETHER (OR) BENZENE, 1-BROMO-4-PHENOXY-

. Waste code: U031

. Waste name: 1-BUTANOL (I) (OR) N-BUTYL ALCOHOL (I)

Waste code: U037

. Waste name: BENZENE, CHLORO- (OR) CHLOROBENZENE

. Waste code: U044

. Waste name: CHLOROFORM (OR) METHANE, TRICHLORO-

. Waste code: U052

. Waste name: CRESOL (CRESYLIC ACID) (OR) PHENOL, METHYL-

. Waste code: U056

. Waste name: BENZENE, HEXAHYDRO- (I) (OR) CYCLOHEXANE (I)

. Waste code: U057

Waste name: CYCLOHEXANONE (I)

. Waste code: U069

Waste name: 1,2-BENZENEDICARBOXYLIC ACID, DIBUTYL ESTER (OR) DIBUTYL PHTHALATE

Waste code: U080

. Waste name: METHANE, DICHLORO- (OR) METHYLENE CHLORIDE

. Waste code: U088

. Waste name: 1,2-BENZENEDICARBOXYLIC ACID, DIETHYL ESTER (OR) DIETHYL PHTHALATE

. Waste code: U102

. Waste name: 1,2-BENZENEDICARBOXYLIC ACID, DIMETHYL ESTER (OR) DIMETHYL PHTHALATE

Waste code: U107

. Waste name: 1,2-BENZENEDICARBOXYLIC ACID, DIOCTYL ESTER (OR) DI-N-OCTYL PHTHALATE

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ROGERS CORP (Continued) 1000217500

. Waste code: U112

. Waste name: ACETIC ACID, ETHYL ESTER (I) (OR) ETHYL ACETATE (I)

. Waste code: U113

. Waste name: 2-PROPENOIC ACID, ETHYL ESTER (I) (OR) ETHYL ACRYLATE (I)

Waste code: U117

. Waste name: ETHANE, 1,1'-OXYBIS-(I) (OR) ETHYL ETHER (I)

. Waste code: U122

Waste name: FORMALDEHYDE

Waste code: U123

. Waste name: FORMIC ACID (C,T)

Waste code: U124

. Waste name: FURAN (I) (OR) FURFURAN (I)

. Waste code: U125

. Waste name: 2-FURANCARBOXALDEHYDE (I) (OR) FURFURAL (I)

. Waste code: U134

Waste name: HYDROFLUORIC ACID (C,T) (OR) HYDROGEN FLUORIDE (C,T)

Waste code: U140

. Waste name: 1-PROPANOL, 2-METHYL- (I,T) (OR) ISOBUTYL ALCOHOL (I,T)

Waste code: U144

. Waste name: ACETIC ACID, LEAD(2+) SALT (OR) LEAD ACETATE

. Waste code: U151 . Waste name: MERCURY

Waste code: U154

. Waste name: METHANOL (I) (OR) METHYL ALCOHOL (I)

Waste code: U156

. Waste name: CARBONOCHLORIDIC ACID, METHYL ESTER, (I,T) (OR) METHYL CHLOROCARBONATE

(I,T)

. Waste code: U159

. Waste name: 2-BUTANONE (I,T) (OR) METHYL ETHYL KETONE (MEK) (I,T)

Waste code: U160

Waste name: 2-BUTANONE, PEROXIDE (R,T) (OR) METHYL ETHYL KETONE PEROXIDE (R,T)

Waste code: U161

Waste name: 4-METHYL-2-PENTANONE (I) (OR) METHYL ISOBUTYL KETONE (I) (OR)

PENTANOL, 4-METHYL-

Waste code: U162

. Waste name: 2-PROPENOIC ACID, 2-METHYL-, METHYL ESTER (I,T) (OR) METHYL

METHACRYLATE (I,T)

. Waste code: U169

. Waste name: BENZENE, NITRO- (OR) NITROBENZENE (I,T)

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ROGERS CORP (Continued) 1000217500

. Waste code: U188 . Waste name: PHENOL

. Waste code: U190

. Waste name: 1,3-ISOBENZOFURANDIONE (OR) PHTHALIC ANHYDRIDE

. Waste code: U196 . Waste name: PYRIDINE

Waste code: U197

. Waste name: 2,5-CYCLOHEXADIENE-1,4-DIONE (OR) P-BENZOQUINONE

. Waste code: U201

. Waste name: 1,3-BENZENEDIOL (OR) RESORCINOL

. Waste code: U204

Waste name: SELENIOUS ACID (OR) SELENIUM DIOXIDE

Waste code: U205

. Waste name: SELENIUM SULFIDE (OR) SELENIUM SULFIDE SES2 (R,T)

Waste code: U210

. Waste name: ETHENE, TETRACHLORO- (OR) TETRACHLOROETHYLENE

. Waste code: U213

. Waste name: FURAN, TETRAHYDRO-(I) (OR) TETRAHYDROFURAN (I)

. Waste code: U219 . Waste name: THIOUREA

Waste code: U220

. Waste name: BENZENE, METHYL- (OR) TOLUENE

. Waste code: U221

. Waste name: BENZENEDIAMINE, AR-METHYL- (OR) TOLUENEDIAMINE

Waste code: U222

Waste name: BENZENAMINE, 2-METHYL-, HYDROCHLORIDE (OR) O-TOLUIDINE HYDROCHLORIDE

Waste code: U223

. Waste name: BENZENE, 1,3-DIISOCYANATOMETHYL- (R,T) (OR) TOLUENE DIISOCYANATE (R,T)

. Waste code: U225

. Waste name: BROMOFORM (OR) METHANE, TRIBROMO-

Waste code: U226

. Waste name: ETHANE, 1,1,1-TRICHLORO- (OR) METHYL CHLOROFORM

. Waste code: U228

Waste name: ETHENE, TRICHLORO- (OR) TRICHLOROETHYLENE

. Waste code: U235

Waste name: 1-PROPANOL, 2,3-DIBROMO-, PHOSPHATE (3:1) (OR)

TRIS(2,3,-DIBROMOPROPYL) PHOSPHATE

. Waste code: U238

. Waste name: CARBAMIC ACID, ETHYL ESTER (OR) ETHYL CARBAMATE (URETHANE)

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. Waste code: U239

. Waste name: BENZENE, DIMETHYL- (I,T) (OR) XYLENE (I)

Date form received by agency: 08/18/1980
Site name: ROGERS CORP
Classification: Large Quantity Generator

Waste code: D000
Waste name: Not Defined

. Waste code: D001

. Waste name: IGNITABLE WASTE

Waste code: D002

Waste name: CORROSIVE WASTE

Waste code: D003

. Waste name: REACTIVE WASTE

Waste code: D004
Waste name: ARSENIC

Waste code: D005
Waste name: BARIUM

. Waste code: D006
. Waste name: CADMIUM

. Waste code: D007 . Waste name: CHROMIUM

. Waste code: D008 . Waste name: LEAD

. Waste code: F001

Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS USED IN DEGREASING:

TETRACHLOROETHYLENE, TRICHLORETHYLENE, METHYLENE CHLORIDE, 1,1,1-TRICHLOROETHANE, CARBON TETRACHLORIDE AND CHLORINATED

FLUOROCARBONS; ALL SPENT SOLVENT MIXTURES/BLENDS USED IN DEGREASING CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE

SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F002

Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE,

METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE,

CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2,

TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND

SPENT SOLVENT MIXTURES.

. Waste code: F003

. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL

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ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F004

. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: CRESOLS, CRESYLIC ACID,

AND NITROBENZENE; AND THE STILL BOTTOMS FROM THE RECOVERY OF THESE SOLVENTS; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND

SPENT SOLVENT MIXTURES.

Waste code: F005

Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL

KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE,

2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF

THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Waste code: F006

. Waste name: WASTEWATER TREATMENT SLUDGES FROM ELECTROPLATING OPERATIONS, EXCEPT FROM THE FOLLOWING PROCESSES: (1) SULFURIC ACID ANODIZING OF ALUMINUM;

(2) TIN PLATING ON CARBON STEEL; (3) ZINC PLATING (SEGREGATED BASIS) ON CARBON STEEL; (4) ALUMINUM OR ZINC-ALUMINUM PLATING ON CARBON STEEL; (5) CLEANING/STRIPPING ASSOCIATED WITH TIN, ZINC, AND ALUMINUM PLATING ON CARBON STEEL; AND (6) CHEMICAL ETCHING AND MILLING OF

ALUMINUM.

. Waste code: F007

. Waste name: SPENT CYANIDE PLATING BATH SOLUTIONS FROM ELECTROPLATING OPERATIONS.

Waste code: F009

Waste name: SPENT STRIPPING AND CLEANING BATH SOLUTIONS FROM ELECTROPLATING

OPERATIONS IN WHICH CYANIDES ARE USED IN THE PROCESS.

Waste code: P005

. Waste name: 2-PROPEN-1-OL (OR) ALLYL ALCOHOL

Waste code: P012

Waste name: ARSENIC OXIDE AS203 (OR) ARSENIC TRIOXIDE

Waste code: P014

Waste name: BENZENETHIOL (OR) THIOPHENOL

. Waste code: P019 . Waste name: Not Defined

. Waste code: P030

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. Waste name: CYANIDES (SOLUBLE CYANIDE SALTS), NOT OTHERWISE SPECIFIED

. Waste code: P053
. Waste name: Not Defined

. Waste code: P054

. Waste name: AZIRIDINE (OR) ETHYLENEIMINE

Waste code: P065

Waste name: FULMINIC ACID, MERCURY(2+) SALT (R,T) (OR) MERCURY FULMINATE (R,T)

. Waste code: P080 . Waste name: Not Defined

. Waste code: P090 . Waste name: Not Defined

. Waste code: P100
. Waste name: Not Defined

. Waste code: P105

Waste name: SODIUM AZIDE

Waste code: P106

. Waste name: SODIUM CYANIDE (OR) SODIUM CYANIDE NA(CN)

. Waste code: U002

. Waste name: 2-PROPANONE (I) (OR) ACETONE (I)

. Waste code: U007

. Waste name: 2-PROPENAMIDE (OR) ACRYLAMIDE

. Waste code: U008

. Waste name: 2-PROPENOIC ACID (I) (OR) ACRYLIC ACID (I)

. Waste code: U009

. Waste name: 2-PROPENENITRILE (OR) ACRYLONITRILE

Waste code: U012

Waste name: ANILINE (I,T) (OR) BENZENAMINE (I,T)

Waste code: U013 Waste name: Not Defined

Waste code: U019

Waste name: BENZENE (I,T)

Waste code: U030

. Waste name: 4-BROMOPHENYL PHENYL ETHER (OR) BENZENE, 1-BROMO-4-PHENOXY-

Waste code: U031

Waste name: 1-BUTANOL (I) (OR) N-BUTYL ALCOHOL (I)

. Waste code: U037

. Waste name: BENZENE, CHLORO- (OR) CHLOROBENZENE

. Waste code: U044

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ROGERS CORP (Continued) 1000217500

. Waste name: CHLOROFORM (OR) METHANE, TRICHLORO-

. Waste code: U052

. Waste name: CRESOL (CRESYLIC ACID) (OR) PHENOL, METHYL-

Waste code: U054
Waste name: Not Defined

Waste code: U056

Waste name: BENZENE, HEXAHYDRO- (I) (OR) CYCLOHEXANE (I)

Waste code: U057

Waste name: CYCLOHEXANONE (I)

Waste code: U069

. Waste name: 1,2-BENZENEDICARBOXYLIC ACID, DIBUTYL ESTER (OR) DIBUTYL PHTHALATE

Waste code: U080

. Waste name: METHANE, DICHLORO- (OR) METHYLENE CHLORIDE

Waste code: U088

. Waste name: 1,2-BENZENEDICARBOXYLIC ACID, DIETHYL ESTER (OR) DIETHYL PHTHALATE

Waste code: U102

. Waste name: 1,2-BENZENEDICARBOXYLIC ACID, DIMETHYL ESTER (OR) DIMETHYL PHTHALATE

. Waste code: U107

. Waste name: 1,2-BENZENEDICARBOXYLIC ACID, DIOCTYL ESTER (OR) DI-N-OCTYL PHTHALATE

Waste code: U112

. Waste name: ACETIC ACID, ETHYL ESTER (I) (OR) ETHYL ACETATE (I)

. Waste code: U113

Waste name: 2-PROPENOIC ACID, ETHYL ESTER (I) (OR) ETHYL ACRYLATE (I)

. Waste code: U117

. Waste name: ETHANE, 1,1'-OXYBIS-(I) (OR) ETHYL ETHER (I)

. Waste code: U122

Waste name: FORMALDEHYDE

. Waste code: U123

. Waste name: FORMIC ACID (C,T)

. Waste code: U124

. Waste name: FURAN (I) (OR) FURFURAN (I)

Waste code: U125

. Waste name: 2-FURANCARBOXALDEHYDE (I) (OR) FURFURAL (I)

Waste code: U134

Waste name: HYDROFLUORIC ACID (C,T) (OR) HYDROGEN FLUORIDE (C,T)

. Waste code: U140

. Waste name: 1-PROPANOL, 2-METHYL- (I,T) (OR) ISOBUTYL ALCOHOL (I,T)

. Waste code: U144

**EDR ID Number** 

Direction Distance Elevation

Site Database(s) EPA ID Number

ROGERS CORP (Continued) 1000217500

. Waste name: ACETIC ACID, LEAD(2+) SALT (OR) LEAD ACETATE

. Waste code: U151 . Waste name: MERCURY

Waste code: U154

. Waste name: METHANOL (I) (OR) METHYL ALCOHOL (I)

. Waste code: U156

. Waste name: CARBONOCHLORIDIC ACID, METHYL ESTER, (I,T) (OR) METHYL CHLOROCARBONATE

(I,T)

Waste code: U159

. Waste name: 2-BUTANONE (I,T) (OR) METHYL ETHYL KETONE (MEK) (I,T)

. Waste code: U160

. Waste name: 2-BUTANONE, PEROXIDE (R,T) (OR) METHYL ETHYL KETONE PEROXIDE (R,T)

Waste code: U161

Waste name: 4-METHYL-2-PENTANONE (I) (OR) METHYL ISOBUTYL KETONE (I) (OR)

PENTANOL, 4-METHYL-

Waste code: U162

Waste name: 2-PROPENOIC ACID, 2-METHYL-, METHYL ESTER (I,T) (OR) METHYL

METHACRYLATE (I,T)

Waste code: U169

. Waste name: BENZENE, NITRO- (OR) NITROBENZENE (I,T)

. Waste code: U188 . Waste name: PHENOL

Waste code: U190

. Waste name: 1,3-ISOBENZOFURANDIONE (OR) PHTHALIC ANHYDRIDE

. Waste code: U196 . Waste name: PYRIDINE

Waste code: U197

Waste name: 2,5-CYCLOHEXADIENE-1,4-DIONE (OR) P-BENZOQUINONE

Waste code: U201

. Waste name: 1,3-BENZENEDIOL (OR) RESORCINOL

. Waste code: U204

. Waste name: SELENIOUS ACID (OR) SELENIUM DIOXIDE

Waste code: U205

. Waste name: SELENIUM SULFIDE (OR) SELENIUM SULFIDE SES2 (R,T)

Waste code: U210

Waste name: ETHENE, TETRACHLORO- (OR) TETRACHLOROETHYLENE

. Waste code: U213

. Waste name: FURAN, TETRAHYDRO-(I) (OR) TETRAHYDROFURAN (I)

. Waste code: U219

**EDR ID Number** 

Distance Elevation

Site Database(s) EPA ID Number

ROGERS CORP (Continued)

1000217500

**EDR ID Number** 

. Waste name: THIOUREA

. Waste code: U220

. Waste name: BENZENE, METHYL- (OR) TOLUENE

. Waste code: U221

. Waste name: BENZENEDIAMINE, AR-METHYL- (OR) TOLUENEDIAMINE

Waste code: U222

. Waste name: BENZENAMINE, 2-METHYL-, HYDROCHLORIDE (OR) O-TOLUIDINE HYDROCHLORIDE

Waste code: U223

Waste name: BENZENE, 1,3-DIISOCYANATOMETHYL- (R,T) (OR) TOLUENE DIISOCYANATE (R,T)

Waste code: U225

. Waste name: BROMOFORM (OR) METHANE, TRIBROMO-

Waste code: U226

Waste name: ETHANE, 1,1,1-TRICHLORO- (OR) METHYL CHLOROFORM

Waste code: U228

. Waste name: ETHENE, TRICHLORO- (OR) TRICHLOROETHYLENE

. Waste code: U229 . Waste name: Not Defined

Waste code: U235

Waste name: 1-PROPANOL, 2,3-DIBROMO-, PHOSPHATE (3:1) (OR)

TRIS(2,3,-DIBROMOPROPYL) PHOSPHATE

. Waste code: U238

. Waste name: CARBAMIC ACID, ETHYL ESTER (OR) ETHYL CARBAMATE (URETHANE)

Waste code: U239

. Waste name: BENZENE, DIMETHYL- (I,T) (OR) XYLENE (I)

Biennial Reports:

Last Biennial Reporting Year: 2013

Annual Waste Handled:

Waste code: D001

Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF

LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT

WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

Amount (Lbs): 22713

Waste code: D002

Waste name: A WASTE WHICH HAS A PH OF LESS THAN 2 OR GREATER THAN 12.5 IS

CONSIDERED TO BE A CORROSIVE HAZARDOUS WASTE. SODIUM HYDROXIDE, A CAUSTIC SOLUTION WITH A HIGH PH, IS OFTEN USED BY INDUSTRIES TO CLEAN OR DEGREASE PARTS. HYDROCHLORIC ACID, A SOLUTION WITH A LOW PH, IS USED BY MANY INDUSTRIES TO CLEAN METAL PARTS PRIOR TO PAINTING. WHEN THESE CAUSTIC OR ACID SOLUTIONS BECOME CONTAMINATED AND MUST BE

Direction Distance

**EDR ID Number** Elevation Site Database(s) **EPA ID Number** 

**ROGERS CORP (Continued)** 

DISPOSED, THE WASTE WOULD BE A CORROSIVE HAZARDOUS WASTE.

Amount (Lbs): 2961

D003 Waste code:

Waste name: A MATERIAL IS CONSIDERED TO BE A REACTIVE HAZARDOUS WASTE IF IT IS

> NORMALLY UNSTABLE, REACTS VIOLENTLY WITH WATER, GENERATES TOXIC GASES WHEN EXPOSED TO WATER OR CORROSIVE MATERIALS, OR IF IT IS CAPABLE OF DETONATION OR EXPLOSION WHEN EXPOSED TO HEAT OR A FLAME. ONE EXAMPLE

OF SUCH WASTE WOULD BY WASTE GUNPOWDER.

Amount (Lbs): 579

Waste code: D005 Waste name: **BARIUM** Amount (Lbs): 485

Waste code: D008 LEAD Waste name: Amount (Lbs): 785

Waste code: D009 **MERCURY** Waste name:

Amount (Lbs): 781

Waste code: D011 Waste name: **SILVER** Amount (Lbs): 120

Waste code: D018 Waste name: **BENZENE** Amount (Lbs): 985

Waste code: D035

Waste name: METHYL ETHYL KETONE

Amount (Lbs): 4250

Waste code: D039

**TETRACHLOROETHYLENE** Waste name:

Amount (Lbs): 500

Waste code: D040

Waste name: TRICHLOROETHYLENE

Amount (Lbs): 500

Waste code: F003

THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL Waste name:

ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL

ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NON-HALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS, AND, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT

MIXTURES.

Amount (Lbs): 20025

Waste code: F005 1000217500

Direction Distance

**EDR ID Number** Elevation **EPA ID Number** Site Database(s)

**ROGERS CORP (Continued)** 

1000217500

Waste name: THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL

KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE,

2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF

THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Amount (Lbs): 4250

Waste code: LABP Waste name: LAB PACK Amount (Lbs): 485

Waste code: U080

Waste name: METHANE, DICHLORO-

Amount (Lbs): 485

Waste code: U159

Waste name: 2-BUTANONE (I,T)

Amount (Lbs): 1723

Waste code: U220

BENZENE. METHYL-Waste name:

Amount (Lbs): 1685

Waste code: U239

Waste name: BENZENE, DIMETHYL- (I,T)

Amount (Lbs): 1685

Corrective Action Summary:

Event date: 04/11/1994

Event: RFA Completed, Assessment was an RFA.

Event date: 05/03/1994

Event: CA Prioritization, Facility or area was assigned a high corrective

action priority.

Event date: 08/05/1997

Current Human Exposures under Control, More information is needed to Event:

make a determination.

Event date: 08/05/1997

Igration of Contaminated Groundwater under Control, More information Event:

is needed to make a determination.

Event date: 05/15/1998 Event: **RFI** Imposition

Event date:

Current Human Exposures under Control, Yes, Current Human Exposures Event:

Under Control has been verified. Based on a review of information contained in the EI determination, current human exposures are expected to be under control at the facility under current and reasonably expected conditions. This determination will be re-evaluated when the Agency/State becomes aware of significant

changes at the facility.

Direction Distance

**EDR ID Number** Elevation **EPA ID Number** Site Database(s)

**ROGERS CORP (Continued)** 

1000217500

Event date: 04/21/2004

Event: Igration of Contaminated Groundwater under Control, Yes, Migration of

Contaminated Groundwater Under Control has been verified. Based on a review of information contained in the EI determination, it has been determined that migration of contaminated groundwater is under control at the facility. Specifically, this determination indicates that the migration of contaminated groundwater is under control, and that monitoring will be conducted to confirm that contaminated groundwater remains within the existing area of contaminated groundwater. This determination will be re-evaluated when the Agency becomes aware of

significant changes at the facility.

Facility Has Received Notices of Violations:

Regulation violated: Not reported

State Statute or Regulation Area of violation:

Date violation determined: 01/23/2008 Date achieved compliance: 02/28/2008 Violation lead agency: State

Enforcement action: WRITTEN INFORMAL

Enforcement action date: 01/30/2008

Action Satisfied (Case Closed) Enf. disposition status:

Enf. disp. status date: 02/28/2008 Enforcement lead agency: State Proposed penalty amount: Not reported Final penalty amount: Not reported Paid penalty amount: Not reported

Regulation violated: Not reported

Area of violation: TSD IS-Financial Requirements

Date violation determined: 12/20/2006 Date achieved compliance: 12/06/2007 Violation lead agency: State

Enforcement action: WRITTEN INFORMAL

Enforcement action date: 03/16/2007

Enf. disposition status: Action Satisfied (Case Closed)

Enf. disp. status date: 12/06/2007 Enforcement lead agency: State

Proposed penalty amount: Not reported Final penalty amount: Not reported Paid penalty amount: Not reported

Regulation violated: Not reported

Area of violation: TSD IS-Financial Requirements

Date violation determined: 09/05/2006 12/06/2007 Date achieved compliance: Violation lead agency: State

Enforcement action: WRITTEN INFORMAL

Enforcement action date: 03/16/2007

Enf. disposition status: Action Satisfied (Case Closed)

Enf. disp. status date: 12/06/2007 Enforcement lead agency: State Proposed penalty amount: Not reported Final penalty amount: Not reported Paid penalty amount: Not reported

Regulation violated: SR - 22a-449(c0-102(a) Area of violation: Generators - Pre-transport

Distance Elevation

vation Site Database(s) EPA ID Number

**ROGERS CORP (Continued)** 

1000217500

**EDR ID Number** 

Date violation determined: 02/19/1997
Date achieved compliance: 01/19/1999
Violation lead agency: State

Enforcement action: WRITTEN INFORMAL

Enforcement action date: 12/07/1998
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: SR - 22a-449(c)-102(a)(2)(E)
Area of violation: Generators - Pre-transport

Date violation determined: 02/19/1997
Date achieved compliance: 01/19/1999
Violation lead agency: State

Enforcement action: WRITTEN INFORMAL

Enforcement action date: 12/07/1998
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State

Proposed penalty amount: Not reported Final penalty amount: Not reported Paid penalty amount: Not reported

Regulation violated: SR - 22a-449(c)-102(a)
Area of violation: Generators - Pre-transport

Date violation determined: 02/19/1997
Date achieved compliance: 01/19/1999
Violation lead agency: State

Enforcement action: WRITTEN INFORMAL

Enforcement action date: 12/07/1998
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Paid penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: SR - 22a-449(c)-102(a)
Area of violation: Generators - General

Date violation determined: 02/19/1997
Date achieved compliance: 01/19/1999
Violation lead agency: State

Violation lead agency. State

Enforcement action: WRITTEN INFORMAL

Enforcement action date: 12/07/1998
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported

Proposed penalty amount: Not reported Not reported Paid penalty amount: Not reported Not reported Not reported

Regulation violated: SR - 105(a)(1)(D)

Area of violation: TSD IS-General Facility Standards

Date violation determined: 08/11/1993

Direction Distance

**EDR ID Number** Elevation Site **EPA ID Number** Database(s)

### **ROGERS CORP (Continued)**

1000217500

Date achieved compliance: 02/26/1997 Violation lead agency: State Enforcement action: Not reported Enforcement action date: Not reported Enf. disposition status: Not reported Enf. disp. status date: Not reported Enforcement lead agency: Not reported Proposed penalty amount: Not reported Final penalty amount: Not reported Paid penalty amount: Not reported

SR - 105(a) 102(a) Regulation violated:

Area of violation: TSD - Contingency Plan and Emergency Procedures

Date violation determined: 08/11/1993 Date achieved compliance: 01/19/1999 Violation lead agency: State

WRITTEN INFORMAL Enforcement action:

Enforcement action date: 12/07/1998 Enf. disposition status: Not reported Enf. disp. status date: Not reported Enforcement lead agency: State

Proposed penalty amount: Not reported Final penalty amount: Not reported Paid penalty amount: Not reported

Regulation violated: SR - 22a-449(c)-105(a) Area of violation: Generators - Pre-transport

Date violation determined: 08/11/1993 Date achieved compliance: 02/19/1997 Violation lead agency: State

WRITTEN INFORMAL Enforcement action:

Enforcement action date: 12/07/1998 Enf. disposition status: Not reported Enf. disp. status date: Not reported Enforcement lead agency: State Proposed penalty amount: Not reported Final penalty amount: Not reported Paid penalty amount: Not reported

Regulation violated: SR - 22(a)-449(c) - 102(a) Generators - General Area of violation: 08/11/1993 Date violation determined:

02/19/1997

Violation lead agency: State Enforcement action: Not reported Enforcement action date: Not reported Enf. disposition status: Not reported Enf. disp. status date: Not reported Enforcement lead agency: Not reported Not reported Proposed penalty amount: Final penalty amount: Not reported Paid penalty amount: Not reported

Date achieved compliance:

Regulation violated: SR - 22a-449(c)-102(a) Area of violation: Generators - General

08/11/1993 Date violation determined: Date achieved compliance: 02/19/1997

Distance

Elevation Site Database(s) EPA ID Number

## **ROGERS CORP (Continued)**

1000217500

**EDR ID Number** 

Violation lead agency: State

Enforcement action: WRITTEN INFORMAL

Enforcement action date: 12/07/1998
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported TSD - General Area of violation: Date violation determined: 05/23/1990 Date achieved compliance: 09/25/1991 Violation lead agency: State Enforcement action: Not reported Enforcement action date: Not reported Enf. disposition status: Not reported Enf. disp. status date: Not reported Enforcement lead agency: Not reported Not reported Proposed penalty amount: Final penalty amount: Not reported Paid penalty amount: Not reported

Regulation violated: Not reported

Area of violation: TSD - Closure/Post-Closure

Date violation determined: 05/23/1990
Date achieved compliance: 01/08/1999
Violation lead agency: State

Enforcement action: WRITTEN INFORMAL

Enforcement action date: 12/07/1998
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported

Area of violation: TSD - Financial Requirements

Date violation determined: 05/23/1990 Date achieved compliance: 09/25/1991 Violation lead agency: State Enforcement action: Not reported Enforcement action date: Not reported Enf. disposition status: Not reported Enf. disp. status date: Not reported Enforcement lead agency: Not reported Proposed penalty amount: Not reported Final penalty amount: Not reported Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD - General
Date violation determined: 11/09/1988
Date achieved compliance: 09/25/1991
Violation lead agency: State

Direction Distance Elevation

**EDR ID Number** Site Database(s) **EPA ID Number** 

### **ROGERS CORP (Continued)**

1000217500

Enforcement action: Not reported Not reported Enforcement action date: Enf. disposition status: Not reported Enf. disp. status date: Not reported Enforcement lead agency: Not reported Proposed penalty amount: Not reported Final penalty amount: Not reported Paid penalty amount: Not reported

Regulation violated: Not reported TSD - General Area of violation: Date violation determined: 08/12/1987 Date achieved compliance: 09/25/1991 Violation lead agency: State Enforcement action: Not reported Enforcement action date: Not reported Not reported Enf. disposition status: Enf. disp. status date: Not reported Enforcement lead agency: Not reported Proposed penalty amount: Not reported Final penalty amount: Not reported Paid penalty amount: Not reported

Regulation violated: Not reported

Area of violation: Formal Enforcement Agreement or Order

Date violation determined: 08/12/1987 Date achieved compliance: 09/25/1991 Violation lead agency: State Enforcement action: Not reported Enforcement action date: Not reported Enf. disposition status: Not reported Enf. disp. status date: Not reported Enforcement lead agency: Not reported Proposed penalty amount: Not reported Final penalty amount: Not reported Paid penalty amount: Not reported

Regulation violated: Not reported Area of violation: TSD - General Date violation determined: 05/05/1986 03/31/1989 Date achieved compliance:

Violation lead agency: State

Enforcement action: WRITTEN INFORMAL

08/07/1986 Enforcement action date: Enf. disposition status: Not reported Enf. disp. status date: Not reported Enforcement lead agency: State

Proposed penalty amount: Not reported Final penalty amount: Not reported Paid penalty amount: Not reported

Regulation violated: Not reported

Area of violation: TSD - Financial Requirements

Date violation determined: 11/08/1985 Date achieved compliance: 02/19/1986 Violation lead agency: State

Enforcement action: WRITTEN INFORMAL

Direction Distance

Elevation Site Database(s) EPA ID Number

ROGERS CORP (Continued)

1000217500

**EDR ID Number** 

Enforcement action date: 02/11/1986
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported Area of violation: TSD - General Date violation determined: 04/24/1985
Date achieved compliance: 03/31/1989
Violation lead agency: State

Enforcement action: WRITTEN INFORMAL

Enforcement action date: 06/12/1985
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

**Evaluation Action Summary:** 

Evaluation date: 01/29/2014

Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE

Area of violation:

Date achieved compliance:

Evaluation lead agency:

Not reported

State

Evaluation date: 03/30/2012

Evaluation: FINANCIAL RECORD REVIEW

Area of violation:
Date achieved compliance:
Evaluation lead agency:

Not reported
State

Evaluation date: 01/23/2008

Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE

Area of violation: State Statute or Regulation

Date achieved compliance: 02/28/2008 Evaluation lead agency: State

Evaluation date: 12/20/2006

Evaluation: FINANCIAL RECORD REVIEW Area of violation: TSD IS-Financial Requirements

Date achieved compliance: 12/06/2007 Evaluation lead agency: State

Evaluation date: 09/05/2006

Evaluation: FOCUSED COMPLIANCE INSPECTION

Area of violation: TSD IS-Financial Requirements

Date achieved compliance: 12/06/2007 Evaluation lead agency: State

Evaluation date: 09/22/1999

Evaluation: COMPLIANCE SCHEDULE EVALUATION

Area of violation: TSD - Contingency Plan and Emergency Procedures

Date achieved compliance: 01/19/1999

Direction Distance

Elevation Site Database(s) EPA ID Number

ROGERS CORP (Continued)

1000217500

**EDR ID Number** 

Evaluation lead agency: State

Evaluation date: 09/22/1999

Evaluation: COMPLIANCE SCHEDULE EVALUATION

Area of violation: TSD - Closure/Post-Closure

Date achieved compliance: 01/08/1999 Evaluation lead agency: State

Evaluation date: 09/22/1999

Evaluation: COMPLIANCE SCHEDULE EVALUATION

Area of violation: Generators - General

Date achieved compliance: 01/19/1999 Evaluation lead agency: State

Evaluation date: 09/22/1999

Evaluation: COMPLIANCE SCHEDULE EVALUATION

Area of violation: Generators - Pre-transport

Date achieved compliance: 01/19/1999 Evaluation lead agency: State

Evaluation date: 02/19/1997

Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE

Area of violation: TSD - Closure/Post-Closure

Date achieved compliance: 01/08/1999 Evaluation lead agency: State

Evaluation date: 02/19/1997

Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE

Area of violation: Generators - General

Date achieved compliance: 01/19/1999 Evaluation lead agency: State

Evaluation date: 02/19/1997

Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE Area of violation: TSD - Contingency Plan and Emergency Procedures

Date achieved compliance: 01/19/1999 Evaluation lead agency: State

Evaluation date: 02/19/1997

Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE

Area of violation: Generators - Pre-transport

Date achieved compliance: 01/19/1999 Evaluation lead agency: State

Evaluation date: 08/11/1993

Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE Area of violation: TSD - Contingency Plan and Emergency Procedures

Date achieved compliance: 01/19/1999 Evaluation lead agency: State

Evaluation date: 08/11/1993

Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE

Area of violation: TSD IS-General Facility Standards

Date achieved compliance: 02/26/1997 Evaluation lead agency: State

Evaluation date: 08/11/1993

Direction Distance

Elevation Site Database(s) EPA ID Number

ROGERS CORP (Continued) 1000217500

Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE

Area of violation: Generators - General

Date achieved compliance: 02/19/1997 Evaluation lead agency: State

Evaluation date: 08/11/1993

Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE

Area of violation: Generators - Pre-transport

Date achieved compliance: 02/19/1997 Evaluation lead agency: State

Evaluation date: 08/11/1993

Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE

Area of violation: TSD - Closure/Post-Closure

Date achieved compliance: 01/08/1999 Evaluation lead agency: State

Evaluation date: 09/25/1991

Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE

Area of violation:
Date achieved compliance:
Evaluation lead agency:
Not reported
State

Evaluation date: 05/23/1990

Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE

Area of violation: TSD - Closure/Post-Closure

Date achieved compliance: 01/08/1999 Evaluation lead agency: State

Evaluation date: 05/23/1990

Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE

Area of violation: TSD - General Date achieved compliance: 09/25/1991 Evaluation lead agency: State

Evaluation date: 05/23/1990

Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE

Area of violation: TSD - Financial Requirements

Date achieved compliance: 09/25/1991 Evaluation lead agency: State

Evaluation date: 11/09/1988

Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE

Area of violation: TSD - General Date achieved compliance: 09/25/1991 Evaluation lead agency: State

Evaluation date: 08/12/1987

Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE

Area of violation: TSD - General Date achieved compliance: 09/25/1991 Evaluation lead agency: State

Evaluation date: 08/12/1987

Evaluation: GROUNDWATER MONITORING EVALUATION

Area of violation: TSD - General Date achieved compliance: 09/25/1991

**EDR ID Number** 

Direction Distance

Elevation Site Database(s) EPA ID Number

ROGERS CORP (Continued) 1000217500

Evaluation lead agency: State

Evaluation date: 08/12/1987

Evaluation: COMPLIANCE SCHEDULE EVALUATION Area of violation: Formal Enforcement Agreement or Order

Date achieved compliance: 09/25/1991 Evaluation lead agency: State

Evaluation date: 05/05/1986

Evaluation: COMPLIANCE SCHEDULE EVALUATION

Area of violation:

Date achieved compliance:

Evaluation lead agency:

Not reported

Not reported

State

Evaluation date: 05/05/1986

Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE

Area of violation: TSD - General Date achieved compliance: 03/31/1989 Evaluation lead agency: State

Evaluation date: 11/08/1985

Evaluation: FINANCIAL RECORD REVIEW Area of violation: TSD - Financial Requirements

Date achieved compliance: 02/19/1986 Evaluation lead agency: State

Evaluation date: 04/24/1985

Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE

Area of violation: TSD - General Date achieved compliance: 03/31/1989 Evaluation lead agency: State

US FIN ASSUR:

EPA ID: CTD001141167

Provider: ROGERS CORPORATION

EPA region:

County: WINDHAM
Mechanism type: FINANCIAL TEST
Mechanism ID: FINANCIAL TEST

Cost estimate: 126560 Face value: 123957 Effective date: 3/23/2012

2020 COR ACTION:

EPA ID: CTD001141167

Region: 1

Action: Not reported

ENFORCEMENT:

Enforcement Action ID: NOVWSWDH07028

Enforcement Type Code: NOV
Program Id: HWENF
Enforcement Action Date: 03/16/2007
Penalty Amount: Not reported
Sep Amt: Not reported

Bureau Name: BUREAU OF WASTE MANAGEMENT

Program: Not reported

**EDR ID Number** 

MAP FINDINGS Map ID

Direction Distance

**EDR ID Number** Elevation Site Database(s) **EPA ID Number** 

**ROGERS CORP (Continued)** 

1000217500

Status: Not reported Not reported Date of Discovery: Resolution Date: Not reported Resolution Type: Not reported Staff: Not reported **ENF Action Comment:** Not reported Number Violations: Not reported Civil Penalty: Not reported SEP Description: Not reported Associated Els: Not reported Client Affiliation Type: Not reported Affiliation Name: Not reported Affiliation Address Line1: Not reported Affiliation Address Line2: Not reported Affiliation City/State/Zip: Not reported Not reported Contact Title: Contact Name: Not reported Contact EMail: Not reported

CT Financial Assurance 1:

Region:

I.D. NUMBER: CTD001141167 Owner Name: Rogers Corporation

128712 Closure Costs: Post Closure Costs: 0 Correction Action Costs: 0

Corporate Guarantee: Not reported Financial Test: Yes

Certificate of Insurance: Not reported Not reported Letter of Credit: Trust Fund: Not reported Surety Bond: Not reported Other: Not reported

RI MANIFEST:

EPA Id: CTD001141167 Manifest Document Number: CTF0920702 **GEN Cert Date:** 2/1/2001 RID040098352 TSDF Id:

TSDF Name: NORTHLAND ENVIRONMENTAL INC.

TSDF Date: Not reported Transporter 2 Id: Not reported Not reported Transporter 2 Name: Transporter Receipt Date: Not reported

Number Of Containers:

Container Type: Not reported CR04 Waste Code1: Waste Code2: Not reported Waste Code3: Not reported Not reported Fee Exempt Code: Comment: Not reported

Details:

EPA ID: CTD001141167 Manifest Docket Number: CTF0920702 Waste Description: **RAIN WATER** 

Quantity: 170

Direction Distance Elevation

evation Site Database(s) EPA ID Number

### **ROGERS CORP (Continued)**

1000217500

**EDR ID Number** 

WT/Vol Units: G
Item Number: 14120

Transporter Name: FLEET ENVIRONMENTAL SERVICES

Transporter EPA ID: MA5000004531
GEN Cert Date: 2/1/2001
Transporter Receipt Date: Not reported
Transporter 2 Receipt Date: Not reported
TSDF Receipt Date: Not reported
Transporter 2 ID: Not reported

NY MANIFEST:

EPA ID: CTD001141167

Country: USA

Location Address 1: MAIN STREET
Location Address 2: Not reported
Location City: ROGERS
Location State: CT
Location Zip Code: 06263
Location Zip Code 4: Not reported

Mailing Info:

Name: ROGERS CORPORATION
Contact: LEE ROBERT F MGR ENVIR EN

Address: MAIN STREET
City/State/Zip: ROGERS, CT 06263

Country: USA

Phone: 203-774-1312

# Manifest:

Document ID: Not reported Manifest Status: Not reported MAD985286988 Trans1 State ID: Trans2 State ID: NYD982792814 Generator Ship Date: 11/05/2009 Trans1 Recv Date: 11/05/2009 Trans2 Recv Date: 11/17/2009 TSD Site Recv Date: 11/18/2009 Part A Recv Date: Not reported Part B Recv Date: Not reported Generator EPA ID: CTD001141167 Trans1 EPA ID: Not reported Trans2 EPA ID: Not reported NYD049836679 TSDF ID: Waste Code: Not reported Quantity: 4950.0

Units: K - Kilograms (2.2 pounds)

Number of Containers: 1.0

Container Type: TP - Tanks, portable

Handling Method: B Incineration, heat recovery, burning.

Specific Gravity: 1.0 Year: 2009

Manifest Tracking Num: 002877453FLE

Import Ind: N Export Ind: N Discr Quantity Ind: N

MAP FINDINGS Map ID

Direction Distance

**EDR ID Number** Elevation Site Database(s) **EPA ID Number** 

## **ROGERS CORP (Continued)**

1000217500

Discr Type Ind: Ν Ν Discr Residue Ind: Discr Partial Reject Ind: Ν Discr Full Reject Ind: Ν

Manifest Ref Num: Not reported Alt Fac RCRA Id: Not reported Not reported Alt Fac Sign Date: Mgmt Method Type Code: H141

Document ID: Not reported Not reported Manifest Status: MAD985286988 Trans1 State ID: Trans2 State ID: NYD982792814 Generator Ship Date: 11/05/2009 Trans1 Recv Date: 11/05/2009 Trans2 Recy Date: 11/17/2009 TSD Site Recv Date: 11/18/2009 Part A Recv Date: Not reported Part B Recv Date: Not reported Generator EPA ID: CTD001141167 Trans1 EPA ID: Not reported Trans2 EPA ID: Not reported TSDF ID: NYD049836679 Waste Code: Not reported Quantity: 4950.0

Units: K - Kilograms (2.2 pounds)

Number of Containers: 1.0

Container Type: TP - Tanks, portable

Handling Method: B Incineration, heat recovery, burning.

Specific Gravity: 1.0 Year: 2009

Manifest Tracking Num: 002877453FLE

Import Ind: Ν Export Ind: Ν Discr Quantity Ind: Ν Discr Type Ind: Ν Discr Residue Ind: Ν Discr Partial Reject Ind: Ν Discr Full Reject Ind: Ν

Manifest Ref Num: Not reported Alt Fac RCRA Id: Not reported Alt Fac Sign Date: Not reported Mgmt Method Type Code: H141

Document ID: Not reported Manifest Status: Not reported Trans1 State ID: NYD046765574 Trans2 State ID: Not reported 05/02/2007 Generator Ship Date: Trans1 Recv Date: 05/02/2007 Trans2 Recv Date: Not reported TSD Site Recv Date: 05/03/2007 Part A Recv Date: Not reported Part B Recv Date: Not reported Generator EPA ID: CTD001141167

Direction Distance Elevation

vation Site Database(s) EPA ID Number

### **ROGERS CORP (Continued)**

1000217500

**EDR ID Number** 

Trans1 EPA ID: Not reported
Trans2 EPA ID: Not reported
TSDF ID: NYD049836679
Waste Code: Not reported
Quantity: 18180
Units: P - Pounds

Number of Containers: 1

Container Type: CM - Metal boxes, cases, roll-offs

Handling Method: T Chemical, physical, or biological treatment.

Specific Gravity: 1 Year: 2007

Manifest Tracking Num: 002546320JJK

Import Ind: N
Export Ind: N
Discr Quantity Ind: Y
Discr Type Ind: N
Discr Residue Ind: N
Discr Partial Reject Ind: N
Discr Full Reject Ind: N

Manifest Ref Num:
Alt Fac RCRA Id:
Not reported
Not reported
Not reported
Not reported
Mgmt Method Type Code:
H132

Document ID: Not reported Manifest Status: Not reported Trans1 State ID: MAC300008059 Trans2 State ID: Not reported Generator Ship Date: 08/15/2007 Trans1 Recv Date: 08/15/2007 Trans2 Recv Date: Not reported TSD Site Recv Date: 08/16/2007 Part A Recv Date: Not reported Not reported Part B Recv Date: CTD001141167 Generator EPA ID: Not reported Trans1 EPA ID: Trans2 EPA ID: Not reported NYD049836679 TSDF ID: Waste Code: Not reported Quantity: 3180

Number of Containers: 1

Units:

Container Type: CM - Metal boxes, cases, roll-offs

P - Pounds

Handling Method: L Landfill.
Specific Gravity: 1
Year: 2007

Manifest Tracking Num: 000164944JJK

Import Ind: N
Export Ind: N
Discr Quantity Ind: Y
Discr Type Ind: N
Discr Residue Ind: N
Discr Partial Reject Ind: N
Discr Full Reject Ind: N

Manifest Ref Num: Not reported Alt Fac RCRA Id: Not reported

MAP FINDINGS Map ID

Direction Distance

**EDR ID Number** Elevation Site Database(s) **EPA ID Number** 

### **ROGERS CORP (Continued)**

1000217500

Alt Fac Sign Date: Not reported Mgmt Method Type Code: H132

Document ID: Not reported Manifest Status: Not reported Trans1 State ID: NYD046765574 Trans2 State ID: Not reported Generator Ship Date: 05/04/2007 Trans1 Recv Date: 05/04/2007 Trans2 Recv Date: Not reported 05/07/2007 TSD Site Recv Date: Part A Recv Date: Not reported Part B Recv Date: Not reported CTD001141167 Generator EPA ID: Trans1 EPA ID: Not reported Trans2 EPA ID: Not reported NYD049836679 TSDF ID: Waste Code: Not reported Quantity: 23180 Units: P - Pounds

Number of Containers: 1

Container Type: CM - Metal boxes, cases, roll-offs

Handling Method: T Chemical, physical, or biological treatment.

Specific Gravity:

Year: 2007

Manifest Tracking Num: 002546316JJK

Import Ind: **Export Ind:** Ν Discr Quantity Ind: Υ Discr Type Ind: Ν Discr Residue Ind: Ν Discr Partial Reject Ind: Ν Discr Full Reject Ind: Ν

Manifest Ref Num: Not reported Alt Fac RCRA Id: Not reported Alt Fac Sign Date: Not reported Mgmt Method Type Code: H132

Document ID: NYG0649152 Manifest Status: Not reported Trans1 State ID: 246928TN Trans2 State ID: Not reported Generator Ship Date: 11/03/1998 11/03/1998 Trans1 Recv Date: Trans2 Recv Date: Not reported TSD Site Recv Date: 11/04/1998 Part A Recv Date: Not reported Part B Recv Date: Not reported CTD001141167 Generator EPA ID: Trans1 EPA ID: MAD084814136 Trans2 EPA ID: Not reported TSDF ID: NYD049836679

Waste Code: B003 - PETROLEUM OIL WITH 500 PPM OR > PCB

00200 Quantity:

Units: K - Kilograms (2.2 pounds)

MAP FINDINGS Map ID

Direction Distance

**EDR ID Number** Elevation Site Database(s) **EPA ID Number** 

### **ROGERS CORP (Continued)**

1000217500

Number of Containers: 002

Container Type: DM - Metal drums, barrels

Handling Method: B Incineration, heat recovery, burning.

Specific Gravity: 01.00 Year: 1998

Document ID: NYO2909079 Manifest Status: Completed copy

Trans1 State ID: CT019 Trans2 State ID: Not reported 03/24/1983 Generator Ship Date: 03/24/1983 Trans1 Recv Date:

Trans2 Recv Date:

TSD Site Recv Date: 03/31/1983 Part A Recv Date: 04/07/2003 Part B Recv Date: 04/07/2003 Generator EPA ID: CTD001141167 Trans1 EPA ID: CTD000636498 Trans2 EPA ID: Not reported TSDF ID: NYD080336241

Waste Code: B005 - PCB ARTICLES WITH 500 PPM OR > PCB

00518 Quantity: Units: P - Pounds Number of Containers: 001

Container Type: DM - Metal drums, barrels

Handling Method: L Landfill. Specific Gravity: 100 Year: 1983

Document ID: NYB7449282 Completed copy Manifest Status: Trans1 State ID: 4905BXOK Trans2 State ID: 4903BXOK Generator Ship Date: 05/01/1996 Trans1 Recv Date: 05/01/1996 Trans2 Recv Date: 05/13/1996 TSD Site Recv Date: 05/13/1996 Part A Recv Date: 05/09/1996 Part B Recv Date: 05/22/1996 Generator EPA ID: CTD001141167 Trans1 EPA ID: ARD981908551 Trans2 EPA ID: ARD981908551 TSDF ID: NYD000632372

D003 - NON-LISTED REACTIVE WASTES Waste Code:

Quantity: 00010 Units: P - Pounds Number of Containers: 001

Container Type: DF - Fiberboard or plastic drums (glass) Handling Method: T Chemical, physical, or biological treatment.

Specific Gravity: 1996 Year:

Document ID: NYB7660152

Manifest Status: Completed after the designated time period for a TSDF to get a copy to the DEC

Direction Distance Elevation

stance EDR ID Number evation Site Database(s) EPA ID Number

#### **ROGERS CORP (Continued)**

1000217500

 Trans1 State ID:
 TN78923

 Trans2 State ID:
 Not reported

 Generator Ship Date:
 06/26/1996

 Trans1 Recv Date:
 06/26/1996

Trans2 Recv Date: / /

TSD Site Recv Date: 07/15/1996
Part A Recv Date: 08/23/1996
Part B Recv Date: 07/29/1996
Generator EPA ID: CTD001141167
Trans1 EPA ID: CT5000000570
Trans2 EPA ID: Not reported
TSDF ID: NY0000343889

Waste Code: D009 - MERCURY 0.2 MG/L TCLP

Quantity: 00150
Units: P - Pounds
Number of Containers: 002

Container Type: DF - Fiberboard or plastic drums (glass)

Handling Method: R Material recovery of more than 75 percent of the total material.

Specific Gravity: 100

Waste Code: D009 - MERCURY 0.2 MG/L TCLP

Quantity: 00040 Units: P - Pounds

Number of Containers: 001

Container Type: CF - Fiber or plastic boxes, cartons

Handling Method: R Material recovery of more than 75 percent of the total material.

Specific Gravity: 100 Year: 1996

Document ID: NYB4164246

Manifest Status: Completed copy
Trans1 State ID: PD9796NY
Trans2 State ID: Not reported
Generator Ship Date: 06/17/1994
Trans1 Recv Date: 06/17/1994
Trans2 Recv Date: / /

TSD Site Recv Date: 06/21/1994
Part A Recv Date: 07/11/1994
Part B Recv Date: 06/30/1994
Generator EPA ID: CTD001141167
Trans1 EPA ID: NYD980769947
Trans2 EPA ID: Not reported
TSDF ID: NYD000632372

Waste Code: D003 - NON-LISTED REACTIVE WASTES

Quantity: 00015 Units: P - Pounds

Number of Containers: 001

Container Type: DM - Metal drums, barrels

Handling Method: T Chemical, physical, or biological treatment.

Specific Gravity: 100 Year: 1994

Document ID: NYA6089247

Manifest Status: Completed copy

Trans1 State ID: S62738NY

Trans2 State ID: Not reported

Direction Distance

Elevation Site Database(s) EPA ID Number

**ROGERS CORP (Continued)** 

1000217500

**EDR ID Number** 

 Generator Ship Date:
 02/27/1987

 Trans1 Recv Date:
 02/27/1987

Trans2 Recv Date: / /

TSD Site Recv Date: 03/03/1987
Part A Recv Date: 03/17/1987
Part B Recv Date: 03/06/1987
Generator EPA ID: CTD001141167
Trans1 EPA ID: NYD097644801
Trans2 EPA ID: Not reported
TSDF ID: NYD000632372

Waste Code: D004 - ARSENIC 5.0 MG/L TCLP

Quantity: 00025 Units: P - Pounds Number of Containers: 001

Container Type: DM - Metal drums, barrels

Handling Method: T Chemical, physical, or biological treatment.

Specific Gravity: 100 Year: 1987

Document ID: NYA5462964

Manifest Status: Completed after the designated time period for a TSDF to get a copy to the DEC

Trans1 State ID: S62738NY
Trans2 State ID: Not reported
Generator Ship Date: 09/15/1987
Trans1 Recv Date: 09/15/1987

Trans2 Recv Date: / /

TSD Site Recv Date: 09/22/1987
Part A Recv Date: 10/22/1987
Part B Recv Date: 09/24/1987
Generator EPA ID: CTD001141167
Trans1 EPA ID: NYD097644801
Trans2 EPA ID: Not reported
TSDF ID: NYD000632372

Waste Code: D002 - NON-LISTED CORROSIVE WASTES

Quantity: 00025 Units: P - Pounds Number of Containers: 001

Container Type: DM - Metal drums, barrels

Handling Method: T Chemical, physical, or biological treatment.

Specific Gravity: 100

Waste Code: D002 - NON-LISTED CORROSIVE WASTES

Quantity: 00025 Units: P - Pounds Number of Containers: 001

Container Type: DM - Metal drums, barrels

Handling Method: T Chemical, physical, or biological treatment.

Specific Gravity: 100

Waste Code: D002 - NON-LISTED CORROSIVE WASTES

Quantity: 00025 Units: P - Pounds Number of Containers: 001

Container Type: DM - Metal drums, barrels

Handling Method: T Chemical, physical, or biological treatment.

Specific Gravity: 100

Waste Code: D001 - NON-LISTED IGNITABLE WASTES

Quantity: 00025

Direction Distance Elevation

ance EDR ID Number ation Site Database(s) EPA ID Number

### **ROGERS CORP (Continued)**

1000217500

Units: P - Pounds

Number of Containers: 001

Container Type: DM - Metal drums, barrels

Handling Method: B Incineration, heat recovery, burning.

Specific Gravity: 100 Year: 1987

Document ID: NYO2372841
Manifest Status: Completed copy

Trans1 State ID: MA005
Trans2 State ID: Not reported
Generator Ship Date: 05/09/1984
Trans1 Recv Date: 05/09/1984

Trans2 Recv Date: / /

TSD Site Recv Date: 05/10/1984
Part A Recv Date: 05/14/1984
Part B Recv Date: 05/21/1984
Generator EPA ID: CTD001141167
Trans1 EPA ID: MAD062179890
Trans2 EPA ID: Not reported
TSDF ID: NYD080469935

Waste Code: D001 - NON-LISTED IGNITABLE WASTES

Quantity: 00150

Units: G - Gallons (liquids only)\* (8.3 pounds)

Number of Containers: 001

Container Type: TT - Cargo tank, tank trucks

Handling Method: B Incineration, heat recovery, burning.

Specific Gravity: 100 Year: 1984

Document ID: Not reported Manifest Status: Not reported MAD985286988 Trans1 State ID: Trans2 State ID: NYD982792814 Generator Ship Date: 06/07/2010 Trans1 Recv Date: 06/07/2010 Trans2 Recv Date: 06/21/2010 TSD Site Recv Date: 06/22/2010 Part A Recv Date: Not reported Part B Recv Date: Not reported Generator EPA ID: CTD001141167 Trans1 EPA ID: Not reported Trans2 EPA ID: Not reported TSDF ID: NYD049836679 Waste Code: Not reported Quantity: 1129.0

Units: K - Kilograms (2.2 pounds)

Number of Containers: 1.0

Container Type: TP - Tanks, portable

Handling Method: L Landfill.
Specific Gravity: 1.0
Year: 2010

Manifest Tracking Num: 003185924FLE

Import Ind: N Export Ind: N

Direction Distance Elevation

Site Database(s) EPA ID Number

### **ROGERS CORP (Continued)**

1000217500

**EDR ID Number** 

Discr Quantity Ind: N
Discr Type Ind: N
Discr Residue Ind: N
Discr Partial Reject Ind: N
Discr Full Reject Ind: N

Manifest Ref Num:
Alt Fac RCRA Id:
Not reported
Not reported
Not reported
Not reported
Not reported
Mgmt Method Type Code:
H141

#### NJ MANIFEST:

EPA Id: CTD001141167 Mail Address: Not reported Mail City/State/Zip: Not reported Facility Phone: Not reported **Emergency Phone:** Not reported Contact: Not reported Comments: Not reported SIC Code: Not reported

County: 00 Municipal: 00

Previous EPA Id: Not reported

Gen Flag: X

Trans Flag: Not reported

TSDF Flag: X

Name Change: Not reported Date Change: Not reported

### Manifest:

Manifest Number: 000141295VES EPA ID: CTD001141167 Date Shipped: 09/25/2007 TSDF EPA ID: NJD980536593 Transporter EPA ID: NJD080631369 Transporter 2 EPA ID: NJD054126164 Transporter 3 EPA ID: Not reported Transporter 4 EPA ID: Not reported Transporter 5 EPA ID: Not reported Transporter 6 EPA ID: Not reported Transporter 7 EPA ID: Not reported Transporter 8 EPA ID: Not reported Transporter 10 EPA ID: Not reported Date Trans1 Transported Waste: 09/25/2007 Date Trans2 Transported Waste: 09/28/2007 Date Trans3 Transported Waste: Not reported Date Trans4 Transported Waste: Not reported Date Trans5 Transported Waste: Not reported Date Trans6 Transported Waste: Not reported Date Trans7 Transported Waste: Not reported Date Trans8 Transported Waste: Not reported Date Trans9 Transported Waste: Not reported Date Trans10 Transported Waste: Not reported Date TSDF Received Waste: 09/28/2007 TSDF EPA Facility Name: Not reported QTY Units: Not reported Transporter SEQ ID: Not reported

Not reported

Transporter-1 Date:

Direction Distance Elevation

Site Database(s) EPA ID Number

### **ROGERS CORP (Continued)**

1000217500

**EDR ID Number** 

Waste SEQ ID: Not reported Not reported Waste Type Code 2: Not reported Waste Type Code 3: Waste Type Code 4: Not reported Waste Type Code 5: Not reported Waste Type Code 6: Not reported Date Accepted: Not reported Manifest Discrepancy Type: Not reported Data Entry Number: Not reported Was Load Rejected: No

Reason Load Was Rejected: Not reported

Waste:

Manifest Year:
Waste Code:
D003
Hand Code:
H14
Quantity:
1 P

Manifest Number: NJA5123435 EPA ID: CTD001141167 Date Shipped: 05/11/2004 TSDF EPA ID: NJD980536593 Transporter EPA ID: NJD080631369 Transporter 2 EPA ID: NJD054126164 Transporter 3 EPA ID: Not reported Transporter 4 EPA ID: Not reported Transporter 5 EPA ID: Not reported Transporter 6 EPA ID: Not reported Transporter 7 EPA ID: Not reported Transporter 8 EPA ID: Not reported Transporter 10 EPA ID: Not reported Date Trans1 Transported Waste: 05/12/2004 Date Trans2 Transported Waste: 05/17/2004 Date Trans3 Transported Waste: Not reported Date Trans4 Transported Waste: Not reported Date Trans5 Transported Waste: Not reported Date Trans6 Transported Waste: Not reported Date Trans7 Transported Waste: Not reported Date Trans8 Transported Waste: Not reported Date Trans9 Transported Waste: Not reported Date Trans10 Transported Waste: Not reported Date TSDF Received Waste: 05/18/2004 TSDF EPA Facility Name: Not reported QTY Units: Not reported Transporter SEQ ID: Not reported Transporter-1 Date: Not reported Waste SEQ ID: Not reported Waste Type Code 2: Not reported Not reported Waste Type Code 3: Not reported Waste Type Code 4: Not reported Waste Type Code 5: Waste Type Code 6: Not reported Not reported Date Accepted: Manifest Discrepancy Type: Not reported Data Entry Number: 06070422 Was Load Rejected:

Reason Load Was Rejected: Not reported

Direction Distance

Distance Elevation Site EDR ID Number

EDR ID Number

EPA ID Number

4 CT DOT SEARLES ROAD DISPOSAL FACILITY #33/POMFRET DOT GARAGE CERCLIS 1000230561
SW POMFRET ROAD CT SHWS CTD982199150

1/4-1/2 POMFRET, CT 06258 0.471 mi.

CT SDADB CT CPCS

2489 ft.

286 ft.

Relative: CERCLIS:

Lower Site ID: 0101604

EPA ID: CTD982199150
Actual: Facility County: WINDHAM

Short Name: CT DOT SEARLES ROAD DISPO

Congressional District: 02

IFMS ID: Not reported SMSA Number: Not reported USGC Hydro Unit: 01100001

Federal Facility: Not a Federal Facility

DMNSN Number: 0.00000 Site Orphan Flag: N

RCRA ID: Not reported
USGS Quadrangle: Not reported
Site Init By Prog: Not reported
NFRAP Flag: Not reported
Parent ID: Not reported
RST Code: Not reported
EPA Region: 01
Classification: Not reported

Classification: Not reported
Site Settings Code: Not reported
NPL Status: Not on the NPL
DMNSN Unit Code: Not reported
RBRAC Code: Not reported
RResp Fed Agency Code: Not reported

Non NPL Status: Other Cleanup Activity: State-Lead Cleanup

Non NPL Status Date: 12/27/02 Site Fips Code: 09015 CC Concurrence Date: //

CC Concurrence FY: Not reported Alias EPA ID: Not reported Site FUDS Flag: Not reported

CERCLIS Site Contact Name(s):

Contact ID: 13004278.00000
Contact Name: Margaret Morris
Contact Tel: Not reported

Contact Title: Site Assessment Manager (SAM)

Contact Email: Not reported

CERCLIS Site Alias Name(s):

Alias ID: 101

Alias Name: POMFRET DOT GARAGE
Alias Address: POMFRET LANDING ROAD
BROOKLYN, CT 06234

Alias Comments: Not reported

Site Description: Based upon state letter of 05-17-02

**CERCLIS Assessment History:** 

Action Code: 001

Action: DISCOVERY

Date Started: / /

MAP FINDINGS Map ID

Direction Distance

Elevation Site Database(s) **EPA ID Number** 

#### CT DOT SEARLES ROAD DISPOSAL FACILITY #33/POMFRET DOT GARAGE (Continued)

1000230561

**EDR ID Number** 

Date Completed: 09/11/87 Not reported Priority Level: Operable Unit: SITEWIDE

Primary Responsibility: State, Fund Financed

Planning Status: Not reported Urgency Indicator: Not reported Action Anomaly: Not reported

Action Code: 001

PRELIMINARY ASSESSMENT Action:

Date Started: Date Completed: 01/29/88

Priority Level: Low priority for further assessment

SITEWIDE Operable Unit:

State, Fund Financed Primary Responsibility:

Planning Status: Not reported Urgency Indicator: Not reported Action Anomaly: Not reported

Action Code: 001

SITE INSPECTION Action:

Date Started:

07/07/93 Date Completed:

Priority Level: Low priority for further assessment

Operable Unit: SITEWIDE Primary Responsibility: **EPA Fund-Financed** Planning Status: Not reported Not reported

Urgency Indicator: Action Anomaly: Not reported

Action Code: 001

SITE REASSESSMENT Action:

Date Started: Date Completed: 08/02/01

Low priority for further assessment Priority Level:

Operable Unit: **SITEWIDE** EPA Fund-Financed Primary Responsibility: Planning Status: Not reported Urgency Indicator: Not reported Action Anomaly: Not reported

SHWS:

State ID: 348

PTP Id Number: Not reported Not reported WPC Number: CTD982199150 EPA ID: PO Office: Not reported

Lat/Long:

Location Method: Not reported

Groundwater Class: GΑ Surface Water Qualification:

CHLR VOC, SOLVENTS Waste Category:

LANDFILL Disposal Method:

Direction Distance

Elevation Site Database(s) EPA ID Number

#### CT DOT SEARLES ROAD DISPOSAL FACILITY #33/POMFRET DOT GARAGE (Continued)

1000230561

**EDR ID Number** 

Sample: False Other Dept of Env. Protection: DOT

Updated By: BOBOWICZ, H. A.

Update Program: **FPRE** Date Updated: 4/28/1993 Duplicate: False Program: **SUPERFUND** 7/6/1987 Inventory Date: On Inventory: True Assessed: True 87 Group: ΕN

87 Origin: INVENTORY

On 87: True

Comments: UNDER STUDY BY DOT. (7/87) CERCLIS AND INVENTORY SHOW SITE ON SEARLES

ROAD IN POMFRET. CERCLIS TO BE CORRECTED (6/93)

Site Discovery and Assessment:

Facility ID: 348
Rem Master ID: 443

PTP Id: Not reported WPC Number: Not reported Postal District: Not reported Latitude: Not reported Longitude: Not reported Lat/Long Determined By: Not reported

Ground Water Quality Classification: GA
Surface Water Quality Classification: A

Waste Type: CHLR VOC, SOLVENTS

Disposal: LANDFILL Sample Data Available: False

Updated By: BOBOWICZ, H. A.

Update Program: FPRE
Updated: 4/28/1993
Date Created: Not reported
Duplicate: False

SDA Federal:

EPA CERCLIS Id: Not reported Number EPA RCRIS Id: Not reported True Site on EPA's CERCLIS: Site Archived from CERCLIS: False Archive Date: Not reported EPA's Removal at Site: False Deferred to another EPA Program: False EPA Env Priority Initiative Site: False Federal Facility: False Site on EPA's National Priority List: False Part of an NPL site: False RCRA Generator Status: Not reported RCRA Permit Status: Not reported

SDA Referral:

Referral Id: 341

Source of referral: SUPERFUND
Date Received: 7/6/1987
Staff Assigned: DEP

Remediation Program: SUPERFUND
Date dt\_assigned: 7/6/1987

Direction Distance Elevation

ce EDR ID Number ion Site Database(s) EPA ID Number

#### CT DOT SEARLES ROAD DISPOSAL FACILITY #33/POMFRET DOT GARAGE (Continued)

1000230561

Remediation Complete Approved DEP/Verified by LEP: 7/6/1987
Outcome: INVENTORY

SDA Remedial:

Remedial Id: Not reported PTP Id: Not reported Remediation Program: Not reported Remediation Program Entered: Not reported Staff Assigned: Not reported Remediation Program: Not reported Date dt\_assign: Not reported Project Phase: Not reported Order issued: Not reported Order Number: Not reported Date order issued: Not reported Remedial Investigation Start: Not reported Remedial Investigation Completed: Not reported Remedial Design Start: Not reported Remedial Design complet: Not reported Remedial Action Start: Not reported Remedial Action Completed: Not reported Date Oper/ maintenance Started: Not reported GW monitoring: Not reported Remediation complete Approved DEP/Verified by LEP: Not reported

SDA Orders:

Order Id: Not reported Order Number: Not reported Date order issued: Not reported Staff Assigned: Not reported Not reported Type of Order: Order Respondent: Not reported Admin Appeal Date: Not reported Date of Admin Appeal Ruling: Not reported Date of Admin Appeal Ruling: Not reported Date of Final Order: Not reported Date of Court Appeal: Not reported Date of Court Ruling: Not reported Date of Court Ruling: Not reported Date Order Modified: Not reported Date Referred to AG: Not reported Judgement: Not reported Date of AGR judgement: Not reported Penalty assessed: Not reported Order Complete: Not reported In compliance: Not reported Comments: Not reported

SDADB:

SDA Waste:

Waste Id: 5

Waste Type: CHLR VOC

Description: Chlorinated Volatile Organic Compounds

CPCS:

Site Type: Sites
Lust Status code: Not reported

Map ID MAP FINDINGS Direction

Distance

**EDR ID Number** Elevation Site Database(s) **EPA ID Number** 

### CT DOT SEARLES ROAD DISPOSAL FACILITY #33/POMFRET DOT GARAGE (Continued)

Lust Status: Not reported PTP Form: Not reported

Program: -1

Under Study By Dot. (7/87) Cerclis And Inventory Show Site On Searles Road In Pomfret. Cerclis To Be Corrected (6/93) Comments:

Site Type Definition: Inventory of Hazardous Waste Disposal Sites 1000230561

Count: 6 records. ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
DAYVILLE	S105738637	BOUDREAU WELDING	MAIN ST.	06241	CT LUST, CT CPCS
KILLINGLY	S100996733	WILLIAM PRYM CO. INC.	ROUTE 101	06239	CT SHWS, CT SDADB, CT CPCS
KILLINGLY	S110775258	DAYVILLE SHELL 136299	1095 NORTH MAIN STREET (ROUTE	06239	CT LUST, CT CPCS
KILLINGLY	U002023313	ROGERS CORP	1 TECHNOLOGY DR.	06239	CT VCP, CT CPCS
KILLINGLY	S110280374	ROGERS CORP	1 TECHNOLOGY DR.	06239	CT LUST, CT SPILLS
POMFRET	S110280760	CT DOT POMFRET (HART # 33)	SEARLES ROAD		CT VCP

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

**Number of Days to Update:** Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

### STANDARD ENVIRONMENTAL RECORDS

#### Federal NPL site list

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 03/26/2015 Source: EPA
Date Data Arrived at EDR: 04/08/2015 Telephone: N/A

Number of Days to Update: 75 Next Scheduled EDR Contact: 10/19/2015
Data Release Frequency: Quarterly

**NPL Site Boundaries** 

Sources

EPA's Environmental Photographic Interpretation Center (EPIC)

Telephone: 202-564-7333

EPA Region 1 EPA Region 6

Telephone 617-918-1143 Telephone: 214-655-6659

EPA Region 3 EPA Region 7

Telephone 215-814-5418 Telephone: 913-551-7247

EPA Region 4 EPA Region 8

Telephone 404-562-8033 Telephone: 303-312-6774

EPA Region 5 EPA Region 9

Telephone 312-886-6686 Telephone: 415-947-4246

EPA Region 10

Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 03/26/2015 Source: EPA
Date Data Arrived at EDR: 04/08/2015 Telephone: N/A

Number of Days to Update: 75 Next Scheduled EDR Contact: 10/19/2015
Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Source: EPA

Date of Government Version: 10/15/1991 Date Data Arrived at EDR: 02/02/1994 Date Made Active in Reports: 03/30/1994

Number of Days to Update: 56

Telephone: 202-564-4267 Last EDR Contact: 08/15/2011

Next Scheduled EDR Contact: 11/28/2011 Data Release Frequency: No Update Planned

#### Federal Delisted NPL site list

Delisted NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 03/26/2015 Date Data Arrived at EDR: 04/08/2015 Date Made Active in Reports: 06/22/2015

Number of Days to Update: 75

Source: EPA Telephone: N/A

Last EDR Contact: 07/09/2015

Next Scheduled EDR Contact: 10/19/2015 Data Release Frequency: Quarterly

#### Federal CERCLIS list

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 03/26/2015 Date Data Arrived at EDR: 04/08/2015 Date Made Active in Reports: 06/11/2015

Number of Days to Update: 64

Source: Environmental Protection Agency

Telephone: 703-603-8704 Last EDR Contact: 07/10/2015

Next Scheduled EDR Contact: 10/19/2015 Data Release Frequency: Varies

CERCLIS: Comprehensive Environmental Response, Compensation, and Liability Information System

CERCLIS contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 10/25/2013 Date Data Arrived at EDR: 11/11/2013 Date Made Active in Reports: 02/13/2014

Number of Days to Update: 94

Telephone: 703-412-9810 Last EDR Contact: 05/29/2015

Source: EPA

Next Scheduled EDR Contact: 09/07/2015 Data Release Frequency: Quarterly

#### Federal CERCLIS NFRAP site List

CERCLIS-NFRAP: CERCLIS No Further Remedial Action Planned

Archived sites are sites that have been removed and archived from the inventory of CERCLIS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list this site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.

Date of Government Version: 10/25/2013 Date Data Arrived at EDR: 11/11/2013 Date Made Active in Reports: 02/13/2014

Number of Days to Update: 94

Source: EPA Telephone: 703-412-9810 Last EDR Contact: 05/29/2015

Next Scheduled EDR Contact: 09/07/2015 Data Release Frequency: Quarterly

### Federal RCRA CORRACTS facilities list

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 06/09/2015 Date Data Arrived at EDR: 06/26/2015 Date Made Active in Reports: 09/16/2015

Number of Days to Update: 82

Source: EPA

Telephone: 800-424-9346 Last EDR Contact: 06/26/2015

Next Scheduled EDR Contact: 10/12/2015 Data Release Frequency: Quarterly

#### Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 06/09/2015 Date Data Arrived at EDR: 06/26/2015 Date Made Active in Reports: 09/16/2015

Number of Days to Update: 82

Source: Environmental Protection Agency

Telephone: (888) 372-7341 Last EDR Contact: 06/26/2015

Next Scheduled EDR Contact: 10/12/2015 Data Release Frequency: Quarterly

#### Federal RCRA generators list

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 06/09/2015 Date Data Arrived at EDR: 06/26/2015 Date Made Active in Reports: 09/16/2015

Number of Days to Update: 82

Source: Environmental Protection Agency

Telephone: (888) 372-7341 Last EDR Contact: 06/26/2015

Next Scheduled EDR Contact: 10/12/2015 Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 06/09/2015 Date Data Arrived at EDR: 06/26/2015 Date Made Active in Reports: 09/16/2015

Number of Days to Update: 82

Source: Environmental Protection Agency

Telephone: (888) 372-7341 Last EDR Contact: 06/26/2015

Next Scheduled EDR Contact: 10/12/2015 Data Release Frequency: Quarterly

RCRA-CESQG: RCRA - Conditionally Exempt Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 06/09/2015 Date Data Arrived at EDR: 06/26/2015 Date Made Active in Reports: 09/16/2015

Number of Days to Update: 82

Source: Environmental Protection Agency

Telephone: (888) 372-7341 Last EDR Contact: 06/26/2015

Next Scheduled EDR Contact: 10/12/2015 Data Release Frequency: Varies

#### Federal institutional controls / engineering controls registries

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 05/28/2015 Date Data Arrived at EDR: 05/29/2015 Date Made Active in Reports: 06/11/2015

Number of Days to Update: 13

Source: Department of the Navy Telephone: 843-820-7326 Last EDR Contact: 08/12/2015

Next Scheduled EDR Contact: 11/30/2015 Data Release Frequency: Varies

#### US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 06/09/2015 Date Data Arrived at EDR: 06/26/2015 Date Made Active in Reports: 09/02/2015

Number of Days to Update: 68

Source: Environmental Protection Agency

Telephone: 703-603-0695 Last EDR Contact: 08/31/2015

Next Scheduled EDR Contact: 12/14/2015 Data Release Frequency: Varies

### US INST CONTROL: Sites with Institutional Controls

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 06/09/2015 Date Data Arrived at EDR: 06/26/2015 Date Made Active in Reports: 09/02/2015

Number of Days to Update: 68

Source: Environmental Protection Agency

Telephone: 703-603-0695 Last EDR Contact: 08/31/2015

Next Scheduled EDR Contact: 12/14/2015 Data Release Frequency: Varies

### Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 06/22/2015 Date Data Arrived at EDR: 06/26/2015 Date Made Active in Reports: 09/16/2015

Number of Days to Update: 82

Source: National Response Center, United States Coast Guard

Telephone: 202-267-2180 Last EDR Contact: 06/26/2015

Next Scheduled EDR Contact: 10/12/2015 Data Release Frequency: Annually

## State- and tribal - equivalent CERCLIS

SHWS: Inventory of Hazardous Disposal Sites

State Hazardous Waste Sites. State hazardous waste site records are the states' equivalent to CERCLIS. These sites may or may not already be listed on the federal CERCLIS list. Priority sites planned for cleanup using state funds (state equivalent of Superfund) are identified along with sites where cleanup will be paid for by potentially responsible parties. Available information varies by state.

Date of Government Version: 04/23/2010 Date Data Arrived at EDR: 04/23/2010 Date Made Active in Reports: 05/25/2010

Number of Days to Update: 32

Source: Department of Energy & Environmental Protection

Telephone: 860-424-3705 Last EDR Contact: 07/06/2015

Next Scheduled EDR Contact: 10/19/2015
Data Release Frequency: No Update Planned

SDADB: Site Discovery and Assessment Database

All sites reported to Permitting, Enforcement, and Remediation Division where it is suspected that hazardous waste may have been disposed or sites that are eligible for listing on the State Inventory of Hazardous Waste Disposal Sites.

Date of Government Version: 04/23/2010 Date Data Arrived at EDR: 04/23/2010 Date Made Active in Reports: 05/25/2010

Number of Days to Update: 32

Source: Department of Energy & Environmental Protection

Telephone: 860-424-3705 Last EDR Contact: 07/06/2015

Next Scheduled EDR Contact: 10/19/2015 Data Release Frequency: No Update Planned

#### State and tribal landfill and/or solid waste disposal site lists

SWF/LF: List of Landfills/Transfer Stations

Solid Waste Facilities/Landfill Sites. SWF/LF type records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. Depending on the state, these may be active or inactive facilities or open dumps that failed to meet RCRA Subtitle D Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 07/02/2015 Date Data Arrived at EDR: 07/28/2015 Date Made Active in Reports: 08/05/2015

Number of Days to Update: 8

Source: Department of Energy & Environmental Protection

Telephone: 860-424-3366 Last EDR Contact: 07/28/2015

Next Scheduled EDR Contact: 11/09/2015 Data Release Frequency: Annually

#### State and tribal leaking storage tank lists

LUST: Leaking Underground Storage Tank List

Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state.

Date of Government Version: 07/24/2015 Date Data Arrived at EDR: 07/29/2015 Date Made Active in Reports: 08/05/2015

Number of Days to Update: 7

Source: Department of Energy & Environmental Protection

Telephone: 860-424-3376 Last EDR Contact: 07/06/2015

Next Scheduled EDR Contact: 10/19/2015 Data Release Frequency: Semi-Annually

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 03/30/2015

Date Data Arrived at EDR: 04/28/2015 Date Made Active in Reports: 06/22/2015

Number of Days to Update: 55

Source: EPA Region 7 Telephone: 913-551-7003 Last EDR Contact: 07/22/2015

Next Scheduled EDR Contact: 11/09/2015 Data Release Frequency: Varies

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 04/30/2015 Date Data Arrived at EDR: 05/05/2015 Date Made Active in Reports: 06/22/2015

Number of Days to Update: 48

Source: EPA Region 8 Telephone: 303-312-6271 Last EDR Contact: 07/22/2015

Next Scheduled EDR Contact: 11/09/2015 Data Release Frequency: Quarterly

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 01/08/2015 Date Data Arrived at EDR: 01/08/2015 Date Made Active in Reports: 02/09/2015

Number of Days to Update: 32

Source: Environmental Protection Agency

Telephone: 415-972-3372 Last EDR Contact: 07/31/2015

Next Scheduled EDR Contact: 11/09/2015 Data Release Frequency: Quarterly

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land
A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 02/03/2015 Date Data Arrived at EDR: 04/30/2015 Date Made Active in Reports: 06/22/2015

Number of Days to Update: 53

Source: EPA Region 1 Telephone: 617-918-1313 Last EDR Contact: 07/31/2015

Next Scheduled EDR Contact: 11/09/2015 Data Release Frequency: Varies

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 07/21/2015 Date Data Arrived at EDR: 07/29/2015 Date Made Active in Reports: 10/13/2015

Number of Days to Update: 76

Source: EPA Region 10 Telephone: 206-553-2857 Last EDR Contact: 07/22/2015

Next Scheduled EDR Contact: 11/09/2015 Data Release Frequency: Quarterly

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land

Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

Date of Government Version: 07/28/2015 Date Data Arrived at EDR: 08/07/2015 Date Made Active in Reports: 10/13/2015

Number of Days to Update: 67

Source: EPA, Region 5 Telephone: 312-886-7439 Last EDR Contact: 07/22/2015

Next Scheduled EDR Contact: 11/09/2015 Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 07/30/2015 Date Data Arrived at EDR: 08/07/2015 Date Made Active in Reports: 10/13/2015

Number of Days to Update: 67

Source: EPA Region 4 Telephone: 404-562-8677 Last EDR Contact: 07/22/2015

Next Scheduled EDR Contact: 11/09/2015 Data Release Frequency: Semi-Annually

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 05/13/2015 Date Data Arrived at EDR: 08/03/2015 Date Made Active in Reports: 10/13/2015

Number of Days to Update: 71

Source: EPA Region 6 Telephone: 214-665-6597 Last EDR Contact: 07/22/2015

Next Scheduled EDR Contact: 11/09/2015 Data Release Frequency: Varies

### State and tribal registered storage tank lists

FEMA UST: Underground Storage Tank Listing

A listing of all FEMA owned underground storage tanks.

Date of Government Version: 01/01/2010 Date Data Arrived at EDR: 02/16/2010 Date Made Active in Reports: 04/12/2010

Number of Days to Update: 55

Source: FEMA

Telephone: 202-646-5797 Last EDR Contact: 07/10/2015

Next Scheduled EDR Contact: 10/28/2015 Data Release Frequency: Varies

UST: Underground Storage Tank Data

Registered Underground Storage Tanks. UST's are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA) and must be registered with the state department responsible for administering the UST program. Available information varies by state program.

Date of Government Version: 08/25/2015 Date Data Arrived at EDR: 09/01/2015 Date Made Active in Reports: 09/22/2015

Number of Days to Update: 21

Source: Department of Energy & Environmental Protection

Telephone: 860-424-3376 Last EDR Contact: 08/31/2015

Next Scheduled EDR Contact: 12/14/2015 Data Release Frequency: Semi-Annually

AST: Marine Terminals and Tank Information

A listing of bulk petroleum facilities that receive petroleum by a vessel.

Date of Government Version: 07/01/2015 Date Data Arrived at EDR: 08/04/2015 Date Made Active in Reports: 09/01/2015

Number of Days to Update: 28

Source: Department of Energy & Environmental Protection

Telephone: 860-424-3233 Last EDR Contact: 08/03/2015

Next Scheduled EDR Contact: 10/19/2015 Data Release Frequency: Varies

INDIAN UST R5: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 07/28/2015 Date Data Arrived at EDR: 08/07/2015 Date Made Active in Reports: 10/13/2015

Number of Days to Update: 67

Source: EPA Region 5 Telephone: 312-886-6136 Last EDR Contact: 07/22/2015

Next Scheduled EDR Contact: 11/09/2015

Data Release Frequency: Varies

INDIAN UST R10: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 07/21/2015 Date Data Arrived at EDR: 07/29/2015 Date Made Active in Reports: 10/13/2015

Number of Days to Update: 76

Source: EPA Region 10 Telephone: 206-553-2857 Last EDR Contact: 07/22/2015

Next Scheduled EDR Contact: 11/09/2015 Data Release Frequency: Quarterly

INDIAN UST R1: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 02/03/2015 Date Data Arrived at EDR: 04/30/2015 Date Made Active in Reports: 06/22/2015

Number of Days to Update: 53

Source: EPA, Region 1 Telephone: 617-918-1313 Last EDR Contact: 07/31/2015

Next Scheduled EDR Contact: 11/09/2015 Data Release Frequency: Varies

INDIAN UST R7: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 09/23/2014 Date Data Arrived at EDR: 11/25/2014 Date Made Active in Reports: 01/29/2015

Number of Days to Update: 65

Source: EPA Region 7 Telephone: 913-551-7003 Last EDR Contact: 07/22/2015

Next Scheduled EDR Contact: 11/09/2015 Data Release Frequency: Varies

INDIAN UST R9: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 12/14/2014 Date Data Arrived at EDR: 02/13/2015 Date Made Active in Reports: 03/13/2015

Number of Days to Update: 28

Source: EPA Region 9 Telephone: 415-972-3368 Last EDR Contact: 07/31/2015

Next Scheduled EDR Contact: 11/09/2015 Data Release Frequency: Quarterly

INDIAN UST R6: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 05/13/2015 Date Data Arrived at EDR: 08/03/2015 Date Made Active in Reports: 10/13/2015

Number of Days to Update: 71

Source: EPA Region 6 Telephone: 214-665-7591 Last EDR Contact: 07/22/2015

Next Scheduled EDR Contact: 11/09/2015 Data Release Frequency: Semi-Annually

INDIAN UST R4: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 07/30/2015 Date Data Arrived at EDR: 08/07/2015 Date Made Active in Reports: 10/13/2015

Number of Days to Update: 67

Source: EPA Region 4 Telephone: 404-562-9424 Last EDR Contact: 07/22/2015

Next Scheduled EDR Contact: 11/09/2015 Data Release Frequency: Semi-Annually

INDIAN UST R8: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 07/28/2015 Date Data Arrived at EDR: 08/14/2015 Date Made Active in Reports: 10/13/2015

Number of Days to Update: 60

Source: EPA Region 8 Telephone: 303-312-6137 Last EDR Contact: 07/22/2015

Next Scheduled EDR Contact: 11/09/2015 Data Release Frequency: Quarterly

### State and tribal institutional control / engineering control registries

#### **ENG CONTROLS: Engineering Controls Listing**

An Engineered Control is a permanent physical structure designed to safely isolate pollutants which would otherwise not comply with the self-implementing remedial options allowed in the Connecticut Remediation Standard Regulations (RSRs). The ECGD includes a description of what is eligible to be considered as an Engineered Control under section 22a-133k-2(f)(2) of the RSRs, a description of the information necessary for the preparation of complete and approvable applications, a step-by-step outline of the review and approval process, and supplemental resources provided in the appendices.

Date of Government Version: 03/05/2013 Date Data Arrived at EDR: 05/07/2013 Date Made Active in Reports: 06/19/2013

Number of Days to Update: 43

Source: Department of Energy & Environmental Protection

Telephone: 860-424-3000 Last EDR Contact: 08/07/2015

Next Scheduled EDR Contact: 11/16/2015 Data Release Frequency: Varies

AUL: ELUR Sites

Environmental Land Use Restriction sites.

Date of Government Version: 08/18/2015 Date Data Arrived at EDR: 08/21/2015 Date Made Active in Reports: 09/22/2015

Number of Days to Update: 32

Source: Department of Energy & Environmental Protection

Telephone: 860-424-3912 Last EDR Contact: 08/07/2015

Next Scheduled EDR Contact: 11/23/2015 Data Release Frequency: Varies

#### State and tribal voluntary cleanup sites

INDIAN VCP R1: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 09/29/2014 Date Data Arrived at EDR: 10/01/2014 Date Made Active in Reports: 11/06/2014

Number of Days to Update: 36

Source: EPA, Region 1 Telephone: 617-918-1102 Last EDR Contact: 06/26/2015

Next Scheduled EDR Contact: 10/12/2015 Data Release Frequency: Varies

VCP: Voluntary Remediation Sites

Sites involved in the Voluntary Remediation Program.

Date of Government Version: 08/18/2015 Date Data Arrived at EDR: 08/21/2015 Date Made Active in Reports: 09/22/2015

Number of Days to Update: 32

Source: Department of Energy & Environmental Protection

Telephone: 860-424-3705 Last EDR Contact: 08/07/2015

Next Scheduled EDR Contact: 11/23/2015 Data Release Frequency: Varies

INDIAN VCP R7: Voluntary Cleanup Priority Lisitng

A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008 Date Data Arrived at EDR: 04/22/2008 Date Made Active in Reports: 05/19/2008

Number of Days to Update: 27

Source: EPA, Region 7 Telephone: 913-551-7365 Last EDR Contact: 04/20/2009

Next Scheduled EDR Contact: 07/20/2009

Data Release Frequency: Varies

#### State and tribal Brownfields sites

**BROWNFIELDS: Brownfields Inventory** 

CBRA has identified over 200 brownfield sites eligible for redevelopment. In most cases these are prime properties for commercial or industrial use. CBRA's grants, assistance and financing lower the financial risks and eliminate the legal, regulatory and environmental risks of redevelopment.

Date of Government Version: 06/20/2015 Date Data Arrived at EDR: 06/24/2015 Date Made Active in Reports: 07/21/2015

Number of Days to Update: 27

Source: Connecticut Brownfields Redevelopment Authority

Telephone: 860-258-7833 Last EDR Contact: 06/17/2015

Next Scheduled EDR Contact: 10/05/2015

Data Release Frequency: Varies

**BROWNFIELDS 2: Brownfields Inventory** 

A brownfield site is generally defined as "real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant or contaminanta?!"

Date of Government Version: 11/30/2004 Date Data Arrived at EDR: 06/26/2009 Date Made Active in Reports: 07/09/2009

Number of Days to Update: 13

Source: Department of Energy & Environmental Protection

Telephone: 860-424-3705 Last EDR Contact: 06/25/2015

Next Scheduled EDR Contact: 10/05/2015 Data Release Frequency: Varies

### ADDITIONAL ENVIRONMENTAL RECORDS

#### Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites

Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 06/22/2015 Date Data Arrived at EDR: 06/24/2015 Date Made Active in Reports: 09/02/2015

Number of Days to Update: 70

Source: Environmental Protection Agency

Telephone: 202-566-2777 Last EDR Contact: 06/24/2015

Next Scheduled EDR Contact: 10/05/2015 Data Release Frequency: Semi-Annually

#### Local Lists of Landfill / Solid Waste Disposal Sites

SWRCY: Recycling Facilities
A listing of recycling facilities.

Date of Government Version: 04/16/2015 Date Data Arrived at EDR: 04/23/2015 Date Made Active in Reports: 04/30/2015

Number of Days to Update: 7

Source: Department of Energy & Environmental Protection

Telephone: 860-424-3223 Last EDR Contact: 06/10/2015

Next Scheduled EDR Contact: 09/28/2015 Data Release Frequency: Varies

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands

Location of open dumps on Indian land.

Date of Government Version: 12/31/1998 Date Data Arrived at EDR: 12/03/2007 Date Made Active in Reports: 01/24/2008

Number of Days to Update: 52

Source: Environmental Protection Agency

Telephone: 703-308-8245 Last EDR Contact: 05/01/2015

Next Scheduled EDR Contact: 08/17/2015 Data Release Frequency: Varies

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations

A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009 Date Data Arrived at EDR: 05/07/2009 Date Made Active in Reports: 09/21/2009

Number of Days to Update: 137

Source: EPA, Region 9 Telephone: 415-947-4219 Last EDR Contact: 07/22/2015

Next Scheduled EDR Contact: 11/09/2015 Data Release Frequency: No Update Planned

ODI: Open Dump Inventory

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985 Date Data Arrived at EDR: 08/09/2004 Date Made Active in Reports: 09/17/2004

Number of Days to Update: 39

Source: Environmental Protection Agency

Telephone: 800-424-9346 Last EDR Contact: 06/09/2004 Next Scheduled EDR Contact: N/A

Data Release Frequency: No Update Planned

### Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL: National Clandestine Laboratory Register

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 06/01/2015 Date Data Arrived at EDR: 06/02/2015 Date Made Active in Reports: 09/16/2015

Number of Days to Update: 106

Source: Drug Enforcement Administration

Telephone: 202-307-1000 Last EDR Contact: 08/31/2015

Next Scheduled EDR Contact: 12/14/2015 Data Release Frequency: No Update Planned

CDL: Clandestine Drug Lab Listing

A listing of clandestine drug lab locations included in the Spills database.

Date of Government Version: 07/28/2015 Date Data Arrived at EDR: 07/31/2015 Date Made Active in Reports: 09/01/2015

Number of Days to Update: 32

Source: Department of Energy & Environmental Protection

Telephone: 860-424-3361 Last EDR Contact: 07/06/2015

Next Scheduled EDR Contact: 10/19/2015 Data Release Frequency: Quarterly

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 05/15/2015 Date Data Arrived at EDR: 06/02/2015 Date Made Active in Reports: 09/16/2015

Number of Days to Update: 106

Source: Drug Enforcement Administration

Telephone: 202-307-1000 Last EDR Contact: 08/31/2015

Next Scheduled EDR Contact: 12/14/2015 Data Release Frequency: Quarterly

#### Local Land Records

CT PROPERTY: Property Transfer Filings

A listing of sites that meet the definition of a hazardous waste establishment. They can be generators, dry cleaners, furniture strippers, etc. These sites have been sold to another owner.

Date of Government Version: 08/18/2015 Date Data Arrived at EDR: 08/21/2015 Date Made Active in Reports: 09/22/2015

Number of Days to Update: 32

Source: Department of Energy & Environmental Protection

Telephone: 860-424-3705 Last EDR Contact: 08/07/2015

Next Scheduled EDR Contact: 11/23/2015 Data Release Frequency: Semi-Annually

LIENS: Environmental Liens Listing

A listing of environmental liens placed by the Cost Recovery Program.

Date of Government Version: 05/20/2014 Date Data Arrived at EDR: 05/23/2014 Date Made Active in Reports: 06/03/2014

Number of Days to Update: 11

Source: Department of Energy & Environmental Protection

Telephone: 860-424-3120 Last EDR Contact: 05/18/2015

Next Scheduled EDR Contact: 08/31/2015 Data Release Frequency: Varies

LIENS 2: CERCLA Lien Information

A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 02/18/2014 Date Data Arrived at EDR: 03/18/2014 Date Made Active in Reports: 04/24/2014

Number of Days to Update: 37

Source: Environmental Protection Agency

Telephone: 202-564-6023 Last EDR Contact: 07/22/2015

Next Scheduled EDR Contact: 11/09/2015 Data Release Frequency: Varies

### Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 06/24/2015 Date Data Arrived at EDR: 06/26/2015 Date Made Active in Reports: 09/02/2015

Number of Days to Update: 68

Source: U.S. Department of Transportation

Telephone: 202-366-4555 Last EDR Contact: 06/26/2015

Next Scheduled EDR Contact: 10/12/2015 Data Release Frequency: Annually

SPILLS: Oil & Chemical Spill Database Oil and Chemical Spill Data.

Date of Government Version: 07/28/2015 Date Data Arrived at EDR: 07/31/2015 Date Made Active in Reports: 09/01/2015

Number of Days to Update: 32

Source: Department of Energy & Environmental Protection

Telephone: 860-424-3024 Last EDR Contact: 07/06/2015

Next Scheduled EDR Contact: 10/19/2015 Data Release Frequency: Semi-Annually

SPILLS 90: SPILLS90 data from FirstSearch

Spills 90 includes those spill and release records available exclusively from FirstSearch databases. Typically, they may include chemical, oil and/or hazardous substance spills recorded after 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 90.

Date of Government Version: 10/15/2012 Date Data Arrived at EDR: 01/03/2013 Date Made Active in Reports: 02/11/2013

Number of Days to Update: 39

Source: FirstSearch Telephone: N/A

Last EDR Contact: 01/03/2013 Next Scheduled EDR Contact: N/A

Data Release Frequency: No Update Planned

#### Other Ascertainable Records

RCRA NonGen / NLR: RCRA - Non Generators / No Longer Regulated

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 06/09/2015 Date Data Arrived at EDR: 06/26/2015 Date Made Active in Reports: 09/16/2015

Number of Days to Update: 82

Source: Environmental Protection Agency

Telephone: (888) 372-7341 Last EDR Contact: 06/26/2015

Next Scheduled EDR Contact: 10/12/2015 Data Release Frequency: Varies

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 01/31/2015 Date Data Arrived at EDR: 07/08/2015 Date Made Active in Reports: 10/13/2015

Number of Days to Update: 97

Source: U.S. Army Corps of Engineers

Telephone: 202-528-4285 Last EDR Contact: 09/11/2015

Next Scheduled EDR Contact: 12/21/2015 Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005 Date Data Arrived at EDR: 11/10/2006 Date Made Active in Reports: 01/11/2007

Number of Days to Update: 62

Source: USGS Telephone: 888-275-8747

Last EDR Contact: 07/14/2015

Next Scheduled EDR Contact: 10/28/2015 Data Release Frequency: Semi-Annually

#### FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 12/31/2005 Date Data Arrived at EDR: 02/06/2006 Date Made Active in Reports: 01/11/2007

Number of Days to Update: 339

Source: U.S. Geological Survey Telephone: 888-275-8747 Last EDR Contact: 07/14/2015

Next Scheduled EDR Contact: 10/28/2015

Data Release Frequency: N/A

#### SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 03/07/2011 Date Data Arrived at EDR: 03/09/2011 Date Made Active in Reports: 05/02/2011

Number of Days to Update: 54

Source: Environmental Protection Agency

Telephone: 615-532-8599 Last EDR Contact: 05/21/2015

Next Scheduled EDR Contact: 08/31/2015 Data Release Frequency: Varies

#### US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 06/01/2015 Date Data Arrived at EDR: 06/02/2015 Date Made Active in Reports: 09/16/2015

Number of Days to Update: 106

Source: Environmental Protection Agency

Telephone: 202-566-1917 Last EDR Contact: 08/12/2015

Next Scheduled EDR Contact: 11/30/2015 Data Release Frequency: Quarterly

#### EPA WATCH LIST: EPA WATCH LIST

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 08/30/2013 Date Data Arrived at EDR: 03/21/2014 Date Made Active in Reports: 06/17/2014

Number of Days to Update: 88

Source: Environmental Protection Agency

Telephone: 617-520-3000 Last EDR Contact: 08/04/2015

Next Scheduled EDR Contact: 11/23/2015 Data Release Frequency: Quarterly

#### 2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 04/22/2013 Date Data Arrived at EDR: 03/03/2015 Date Made Active in Reports: 03/09/2015

Number of Days to Update: 6

Source: Environmental Protection Agency

Telephone: 703-308-4044 Last EDR Contact: 05/14/2015

Next Scheduled EDR Contact: 08/24/2015 Data Release Frequency: Varies

#### TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2012 Date Data Arrived at EDR: 01/15/2015 Date Made Active in Reports: 01/29/2015

Number of Days to Update: 14

Source: EPA

Telephone: 202-260-5521 Last EDR Contact: 06/25/2015

Next Scheduled EDR Contact: 10/05/2015 Data Release Frequency: Every 4 Years

#### TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2013 Date Data Arrived at EDR: 02/12/2015 Date Made Active in Reports: 06/02/2015

Number of Days to Update: 110

Source: EPA

Telephone: 202-566-0250 Last EDR Contact: 01/29/2015

Next Scheduled EDR Contact: 06/08/2015 Data Release Frequency: Annually

#### SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/2009 Date Data Arrived at EDR: 12/10/2010 Date Made Active in Reports: 02/25/2011

Number of Days to Update: 77

Source: EPA

Telephone: 202-564-4203 Last EDR Contact: 07/22/2015

Next Scheduled EDR Contact: 11/09/2015 Data Release Frequency: Annually

#### ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 11/25/2013 Date Data Arrived at EDR: 12/12/2013 Date Made Active in Reports: 02/24/2014

Number of Days to Update: 74

Source: EPA

Telephone: 703-416-0223 Last EDR Contact: 06/12/2015

Next Scheduled EDR Contact: 09/21/2015 Data Release Frequency: Annually

RMP: Risk Management Plans

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 02/01/2015 Date Data Arrived at EDR: 02/13/2015 Date Made Active in Reports: 03/25/2015

Number of Days to Update: 40

Source: Environmental Protection Agency

Telephone: 202-564-8600 Last EDR Contact: 07/22/2015

Next Scheduled EDR Contact: 11/09/2015

Data Release Frequency: Varies

#### RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995 Date Data Arrived at EDR: 07/03/1995 Date Made Active in Reports: 08/07/1995

Number of Days to Update: 35

Source: EPA

Telephone: 202-564-4104 Last EDR Contact: 06/02/2008

Next Scheduled EDR Contact: 09/01/2008 Data Release Frequency: No Update Planned

### PRP: Potentially Responsible Parties

A listing of verified Potentially Responsible Parties

Date of Government Version: 10/25/2013 Date Data Arrived at EDR: 10/17/2014 Date Made Active in Reports: 10/20/2014

Number of Days to Update: 3

Source: EPA

Telephone: 202-564-6023 Last EDR Contact: 05/14/2015

Next Scheduled EDR Contact: 08/24/2015 Data Release Frequency: Quarterly

#### PADS: PCB Activity Database System

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 07/01/2014 Date Data Arrived at EDR: 10/15/2014 Date Made Active in Reports: 11/17/2014

Number of Days to Update: 33

Source: EPA

Telephone: 202-566-0500 Last EDR Contact: 07/17/2015

Next Scheduled EDR Contact: 10/28/2015 Data Release Frequency: Annually

### ICIS: Integrated Compliance Information System

The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 01/23/2015 Date Data Arrived at EDR: 02/06/2015 Date Made Active in Reports: 03/09/2015

Number of Days to Update: 31

Source: Environmental Protection Agency

Telephone: 202-564-5088 Last EDR Contact: 07/09/2015

Next Scheduled EDR Contact: 10/28/2015 Data Release Frequency: Quarterly

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009 Date Data Arrived at EDR: 04/16/2009 Date Made Active in Reports: 05/11/2009

Number of Days to Update: 25

Source: EPA/Office of Prevention, Pesticides and Toxic Substances

Telephone: 202-566-1667 Last EDR Contact: 05/20/2015

Next Scheduled EDR Contact: 09/07/2015 Data Release Frequency: Quarterly

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009 Date Data Arrived at EDR: 04/16/2009 Date Made Active in Reports: 05/11/2009

Number of Days to Update: 25

Source: EPA Telephone: 202-566-1667 Last EDR Contact: 05/20/2015

Next Scheduled EDR Contact: 09/07/2015 Data Release Frequency: Quarterly

MLTS: Material Licensing Tracking System

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 06/26/2015 Date Data Arrived at EDR: 07/10/2015 Date Made Active in Reports: 10/13/2015

Number of Days to Update: 95

Source: Nuclear Regulatory Commission

Telephone: 301-415-7169 Last EDR Contact: 09/03/2015

Next Scheduled EDR Contact: 12/21/2015 Data Release Frequency: Quarterly

COAL ASH DOE: Steam-Electric Plant Operation Data

A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2005 Date Data Arrived at EDR: 08/07/2009 Date Made Active in Reports: 10/22/2009

Number of Days to Update: 76

Source: Department of Energy Telephone: 202-586-8719 Last EDR Contact: 07/13/2015

Next Scheduled EDR Contact: 10/28/2015 Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List

A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 07/01/2014 Date Data Arrived at EDR: 09/10/2014 Date Made Active in Reports: 10/20/2014

Number of Days to Update: 40

Source: Environmental Protection Agency

Telephone: N/A

Last EDR Contact: 06/12/2015

Next Scheduled EDR Contact: 09/21/2015 Data Release Frequency: Varies

PCB TRANSFORMER: PCB Transformer Registration Database

The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 02/01/2011 Date Data Arrived at EDR: 10/19/2011 Date Made Active in Reports: 01/10/2012

Number of Days to Update: 83

Source: Environmental Protection Agency Telephone: 202-566-0517

Last EDR Contact: 07/31/2015

Next Scheduled EDR Contact: 11/09/2015 Data Release Frequency: Varies

RADINFO: Radiation Information Database

The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 07/07/2015 Date Data Arrived at EDR: 07/09/2015 Date Made Active in Reports: 09/16/2015

Number of Days to Update: 69

Source: Environmental Protection Agency

Telephone: 202-343-9775 Last EDR Contact: 07/09/2015

Next Scheduled EDR Contact: 10/19/2015 Data Release Frequency: Quarterly

#### HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing

A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006 Date Data Arrived at EDR: 03/01/2007 Date Made Active in Reports: 04/10/2007

Number of Days to Update: 40

Source: Environmental Protection Agency

Telephone: 202-564-2501 Last EDR Contact: 12/17/2007

Next Scheduled EDR Contact: 03/17/2008

Data Release Frequency: No Update Planned

### HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing

A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006 Date Data Arrived at EDR: 03/01/2007 Date Made Active in Reports: 04/10/2007

Number of Days to Update: 40

Source: Environmental Protection Agency

Telephone: 202-564-2501 Last EDR Contact: 12/17/2008

Next Scheduled EDR Contact: 03/17/2008 Data Release Frequency: No Update Planned

### DOT OPS: Incident and Accident Data

Department of Transporation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 07/31/2012 Date Data Arrived at EDR: 08/07/2012 Date Made Active in Reports: 09/18/2012

Number of Days to Update: 42

Source: Department of Transporation, Office of Pipeline Safety

Telephone: 202-366-4595 Last EDR Contact: 08/04/2015

Next Scheduled EDR Contact: 11/16/2015 Data Release Frequency: Varies

#### CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 12/31/2014 Date Data Arrived at EDR: 04/17/2015 Date Made Active in Reports: 06/02/2015

Number of Days to Update: 46

Source: Department of Justice, Consent Decree Library

Telephone: Varies

Last EDR Contact: 06/22/2015

Next Scheduled EDR Contact: 10/12/2015 Data Release Frequency: Varies

### BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2013 Date Data Arrived at EDR: 02/24/2015 Date Made Active in Reports: 09/30/2015

Number of Days to Update: 218

Source: EPA/NTIS Telephone: 800-424-9346 Last EDR Contact: 08/28/2015

Next Scheduled EDR Contact: 12/07/2015 Data Release Frequency: Biennially

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater

than 640 acres.

Date of Government Version: 12/31/2005 Date Data Arrived at EDR: 12/08/2006 Date Made Active in Reports: 01/11/2007

Number of Days to Update: 34

Source: USGS

Telephone: 202-208-3710 Last EDR Contact: 07/14/2015

Next Scheduled EDR Contact: 10/28/2015 Data Release Frequency: Semi-Annually

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 09/14/2010 Date Data Arrived at EDR: 10/07/2011 Date Made Active in Reports: 03/01/2012

Number of Days to Update: 146

Source: Department of Energy Telephone: 505-845-0011 Last EDR Contact: 05/26/2015

Next Scheduled EDR Contact: 09/07/2015 Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 11/25/2014 Date Data Arrived at EDR: 11/26/2014 Date Made Active in Reports: 01/29/2015

Number of Days to Update: 64

Source: Environmental Protection Agency

Telephone: 703-603-8787 Last EDR Contact: 07/07/2015

Next Scheduled EDR Contact: 10/19/2015 Data Release Frequency: Varies

LEAD SMELTER 2: Lead Smelter Sites

A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2001 Date Data Arrived at EDR: 10/27/2010 Date Made Active in Reports: 12/02/2010

Number of Days to Update: 36

Source: American Journal of Public Health

Telephone: 703-305-6451 Last EDR Contact: 12/02/2009 Next Scheduled EDR Contact: N/A

Data Release Frequency: No Update Planned

US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)

The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 07/22/2015 Date Data Arrived at EDR: 07/24/2015 Date Made Active in Reports: 09/02/2015

Number of Days to Update: 40

Source: EPA

Telephone: 202-564-2496 Last EDR Contact: 06/22/2015

Next Scheduled EDR Contact: 10/05/2015 Data Release Frequency: Annually

US AIRS MINOR: Air Facility System Data A listing of minor source facilities.

Date of Government Version: 07/22/2015 Date Data Arrived at EDR: 07/24/2015 Date Made Active in Reports: 09/02/2015

Number of Days to Update: 40

Source: EPA

Telephone: 202-564-2496 Last EDR Contact: 06/22/2015

Next Scheduled EDR Contact: 10/22/2015 Data Release Frequency: Annually

US MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information

Date of Government Version: 05/14/2015 Date Data Arrived at EDR: 06/03/2015 Date Made Active in Reports: 09/02/2015

Number of Days to Update: 91

Source: Department of Labor, Mine Safety and Health Administration

Telephone: 303-231-5959 Last EDR Contact: 09/01/2015

Next Scheduled EDR Contact: 12/14/2015 Data Release Frequency: Semi-Annually

US MINES 2: Ferrous and Nonferrous Metal Mines Database Listing

This map layer includes ferrous (ferrous metal mines are facilities that extract ferrous metals, such as iron ore or molybdenum) and nonferrous (Nonferrous metal mines are facilities that extract nonferrous metals, such as gold, silver, copper, zinc, and lead) metal mines in the United States.

Source: USGS

Date of Government Version: 12/05/2005 Date Data Arrived at EDR: 02/29/2008 Date Made Active in Reports: 04/18/2008

Number of Days to Update: 49

Telephone: 703-648-7709 Last EDR Contact: 06/05/2015

Next Scheduled EDR Contact: 09/14/2015 Data Release Frequency: Varies

US MINES 3: Active Mines & Mineral Plants Database Listing

Active Mines and Mineral Processing Plant operations for commodities monitored by the Minerals Information Team of the USGS.

Date of Government Version: 04/14/2011 Date Data Arrived at EDR: 06/08/2011 Date Made Active in Reports: 09/13/2011

Number of Days to Update: 97

Source: USGS

Telephone: 703-648-7709 Last EDR Contact: 06/05/2015

Next Scheduled EDR Contact: 09/14/2015 Data Release Frequency: Varies

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail, EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 01/18/2015 Date Data Arrived at EDR: 02/27/2015 Date Made Active in Reports: 03/25/2015

Number of Days to Update: 26

Source: EPA

Telephone: (617) 918-1111 Last EDR Contact: 06/10/2015

Next Scheduled EDR Contact: 09/21/2015 Data Release Frequency: Quarterly

AIRS: Permitted Air Sources Listing

A listing of permitted air sources in Connecticut.

Date of Government Version: 01/30/2015 Date Data Arrived at EDR: 01/30/2015 Date Made Active in Reports: 02/03/2015

Number of Days to Update: 4

Source: Department of Energy & Environmental Protection

Telephone: 860-424-3026 Last EDR Contact: 07/24/2015

Next Scheduled EDR Contact: 11/09/2015 Data Release Frequency: Varies

CPCS: Contaminated or Potentially Contaminated Sites

A list of Contaminated or Potentially Contaminated Sites within Connecticut. This list represents the "Hazardous Waste Facilities," as defined in Section 22a-134f of the Connecticut General Statutes (CGS). The list contains the following types of sites: Sites listed on the Inventory of Hazardous Waste Disposal Sites; Sites subject to the Property Transfer Act; Sites at which underground storage tanks are known to have leaked; Sites at which hazardous waste subject to the RCRA; Sites that are included in EPA's (CERCLIS); Sites that are the subject of an order issued by the Commissioner of DEP that requires investigation and remediation of a potential or known source of pollution; and Sites that have entered into one of the Department's Voluntary Remediation Programs.

Date of Government Version: 06/15/2015 Date Data Arrived at EDR: 08/17/2015 Date Made Active in Reports: 09/01/2015

Number of Days to Update: 15

Source: Department of Energy & Environmental Protection

Telephone: 860-424-3766 Last EDR Contact: 08/07/2015

Next Scheduled EDR Contact: 11/23/2015 Data Release Frequency: Quarterly

DRYCLEANERS: Drycleaner Facilities
A listing of drycleaner facility locations.

Date of Government Version: 07/18/2008 Date Data Arrived at EDR: 08/08/2008 Date Made Active in Reports: 08/27/2008

Number of Days to Update: 19

Source: Department of Energy & Environmental Protection

Telephone: 860-424-3026 Last EDR Contact: 06/10/2015

Next Scheduled EDR Contact: 09/28/2015 Data Release Frequency: Varies

**ENFORCEMENT:** Enforcement Case Listing

The types of enforcement actions included are administrative consent orders, final unilateral orders and final dispositions of civil cases through the Attorney General's Office.

Date of Government Version: 07/24/2015 Date Data Arrived at EDR: 07/27/2015 Date Made Active in Reports: 08/05/2015

Number of Days to Update: 9

Source: Department of Energy & Environmental Protection

Telephone: 860-424-3265 Last EDR Contact: 07/20/2015

Next Scheduled EDR Contact: 11/02/2015 Data Release Frequency: Varies

Financial Assurance 1: Financial Assurance Information Listing

A listing containing RCRA financial assurance information submitted on behalf of the CT DEP's Program Analysis Group of the Waste Engineering and Enforcement Division.

Date of Government Version: 07/23/2014 Date Data Arrived at EDR: 07/01/2014 Date Made Active in Reports: 07/09/2014

Number of Days to Update: 8

Source: Department of Energy & Environmental Protection

Telephone: 860-418-5930 Last EDR Contact: 06/17/2015

Next Scheduled EDR Contact: 10/05/2015 Data Release Frequency: Varies

Financial Assurance 2: Financial Assurance Information Listing

A listing of financial assurance information for solid waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 06/17/2015 Date Data Arrived at EDR: 08/07/2015 Date Made Active in Reports: 09/01/2015

Number of Days to Update: 25

Source: Department of Energy & Environmental Protection

Telephone: 860-418-5930 Last EDR Contact: 06/17/2015

Next Scheduled EDR Contact: 10/05/2015 Data Release Frequency: Varies

LEAD: Lead Inspection Database

The Lead Poisoning Prevention and Control Program lead inspection database.

Date of Government Version: 03/26/2014 Date Data Arrived at EDR: 03/27/2014 Date Made Active in Reports: 05/08/2014

Number of Days to Update: 42

Source: Department of Public Health

Telephone: 860-509-7299 Last EDR Contact: 06/05/2015

Next Scheduled EDR Contact: 09/21/2015 Data Release Frequency: Varies

LWDS: Connecticut Leachate and Wastewater Discharge Sites

The Leachate and Waste Water Discharge Inventory Data Layer (LWDS) includes point locations digitized from Leachate and Wastewater Discharge Source maps compiled by the Connecticut DEP. These maps locate surface and groundwater discharges that (1) have received a waste water discharge permit from the state or (2) are historic and now defunct waste sites or (3) are locations of accidental spills, leaks, or discharges of a variety of liquid or solid wastes.

Date of Government Version: 07/17/2009 Date Data Arrived at EDR: 10/21/2009 Date Made Active in Reports: 10/30/2009

Number of Days to Update: 9

Source: Department of Energy & Environmental Protection

Telephone: N/A

Last EDR Contact: 10/15/2014

Next Scheduled EDR Contact: 01/26/2015 Data Release Frequency: Varies

CT MANIFEST: Hazardous Waste Manifest Data

Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 07/30/2013 Date Data Arrived at EDR: 08/19/2013 Date Made Active in Reports: 10/03/2013

Number of Days to Update: 45

Source: Department of Energy & Environmental Protection

Telephone: 860-424-3375 Last EDR Contact: 05/18/2015

Next Scheduled EDR Contact: 08/31/2015
Data Release Frequency: No Update Planned

NPDES: Wastewater Permit Listing

A listing of permits issued by the DEP.

Date of Government Version: 08/07/2015 Date Data Arrived at EDR: 08/07/2015 Date Made Active in Reports: 09/01/2015

Number of Days to Update: 25

Source: Department of Energy & Environmental Protection

Telephone: 860-424-3832 Last EDR Contact: 08/07/2015

Next Scheduled EDR Contact: 10/12/2015 Data Release Frequency: Varies

SEH: List of Significant Environmental Hazards Report to DEEP

The Significant Environmental Hazard Statute is intended to identify and abate short-term risks associated with specific environmental conditions identified in the statute. After abatement of short-term risks (meaning abatement of the significant environmental hazard condition), there may still be potential long-term risks associated with the release. However, a significant environmental hazard can be considered abated under the statute even though potential long-term risks may not have been addressed.

Date of Government Version: 06/30/2015 Date Data Arrived at EDR: 07/24/2015 Date Made Active in Reports: 08/05/2015

Number of Days to Update: 12

Source: Department of Energy & Environmental Protection

Telephone: 860-424-3766 Last EDR Contact: 07/20/2015

Next Scheduled EDR Contact: 11/02/2015

Data Release Frequency: Varies

### **EDR HIGH RISK HISTORICAL RECORDS**

## **EDR Exclusive Records**

EDR MGP: EDR Proprietary Manufactured Gas Plants

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A Date Data Arrived at EDR: N/A Date Made Active in Reports: N/A Number of Days to Update: N/A Source: EDR, Inc. Telephone: N/A Last EDR Contact: N/A

Next Scheduled EDR Contact: N/A

Data Release Frequency: No Update Planned

EDR US Hist Auto Stat: EDR Exclusive Historic Gas Stations

EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A Date Data Arrived at EDR: N/A Date Made Active in Reports: N/A Number of Days to Update: N/A Source: EDR, Inc. Telephone: N/A Last EDR Contact: N/A

Next Scheduled EDR Contact: N/A Data Release Frequency: Varies

EDR US Hist Cleaners: EDR Exclusive Historic Dry Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc. Telephone: N/A Last EDR Contact: N/A

Next Scheduled EDR Contact: N/A Data Release Frequency: Varies

#### **EDR RECOVERED GOVERNMENT ARCHIVES**

#### Exclusive Recovered Govt. Archives

RGA HWS: Recovered Government Archive State Hazardous Waste Facilities List

The EDR Recovered Government Archive State Hazardous Waste database provides a list of SHWS incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Energy & Environmental Protection formerly know as the DEP which changes in July 2011 in Connecticut.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/02/2014
Number of Days to Update: 185

Source: Department of Energy & Environmental Protection

Telephone: N/A

Last EDR Contact: 06/01/2012 Next Scheduled EDR Contact: N/A Data Release Frequency: Varies

RGA LUST: Recovered Government Archive Leaking Underground Storage Tank

The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Energy & Environmental Protection formerly know as the DEP which changes in July 2011 in Connecticut.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/02/2014
Number of Days to Update: 185

Source: Department of Energy & Environmental Protection

Telephone: N/A

Last EDR Contact: 06/01/2012 Next Scheduled EDR Contact: N/A Data Release Frequency: Varies

## OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

NJ MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2013 Date Data Arrived at EDR: 07/17/2015 Date Made Active in Reports: 08/12/2015

Number of Days to Update: 26

Source: Department of Environmental Protection

Telephone: N/A

Last EDR Contact: 07/13/2015

Next Scheduled EDR Contact: 10/28/2015 Data Release Frequency: Annually

NY MANIFEST: Facility and Manifest Data

Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD

facility.

Date of Government Version: 08/01/2015 Date Data Arrived at EDR: 08/06/2015 Date Made Active in Reports: 08/24/2015

Number of Days to Update: 18

Source: Department of Environmental Conservation

Telephone: 518-402-8651 Last EDR Contact: 08/06/2015

Next Scheduled EDR Contact: 11/16/2015 Data Release Frequency: Annually

PA MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2014 Date Data Arrived at EDR: 07/24/2015 Date Made Active in Reports: 08/18/2015

Number of Days to Update: 25

Source: Department of Environmental Protection

Telephone: 717-783-8990 Last EDR Contact: 07/20/2015

Next Scheduled EDR Contact: 11/02/2015 Data Release Frequency: Annually

RI MANIFEST: Manifest information

Hazardous waste manifest information

Date of Government Version: 12/31/2013 Date Data Arrived at EDR: 06/19/2015 Date Made Active in Reports: 07/15/2015

Number of Days to Update: 26

Source: Department of Environmental Management

Telephone: 401-222-2797 Last EDR Contact: 05/26/2015

Next Scheduled EDR Contact: 09/07/2015 Data Release Frequency: Annually

VT MANIFEST: Hazardous Waste Manifest Data Hazardous waste manifest information.

Date of Government Version: 03/26/2015 Date Data Arrived at EDR: 06/03/2015 Date Made Active in Reports: 07/20/2015

Number of Days to Update: 47

Source: Department of Environmental Conservation

Telephone: 802-241-3443 Last EDR Contact: 07/20/2015

Next Scheduled EDR Contact: 11/02/2015 Data Release Frequency: Annually

WI MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2014 Date Data Arrived at EDR: 03/19/2015 Date Made Active in Reports: 04/07/2015

Number of Days to Update: 19

Source: Department of Natural Resources

Telephone: N/A

Last EDR Contact: 06/11/2015

Next Scheduled EDR Contact: 09/28/2015 Data Release Frequency: Annually

Oil/Gas Pipelines

Source: PennWell Corporation Telephone: 281-546-1505

Petroleum Bundle (Crude Oil, Refined Products, Petrochemicals, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)) N = Natural Gas Bundle (Natural Gas, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)). This map includes information copyrighted by PennWell Corporation. This information is provided on a best effort basis and PennWell Corporation does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of PennWell.

Electric Power Transmission Line Data

Source: PennWell Corporation Telephone: 800-823-6277

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Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

#### AHA Hospitals:

Source: American Hospital Association, Inc.

Telephone: 312-280-5991

The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing

Source: Centers for Medicare & Medicaid Services

Telephone: 410-786-3000

A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services,

a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes

Source: National Institutes of Health

Telephone: 301-594-6248

Information on Medicare and Medicaid certified nursing homes in the United States.

**Public Schools** 

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on elementary

and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Licensed Child Care Facilities

Source: Department of Public Health

Telephone: 860-509-8045

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 2003 & 2011 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Tidal Wetlands

Source: Department of Energy & Environmental Protection

Telephone: 860-424-4054

Current USGS 7.5 Minute Topographic Map Source: U.S. Geological Survey

## STREET AND ADDRESS INFORMATION

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# **GEOCHECK®-PHYSICAL SETTING SOURCE ADDENDUM**

#### **TARGET PROPERTY ADDRESS**

NABOZNY SOLAR SITE 101 WOODS HILL ROAD POMFRET, CT 06259

### **TARGET PROPERTY COORDINATES**

Latitude (North): 41.8309 - 41° 49' 51.24" Longitude (West): 71.9209 - 71° 55' 15.24"

Universal Tranverse Mercator: Zone 19 UTM X (Meters): 257440.2 UTM Y (Meters): 4634913.5

Elevation: 364 ft. above sea level

### **USGS TOPOGRAPHIC MAP**

Target Property Map: 5642109 DANIELSON, CT

Version Date: 2012

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principal investigative components:

- 1. Groundwater flow direction, and
- 2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

# **GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY**

### **GROUNDWATER FLOW DIRECTION INFORMATION**

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

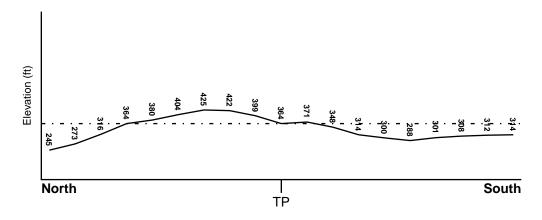
### **TOPOGRAPHIC INFORMATION**

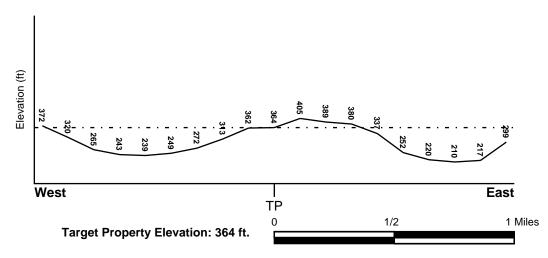
Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

#### TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General SW

### SURROUNDING TOPOGRAPHY: ELEVATION PROFILES





Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

#### HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

**FEMA FLOOD ZONE** 

FEMA Flood Electronic Data

Target Property County
WINDHAM, CT
Electronic Dat
Not Available

Flood Plain Panel at Target Property: Not Reported

Additional Panels in search area: Not Reported

**NATIONAL WETLAND INVENTORY** 

NWI Quad at Target Property Data Coverage

DANIELSON YES - refer to the Overview Map and Detail Map

#### **HYDROGEOLOGIC INFORMATION**

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

### Site-Specific Hydrogeological Data\*:

Search Radius: 1.25 miles Status: Not found

#### **AQUIFLOW®**

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

 MAP ID
 FROM TP
 GROUNDWATER FLOW

 Not Reported
 GROUNDWATER FLOW

## **GROUNDWATER FLOW VELOCITY INFORMATION**

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

## GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

#### **ROCK STRATIGRAPHIC UNIT**

#### **GEOLOGIC AGE IDENTIFICATION**

Era: Paleozoic Category: Volcanic Rocks

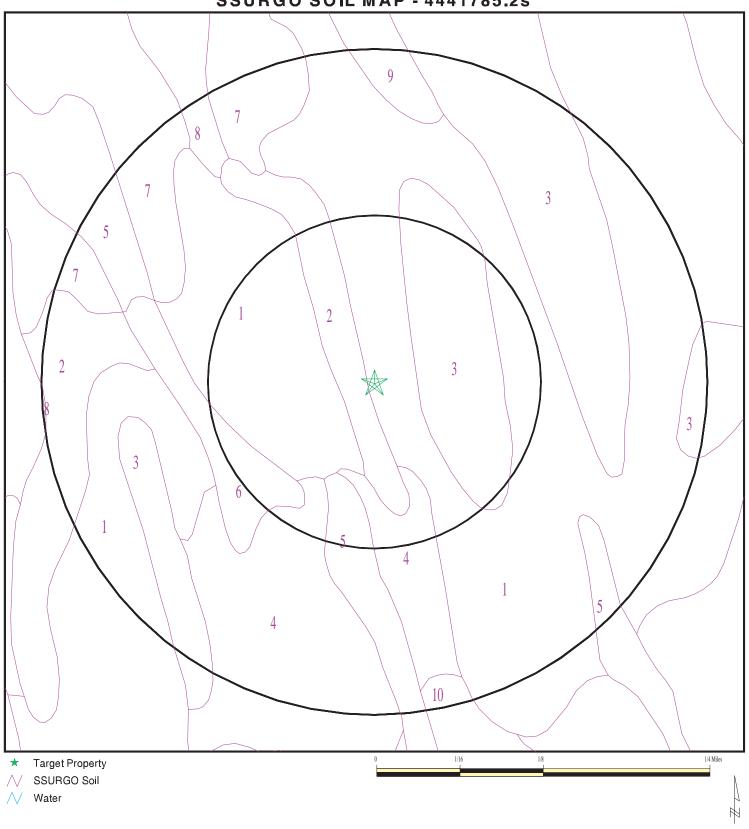
System: Ordovician

Series: Ordovician volcanic rocks

Code: Ov (decoded above as Era, System & Series)

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

# SSURGO SOIL MAP - 4441785.2s



SITE NAME: Nabozny Solar Site
ADDRESS: 101 Woods Hill Road
Pomfret CT 06259
LAT/LONG: 41.8309 / 71.9209

CLIENT: Tighe & Bond CONTACT: Samantha Avis INQUIRY #: 4441785.2s

DATE: October 19, 2015 7:16 pm

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## DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. The following information is based on Soil Conservation Service SSURGO data.

Soil Map ID: 1

Soil Component Name: Woodbridge

Soil Surface Texture: fine sandy loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward

movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Moderately well drained

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 61 inches

			Soil Layer	Information			
	Вои	ındary	Soil Texture Class	Classi	fication	Saturated hydraulic conductivity micro m/sec	
Layer	Upper	Lower		AASHTO Group	Unified Soil		Soil Reaction (pH)
1	0 inches	7 inches	fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 6 Min: 4.5
2	7 inches	18 inches	fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 6 Min: 4.5
3	18 inches	25 inches	fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 6 Min: 4.5
4	25 inches	29 inches	fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 6 Min: 4.5

	Soil Layer Information										
	Bou	ındary		Classi	fication	Saturated hydraulic					
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil	conductivity micro m/sec	Soil Reaction (pH)				
5	29 inches	42 inches	gravelly fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 1.4 Min: 0.01	Max: 6 Min: 4.5				
6	42 inches	64 inches	gravelly fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 1.4 Min: 0.01	Max: 6 Min: 4.5				

# Soil Map ID: 2

Soil Component Name: Paxton

Soil Surface Texture: fine sandy loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward

movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Well drained

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 61 inches

Soil Layer Information										
	Воц	Boundary		Classification		Saturated hydraulic				
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		Soil Reaction (pH)			
1	0 inches	7 inches	fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 6.5 Min: 4.5			

	Soil Layer Information										
	Вои	ındary		Classi	fication	Saturated hydraulic					
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil	conductivity micro m/sec	Soil Reaction (pH)				
2	7 inches	14 inches	fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14 Min: 4	Max: 6 Min: 4.5				
3	14 inches	25 inches	fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14 Min: 4	Max: 6 Min: 4.5				
4	25 inches	64 inches	gravelly fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 1.41 Min: 0.01	Max: 6 Min: 4.5				

## Soil Map ID: 3

Soil Component Name: Woodbridge

Soil Surface Texture: fine sandy loam

Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures. Hydrologic Group:

Soil Drainage Class: Moderately well drained

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 61 inches

	Soil Layer Information											
	Boundary			Classi	fication	Saturated hydraulic						
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil	conductivity micro m/sec	Soil Reaction (pH)					
1	0 inches	7 inches	fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 6 Min: 4.5					
2	7 inches	18 inches	fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 6 Min: 4.5					
3	18 inches	25 inches	fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 6 Min: 4.5					
4	25 inches	29 inches	fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 6 Min: 4.5					
5	29 inches	42 inches	gravelly fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 1.4 Min: 0.01	Max: 6 Min: 4.5					
6	42 inches	64 inches	gravelly fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 1.4 Min: 0.01	Max: 6 Min: 4.5					

## Soil Map ID: 4

Soil Component Name: Woodbridge

Soil Surface Texture: fine sandy loam

Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures. Hydrologic Group:

Soil Drainage Class: Moderately well drained

# **GEOCHECK<sup>®</sup> - PHYSICAL SETTING SOURCE SUMMARY**

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 61 inches

	Boundary			Classi	fication	Saturated hydraulic	
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil	conductivity micro m/sec	
1	0 inches	7 inches	fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 6 Min: 4.5
2	7 inches	18 inches	fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 6 Min: 4.5
3	18 inches	25 inches	fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 6 Min: 4.5
4	25 inches	29 inches	fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 6 Min: 4.5
5	29 inches	42 inches	gravelly fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 1.4 Min: 0.01	Max: 6 Min: 4.5
6	42 inches	64 inches	gravelly fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 1.4 Min: 0.01	Max: 6 Min: 4.5

Soil Map ID: 5

Soil Component Name: Ridgebury

Soil Surface Texture: slightly decomposed plant material

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high

water table, or are shallow to an impervious layer.

Soil Drainage Class: Poorly drained

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

#### **Soil Layer Information** Saturated **Boundary** Classification hydraulic conductivity **Unified Soil** Layer Upper Lower Soil Texture Class **AASHTO Group Soil Reaction** micro m/sec (pH) 1 0 inches 1 inches slightly Not reported Not reported Max: 42 Max: Min: decomposed Min: 4 plant material 2 COARSE-GRAINED Max: 42 1 inches 5 inches fine sandy loam Silt-Clay Max: 6 Min: Materials (more SOILS, Sands, Min: 4 4.5 than 35 pct. Sands with fines, passing No. Silty Sand. 200), Silty Soils. COARSE-GRAINED Max: 42 Max: 6 Min: 3 5 inches 14 inches fine sandy loam Silt-Clay Materials (more SOILS, Sands, Min: 4 4.5 than 35 pct. Sands with fines, passing No. Silty Sand. 200), Silty Soils. 4 14 inches 20 inches fine sandy loam Silt-Clay COARSE-GRAINED Max: 42 Max: 6 Min: Materials (more SOILS, Sands, Min: 4 4.5 Sands with fines, than 35 pct. passing No. Silty Sand. 200), Silty Soils. COARSE-GRAINED 5 20 inches 59 inches sandy loam Silt-Clay Max: 1.4 Max: 6 Min: Materials (more SOILS, Sands, Min: 0.01 4.5 than 35 pct. Sands with fines, passing No. Silty Sand. 200), Silty Soils.

Soil Map ID: 6

Soil Component Name: Ridgebury

Soil Surface Texture: fine sandy loam

Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer. Hydrologic Group:

Soil Drainage Class: Poorly drained

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches Depth to Watertable Min: > 8 inches

	Soil Layer Information											
	Вои	ındary	Soil Texture Class	Classif	fication	Saturated hydraulic conductivity micro m/sec						
Layer	Upper	Lower		AASHTO Group	Unified Soil		Soil Reaction (pH)					
1	0 inches	5 inches	fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 4	Max: 6 Min: 4.5					
2	5 inches	14 inches	fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 4	Max: 6 Min: 4.5					
3	14 inches	20 inches	fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 4	Max: 6 Min: 4.5					
4	20 inches	59 inches	sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 1.4 Min: 0.01	Max: 6 Min: 4.5					

Soil Map ID: 7

Soil Component Name: Woodbridge

Soil Surface Texture: fine sandy loam

Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures. Hydrologic Group:

Soil Drainage Class: Moderately well drained

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 61 inches

			Soil Layer	Information			
	Bou	ındary	Soil Texture Class	Classi	fication	Saturated hydraulic	
Layer	Upper	Lower		AASHTO Group	Unified Soil	conductivity micro m/sec	Soil Reaction (pH)
1	0 inches	7 inches	fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 6 Min: 4.5
2	7 inches	18 inches	fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 6 Min: 4.5
3	18 inches	25 inches	fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 6 Min: 4.5
4	25 inches	29 inches	fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 6 Min: 4.5
5	29 inches	42 inches	gravelly fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 1.4 Min: 0.01	Max: 6 Min: 4.5

	Soil Layer Information											
	Bou	ndary		Classif	ication	Saturated hydraulic						
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil	1						
6	42 inches	64 inches	gravelly fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 1.4 Min: 0.01	Max: 6 Min: 4.5					

Soil Map ID: 8

Soil Component Name: Canton

Soil Surface Texture: moderately decomposed plant material

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep,

moderately well and well drained soils with moderately coarse

textures.

Soil Drainage Class: Well drained

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

			Soil Layer	Information			
	Воц	ındary		Classi	fication	Saturated hydraulic	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	1 inches	moderately decomposed plant material	A-8	Highly organic soils, Peat.	Max: 141 Min: 42	Max: 5.5 Min: 3.5
2	1 inches	3 inches	gravelly fine sandy loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 6 Min: 3.5

			Soil Layer	Information			
	Bou	ındary	Soil Texture Class	Classi	fication	Saturated hydraulic conductivity micro m/sec	
Layer	Upper	Lower		AASHTO Group	Unified Soil		Soil Reaction (pH)
3	3 inches	14 inches	gravelly loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 6 Min: 3.5
4	14 inches	24 inches	gravelly loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 6 Min: 3.5
5	24 inches	29 inches	gravelly loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 6 Min: 3.5
6	29 inches	60 inches	very gravelly loamy sand	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 6 Min: 3.5

## Soil Map ID: 9

Soil Component Name: Canton

Soil Surface Texture: moderately decomposed plant material

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep,

moderately well and well drained soils with moderately coarse

textures.

Soil Drainage Class: Well drained

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

			Soil Layer	Information			
	Вои	ındary		Classi	fication	Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	1 inches	moderately decomposed plant material	A-8	Highly organic soils, Peat.	Max: 141 Min: 42	Max: 5.5 Min: 3.5
2	1 inches	3 inches	gravelly fine sandy loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 6 Min: 3.5
3	3 inches	14 inches	gravelly loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 6 Min: 3.5
4	14 inches	24 inches	gravelly loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 6 Min: 3.5
5	24 inches	29 inches	gravelly loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 6 Min: 3.5
6	29 inches	60 inches	very gravelly loamy sand	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 6 Min: 3.5

## Soil Map ID: 10

Soil Component Name: Charlton

Soil Surface Texture: fine sandy loam

Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse Hydrologic Group:

textures.

Soil Drainage Class: Well drained

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 74 inches

Depth to Watertable Min: > 0 inches

	Boundary			Classification		Saturated hydraulic	
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil	conductivity micro m/sec	Soil Reaction (pH)
1	0 inches	3 inches	fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 4	Max: 6 Min: 4.5
2	3 inches	7 inches	fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 4	Max: 6 Min: 4.5
3	7 inches	18 inches	fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 4	Max: 6 Min: 4.5
4	18 inches	27 inches	gravelly fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 4	Max: 6 Min: 4.5
5	27 inches	64 inches	gravelly fine sandy loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 4	Max: 6 Min: 4.5

# **LOCAL / REGIONAL WATER AGENCY RECORDS**

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

LOCATION

#### WELL SEARCH DISTANCE INFORMATION

DATABASE SEARCH DISTANCE (miles)

Federal USGS 1.000

Federal FRDS PWS Nearest PWS within 1 mile

State Database 1.000

#### FEDERAL USGS WELL INFORMATION

MAP ID WELL ID FROM TP

2 USGS40000229119 1/2 - 1 Mile NE

#### FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

MAP ID WELL ID FROM TP

No PWS System Found

Note: PWS System location is not always the same as well location.

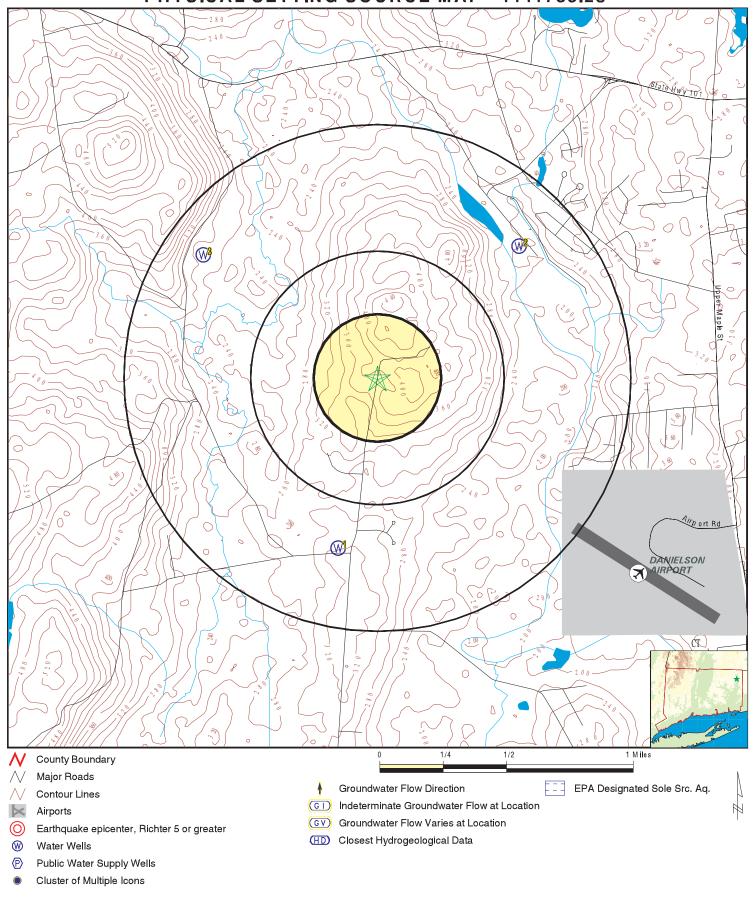
#### STATE DATABASE WELL INFORMATION

 MAP ID
 WELL ID
 FROM TP

 1
 CTC0000000000280
 1/2 - 1 Mile SSW

 3
 CTNC00000000641
 1/2 - 1 Mile NW

# PHYSICAL SETTING SOURCE MAP - 4441785.2s



SITE NAME: Nabozny Solar Site ADDRESS: 101 Woods Hill Road Pomfret CT 06259

41.8309 / 71.9209

LAT/LONG:

CLIENT: Tighe & Bond CONTACT: Samantha Avis INQUIRY#: 4441785.2s

DATE: October 19, 2015 7:16 pm

## **GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS**

Map ID Direction Distance

Elevation Database EDR ID Number

SSW 1/2 - 1 Mile CT WELLS CTC00000000280

Lower

CT Community Well

Well ID: 298 Well Name: Well 1

Supply System ID: 19005 Supply System Name: BROOKLYN MANOR

Source Status: Active Type: Drilled

Groundwater Aquifer Type: Bedrock GIS Date/Method: 1984 Tablet Digitize

Depth:280 FeetDepth to Bedrock:0 FeetWell Diameter:0Casing Diameter:0Pump Capacity:10Safe Yield:.01099

2 NE FED USGS USGS40000229119 1/2 - 1 Mile

Lower

Org. Identifier: USGS-CT

Formal name: USGS Connecticut Water Science Center

Monloc Identifier: USGS-415018071543801

Monloc name: CT-KI 10
Monloc type: Well
Monloc desc: Not Reported

Huc code: 01100001 Drainagearea value: Not Reported Not Reported Contrib drainagearea: Not Reported Drainagearea Units: Contrib drainagearea units: Not Reported Latitude: 41.8384316 Longitude: -71.9100725 Sourcemap scale: Not Reported Horiz Acc measure: Horiz Acc measure units: Unknown Unknown

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 201
Vert measure units: feet Vertacc measure val: 1

Vert accmeasure units: feet

Vertcollection method: Interpolated from topographic map

Vert coord refsys: NGVD29 Countrycode: US

Aquifername: New England crystalline-rock aquifers
Formation type: Non-Carbonate Crystalline Bedrock
Aquifer type: Not Reported

Construction date: Not Reported Welldepth:

Welldepth units: ft Wellholedepth: Not Reported

Wellholedepth units: Not Reported

Ground-water levels, Number of Measurements: 0

NW 1/2 - 1 Mile Lower

CT WELLS CTNC0000000641

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# **GEOCHECK®-PHYSICAL SETTING SOURCE MAP FINDINGS**

CT Non-Community Well

Well ID: 558 Well Name: Well

Supply System ID: 1120332 Supply System Name: The Steak-umm Company, L.L.C.

Source Status: Active Type: Drilled

Groundwater Aquifer Type: Bedrock GIS Date/Method: 1999 Screen Digitize

Depth:0 FeetDepth to Bedrock:0 FeetWell Diameter:0Casing Diameter:0Pump Capacity:0Safe Yield:0

New ID: CT1120332

# GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS RADON

## AREA RADON INFORMATION

State Database: CT Radon

Radon Test Results

City	# Sites	< 4 Pci/L	4 < 10 Pci/L	10 < 20 Pci/L	20 < 50 Pci/L	50 < 100 Pci/L	> 100 Pci/L
Sterling	72	52 (72.2)	13 (18)	4 (5.6)	4 (4.2)	0 (0)	0 (0)
Thompson	2	0 (0)	0 (0)	2 (100)	0 (0)	0 (0)	0 (0)
Willimantic	2	2 (100)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
Windham	82	67 (81.7)	12 (14.6)	3 (3.7)	0 (0)	0 (0)	0 (0)
Woodstock	20	15 (75)	5 (25)	0 (0)	0 (0)	0 (0)	0 (0)
Canterbury	8	4 (50)	1 (12.5)	2 (25)	1 (12.5)	0 (0)	0 (0)
Abington	1	1 (100)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
Brooklyn	5	3 (60)	2 (40)	0 (0)	0 (0)	0 (0)	0 (0)
Chaplin	97	78 (80.4)	18 (1)	1 (18.6)	0 (0)	0 (0)	0 (0)
Danielson	5	3(60)	1 (20)	1 (20)	0 (0)	0 (0)	0 (0)
Dayville	7	5 (71.4)	2 (28.6)	0 (0)	0 (0)	0 (0)	0 (0)
Hampton	2	1 (50)	0 (0)	0 (0)	1 (50)	0 (0)	0 (0)
Lisbon	3	1 (33.3)	2 (66.7)	0 (0)	0 (0)	0 (0)	0 (0)
Moosup	3	3 (100)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
North Windham	6	1 (16.7)	4 (66.7)	1 (16.7)	0 (0)	0 (0)	0 (0)
Pomfret	85	76 (89.4)	6 (7.1)	2 (2.4)	3 (3.5)	0 (0)	0 (0)
Pomfret Center	12	4 (33.3)	7 (58.3)	1 (8.3)	0 (0)	0 (0)	0 (0)
Putnam	1	1 (100)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
Scotland	22	12 (54.5)	7 (9.1)	1 (4.5)	2 (9.1)	0 (0)	0 (0)
South Windham	1	1 (100)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)

Federal EPA Radon Zone for WINDHAM County: 2

Note: Zone 1 indoor average level > 4 pCi/L.

: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.

: Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for Zip Code: 06259

Number of sites tested: 2

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	Not Reported	Not Reported	Not Reported	Not Reported
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	3.300 pCi/L	50%	50%	0%

# PHYSICAL SETTING SOURCE RECORDS SEARCHED

#### **TOPOGRAPHIC INFORMATION**

USGS 7.5' Digital Elevation Model (DEM)

Source: United States Geologic Survey

EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Current USGS 7.5 Minute Topographic Map Source: U.S. Geological Survey

#### HYDROLOGIC INFORMATION

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 2003 & 2011 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Tidal Wetlands

Source: Department of Energy & Environmental Protection

Telephone: 860-424-4054

#### HYDROGEOLOGIC INFORMATION

AQUIFLOW<sup>R</sup> Information System

Source: EDR proprietary database of groundwater flow information

EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

#### **GEOLOGIC INFORMATION**

Geologic Age and Rock Stratigraphic Unit

Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Services

The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Services (NRCS)

Telephone: 800-672-5559

SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Services, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

## PHYSICAL SETTING SOURCE RECORDS SEARCHED

#### LOCAL / REGIONAL WATER AGENCY RECORDS

#### FEDERAL WATER WELLS

PWS: Public Water Systems

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)

This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

#### STATE RECORDS

Connecticut Leachate and Wastewater Discharge Sites

Source: Department of Environmental Protection

The Leachate and Waste Water Discharge Inventory Data Layer (LWDS) includes point locations digitized from Leachate and Wastewater Discharge Source maps compiled by the Connecticut DEP. These maps locate surface and groundwater discharges that (1) have received a waste water discharge permit from the state or (2) are historic and now defunct waste sites or (3) are locations of accidental spills, leaks, or discharges of a variety of liquid or solid wastes.

#### EPA-Approved Sole Source Aquifers in Connecticut

Source: EPA

Sole source aquifers are defined as an aquifer designated as the sole or principal source of drinking water for a given aquifer service area; that is, an aquifer which is needed to supply 50% or more of the drinking water for the area and for which there are no reasonable alternative sources should the aquifer become contaminated.

#### Community and Non-Community Water System Wells

Source: Department of Public Health, Water Supplies Section

Telephone: 860-509-7333

Active, emergency and inactive wells used for potable purposes that are owned and operated by active community and non-community water systems in Connecticut.

### OTHER STATE DATABASE INFORMATION

#### **RADON**

State Database: CT Radon

Source: Department of Public Health

Telephone: 860-509-7367 Radon Statistical Summary

#### Area Radon Information

Source: USGS

Telephone: 703-356-4020

The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

## PHYSICAL SETTING SOURCE RECORDS SEARCHED

EPA Radon Zones Source: EPA

Telephone: 703-356-4020

Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor

radon levels.

## OTHER

Airport Landing Facilities: Private and public use landing facilities

Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater

Source: Department of Commerce, National Oceanic and Atmospheric Administration

Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary faultlines, prepared

in 1975 by the United State Geological Survey

## STREET AND ADDRESS INFORMATION

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# **Nabozny Solar Site**

101 Woods Hill Road Pomfret, CT 06259

Inquiry Number: 4441785.5

October 20, 2015

# **The EDR-City Directory Abstract**



## **TABLE OF CONTENTS**

## **SECTION**

**Executive Summary** 

**Findings** 

**City Directory Images** 

**Thank you for your business.**Please contact EDR at 1-800-352-0050 with any questions or comments.

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## **EXECUTIVE SUMMARY**

## **DESCRIPTION**

Environmental Data Resources, Inc.'s (EDR) City Directory Abstract is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's City Directory Abstract includes a search and abstract of available city directory data. For each address, the directory lists the name of the corresponding occupant at five year intervals.

Business directories including city, cross reference and telephone directories were reviewed, if available, at approximately five year intervals for the years spanning 1993 through 2013. This report compiles information gathered in this review by geocoding the latitude and longitude of properties identified and gathering information about properties within 1320 feet of the target property.

A summary of the information obtained is provided in the text of this report.

## **RESEARCH SUMMARY**

The following research sources were consulted in the preparation of this report. An "X" indicates where information was identified in the source and provided in this report.

<u>Year</u>	<u>Source</u>	<u>TP</u>	<u>Adjoining</u>	Text Abstract	Source Image
2013	Cole Information Services	-	-	-	-
2008	Cole Information Services	-	-	-	-
2003	Cole Information Services	-	-	-	-
1998	Cole Information Services	-	-	-	-
1993	Cole Information Services	-	-	-	-

# **FINDINGS**

# TARGET PROPERTY INFORMATION

# **ADDRESS**

101 Woods Hill Road Pomfret, CT 06259

# **FINDINGS DETAIL**

Target Property research detail.

# **FINDINGS**

# **ADJOINING PROPERTY DETAIL**

The following Adjoining Property addresses were researched for this report. Detailed findings are provided for each address.

No Addresses Found

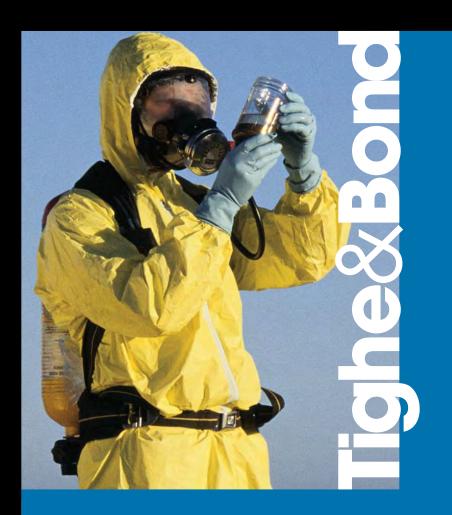
# **FINDINGS**

# TARGET PROPERTY: ADDRESS NOT IDENTIFIED IN RESEARCH SOURCE

The following Target Property addresses were researched for this report, and the addresses were not identified in the research source.

<u>Address Researched</u> <u>Address Not Identified in Research Source</u>

101 Woods Hill Road 2013, 2008, 2003, 1998, 1993



# **Nabozny Solar Site**

101 Woods Hill Road Pomfret, CT 06259

Inquiry Number: 4441785.9

October 19, 2015

# The EDR Aerial Photo Decade Package



# **EDR Aerial Photo Decade Package**

Environmental Data Resources, Inc. (EDR) Aerial Photo Decade Package is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's professional researchers provide digitally reproduced historical aerial photographs, and when available, provide one photo per decade.

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# **Date EDR Searched Historical Sources:**

Aerial Photography October 19, 2015

# **Target Property:**

101 Woods Hill Road Pomfret, CT 06259

<u>Year</u>	<u>Scale</u>	<u>Details</u>	<u>Source</u>
1941	Aerial Photograph. Scale: 1"=750'	Flight Date: November 12, 1941	EDR
1951	Aerial Photograph. Scale: 1"=500'	Flight Date: October 13, 1951	EDR
1951	Aerial Photograph. Scale: 1"=500'	Flight Date: October 13, 1951	EDR
1963	Aerial Photograph. Scale: 1"=250'	Flight Date: October 06, 1963	EDR
1963	Aerial Photograph. Scale: 1"=250'	Flight Date: October 06, 1963	EDR
1963	Aerial Photograph. Scale: 1"=250'	Flight Date: October 06, 1963	EDR
1963	Aerial Photograph. Scale: 1"=250'	Flight Date: October 06, 1963	EDR
1963	Aerial Photograph. Scale: 1"=250'	Flight Date: October 06, 1963	EDR
1969	Aerial Photograph. Scale: 1"=500'	Flight Date: June 10, 1969	EDR
1969	Aerial Photograph. Scale: 1"=500'	Flight Date: June 10, 1969	EDR
1969	Aerial Photograph. Scale: 1"=500'	Flight Date: June 10, 1969	EDR
1980	Aerial Photograph. Scale: 1"=1000'	Flight Date: March 19, 1980	EDR
1986	Aerial Photograph. Scale: 1"=500'	Flight Date: March 23, 1986	EDR
1986	Aerial Photograph. Scale: 1"=500'	Flight Date: March 23, 1986	EDR
1986	Aerial Photograph. Scale: 1"=500'	Flight Date: March 23, 1986	EDR
1990	Aerial Photograph. Scale: 1"=500'	Flight Date: May 02, 1990	EDR
1990	Aerial Photograph. Scale: 1"=500'	Flight Date: May 02, 1990	EDR
1990	Aerial Photograph. Scale: 1"=500'	Flight Date: May 02, 1990	EDR
1991	Aerial Photograph. Scale: 1"=500'	DOQQ - acquisition dates: April 12, 1991	USGS/DOQQ

<b>Year</b> 1991	Scale Aerial Photograph. Scale: 1"=500'	Details DOQQ - acquisition dates: April 12, 1991	Source USGS/DOQQ
1991	Aerial Photograph. Scale: 1"=500'	DOQQ - acquisition dates: April 12, 1991	USGS/DOQQ
1991	Aerial Photograph. Scale: 1"=500'	DOQQ - acquisition dates: April 12, 1991	USGS/DOQQ
1996	Aerial Photograph. Scale: 1"=500'	Flight Date: April 15, 1996	EDR
1996	Aerial Photograph. Scale: 1"=500'	Flight Date: April 15, 1996	EDR
1996	Aerial Photograph. Scale: 1"=500'	Flight Date: April 15, 1996	EDR
2005	Aerial Photograph. Scale: 1"=500'	Flight Year: 2005	USDA/NAIP
2005	Aerial Photograph. Scale: 1"=500'	Flight Year: 2005	USDA/NAIP
2005	Aerial Photograph. Scale: 1"=500'	Flight Year: 2005	USDA/NAIP
2005	Aerial Photograph. Scale: 1"=500'	Flight Year: 2005	USDA/NAIP
2006	Aerial Photograph. Scale: 1"=500'	Flight Year: 2006	USDA/NAIP
2006	Aerial Photograph. Scale: 1"=500'	Flight Year: 2006	USDA/NAIP
2006	Aerial Photograph. Scale: 1"=500'	Flight Year: 2006	USDA/NAIP
2006	Aerial Photograph. Scale: 1"=500'	Flight Year: 2006	USDA/NAIP
2008	Aerial Photograph. Scale: 1"=500'	Flight Year: 2008	USDA/NAIP
2008	Aerial Photograph. Scale: 1"=500'	Flight Year: 2008	USDA/NAIP
2008	Aerial Photograph. Scale: 1"=500'	Flight Year: 2008	USDA/NAIP
2008	Aerial Photograph. Scale: 1"=500'	Flight Year: 2008	USDA/NAIP
2010	Aerial Photograph. Scale: 1"=500'	Flight Year: 2010	USDA/NAIP
2010	Aerial Photograph. Scale: 1"=500'	Flight Year: 2010	USDA/NAIP
2010	Aerial Photograph. Scale: 1"=500'	Flight Year: 2010	USDA/NAIP
2010	Aerial Photograph. Scale: 1"=500'	Flight Year: 2010	USDA/NAIP
2012	Aerial Photograph. Scale: 1"=500'	Flight Year: 2012	USDA/NAIP

Year	Scale	Details State of the state of t	Source
2012	Aerial Photograph. Scale: 1"=500'	Flight Year: 2012	USDA/NAIP
2012	Aerial Photograph. Scale: 1"=500'	Flight Year: 2012	USDA/NAIP
2012	Aerial Photograph. Scale: 1"=500'	Flight Year: 2012	USDA/NAIP



















































1" = 1000'

State of Connecticut

**INQUIRY #:** 4441785.9

**YEAR:** 1996

= 500'





























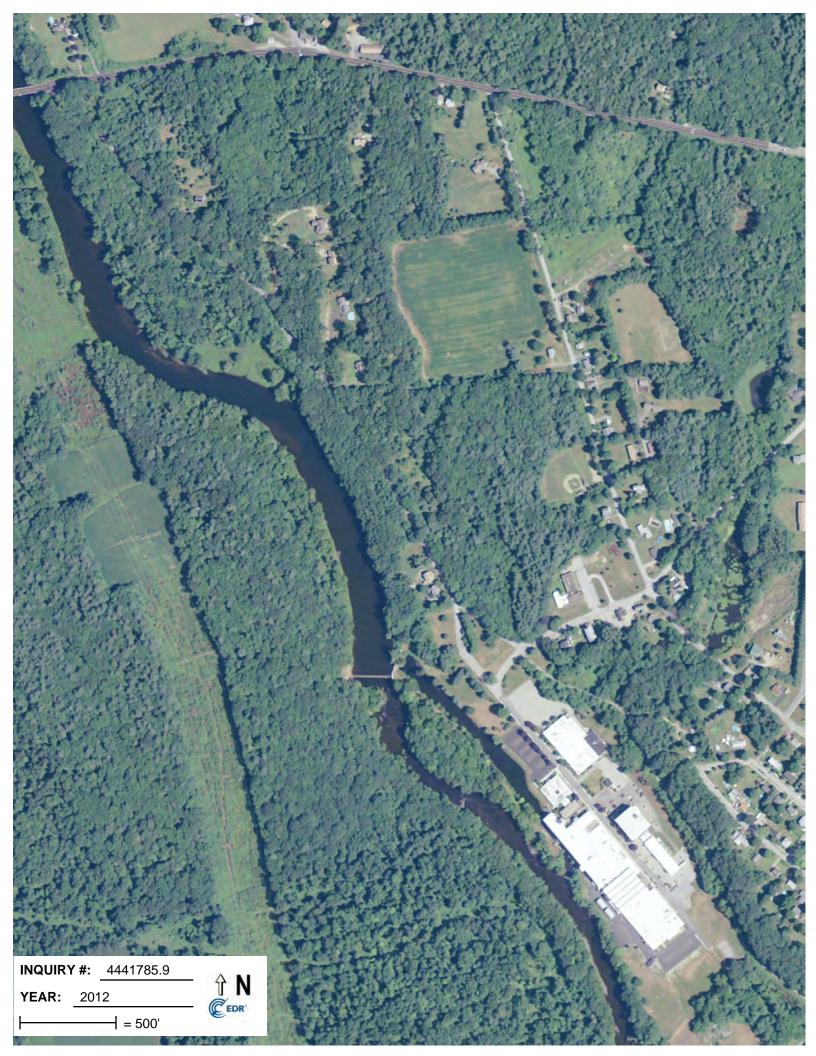
















## **Nabozny Solar Site**

101 Woods Hill Road Pomfret, CT 06259

Inquiry Number: 4441785.4

October 19, 2015

## **EDR** Historical Topographic Map Report



## **EDR Historical Topographic Map Report**

Environmental Data Resources, Inc.s (EDR) Historical Topographic Map Report is designed to assist professionals in evaluating potential liability on a target property resulting from past activities. EDRs Historical Topographic Map Report includes a search of a collection of public and private color historical topographic maps, dating back to the early 1900s.

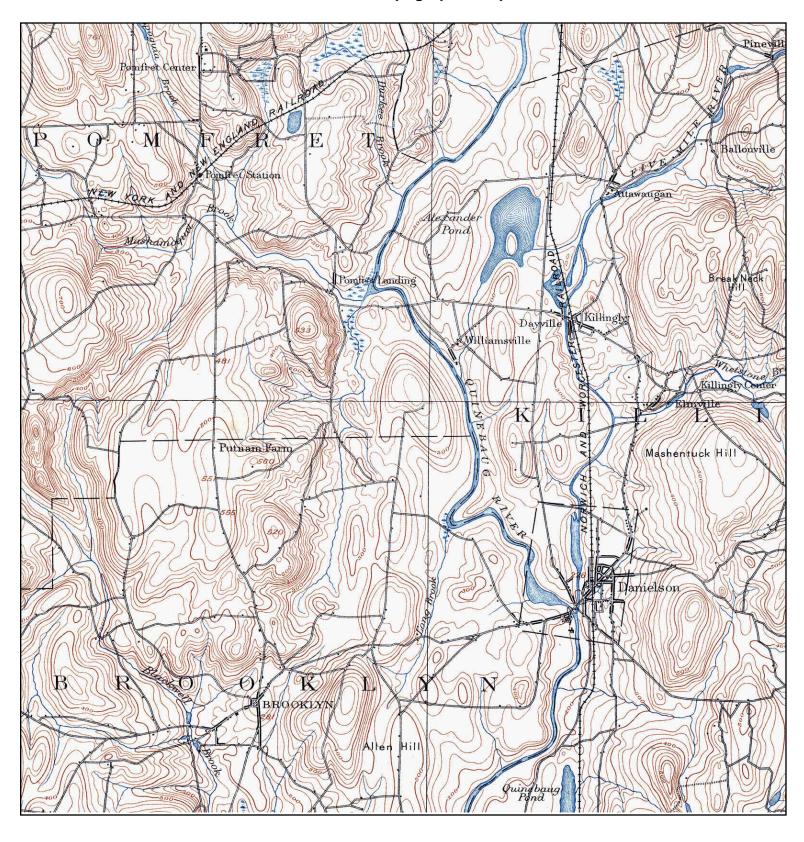
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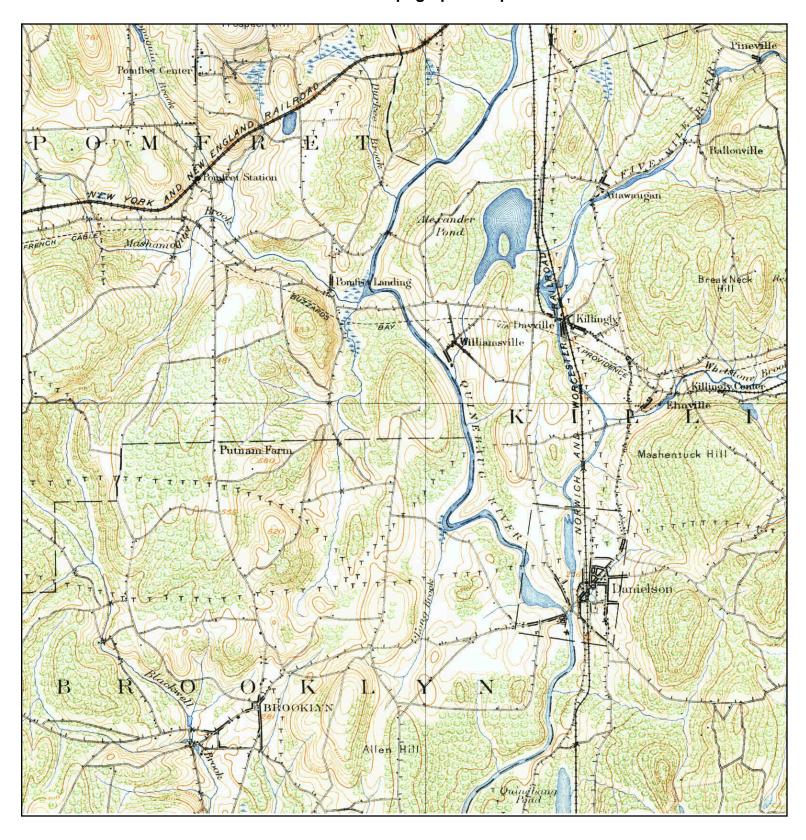
TARGET QUAD
NAME: PUTNAM

MAP YEAR: 1893

SERIES: 15 SCALE: 1:62500 SITE NAME: Nabozny Solar Site ADDRESS: 101 Woods Hill Road

Pomfret, CT 06259

LAT/LONG: 41.8309 / -71.9209





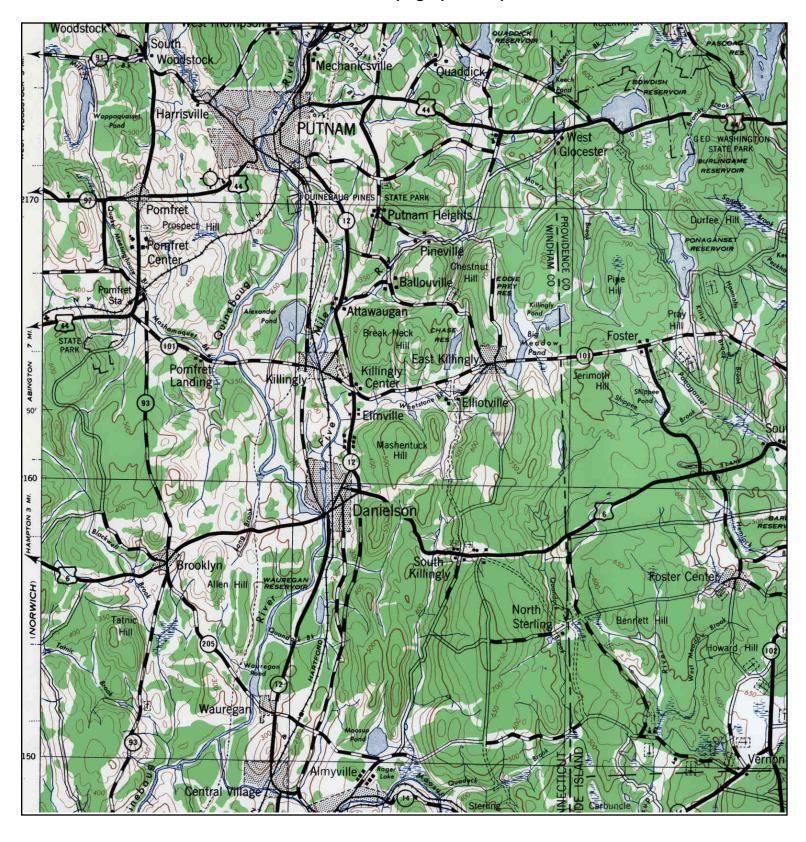
TARGET QUAD NAME: PUTNAM

MAP YEAR: 1915

SERIES: 15 SCALE: 1:62500 SITE NAME: Nabozny Solar Site ADDRESS: 101 Woods Hill Road

Pomfret, CT 06259

LAT/LONG: 41.8309 / -71.9209



N A TARGET QUAD

NAME: PUTNAM MAP YEAR: 1943

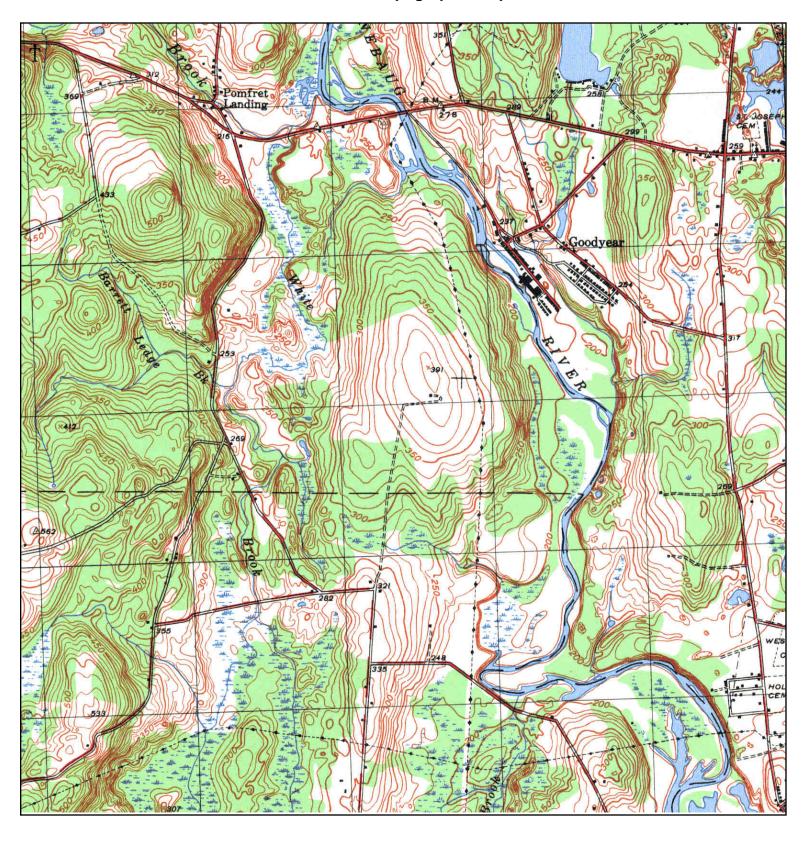
SERIES: 30

SCALE: 1:125000

SITE NAME: Nabozny Solar Site ADDRESS: 101 Woods Hill Road

Pomfret, CT 06259

LAT/LONG: 41.8309 / -71.9209





TARGET QUAD

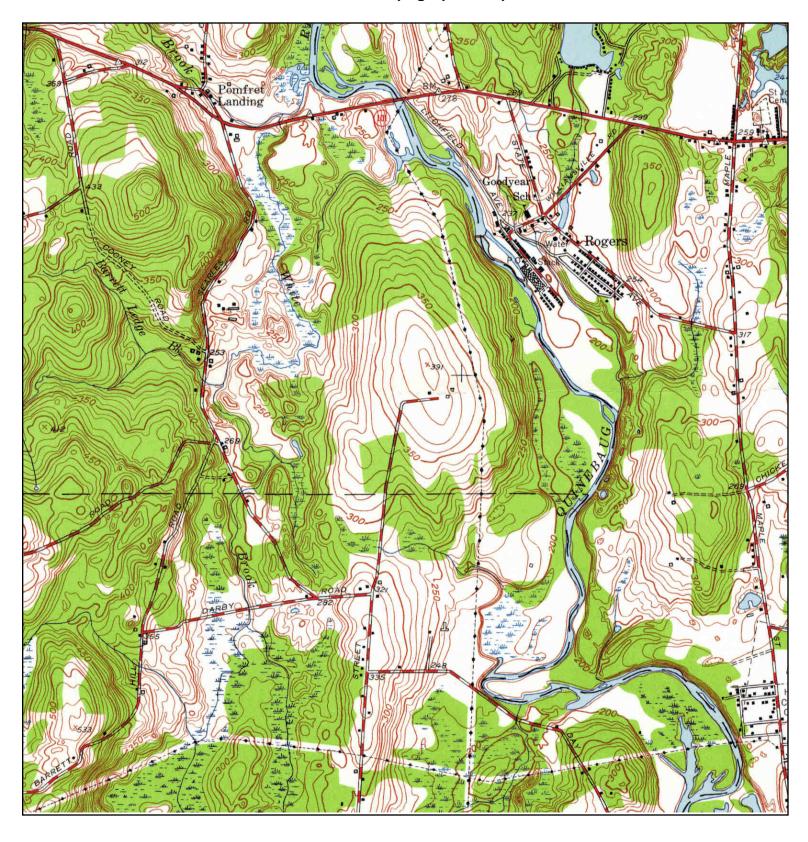
NAME: DANIELSON

MAP YEAR: 1947

SERIES: 7.5 SCALE: 1:25000 SITE NAME: Nabozny Solar Site

ADDRESS: 101 Woods Hill Road Pomfret, CT 06259

LAT/LONG: 41.8309 / -71.9209





TARGET QUAD

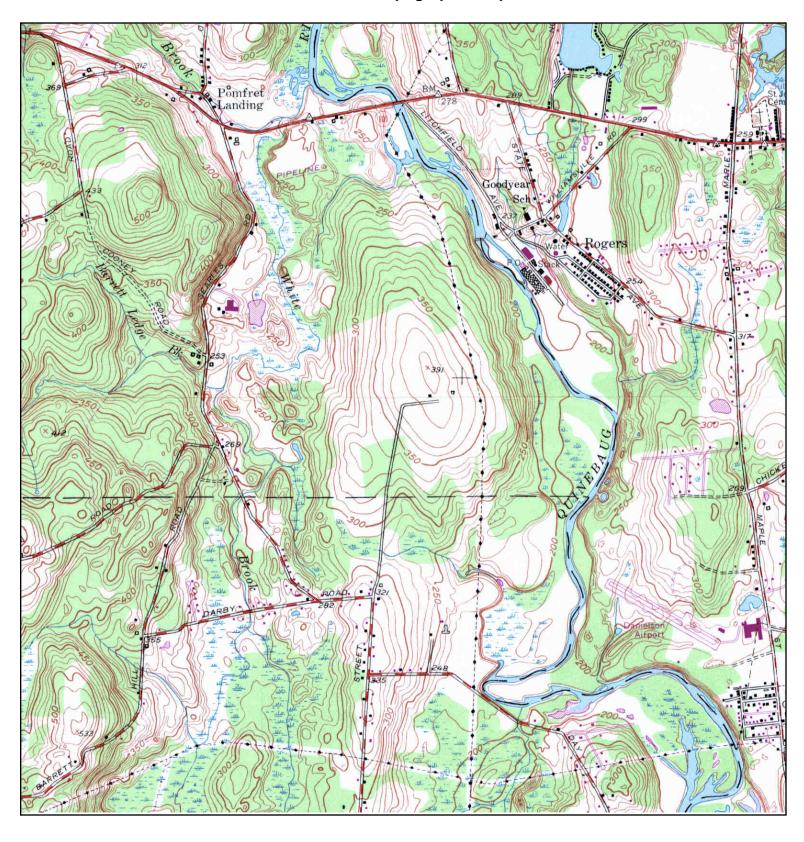
NAME: DANIELSON

MAP YEAR: 1955

SERIES: 7.5 SCALE: 1:24000 SITE NAME: Nabozny Solar Site

ADDRESS: 101 Woods Hill Road Pomfret, CT 06259

LAT/LONG: 41.8309 / -71.9209





TARGET QUAD

NAME: DANIELSON MAP YEAR: 1970

PHOTOREVISED FROM:1955

SERIES: 7.5 SCALE: 1:24000 SITE NAME: Nabozny Solar Site ADDRESS: 101 Woods Hill Road

Pomfret, CT 06259 LAT/LONG: 41.8309 / -71.9209

## **Nabozny Solar Site**

101 Woods Hill Road Pomfret, CT 06259

Inquiry Number: 4441785.3

October 19, 2015

## **Certified Sanborn® Map Report**



## Certified Sanborn® Map Report

10/19/15

Site Name:Client Name:Nabozny Solar SiteTighe & Bond101 Woods Hill Road213 Court Street

Pomfret, CT 06259 Middletown, CT 06457

EDR Inquiry # 4441785.3 Contact: Samantha Avis



The Sanborn Library has been searched by EDR and maps covering the target property location as provided by Tighe & Bond were identified for the years listed below. The Sanborn Library is the largest, most complete collection of fire insurance maps. The collection includes maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow, and others. Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by the Sanborn Library LLC, the copyright holder for the collection. Results can be authenticated by visiting www.edrnet.com/sanborn.

The Sanborn Library is continually enhanced with newly identified map archives. This report accesses all maps in the collection as of the day this report was generated.

#### Certified Sanborn Results:

Site Name: Nabozny Solar Site
Address: 101 Woods Hill Road
City, State, Zip: Pomfret, CT 06259

**Cross Street:** 

**P.O.** # S1992

Project: Nabonzy Solar Site Certification # D6E4-4E66-A5F1



This report certifies that the complete holdings of the Sanborn Library, LLC collection have been searched based on client supplied target property information, and fire insurance maps covering the target property were not found.



Sanborn® Library search results Certification # D6E4-4E66-A5F1

The Sanborn Library includes more than 1.2 million fire insurance maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow and others which track historical property usage in approximately 12,000 American cities and towns. Collections searched:

✓ Library of Congress

University Publications of America

▼ EDR Private Collection

The Sanborn Library LLC Since 1866™

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R-02184-04 January 26, 2016

Daniel Boyd Sr. Director, Development RES America Developments, Inc. 11101 W. 120<sup>th</sup> Avenue, Suite 400 Broomfield, CO 80021

Tom Swank, Chairman SunEast Power, LLC 142 Ferry Road, Suite 12 Old Saybrook, CT 06475

Re: Phase I Environmental Site Assessment Woods Hill Road Solar Project 101 Woods Hill Road Pomfret, Connecticut

Dear Mr. Boyd and Mr. Swank:

Please find enclosed the Phase I Environmental Site Assessment (ESA) report for the property located at 101 Woods Hill Road in Pomfret, Connecticut.

We appreciate the opportunity to provide our services. If you have any questions or comments, please call Jim Olsen at (860) 704-4761.

Very truly yours,

TIGHE & BOND, INC.

Nicholas A. Granata, LEP Senior Environmental Scientist

James T Olsen, LEP Vice President



**Tighe**&Bond

101 Woods Hill Road Pomfret, Connecticut

## Phase I Environmental Site Assessment

Prepared For:

RES America Developments, Inc. SunEast Power, LLC

January 2016

## **Cover Letter**

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#### **List of Acronyms and Definitions**

AAI All Appropriate Inquiries

AOC Area of Concern
MSL Mean Sea Level

APA Aquifer Protection Area

AST Aboveground Storage Tank

ASTM American Society for Testing and Materials

Bgs Below Ground Surface

CERCLIS Comprehensive Environmental Response, Compensation

and Liability Information System

CERC-NFRAP Comprehensive Environmental Response Compensation and

Liability Information System Archived sites

CFR Code of Federal Regulations
CGS Connecticut General Statute
COC Contaminant of Concern
COR Corrective Action sites

CPCS Contaminated or Potentially Contaminated sites

CTDEEP CT Department of Energy and Environmental Protection

DECD CT Department of Economic and Community Development

DOT Department of Transportation

Federal EC/IC Federal Engineering and Institutional Controls
State EC/IC State Engineering and Institutional Controls

EDR Environmental Data Resources Inc.

ERNS Emergency Response Notification System

ESA Environmental site Assessment

ETPH Extractable Total Petroleum Hydrocarbons
FEMA Federal Emergency Management Agency

GA PMC Groundwater Area Pollutant Mobility Criteria

HBMA Hazardous Building Martials Assessment
LEP Licensed Environmental Professional
LUST Leaking Underground Storage Tank

LWDS CT Leachate and Waste Water Discharge Inventory Data

Layer

NDDH Northeast District Department of Health

NPL National Priorities List

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NRCS Natural Resource Conservation Survey

Pci/L Picocuries per liter

RCRA Resource Conservation and Recovery Act

RCRA COR ACT Recovery Act Corrective Actions

RCRA GEN RECRIS Generator sites

RCRA TSD RECRIS Treatment, Storage, and Disposal Facilities

REC Recognized Environmental Condition

RECRIS Resource Conservation and Recovery Information System

SDADB Site Discovery and Assessment Database
SPLP Synthetic Precipitation Leaching Procedure

SVOCs Semi-Volatile Organic Compounds

SWL Solid Waste Landfill

USEPA United States Environmental Protection Agency

USGS United States Geological Survey

UST Underground Storage Tank

VCP Voluntary Remediation Program sites

VOCs Volatile Organic Compounds

WQS Water Quality Standards

WSS Web Soil Survey

# Section 1 Introduction

## 1.1 Purpose

Tighe & Bond, Inc. (Tighe & Bond) has completed a Phase I Environmental Site Assessment (ESA) on behalf of RES America Developments, Inc. (RES, Client) for the property located at 101 Woods Hill Road, in Pomfret, Connecticut. The site includes an approximately 111-acre parcel of land located to the south and east of the terminus of Woods Hill Road.

The purpose of the Phase I ESA was to assess the site for evidence of recent or historical Recognized Environmental Conditions (RECs) / Areas of Concern (AOCs) in general accordance with guidelines described in ASTM E1527-13 and CTDEEP Site Characterization Guidance Document. It is our understanding that this Phase I ESA was conducted in order to facilitate the possible development of the site as a commercial scale solar PV project.

The site location is shown on Figure 1 (Appendix A).

## 1.2 Scope of Work

The Phase I ESA was conducted in accordance with our proposal dated May 20, 2015. This Phase I ESA was conducted to identify Recognized Environmental Conditions (RECs), also identified as Areas of Concern (AOCs), as applicable resulting from past or present activities on the site and to determine if any of the surrounding properties have the potential to impact the environmental integrity of the site. The assessment consisted of a reconnaissance of accessible areas at the site, a review of State and Federal environmental databases as they pertain to the site and surrounding properties, a review of historical aerial photographs, topographic maps, Sanborn maps, and city directories for the site and surrounding properties, a review of available state and local records, and interviews with individuals knowledgeable about the site.

This Phase I ESA was conducted in a manner consistent with industry standard and practice and in general accordance with the Standards of the American Society for Testing and Materials (ASTM) E1527-13 Standard Practice for Environmental site Assessments, EPA's All Appropriate Inquiry, and the Connecticut Department of Energy and Environmental Protection (CTDEEP) *site Characterization Guidance Document, dated September 2007* (revised December 2010).

# Section 2 Site Description

## 2.1 Location and Legal Description

The site consists of a parcel designated with Property Identification Number CT-112-43-A-005.00 by the Town of Pomfret's Tax Assessor's office. According to the Town of Pomfret's Tax Assessor's Parcel Maps, the site is comprised of approximately 111 acres of land and is currently owned by Juanita R Cristina & Sheila S Nabozny.

Refer to Figure 1 and Figure 2 for a Site Location Map and an Aerial Photograph, respectively. A copy of the Property Card and a legal description of the site is included in Appendix B.

## 2.2 Site and Vicinity Characteristics

The site is located to the south and east of the terminus of Woods Hill Road. The site is bounded to the west and east by undeveloped land; to the north by a residential property and agricultural land; and to the south by undeveloped land and sparse residences.

The site and the areas north and east of the site are zoned by the Town of Pomfret Zoning Map as Commercial Business. The areas west and south of the site are zoned as rural residential.

#### 2.3 Current Use

The site is currently unoccupied and is used as an agricultural farm for harvesting hay and corn.

## 2.4 Site Improvements

The majority of the site is cleared agricultural land, with the exception of wooded areas in the south and eastern portion. A large Connecticut Light & Power transmission line and right of way traverse the site to the east of the cleared portion. Access to the site is provided by Woods Hill Road.

A site aerial is provided as Figure 2 (Appendix A). Photographs taken at the time of the site visit are provided in Appendix C.

## 2.5 Surrounding Area Uses

The following uses were noted for properties abutting the site:

- North: A residential property, agricultural land, forested land a large Connecticut Light & Power transmission line and right of way.
- South: Undeveloped forested land, a large Connecticut Light & Power transmission line, and residential properties along Woods Hill Road.
- East: Undeveloped forested land and the Quinebaug River.
- West: Residential properties along Woods Hill Road and agricultural land.

# Section 3 User Provided Information

#### 3.1 Land Records

Tighe & Bond did review deeds for the site as part of this Phase I ESA for the purpose of identifying general ownership history. A legal title and lien search was not part of this scope of work.

Any environmental liens or activity and use limitations information in the possession of the User is required to be reported to the Environmental Professional conducting the Phase I ESA per ASTM E1527-13. According to the User, no environmental liens or activity and use limitations exist for the site. The User indicated that the Town of Pomfret rezoned the land as commercial.

## 3.2 Specialized Knowledge

Specialized knowledge is defined by ASTM E1527-13 as "any specialized knowledge or experience that is material to RECs or AOCs in connection with the property."

No information related to "specialized knowledge" for environmental issues was provided by the User as part of this Phase I ESA. The User was not aware of other former activities at the site except for agricultural use.

### 3.3 Common Information

If the User is aware of any commonly known or reasonably ascertainable information within the local community about the property that is material to RECs or AOCs in connection with the property, it is the User's responsibility to communicate such information. This information may include past uses of the property, specific chemicals that were used on a site, spills or releases, or environmental cleanups that have taken place.

No information related to "common information" for environmental issues was provided by the User as part of this Phase I ESA. The User was unaware of spills, releases, or environmental cleanups having taken place at the site.

#### 3.4 Value Reduction of Environmental Issues

In a transaction involving the purchase of a parcel of commercial real estate, the User shall consider the relationship of the purchase price of the property to the fair market value of the property if the property was not affected by hazardous substances or petroleum products. The User should try to identify an explanation for a lower price which does not reasonably reflect fair market value if the property were not contaminated. The User is not aware of any value reduction for environmental issues.

## 3.5 Owner and Occupant Information

The site is currently owned by Juanita R Christina & Sheila S Nabozny. Refer to Section 7 for a more detailed discussion.

## Section 4 Previous Environmental Reports

Previous environmental assessments for the site were not identified or provided during this ESA.

## Section 5 Records Review

#### 5.1 Standard Environmental Records Search

A database search report that identifies sites listed on state and federal databases within the ASTM-required radii was obtained for the property from Environmental Data Resources Inc. (EDR) on October 19, 2015. A copy of the complete EDR report is provided as Appendix D.

The report includes the following databases specified by the ASTM Phase I protocol:

<u>Database</u>	Search Radius	Total sites Identified
National Priority List (NPL)	1 mile	0
NPL Delisted	0.5 mile	0
Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS)	0.5 mile	1
No Further Remedial Action Planned (CERC-NFRAP) Comprehensive Environmental Response Compensation and Liability Information System Archived sites	0.5 mile	1
Resource Conservation and Recovery Information System (RECRIS), Resource Conservation and Recovery Act Corrective Actions (RCRA CORRACT)	1 mile	1
RECRIS Treatment, Storage, and Disposal Facilities (RCRA TSD)	0.5 mile	1
RECRIS Generator sites (RCRA GEN)	0.25 mile	0
Federal Engineering and Institutional Controls (Federal IC/EC)	0.50 mile	0
Emergency Response Notification System (ERNS)	0.12 mile	0
State- and tribal-equivalent CERCLIS	1 mile	2
CT Leachate and Waste Water Discharge Inventory Data Layer (LWDS)	0.25 mile	0
State/Tribal Leaking Underground Storage Tank (LUST)	0.5 mile	1
Regulated State Underground Storage Tank (UST) and Aboveground Storage Tank database (AST)	0.25 mile	0
State Engineering or Institutional Controls (State IC/EC)	0.25 mile	0
Voluntary Remediation Program sites (VCP)	0.5 mile	0
US Brownfields sites	0.5 mile	0
CTDEEP Contaminated and Potentially Contaminated sites (State sites)	0.5 mile	0
CT Significant Environmental Hazard	0.25 mile	0

A description of the databases, additional sources searched, and a complete listing of sites identified on the databases is provided in the EDR report.

Tighe & Bond evaluated the following to determine whether additional environmental records with respect to these facilities, including the orphan (non-geocoded) sites, should be reviewed.

- Case status (i.e., whether a No Further Action letter has been issued or a case has been closed)
- Type of database and whether the presence of soil or groundwater contamination is known
- Distance of the property from the site
- Whether the property is hydrogeologically up gradient or down gradient of the site based on local topography and an inferred southwesterly and easterly groundwater flow direction

Tighe & Bond reviewed the information provided using the above criteria and the findings are discussed in the following sections.

#### 5.1.1 Subject Site

The site was not identified in any of the environmental databases queried in the EDR report.

#### **5.1.2 Surrounding Properties**

Three properties were identified in the EDR, there information is summarized below. The three properties are located hydrogeologically down-gradient to the site; as such, it is unlikely that releases at these properties would impact the site.

#### 5.1.2.1 Maiorino Residence, 426 Church Street - 0.2 Miles South

This property was listed in the Leaking UST (LUST), and CPCS databases. On March 17, 1997 a LUST was reported noting that 500 gallons of #2 Fuel Oil leaked out of fuel lines into a tank grave. A former UST was previously removed from the ground; however, the lines were left in place and the contents leaked into the soil. The soil and septic system were removed from the ground. The LUST status is listed as "Pending". The property was cross listed in the CPCS database with the same description, with the status listed as "Investigation".

#### 5.1.2.2 Rogers Corporation, 1 Technology Drive - 0.4 Miles Northeast

This property was listed in several databases including the Manifest, RCRA-LQG, ENF, CERC-NFRAP, RCRA-TSDF, CORRACTS, Financial Assurance, 2020 Corrective Action, and US AIRS databases. The Manifest database listing indicates that the Rogers Corporation generates several different hazardous wastes including Petroleum Oil, Mercury, non-listed corrosive wastes, and non-listed ignitable wastes. The CERC-NFRAP database indicates that the property has been archived and a preliminary assessment and site inspection have been conducted. The property is listed as low priority for further assessment. The listing on the RCRA-TSDF database indicates that Rogers Corporation is a Large Quantity Generator and engaged in the treatment, storage, or disposal of hazardous waste. The database lists details about each type of hazardous waste generated by the facility. The listing on the CORRACTS database indicates that the facility was assigned a high corrective action priority for unlaminated plastics film and

sheet manufacturing. Actions indicate that the current human exposures are under control and the migration of contaminated groundwater is under control.

The RCRA-LQG, ENR, Financial Assurance, 2020 Cor Action, and US AIRS databases have no additional details for the property.

#### 5.1.2.3 CT DOT Searles Rd Disposal Facility, Pomfret Rd - 0.5 Miles Southwest

This property was listed on the SDADB, CPCS, SHWS, and CERCLIS databases. The SDADB database listing indicates that the property disposed of Chlorinated Volatile Organic Compound Solvent wastes into a landfill. The property is listed under the Superfund remediation program. The CPCS database listing indicates that the property is under study by the DOT and the site type definition is listed as "Inventory of Hazardous Waste Disposal Sites". No additional information was provided on the SHWS database. The CERCLIS database indicates that the property cleanup is State-Lead and EPA Fund-Financed. The property is also listed as a low priority for further assessment.

#### 5.1.3 Orphan Site Summary

Due to poor or inadequate address information, six orphan properties were not mapped as part of the EDR report. As such, distance, topographical, and presumed hydrogeological measurements relative to the site are unknown. Based on our review of information provided for these properties, three of the properties are already mapped and include Rogers Corporation (which was listed two times) and the CT DOT Searles Rd Disposal Facility. Three a dditional properties do not appear to be within the one mile search radius of the site.

#### 5.2 Additional Environmental Records Sources

Tighe & Bond visited the CTDEEP Public File Room on October 20, 2015 and conducted a municipal file review on November, 4, 2015 to request available files for the site. Environmentally pertinent information was not identified on file for the site.

## 5.3 Physical Setting

#### 5.3.1 Soil Information

According to the Natural Resources Conservation Service (NRCS) Web Soil Survey (WSS) for the State of Connecticut (NRCS Webpage, 2009), the soils at the site are identified within the table below.

Soil Type	Approx. Area	Description
Woodbridge fine sandy loam	38%	Moderately well drained fine sandy loam found on drumlins, ground moraines, and hills
Charlton-Chatfield complex, very rocky	20%	Well drained fine sandy loam found on hills
Woodbridge fine sandy loam	17%	Moderately well drained fine sandy loam found on drumlins, ground moraines, and hills
Woodbridge fine sandy loam, extremely stony	7%	Moderately well drained fine sandy loam, found on drumlins, ground moraines, and hills
Charlton-Chatfield complex	6%	Well drained fine sandy loam found on hills

Hinckley loamy sand	Excessively drained loamy sand found on eskers, kame terral outwash plains, kames, moraines, outwash terraces, and outlettas		
Ridgebury, Leicester, and Whitman soils, extremely stony	<5%	Poorly drained sandy loam found in depressions, drainage ways, ground moraines, and hills	
Canton and Charlton soils, extremely stony	<5%	Well drained gravelly loam found on hills	
Paxton and Montauk fine sandy loams	<2%	Well drained fine sandy loam found on drumlins, ground moraines, and hills	
Woodbridge fine sandy loam, very stony	<2%	Moderately well drained fine sandy loam found on drumlins, ground moraines, and hills	
Canton and Charlton soils, extremely stony	<2%	Well drained gravelly loam found on hills	
Rippowam fine sandy loam	<2%	Poorly drained fine sandy loam found in flood plains	
Pootatuck fine sandy loam	<2%	Moderately well drained fine sandy loam found on flood plains	
Paxton and Montauk fine sandy loams <2%		Well drained fine sandy loam found on drumlins, ground moraines, and hills	

Surficial materials underlying the site consist of thick till, thin till, and natural postglacial deposits. A description of these surficial materials is as follows:

**Thick Till:** Areas where till is greater than 10 to 15 feet thick and includes drumlins. Predominately lower till; moderately to very compact, and is commonly finer-grained and less stony than upper till.

**Thin Till:** Areas where till is generally less than 10 to 15 feet thick and includes bedrock outcrops. Predominately upper till; loose to moderately compact, generally sandy, commonly stony.

**Natural Postglacial:** Primarily floodplain alluvium and swamp deposits. Less widely distributed and typically thinner than the glacial deposits they overlie. Floodplain alluvium consists of sand, gravel, silt, and some organic material, on the floodplain of modern streams. Swamp deposits consist of muck and peat that contain minor amounts of sand, silt, and clay, accumulated in poorly drained areas.

A soils map of the site is provided as Figure 3. A surficial materials map of the site is provided as Figure 4.

#### 5.3.2 Geology

According to the *Bedrock Geologic Map of Connecticut* (U.S. Geological Survey, 1985), approximately 90% of the site is located within the Felsic Gneiss Member of the Quinebaug Formation. The USGS Mineral resources spatial data for Connecticut on-line describes this unit as light to medium-gray, fine to medium-grained gneiss.

Approximately 5% of the western part of the site is located within the Quinebaug Formation. The USGS Mineral resources spatial data for Connecticut on-line describes this unit as gray to dark-gray, medium-grained, well-layered gneiss.

Approximately 5% of the southern and eastern part of the site is located within the Black Hill Member of the Quinebaug Formation. The USGS Mineral resources spatial data for Connecticut on-line describes this unit as gray, medium to fine-grained, well-layered schist and granofels.

A bedrock geology map of the site is provided as Figure 5.

#### 5.3.3 Flood Plain, Wetlands, and Aquifer Protection Area Information

A review of the Federal Emergency Management Agency (FEMA) Flood Insurance Maps indicates that the site is not located within a flood zone for the Quinebaug River and White Brook. According to the National Wetlands Inventory and CTDEEP Wetlands GIS databases, wetlands are present on the site. Several wetland areas are present across the site.

According to information provided by the Town of Pomfret's Inland Wetlands & Watercourse Department there are three main areas of wetlands. The town of Pomfret, CT is not included in the current CTDEEP GIS data for Aquifer Protection Areas (APAs).

Flood Plains, Wetlands, Aquifer Protection areas are provided as Figure 6 (Environmental Resources Map).

#### 5.3.4 Groundwater Classification and Flow

According to the CTDEEP Bureau of Water Protection & Land Reuse, groundwater at the site is classified as GA. CTDEEP Water Quality Standards (WQS; effective April 12, 1996) indicate that GA groundwater is designated for use with existing private and potential public or private supplies of water suitable for drinking without treatment. Discharge in GA groundwater areas is restricted to treated domestic sewage, certain agricultural wastes, certain water treatment wastewaters and discharge from septage treatment facilities subject to stringent treatment and discharge requirements, and other wastes of natural origin that easily biodegrade and present no threat to groundwater.

Based on topography of the site, shallow overburden groundwater on the site is inferred to flow generally southeast towards the Quinebaug River.

According to CTDEEP, the Quinebaug River is classified as B. CTDEEP indicates that Class B surface water is designated uses are habitat for fish and aquatic life and wildlife; recreation; navigation; and industrial and agricultural waters supply. Discharges are restricted to discharges from public or private drinking water systems, dredging and dewatering, emergency and clean water discharges, cooling waters, and discharges from industrial and municipal wastewater treatment facilities.

Figure 7 shows the water classification areas and surface water bodies for the site.

#### 5.4 Historic Use Information

Historical street directories, aerial photographs, topographic maps, and Sanborn fire insurance maps were reviewed for the site and surrounding areas.

#### 5.4.1 Directories

Historical street directories from 1936 to 2015 were researched at the Connecticut State Library in Hartford, Connecticut on October 27, 2015. The site was not listed in any of the directories. Woods Hill Road was not listed until the 1997 directory. From 1997 through 2012, Nabozny is listed as the occupant of 13 Woods Hill Road. From 1999 through 2002, Tyler W. F. Jr. is listed as the occupant for 90 Woods Hill Road. Woods Hill Road is not listed in the 2014/2015 directory.

Additionally, street directories from 1993 to 2013 were requested as part of the EDR report. The site was not listed in any of the directories researched. Copies of these documents are provided with the EDR report in Appendix D.

#### 5.4.2 Aerial Photographs

Historical aerial photographs of the site and surrounding area dated 1941, 1951, 1963, 1969, 1980, 1986, 1990, 1991, 1996, 2005, 2006, 2008, 2010, and 2012 were reviewed through the EDR report. Below is a summary of the site and surrounding properties. Aerial photographs are included in Appendix E.

Aerial Photographs				
Year	The Site	Surrounding Properties		
1941	The majority of the site is cleared agricultural except the southern and eastern areas are forested.  Quinebaug River is also depicted in this aerial. The large Connecticut Light & Power transmission line appears to run through the eastern side of the site.	The site is surrounded by undeveloped wooded land. Several buildings appear across Quinebaug River to the northeast of the site. A structure is depicted at the terminus of Woods Hill Road.		
1951	The site appears similar to the 1941 aerial.	The surrounding area appears similar to the 1941 aerial. A portion of the forested land south of the site is cleared agricultural land. Four structures are depicted at the terminus of Woods Hill Road.		
1963	The site appears similar to the 1951 aerial photograph.	The surrounding area appears similar to the 1951 aerial. The four structures are still depicted at the terminus of Woods Hill Road.		
1969	The site appears similar to the 1963 aerial.	The surrounding area appears similar to the 1963 aerial.		
1980	No changes are apparent; however, the photograph is of poor quality.	The surrounding area appears similar to the 1969 aerial.		
1986	The site appears similar to 1980 photograph.	The surrounding area appears similar to the 1980 aerial. Only one structure is depicted at the terminus of Woods Hill Road.		
1990 to 1996	The site appears similar to the 1986 photograph.	The surrounding area appears similar to the 1986 aerial.		
2005 to 2012	The site appears similar to the 1996 photograph.	Surrounding properties appear similar to the 1996 photograph.		

#### 5.4.3 Topographic Maps

Tighe & Bond reviewed available online historic USGS topographic maps for the years: 1893, 1915, 1943, 1947, 1955, and 1970. A summary of the site and surrounding properties is listed below.

Topographic Maps		
Year	The Site	Surrounding Properties

Topographic Maps				
Year	The Site	Surrounding Properties		
1893	The site elevation varies from approximately 240 to 390 feet above mean sea level (MSL). The site slopes to the southeast towards the Quinebaug River. The Quinebaug River is depicted on the map. Woods Hill Road is also depicted on the map.	Topography slopes away from the site towards Quinebaug River to the east, White Brook to the west, and Long Brook to the south. Surrounding properties have sparse buildings. One building is depicted at the terminus of Woods Hill Road to the north of the site.		
1915	The site appears similar to the 1893 topographic map. The majority of the site is depicted as forested and undeveloped.	The surrounding area appears similar to the 1893 map.		
1943	Woods Hill Road and the aforementioned building are not depicted on the map.	The surrounding area appears similar to the 1915 topographic map. No buildings are depicted on surrounding properties.		
1947	The site elevation varies from approximately 200 to 390 feet above mean seal level (MSL). There is one location marked 391 feet above MSL on the northwestern boundary of the site. The site slopes to the southeast towards the Quinebaug River. The Quinebaug River is depicted on the map. The Connecticut Light & Power transmission line is also depicted on the map. In the eastern extent of the site wetlands are depicted along the Quinebaug River.	The surrounding area appears similar to the 1943 topographic map. Topography slopes away from the site towards wetland areas to the west, south, and east of the site. One building is depicted north of the site. The building is located at the terminus of Woods Hill Road.		
1955	The site appears similar to the 1947 topographic map.	The surrounding area appears similar to the 1947 topographic map. Three buildings are depicted north of the site.		
1970	The site appears similar to the 1955 topographic map.	The surrounding area appears similar to the 1955 topographic map. One of the buildings depicted in the 1955 map is no longer present. Only two buildings are depicted north of the site.		

#### **5.4.4 Sanborn Fire Insurance Maps**

Sanborn fire insurance maps of the site were requested through the EDR report. No Sanborn maps were available for the site.

## 5.5 Historic Adjoining Property Use

Historically, properties surrounding the site have consisted of residential land, agricultural land, undeveloped/forested land, and a large Connecticut Light & Power transmission line and right of way.

# Section 6 Site Reconnaissance

#### 6.1 Methodology

Tighe & Bond conducted a Phase I ESA site reconnaissance on November 4, 2015. Reconnaissance at the site included a walk-through for the purpose of identifying RECs and AOCs. Photographs taken during the reconnaissance are included in Appendix C.

A visual assessment of adjoining properties from the subject property line, public rights-of-way or other vantage points (e.g. aerial photography) including a visual assessment where hazardous substances may be or may have been stored, treated, handled or disposed was also conducted.

#### 6.2 Site Setting

The site was comprised of undeveloped agricultural land, forested areas, and a large Connecticut Light & Power transmission line. The site topography sloped gradually east, with a very steep gradient in the forested eastern area of the site. Several stone walls were observed throughout the site. A vehicle access road was observed along the large Connecticut Light & Power transmission line and along the perimeter of the agricultural land. An existing footpath was used to walk through the southern forested areas. Several wetland areas were observed in the forested areas to the south and east.

#### 6.3 Observations

Tighe & Bond personnel viewed visible and accessible parts of the site and made the following observations:

- Several stone walls were observed throughout the site along property boundaries and within the forested area.
- A gravel access road was observed along the large Connecticut Light & Power transmission line. Several electric utility poles were observed with control panels and some with solar panels. Transformers were not identified on the old or new utility poles.
- A plastic tarp was set up as a shelter in the southern forested area of the site. A stone wall, a camp fire set up, and rubber tires were also observed adjacent to the tarp.
- An existing footpath as used to walk through the southern forested areas. The
  forested areas were observed from the footpath, which was surrounded by trees
  and brier. The eastern forested area did not have footpath, but was accessible
  around the brier. The ground was covered in leaves at the time of the site walk.
- Several survey flags and wetland marking flags were observed throughout the forested areas. Areas with perennial streams were observed and were dry at the time of the site walk.
- The eastern portion of the forested area had a very steep gradient sloping to the east towards the Quinebaug River.

• On the northern property line, adjacent to the residential property, two former wooden sheds were observed. One shed was a debris pile of wood and the second shed was collapsing and overgrown.

Photographs taken during the site reconnaissance are included in Appendix C.

#### 6.4 PCB and Petroleum Containing Equipment

PCB containing equipment was not observed during the site reconnaissance.

#### 6.5 Hazardous Substances and Waste

Hazardous substances or waste were not observe at the site.

#### 6.6 Adjoining Property Observations

The purpose of the reconnaissance was to observe general land use in the area of the site and confirm the location of the facilities identified on the environmental database search. In general, the surrounding property uses consist of undeveloped forested land, agricultural land, and residential properties. The following information pertaining to the adjacent properties was compiled from the site reconnaissance and the Town of Pomfret's Tax Assessor GIS database.

- North: A residential property, Woods Hill Road, agricultural land, a continuation of the large Connecticut Light & Power transmission line, and undeveloped forested land.
- South: Undeveloped forested land, a continuation of the large Connecticut Light & Power transmission line, and residential properties.
- East: Undeveloped forested land and the Quinebaug River.
- West: Residential properties, agricultural land, and Woods Hill road.

# Section 7 Interviews

#### 7.1 Owner

The site is currently owned by Juanita R Cristina & Sheila S Nabozny. Employees of the Town of Pomfret and Juanita Cristina were interviewed as part of this Phase I ESA. Juanita Cristina completed the User Questionnaire.

Based on responses included in the User Questionnaire the above individuals are not aware of any existing or former USTs or ASTs, current buildings, or spills and/or releases at the site. Additionally, they have no documentation of on-site environmental violations at a local, state, or federal level. The site is currently used as an agricultural farm to harvest hay and corn.

According to Juanita Cristina and the Town of Pomfret there has been no generation or disposal of hazardous materials on or after November 19, 1980. Additionally, no dry cleaning, vehicular body repair, or furniture stripping was conducted on or after May 1, 1967 at the site.

A copy of the user questionnaire is included in Appendix B.

#### 7.2 Occupants

There are no occupants for the site.

#### 7.3 Local Government

Federal, state, and local agencies were contacted or visited by Tighe & Bond on November 4, 2015 regarding records of environmental concerns, violations, and/or permits.

#### 7.3.1 Tax Assessor

Tighe & Bond reviewed the tax assessor database for the Town of Pomfret, CT. The property field card and parcel map are included in Appendix B.

#### 7.3.2 Building/Planning/Zoning, and Health Departments

Tighe & Bond met with personnel from the Building and Planning & Zoning Departments to review available files pertaining to the site. Available files pertaining to the site were reviewed; environmentally pertinent information was not identified. Tighe & Bond met with personnel from the Northeast District Department of Health (NDDH) in Brooklyn, Connecticut. Environmental issues were not identified for the site in the files reviewed.

#### 7.3.3 Fire Department

Tighe & Bond spoke to the Fire Marshal via telephone on November 5, 2015. The Fire Marshall did not have files or information for the site.

# Section 8 Additional Services

#### 8.1 Hazardous Building Materials

A Hazardous Building Materials Assessment (HBMA) was not included as part of this Phase I ESA.

#### 8.2 Radon

The Connecticut Department of Public Health *Indoor Radon Potential Map of Connecticut* dated 1997 was reviewed to determine radon propensity at the site. The radon potential rating indicates the percentage of tested homes in these areas with basement air radon levels greater than 4.0 picocuries per liter (pCi/L, the USEPA action level). Based on this map, the area in which the site is identified as low-moderate to moderate (16% to 22%).

As per USEPA guidelines, the only way to assess potential radon gas exposure risks is to conduct a radon assessment. In addition, the USEPA recommends that follow-up tests on buildings should be conducted when major modifications are made either to the building structure or HVAC system or the HVAC system's operation settings.

Radon testing was not conducted as part of this Phase I ESA.

#### 8.3 Regulatory Compliance

An assessment of regulatory compliance was not completed as part of this Phase I ESA.

#### 8.4 Cultural and Historic Resources

An assessment of historic and archaeological resources on the site was not completed as part of this Phase I ESA.

### 8.5 Industrial Hygiene, Indoor Air, and Mold

An assessment of industrial hygiene, indoor air and mold was not completed as part of this Phase I ESA.

#### 8.6 Health and Safety

An assessment of Occupational Safety and Health Administration compliance was not completed as part of this Phase I ESA.

#### 8.7 Ecological Resources and Endangered Species

An assessment of potential ecological resources was completed as part of this Phase I ESA. According to CTDEEP mapping for State and Federal Listed Species and Significant Natural Communities for the Town of Pomfret, the site is not located within a listed species natural community. The property north of the site includes rare species habitat mapped pursuant to the natural Diversity Database Program. Figure 6 (Environmental Resources Map) depicts the site relative to this area.

# Section 9 Summary and Recommendations

#### 9.1 Summary

Tighe & Bond, Inc. (Tighe & Bond) has completed a Phase I Environmental site Assessment (ESA) on behalf of RES America Developments, Inc. for the site located at 101 Woods Hill Road, in Pomfret, Connecticut. The site consists of an approximately 111-acre parcel of land located to the south and east of the terminus of Woods Hill Road.

The purpose of the Phase I ESA was to assess the property or evidence of recent or historical RECs/AOCs in general accordance with guidelines described in ASTM E1527-13 and CTDEEP Site Characterization Guidance Document. It is our understanding that this ESA was conducted in order to facilitate the possible development of the site as a commercial scale solar PV project.

The site is located to the south and east of the terminus of Woods Hill Road. The majority of the site is cleared agricultural land, with the exception of wooded areas in the south and eastern portions. Access to the site is provided by Woods Hill Road. Site operations include agricultural farming of corn and harvesting of hay from at least 1941. In addition, a large Connecticut Light & Power transmission line and right of way (ROW) traverse are present along the east side of the cleared portion of the site. The ROW has been present at the site since at least 1941. Previous uses of the site were not identified or reported during this ESA.

The site is bounded to the west and east by undeveloped land; to the north by a residential property, agricultural land, and the Connecticut Light & Power ROW; and to the south by undeveloped land and sparse residences.

Previous environmental assessments for the site were not identified or provided during this ESA.

Published geological mapping indicates the site is underlain by thick till, thin till, and natural postglacial deposits. The bedrock underlying the site is mapped as gneiss. The site is identified in an area classified by the CTDEEP as GA. GA classified groundwater is generally inferred to be suitable for drinking without treatment. Based on topography of the site, shallow overburden groundwater is inferred to flow generally southeast towards the Quinebaug River, which is classified by the CTDEEP as a Class B surface water body. Wetlands and watercourses were observed on the site, particularly within forested areas along the eastern side of the site as well as the southern central portion of the site.

Based on information obtained during this Phase I ESA Tighe & Bond has identified the following RECs and / or AOCs at the site:

#### REC-1/AOC-1: Pesticide and Herbicide Application at the site

Based on historical aerial photographs and the site reconnaissance, several areas of agricultural fields are present throughout the site from circa 1941 to present day. Observations from the site walk indicate that row crops were grown at the site (corn stalks). Harvesting of hay was also reported for the site. It is possible that pesticides were applied to the site in order to control pests and vermin and herbicides may have been used as weed control.

Contaminants of concern (COCs) include Pesticides and Herbicides

During the completion of this Phase I ESA Tighe & Bond did not identify historical or controlled RECs in connection with the site.

The following de-minims environmental conditions were identified for site during the completion of this Phase I ESA:

- The presence of minor amounts of miscellaneous solid waste (wood, plastic, tires, and metal) identified at site.
- The potential application of herbicides along the Connecticut Light & Power transmission line and ROW. Based on historical information the ROW has been present since at least the early 1940s and will likely remain and electrical ROW. This condition is generally considered de-minims assuming the existing use remains the same and activities that may disrupt soil are not planned in this area.

The following business environmental risks were identified for the site during the completion of this Phase I ESA:

• The presence of wetlands and watercourses at the site.

Tighe & Bond has performed this Phase I ESA in general accordance with guidelines described in ASTM E1527-13, EPA's All Appropriate Inquire Rule, and CTDEEP Site Characterization Guidance Document to identify RECs and AOCs at the site in a manner consistent with standard practice in the industry. However, as indicated in the ASTM standard, "No environmental site assessment can wholly eliminate uncertainty regarding the potential for RECs and AOCs in connection with a property. Performance of this practice is intended to reduce, but not eliminate, uncertainty regarding the potential for RECs and AOCs in connection with a property, and the practice recognizes "reasonable limits of time and cost."

#### 9.2 Recommendations

Tighe & Bond recommends soil testing be conducted determine if the site has been impacted by releases associated with the on-site RECs / AOCs (application of pesticides and / or herbicides).

If soil disturbance or earthwork related activities are planned within the ROW we recommend soil testing be conducted, and as needed, development of a soil management plan.

# Section 10 Environmental Certification

#### 10.1 Deviations

This Phase I ESA conforms to ASTM with the following deviations noted:

 An title and lien search was not completed as this information was not provided by the User.

It is the opinion of the reviewing Environmental Professional that the above-deficiencies will not detrimentally affect the identification of RECs/AOCs. This opinion is based on the following factors:

• The lack of title and lien search should not have an effect on the identification of RECs/AOCs since sufficient information for the site was available.

#### 10.2 Limitations

This report is prepared on behalf of and for the exclusive use of RES America Developments, Inc. (Client) and is subject to and issued in accordance with the Agreement and the provisions thereof. This report and any findings contained therein shall not, in whole or in part, be provided to or used by any other person, firm, entity or governmental agency in whole or in part, without the prior written consent of Client and Tighe & Bond. However, Tighe & Bond acknowledges and agrees that, subject to the Limitations set forth herein and prior written approval by Tighe & Bond, this report may be provided to specific financial institutions, attorneys, title insurers, lessees and/or governmental agencies identified by Client at or about the time of issuance of the report in connection with the conveyance, mortgaging, leasing, or similar transaction involving the real property which is the subject matter of a report and any work product. Use of this report for any purpose by any persons, firm, entity, or governmental agency shall be deemed acceptance of the restrictions and conditions contained therein, these Limitations and the provisions of Tighe & Bond's Agreement with Client. No warranty, express or implied, is made by way of Tighe & Bond's performance of services or providing an environmental site assessment, including but not limited to any warranty with the contents of a report or with any and all work product.

In preparing a report, Tighe & Bond, Inc. may rely on certain information provided by governmental agencies or personnel as well as information and/or representations provided by other persons, firms, or entities, and on information in the files of governmental agencies made available to Tighe & Bond at the time of the site assessment. To the extent that such information, representations, or files may be inaccurate, missing, incomplete or not provided to Tighe & Bond, Tighe & Bond is not responsible. Although there may be some degree of overlap in the information provided by these various sources, Tighe & Bond does not assume responsibility for independently verifying the accuracy, authenticity, or completeness of any and all information reviewed by or received from others during the course of the site assessment.

Unless otherwise noted, a survey (which includes observations, sampling and analysis) for the presence of polychlorinated biphenyls (PCBs) and asbestos contained in building materials, mold and/or lead-based paint is not conducted as part of an assessment.

Unless otherwise noted, an evaluation (which includes observation, sampling and analysis) for Vapor Intrusion Conditions (VIC) is not conducted as part of an assessment. No attempt is made to assess the compliance status of any past or present Owner or Operator of a site with any Federal, state, or local laws or regulations, unless specifically indicated otherwise in writing.

Findings, observations, and conclusions presented in this report, including but not limited to the extent of any subsurface explorations or other tests performed by Tighe & Bond, are limited by the scope of services outlined in the Agreement, which may establish schedule and/or budgetary constraints for an environmental assessment or phase thereof. Furthermore, while it is anticipated that each assessment will be performed in accordance with generally accepted professional practices and applicable standards (such as ASTM, etc.) and then applicable state and Federal regulations, as may be further described in the report and/or the Agreement, Tighe & Bond does not assume responsibility for the impacts of any changes in environmental standards, practices, or regulations subsequent to performance of its services.

The assessment presented in each report is based solely upon information obtained or received prior to issuance of the report. If additional environmental or other relevant information is developed at a later date, Client agrees to bring such information to the attention of Tighe & Bond promptly. Upon evaluation of such information, Tighe & Bond reserves the right to recommend modification of this report and its conclusions. In addition, dense forested areas on the site created some visual and access limitations during the site reconnaissance.

If included, any database search is conducted under the Notice of Disclaimer/Waiver of Liability included in the database search report.

#### 10.3 Reliance

The Environmental Professional Hereby certifies that this Phase I ESA has been conducted in accordance with EPA's AAI Final Rule and ASTM E1527-13. This Phase I ESA has been prepared for the sole use of RES America Developments, Inc. This Phase I ESA should not be relied upon by other parties without the express written consent of Tighe & Bond and RES America Developments, Inc.

In accordance with Section 4.6 of ASTM E1527-13 and 40 CFR §312.20, a Phase I ESA conducted within one year prior to the date of property acquisition is considered to be valid. However, the following components must be conducted or updated within 180 days prior to the date of property acquisition/real estate transaction:

- Interviews with past and present owners, operators and occupants;
- Searches for recorded environmental cleanup liens;
- Review of governmental records;
- site Reconnaissance of the property and adjoining properties; and
- The declaration by the Environmental Professional

Vucholas (Junata

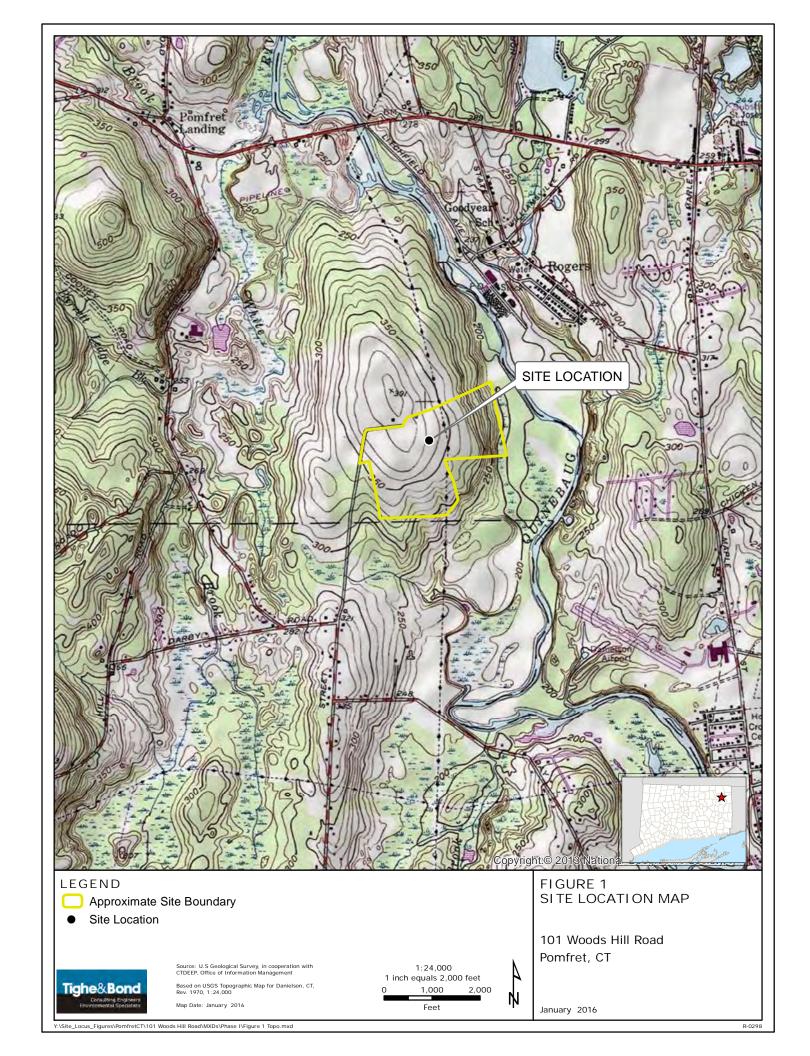
#### 10.4 Environmental Professional Signature

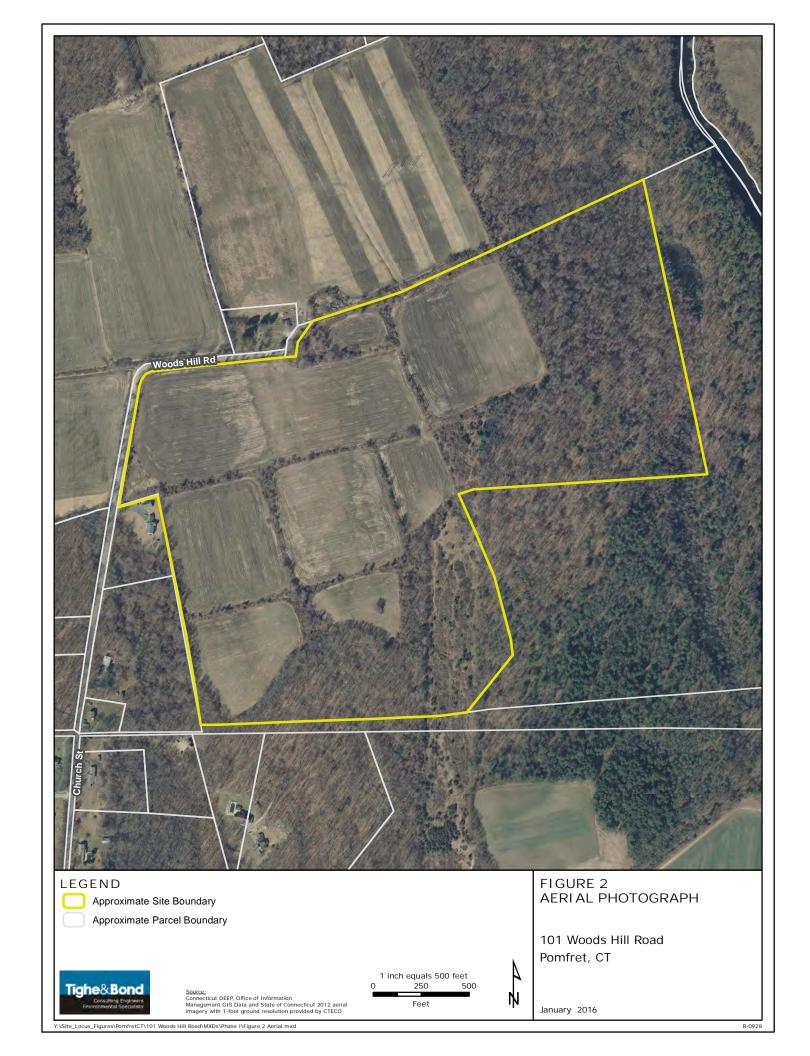
The author of this report declares that, to the best of my professional knowledge and belief, I meet the definition of Environmental Professional as defined in 40 CFR 312. The author of this report has the specific qualification based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. The author has developed and performed the all appropriate inquiries in the conformance with the standards and practices set for the in 40 CFR 312.

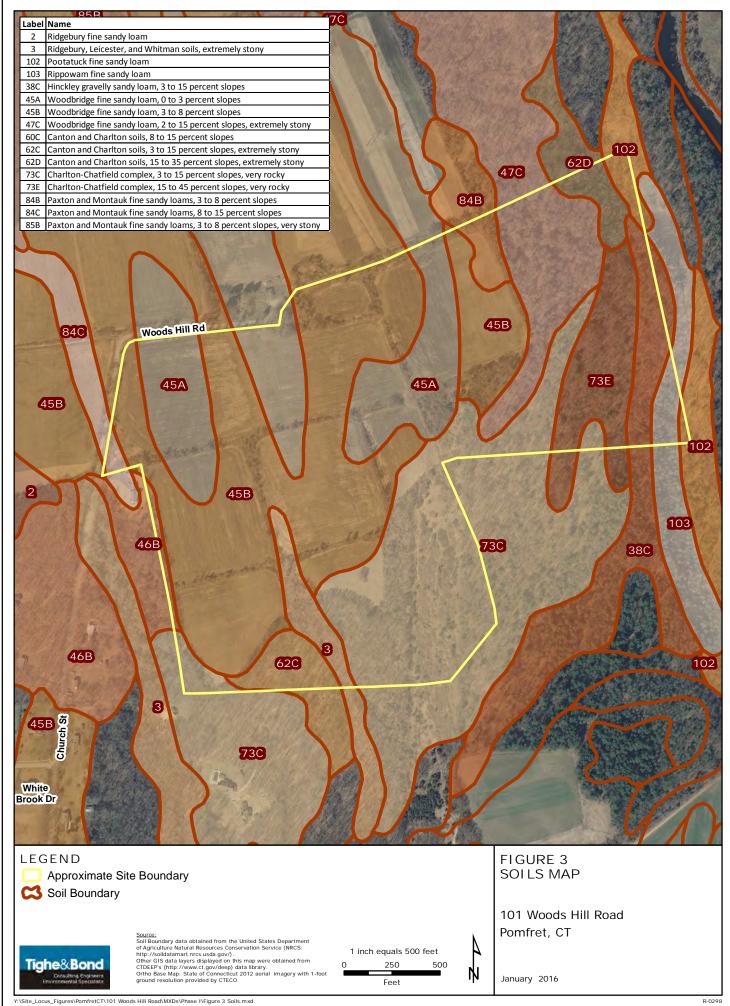
Nicholas A. Granata, LEP

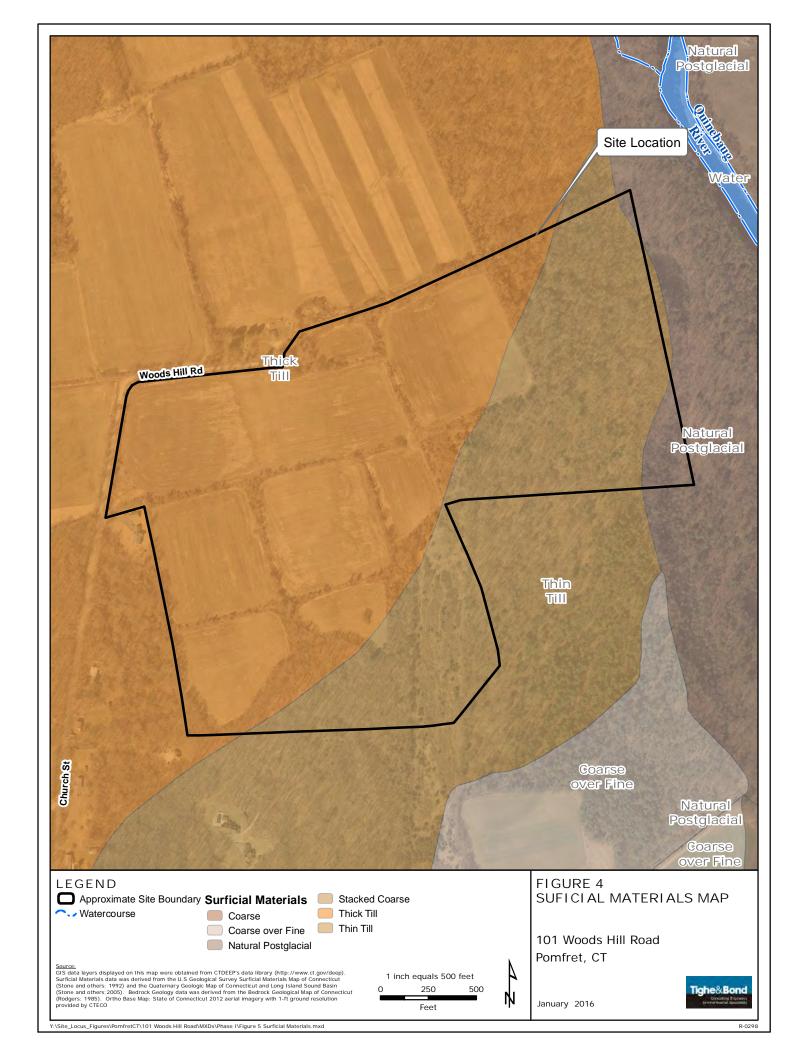
Senior Environmental Scientist

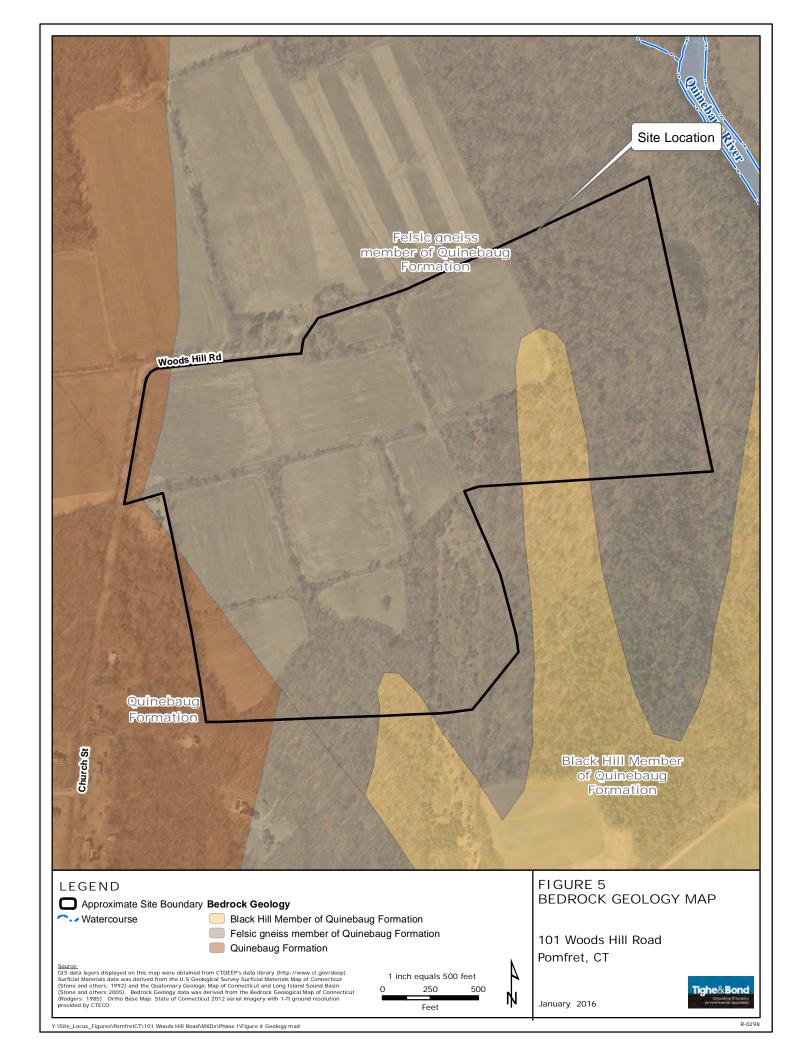


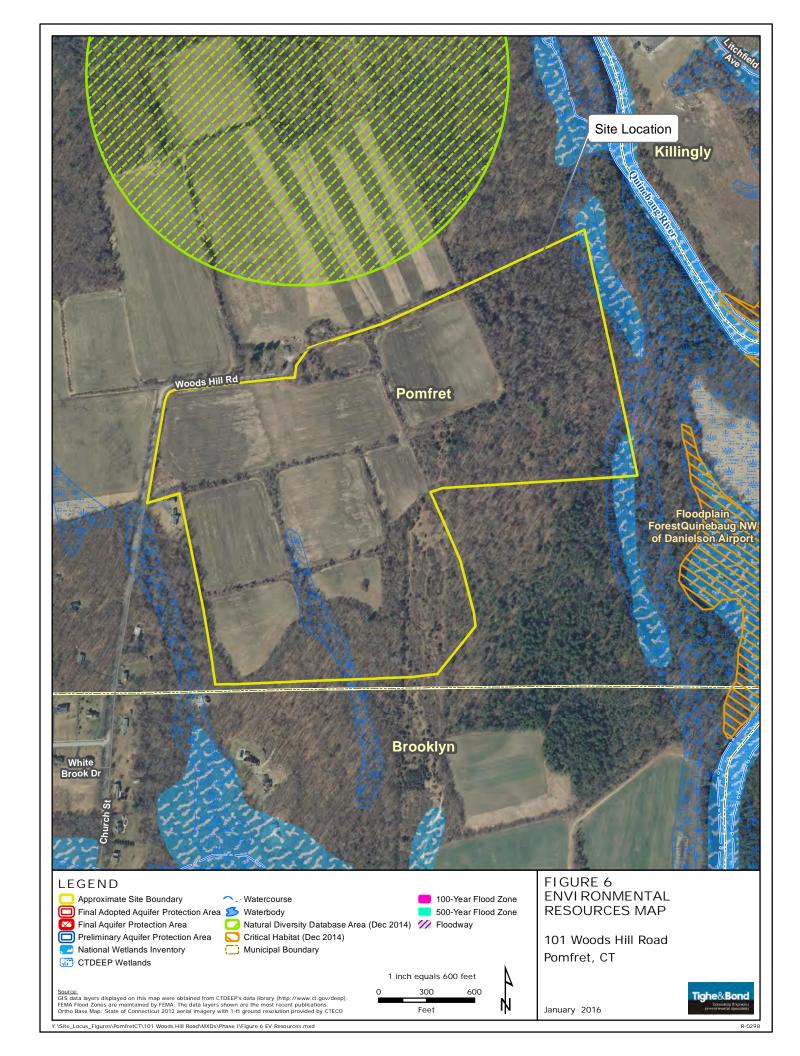


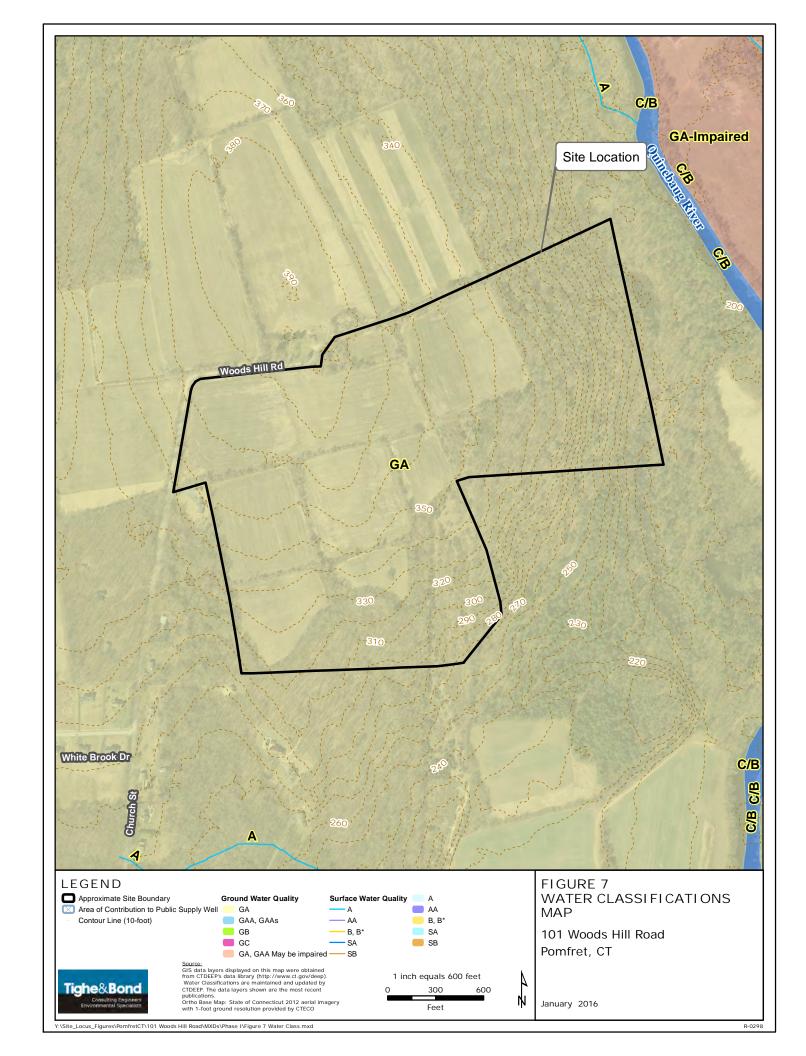












CRISTINA JUANITA R & SHEILA S NAFI Level	ropo.	UTILITIES		STRT./ROAD	LOCATION	^		CURRENT ASSESSMENT	ESSMENT				
253 KILLINGLY AVE	1 Level		1 Paved		3 Rural	FA	Description FARM LAND OPN SPACE	Code App 6-1 6-3	Appraised Value 523,200 42,300	Assessed V	alue 12,680 7,080	6112 POMFRET	D
PUTNAM, CT 06260		SUP	SUPPLEMENTAL DAT	LDATA									
	Other ID: CENSUS EASEMENTS ADD'L EASEME 10 MILL EXP	025	490 P DEV COM SURN DEV	490 PENALTJEXPIRED DEV RIGHTS COM/IND US SURVEY # DEV LOT #	PIRED							VISIC	ON
ID	GIS ID: 00190500	00			-	-		Total	565,500		19,760		
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			-						APPRAIS	APPRAISED VALUE SUMMARY	SUMMAR	Y	
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W/non/		NOTES	3.8					Appraised Land Value (Bldg)	Value (Bldg)				0
2.10 ACRES SOLD TO 23 WOODS HILL RD FOR	RD FOR	TOU	3					Special Land Value	ne				265,500
\$23,000								Total Appraised Parcel Value Valuation Method: Adjustment:	Parcel Value 1:				565,500 C
								Net Total Appraised Parcel Value	sed Parcel V	alue			565,500
Permit ID Issue Date Type	Description	BUILDING PERMIT RECORD	RMIT RECOR	100	% Comn Data Comn		thomas	4	USIA	HAN	HISTORY	į	
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CONCA	TELICTION DETAIL	CONCTRE	LICTION DE	CONSTRUCTION DETAIL (CONTINUED)			
Element Cd.	Cd. Ch. Description	Element	Cd. Ch.	Description			
Model 00	Vacant						
		Code 7130 490 - 1	MIXE) Description 490 - Till D	MIXED USE  Percentage  100			
		Adj. Base Rate:	OST/MARKE	COST/MARKET VALUATION : 0.00			
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Code	Description Liv	ing Area Gross Area		Unit Cost Undeprec. Value	a		
Td.	Ttl. Gross Liv/Lease Area:	0 0	0				

Ashford Brooklyn Canterbury Chaplin Eastford Hampton Killingly Plainfield Pomfret Putnam Scotland Sterling Thompson Union Voluntown Woodstock

Parcel Information: Report Generated: 10/19/2015 12:05:08 PM

GIS ID: CT-112-43-A-005.00 Assessment: \$19,760.00

Owner Name: CRISTINA JUANITA R & SHEILA S NABOZNY Appraissal: \$565,500.00

Street Address: 101 WOODS HILL RD Mailing Address: 253 KILLINGLY AVE

PUTNAM CT 06260

Land: 110.69 Buildings:

Land Value: Improvement Value: Total Value:

Appraised \$565,500.00 \$0.00 \$565,500.00

Assessed \$0.00 \$19,760.00

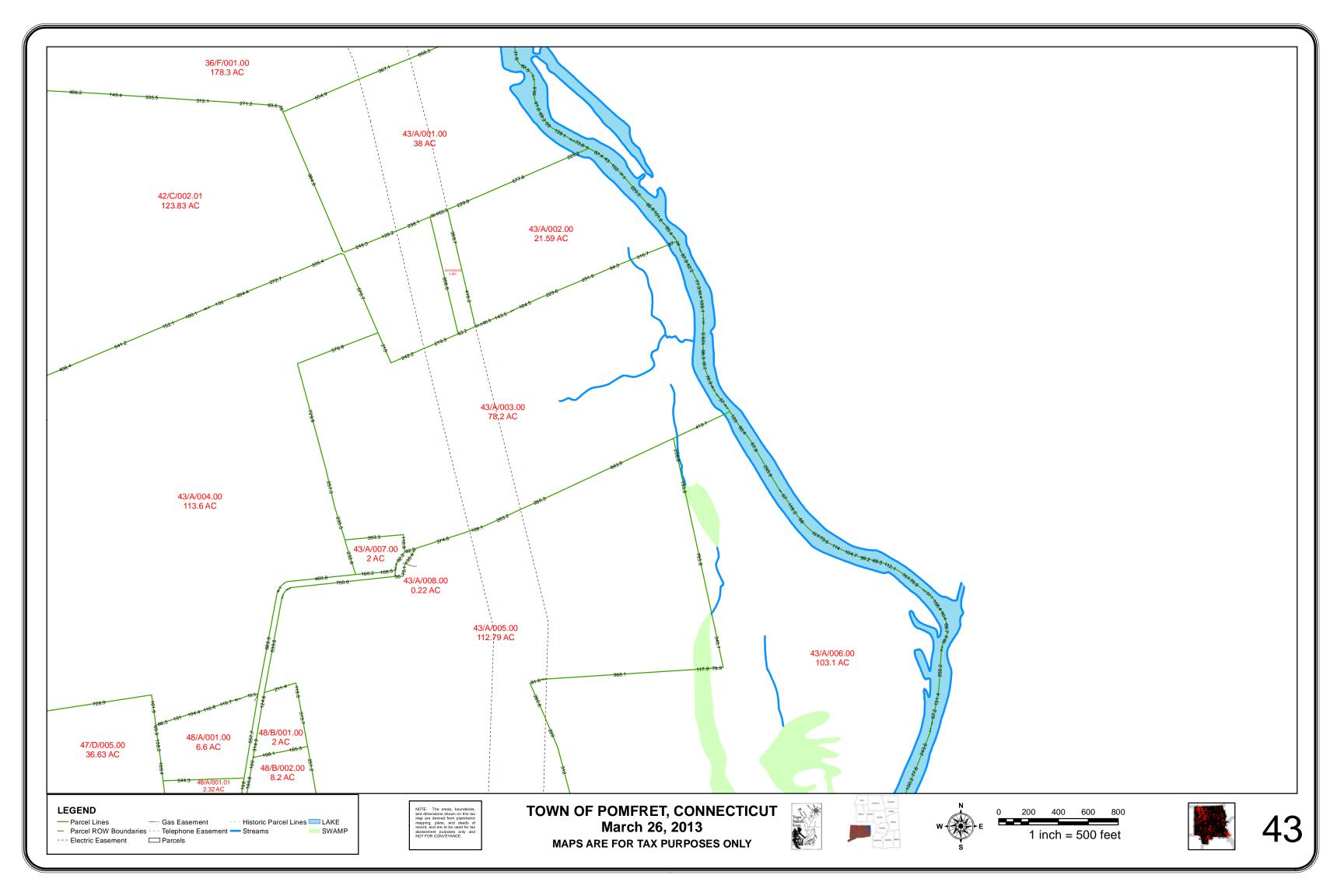
Sale Date: Sale Price:

**Year Built:** Primary Structure Area: sq. ft.

# No Photo Available



Taxlot highlighted in blue



Site: 101 Wood Hill Rd

Date Provided: 12-1-15

Tighe&Bond
Consulting Engineers
Environmental Specialists

#### **Phase I Questionnaire**

Per the ASTM E1527-13 Standard for Phase I Environmental Site Assessments, the following questionnaire is being provided to you because you are the Owner, are the User, or may have specialized knowledge about the site listed above. Please answer the questions to the best of your knowledge. If needed, please attach additional pages or information.

#### Please fill out the following information about yourself:

Name:	Sheila	Napozny	+ Juani	ta Cristina
_	_	,	\	

Company: n/a

Years employed with the company: n/a

Job title: Property Owner

#### **General Information**

Site Name: Nabozny/Cristina Parcel - Pomfret

Address: 101 Woods Hill Rd, Pomfret, CT

General use of property: Agricultural

Site Contact: Tuanta Cristina

Title: Property Owner

Phone No: 860-963-0628

Duration of time that site contact has been in this position:

Please provide additional site contacts knowledgeable on site activities

Name	Title	Phone	E-mail

#### **Site Information**

Are you the current owner or tenant of this site? Owner

Are you aware of any previous environmental site assessments or remediation conducted at the site? If yes, please list activities conducted and dates. **None Known** 

What is the age of the building(s) on the site? N/A



Please list all of the business(s) operated on the site. Agricultural Use Only

Please provide specifics about site utilities. Provide specifics about the type of utility and how long the service has been active. If there was a septic tank and leach field, please describe location. **None Known** 

Are you aware of the current or historic use of underground storage tanks (USTs) on the site? If so, please describe. **None Known** 

Size of UST (gallons)	Contents of UST	Year Installed	Year Removed
		· · · · · · · · · · · · · · · · · · ·	

Are you aware of the current or historic use of aboveground storage tanks (ASTs) on the site? If so, please describe. **None Known** 

Size of AST (gallons)	Contents of AST	Year Installed	Year Removed

Are you aware of the current or historic use of 55-gallon drums or any other storage media on the site? If so, please describe. **None Known** 

Location of Drums	Contents of Drums	Location Stored	Number at location

Are you aware of any chemical or oil spills on the site? This includes, but is not limited to, gasoline, heating oil, diesel, and paint. If so please provide specifics in the table below. **None Known** 

Contents of Spill	Spill Location
	Contents or Spill

-2-

8/12/2015



#### **Regulatory Information**

What Regulatory Permits pertain to the site? None Known

Frequency of inspections by regulators (if any)? N/A

Is the key site contact aware of any environmental violations recorded at local, state or federal agencies? If yes, describe. Post & Pre-Construction? **None Known** 

Is documentation of violations available for site from key site contact? N/A

#### **Process Information**

Has any of the following occurred at the property? (Circle Yes or No)-

- 1) On or after November 19, 1980, there was generated, except as the result of remediation of polluted soil, groundwater or sediment, more than one hundred kilograms of hazardous waste in any one month. Yes (No)
- 2) Hazardous waste generated at a different location was recycled, reclaimed, reused, stored, handled, treated, transported or disposed of. **Yes No**
- 3) The process of dry cleaning was conducted on or after May 1, 1967. Yes No
- 4) Furniture stripping was conducted on or after May 1, 1967. Yes No
- 5) A vehicle body repair facility was located on or after May 1, 1967. Yes No

#### **Hazardous Waste Generation**

Are there any manufacturing processes or activities involving hazardous materials conducted at the site? During Construction or Post-Construction? If so describe. **None Known** 

Are there any incoming raw materials delivered to the site that may be classified as hazardous? During Construction or Post-Construction? If so describe. (Name, use, approximate quantity used yearly and provide applicable documentation with questionnaire) **None Known** 

Are MSDS sheets available for review at the site? Y/N. If so where are they located and please provide copies with questionnaire)  ${\bf N/A}$ 

-3-

8/12/2015



Are there any hazardous wastes generated and approximate quantity generated yearly. During Construction or Post-Construction? (Name, Approximate Quantity Generated Annually, Disposal Contractor and please provide applicable documentation with questionnaire) None Known

Is there anyone else at the site that would have relevant information pertaining to any generation of hazardous wastes at the site? Who? Where located? No

#### **Additional Questions**

Are there any environmental liens that are filed or recorded against the site?

**None Known** 

Are there any activity and/or use limitations that are placed on the site or that have been Are there any activity and on use ......filed or recorded against the site? Toloh of Pointrol rezoned

None Known

Do you have any specialized knowledge or experience related to the property?

Property used exclusively for agricultural purposes (hay/corn field)

land commercial

Does the purchase price being paid for this site reasonably reflect the fair market value of the site? If you conclude that there is a difference, have you considered whether the lower purchase/offer prices is because contamination is known or believed to be present at the site?

**Price Reflects Fair Market Value** 



Are you aware of commonly known or reasonable ascertainable information about the site that would help Tighe & Bond identify conditions indicative of releases or threatened releases? **None Known** 

Do you know specific chemicals that are present or once were present at the site? <b>None Known</b>	
Do you know of spills or other chemical releases that have taken place at the site? <b>None Known</b>	
Do you know of any environmental cleanups that have taken place at the site?  None Known	
Based on your knowledge and experience related to the property are there any ob indicators that point to the presence or likely presence of releases at the site?  None Known	vious
(Please note: Any supporting documents such as MSDS, waste manifests, maps will be needed for completion of Phase I report)	, or site
Site Contact: Print / Signature Date /2-	
Site Contact: Print / Signature Date / 1/2-	-4-15
Quanita Cristina	

CERTIFICATE OF DEVISE, DESCENT OR DISTRIBUTION PC-250 REV. 1/92 (PRC-58)

STATE OF CONNECTICUT

COURT OF PROBATE

[File certificate with town clerk

where real property is situated.]

DATE OF DEATH December 27, 1999 DISTRICT NO. PUTNAM URT OF PROBATE, DISTRICT OF 40600

HARVEY C. KIMBALL

Pursuant to C.G.S. Sec. 45a-450, this certifies that as appears from the records of this court, said deceased died on above written, and the following real property of the decedent is devised or distributed or set out or divided or above written, and the following real property of the decedent is devised or distributed or set out or divided or above written, and the following real property of the decedent is devised or distributed or set out or divided or property, or if none, a brief description of the location. C.G.S. Sec. 45a-450.]

To: JUANITA R. CRISTINA of 253 Killingly Avenue, Putnam, Connecticut 06260, and To: SHEILA S. NABOZNY of 13 Wood Hill Road, Brooklyn, Connecticut 06260, the property described in Schedule A attached hereto.

# SCHEDULE A - REAL ESTATE

located on Woods Hill Road, Pomfret: A certain tract or parcel of land located on Woods Hill Road in the Town of Pomfret, County of Windham and State of Connecticut, containing 114.40 acres, more or less, being those premises conveyed to Harvey C. Kimball by Marranty Deed of Charles L. Kimball dated October 31, 1936, and recorded in Pomfret Land Records, Vol. 31, Page 314.

located on Woods Hill Road, Pomfret: A Certain tract or parcel of land State of Wonds Hill Road in the Town of Pomfret, County of Windham and State of Connecticut, containing 9.50 acres, more or less, being those Premises conveyed to Harvey C. Kimball by Warranty Deed of Michael Harrington and Vera Harrington dated February 24, 1940, and recorded in

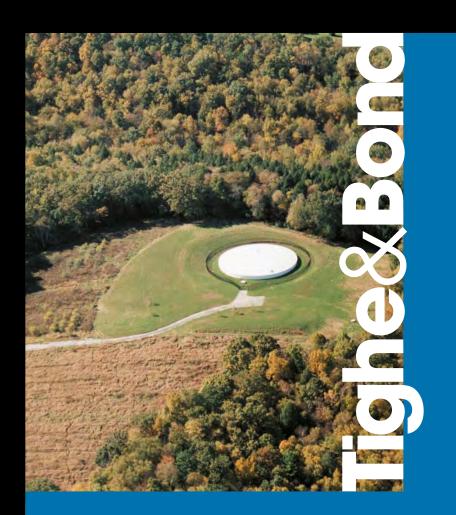
For a more particular description, reactions set my hand and affixed the seal of the court on this seal of the court on the court of th

Original to:

Date Sent:

CERTIFICATE OF DEVISE, DESCENT OR DISTRIBUTION

TOWN OLEH JOH POWANET, OF RECEIVED: 11/30/00 1100 P.M.



# **Appendix C**

# **Photographic Log**

Tighe&Bond

Job Number: R-0298

**Client:** RES America Developments, Inc.

Site: 101 Woods Hill Road, Pomfret, CT

Photograph No.: 1 Date: 11/4/2015

**Description:** Cleared agricultural land, view west



**Photograph No.:** 2 **Date:** 11/4/2015

**Description:** Cleared agricultural land, view north



# **Photographic Log**

Tighe&Bond

Client: RES America Developments, Inc. Job Number: R-0298

Site: 101 Woods Hill Road, Pomfret, CT

**Photograph No.:** 3 **Date:** 11/4/2015

**Description:** Connecticut Light & Power transmission line access road, view south



**Photograph No.:** 4 **Date:** 11/4/2015

**Description:** Connecticut Light & Power transmission line utility poles, view north



# **Appendix C**

# **Photographic Log**

Tighe&Bond

Client: RES America Developments, Inc. Job Number: R-0298

Site: 101 Woods Hill Road, Pomfret, CT

**Photograph No.:** 5 **Date:** 11/4/2015

**Description:** Agricultural land, corn stalks, Connecticut Light & Power transmission line, view southeast



**Photograph No.:** 6 **Date:** 11/4/2015

**Description:** Agricultural land, corn stalks, Connecticut Light & Power transmission line , view northwest



## **Photographic Log**

Tighe&Bond

Client: RES America Developments, Inc. Job Number: R-0298

Site: 101 Woods Hill Road, Pomfret, CT

**Photograph No.:** 7 **Date:** 11/4/2015

**Description:** Tarp shelter, stone wall, tires, fire pit, in forested land, south end of site, view northeast



**Photograph No.:** 8 **Date:** 11/4/2015

**Description:** Fire pit in forested land, south end of site, view northeast



## **Photographic Log**

Tighe&Bond

Client: RES America Developments, Inc. Job Number: R-0298

Site: 101 Woods Hill Road, Pomfret, CT

**Photograph No.:** 9 **Date:** 11/4/2015

**Description:** Eroded gully along the southern tree line on the eastern agricultural land, view west



**Photograph No.:** 10 **Date:** 11/4/2015

**Description:** Forested area, northeast side of the site, view south



# **Appendix C**

# **Photographic Log**

Tighe&Bond

Job Number: R-0298

**Client:** RES America Developments, Inc.

Site: 101 Woods Hill Road, Pomfret, CT

**Photograph No.:** 11 **Date:** 11/4/2015

**Description:** Northern adjacent property, residential property, view north



**Photograph No.:** 12 **Date:** 11/4/2015

**Description:** Northern adjacent property, former wooden sheds, view north

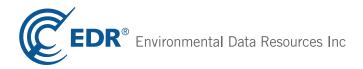


Nabozny Solar Site 101 Woods Hill Road Pomfret, CT 06259

Inquiry Number: 4441785.2s

October 19, 2015

# The EDR Radius Map™ Report with GeoCheck®



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Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-13) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

## TARGET PROPERTY INFORMATION

## **ADDRESS**

101 WOODS HILL ROAD POMFRET, CT 06259

## COORDINATES

Latitude (North): 41.8309000 - 41° 49' 51.24" Longitude (West): 71.9209000 - 71° 55' 15.24"

Universal Tranverse Mercator: Zone 19 UTM X (Meters): 257440.2 UTM Y (Meters): 4634913.5

Elevation: 364 ft. above sea level

## USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map: 5642109 DANIELSON, CT

Version Date: 2012

## **AERIAL PHOTOGRAPHY IN THIS REPORT**

Portions of Photo from: 20120721 Source: USDA

## MAPPED SITES SUMMARY

Target Property Address: 101 WOODS HILL ROAD POMFRET, CT 06259

Click on Map ID to see full detail.

MAP				RELATIVE	DIST (ft. & mi.)
ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	<b>ELEVATION</b>	DIRECTION (
A1	MAIORINO RESIDENCE	426 CHURCH	CT LUST, CT CPCS	Lower	868, 0.164, South
A2	MAIORINO RESIDENCE	426 CHURCH STREET	CT CPCS	Lower	868, 0.164, South
3	ROGERS CORP	ONE TECHNOLOGY DR	CERC-NFRAP, CORRACTS, RCRA-TSDF, RCRA-LQG,	US FINLower	2162, 0.409, NNE
4	CT DOT SEARLES ROAD	POMFRET ROAD	CERCLIS, CT SHWS, CT SDADB, CT CPCS	Lower	2489, 0.471, SW

## TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

## **DATABASES WITH NO MAPPED SITES**

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

## STANDARD ENVIRONMENTAL RECORDS

Fadaval NDL aita liat	
Federal NPL site list	N. C. 181 111
NPL Proposed NPI	_ National Priority List _ Proposed National Priority List Sites
NPL LIENS	
Federal Delisted NPL site lis	st
Delisted NPL	National Priority List Deletions
Federal CERCLIS list	
FEDERAL FACILITY	Federal Facility Site Information listing
Federal RCRA generators li	
	RCRA - Small Quantity Generators RCRA - Conditionally Exempt Small Quantity Generator
RURA-UESQU	- KCKA - Conditionally Exempt Small Quantity Generator
Federal institutional control	ls / engineering controls registries
LUCIS	Land Use Control Information System
	Engineering Controls Sites List
US INST CONTROL	Sites with Institutional Controls
Federal ERNS list	
ERNS	Emergency Response Notification System
State and tribal landfill and	or solid waste disposal site lists
CT SWF/LF	List of Landfills/Transfer Stations
State and tribal leaking stor	rage tank lists
INDIAN LUST	Leaking Underground Storage Tanks on Indian Land
State and tribal registered s	storage tank lists
FEMA UST	Underground Storage Tank Listing

## State and tribal institutional control / engineering control registries

CT ENG CONTROLS ..... Engineering Controls Listing CT AUL ..... ELUR Sites

## State and tribal voluntary cleanup sites

CT VCP......Voluntary Remediation Sites INDIAN VCP.....Voluntary Cleanup Priority Listing

#### State and tribal Brownfields sites

CT BROWNFIELDS..... Brownfields Inventory

#### ADDITIONAL ENVIRONMENTAL RECORDS

#### Local Brownfield lists

US BROWNFIELDS..... A Listing of Brownfields Sites

#### Local Lists of Landfill / Solid Waste Disposal Sites

CT SWRCY...... Recycling Facilities

ODI...... Open Dump Inventory

## Local Lists of Hazardous waste / Contaminated Sites

#### Local Land Records

CT PROPERTY....... Property Transfer Filings
CT LIENS..... Environmental Liens Listing
LIENS 2..... CERCLA Lien Information

## Records of Emergency Release Reports

HMIRS..... Hazardous Materials Information Reporting System CT SPILLS..... Oil & Chemical Spill Database

CT SPILLS 90...... SPILLS 90 data from FirstSearch

#### Other Ascertainable Records

RCRA NonGen / NLR...... RCRA - Non Generators / No Longer Regulated

FUDS Formerly Used Defense Sites DOD Department of Defense Sites

SCRD DRYCLEANERS...... State Coalition for Remediation of Drycleaners Listing

EPA WATCH LIST..... EPA WATCH LIST

TSCA...... Toxic Substances Control Act

TRIS...... Toxic Chemical Release Inventory System

RAATS...... RCRA Administrative Action Tracking System

ICIS..... Integrated Compliance Information System

FTTS......FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide

Act)/TSCA (Toxic Substances Control Act)

COAL ASH EPA..... Coal Combustion Residues Surface Impoundments List

PCB TRANSFORMER\_\_\_\_\_PCB Transformer Registration Database

RADINFO...... Radiation Information Database

HIST FTTS..... FIFRA/TSCA Tracking System Administrative Case Listing

DOT OPS..... Incident and Accident Data

CONSENT..... Superfund (CERCLA) Consent Decrees

INDIAN RESERV...... Indian Reservations

UMTRA...... Uranium Mill Tailings Sites

LEAD SMELTERS..... Lead Smelter Sites

US MINES..... Mines Master Index File

FINDS..... Facility Index System/Facility Registry System

CT AIRS..... Permitted Air Sources Listing

CT DRYCLEANERS....... Drycleaner Facilities
CT LEAD...... Lead Inspection Database

CT LWDS..... Connecticut Leachate and Wastewater Discharge Sites

CT MANIFEST..... Hazardous Waste Manifest Data CT NPDES..... Wastewater Permit Listing

CT SEH..... List of Significant Environmental Hazards Report to DEEP

## **EDR HIGH RISK HISTORICAL RECORDS**

#### **EDR Exclusive Records**

EDR MGP...... EDR Proprietary Manufactured Gas Plants EDR US Hist Auto Stat..... EDR Exclusive Historic Gas Stations EDR US Hist Cleaners..... EDR Exclusive Historic Dry Cleaners

## **EDR RECOVERED GOVERNMENT ARCHIVES**

#### Exclusive Recovered Govt. Archives

#### SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.

Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in **bold italics** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

## STANDARD ENVIRONMENTAL RECORDS

#### Federal CERCLIS list

CERCLIS: The Comprehensive Environmental Response, Compensation and Liability Information System contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

A review of the CERCLIS list, as provided by EDR, and dated 10/25/2013 has revealed that there is 1 CERCLIS site within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
CT DOT SEARLES ROAD	POMFRET ROAD	SW 1/4 - 1/2 (0.471 mi.)	4	59

#### Federal CERCLIS NFRAP site List

CERC-NFRAP: Archived sites are sites that have been removed and archived from the inventory of CERCLIS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list this site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.

A review of the CERC-NFRAP list, as provided by EDR, and dated 10/25/2013 has revealed that there is 1 CERC-NFRAP site within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
ROGERS CORP	ONE TECHNOLOGY DR	NNE 1/4 - 1/2 (0.409 mi.)	3	14

#### Federal RCRA CORRACTS facilities list

CORRACTS: CORRACTS is a list of handlers with RCRA Corrective Action Activity. This report shows which nationally-defined corrective action core events have occurred for every handler that has had corrective action activity.

A review of the CORRACTS list, as provided by EDR, and dated 06/09/2015 has revealed that there is 1

CORRACTS site within approximately 1 mile of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
ROGERS CORP	ONE TECHNOLOGY DR	NNE 1/4 - 1/2 (0.409 mi.)	3	14

#### Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

A review of the RCRA-TSDF list, as provided by EDR, and dated 06/09/2015 has revealed that there is 1 RCRA-TSDF site within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
ROGERS CORP	ONE TECHNOLOGY DR	NNE 1/4 - 1/2 (0.409 mi.)	3	14

#### State- and tribal - equivalent CERCLIS

CT SHWS: The State Hazardous Waste Sites records are the states' equivalent to CERCLIS. These sites may or may not already be listed on the federal CERCLIS list. Priority sites planned for cleanup using state funds (state equivalent of Superfund) are identified along with sites where cleanup will be paid for by potentially responsible parties. The data come from the Department of Environmental Protection's Inventory of Hazardous Disposal Sites.

A review of the CT SHWS list, as provided by EDR, and dated 04/23/2010 has revealed that there is 1 CT SHWS site within approximately 1 mile of the target property.

Lower Elevation	Elevation Address		Map ID	Page	
CT DOT SEARLES ROAD State ID: 348	POMFRET ROAD	SW 1/4 - 1/2 (0.471 mi.)	4	59	
EPA ID: CTD982199150					

CT SDADB: Site Discovery and Assessment Database.

A review of the CT SDADB list, as provided by EDR, and dated 04/23/2010 has revealed that there is 1 CT SDADB site within approximately 0.5 miles of the target property.

Lower Elevation	Elevation Address		Map ID	Page	
CT DOT SEARLES ROAD Facility Id: 348	POMFRET ROAD	SW 1/4 - 1/2 (0.471 mi.)	4	59	

## State and tribal leaking storage tank lists

CT LUST: The Leaking Underground Storage Tank Incident Reports contain an inventory of reported leaking underground storage tank incidents. The data come from the Department of Environmental Protection's Leaking Underground Storage Tank List.

A review of the CT LUST list, as provided by EDR, and dated 07/24/2015 has revealed that there is 1 CT LUST site within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
MAIORINO RESIDENCE Lust Status: 1	426 CHURCH	S 1/8 - 1/4 (0.164 mi.)	A1	8
Lust Status: 2				
LUST ld: 45210 LUST ld: 29958				

#### ADDITIONAL ENVIRONMENTAL RECORDS

#### Other Ascertainable Records

CT CPCS: A list of Contaminated or Potentially Contaminated Sites within Connecticut. This list represents the "Hazardous Waste Facilities," as defined in Section 22a-134f of the Connecticut General Statutes (CGS). The list contains the following types of sites: Sites listed on the Inventory of Hazardous Waste Disposal Sites; Sites subject to the Property Transfer Act; Sites at which underground storage tanks are known to have leaked; Sites at which hazardous waste subject to the RCRA; Sites that are included in EPA's (CERCLIS); Sites that are the subject of an order issued by the Commissioner of DEP that requires investigation and remediation of a potential or known source of pollution; and Sites that have entered into one of the Department's Voluntary Remediation Programs.

A review of the CT CPCS list, as provided by EDR, and dated 06/15/2015 has revealed that there are 3 CT CPCS sites within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page	
MAIORINO RESIDENCE Lust Status: Investigation	426 CHURCH	S 1/8 - 1/4 (0.164 mi.)	A1	8	
MAIORINO RESIDENCE Lust Status: Pending	426 CHURCH STREET	S 1/8 - 1/4 (0.164 mi.)	A2	13	
CT DOT SEARLES ROAD	POMFRET ROAD	SW 1/4 - 1/2 (0.471 mi.)	4	59	

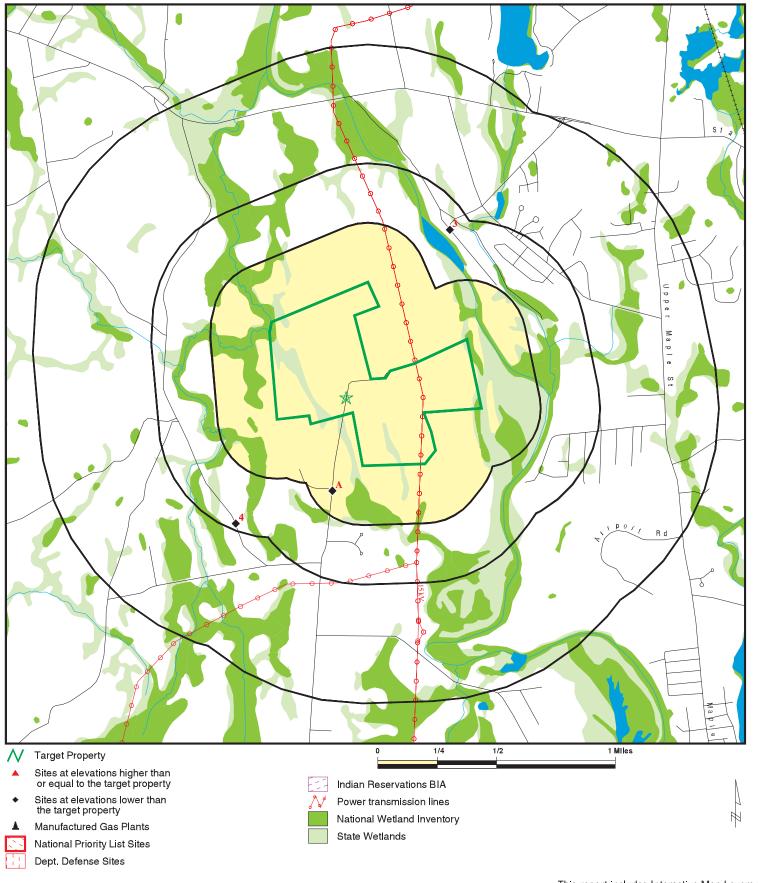
Due to poor or inadequate address information, the following sites were not mapped. Count: 6 records.

Site Name

BOUDREAU WELDING WILLIAM PRYM CO. INC. DAYVILLE SHELL 136299 ROGERS CORP ROGERS CORP CT DOT POMFRET (HART # 33) Database(s)

CT LUST, CT CPCS CT SHWS, CT SDADB, CT CPCS CT LUST, CT CPCS CT VCP, CT CPCS CT LUST, CT SPILLS CT VCP

# **OVERVIEW MAP - 4441785.2S**

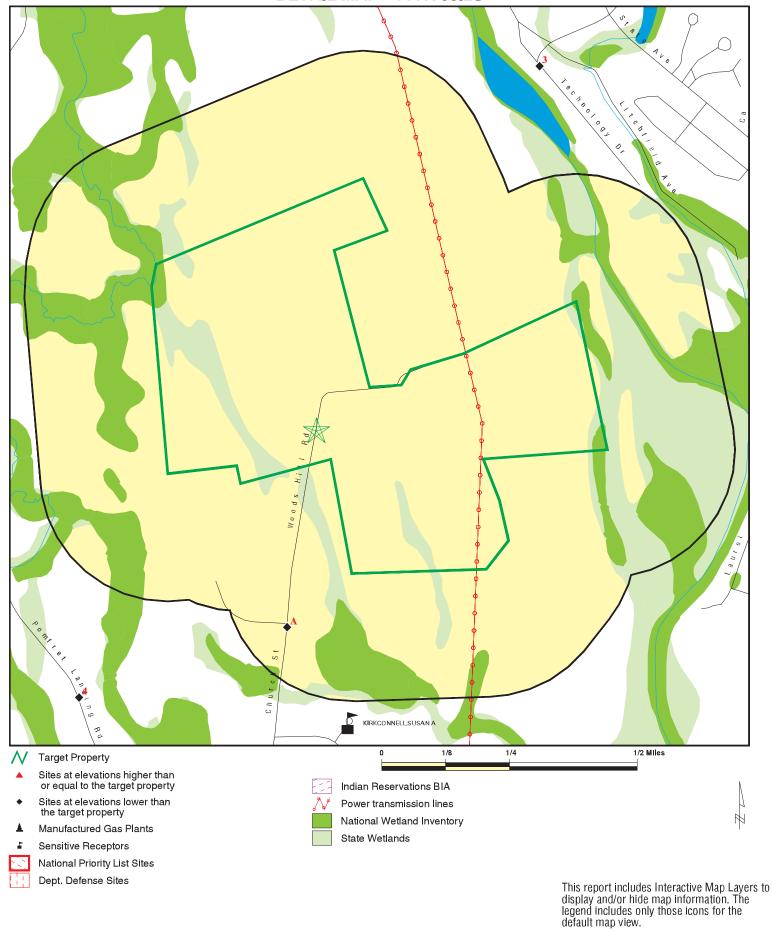


This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Nabozny Solar Site
ADDRESS: 101 Woods Hill Road
Pomfret CT 06259
LAT/LONG: 41.8309 / 71.9209

CLIENT: Tighe & Bond
CONTACT: Samantha Avis
INQUIRY #: 4441785.2s
DATE: October 19, 2015 7:15 pm

# **DETAIL MAP - 4441785.2S**



SITE NAME: Nabozny Solar Site
ADDRESS: 101 Woods Hill Road
Pomfret CT 06259
LAT/LONG: 41.8309 / 71.9209

CLIENT: Tighe & Bond
CONTACT: Samantha Avis
INQUIRY #: 4441785.2s
DATE: October 19, 2015 7:16 pm

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
Federal NPL site list								
NPL Proposed NPL NPL LIENS	1.000 1.000 TP		0 0 NR	0 0 NR	0 0 NR	0 0 NR	NR NR NR	0 0 0
Federal Delisted NPL sit	te list							
Delisted NPL	1.000		0	0	0	0	NR	0
Federal CERCLIS list								
FEDERAL FACILITY CERCLIS	0.500 0.500		0 0	0 0	0 1	NR NR	NR NR	0 1
Federal CERCLIS NFRA	P site List							
CERC-NFRAP	0.500		0	0	1	NR	NR	1
Federal RCRA CORRAC	TS facilities lis	st						
CORRACTS	1.000		0	0	1	0	NR	1
Federal RCRA non-COR	RACTS TSD fa	cilities list						
RCRA-TSDF	0.500		0	0	1	NR	NR	1
Federal RCRA generator	rs list							
RCRA-LQG RCRA-SQG RCRA-CESQG	0.250 0.250 0.250		0 0 0	0 0 0	NR NR NR	NR NR NR	NR NR NR	0 0 0
Federal institutional con engineering controls re								
LUCIS US ENG CONTROLS US INST CONTROL	0.500 0.500 0.500		0 0 0	0 0 0	0 0 0	NR NR NR	NR NR NR	0 0 0
Federal ERNS list								
ERNS	TP		NR	NR	NR	NR	NR	0
State- and tribal - equiva	alent CERCLIS							
CT SHWS CT SDADB	1.000 0.500		0 0	0 0	1 1	0 NR	NR NR	1 1
State and tribal landfill a solid waste disposal site								
CT SWF/LF	0.500		0	0	0	NR	NR	0
State and tribal leaking	storage tank lis	sts						
CT LUST INDIAN LUST	0.500 0.500		0 0	1 0	0 0	NR NR	NR NR	1 0
State and tribal registere	ed storage tani	k lists						
FEMA UST	0.250		0	0	NR	NR	NR	0

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
CT UST CT AST INDIAN UST	0.250 0.250 0.250		0 0 0	0 0 0	NR NR NR	NR NR NR	NR NR NR	0 0 0
State and tribal institution control / engineering con								
CT ENG CONTROLS CT AUL	0.500 0.500		0 0	0 0	0 0	NR NR	NR NR	0 0
State and tribal voluntary cleanup sites								
CT VCP INDIAN VCP	0.500 0.500		0 0	0 0	0 0	NR NR	NR NR	0 0
State and tribal Brownfiel	lds sites							
CT BROWNFIELDS	0.500		0	0	0	NR	NR	0
ADDITIONAL ENVIRONMENT	TAL RECORDS							
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
Local Lists of Landfill / So Waste Disposal Sites	olid							
CT SWRCY INDIAN ODI DEBRIS REGION 9 ODI	0.500 0.500 0.500 0.500		0 0 0	0 0 0 0	0 0 0 0	NR NR NR NR	NR NR NR NR	0 0 0 0
Local Lists of Hazardous Contaminated Sites	waste/							
US HIST CDL CT CDL US CDL	TP TP TP		NR NR NR	NR NR NR	NR NR NR	NR NR NR	NR NR NR	0 0 0
Local Land Records								
CT PROPERTY CT LIENS LIENS 2	TP TP TP		NR NR NR	NR NR NR	NR NR NR	NR NR NR	NR NR NR	0 0 0
Records of Emergency Re	elease Repor	ts						
HMIRS CT SPILLS CT SPILLS 90	TP TP TP		NR NR NR	NR NR NR	NR NR NR	NR NR NR	NR NR NR	0 0 0
Other Ascertainable Records								
RCRA NonGen / NLR FUDS DOD SCRD DRYCLEANERS US FIN ASSUR	0.250 1.000 1.000 0.500 TP		0 0 0 0 NR	0 0 0 0 NR	NR 0 0 0 NR	NR 0 0 NR NR	NR NR NR NR NR	0 0 0 0

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
EPA WATCH LIST 2020 COR ACTION TSCA TRIS SSTS ROD RMP RAATS PRP PADS ICIS FTTS MLTS COAL ASH DOE COAL ASH EPA PCB TRANSFORMER RADINFO HIST FTTS DOT OPS CONSENT INDIAN RESERV UMTRA LEAD SMELTERS US AIRS US MINES FINDS CT AIRS CT CPCS CT DRYCLEANERS CT ENF CT Financial Assurance CT LEAD CT LWDS CT MANIFEST NJ MANIFEST NJ MANIFEST	(Miles)  TP 0.250 TP TP TP 1.000 TP TP TP TP TP TP TP TP TP TP TP TP TP		NO NR NR NR NR NR O R R R R NR O O O R R O O R R R O O O R R R O	NO RRR O RRR O RRR O O O O O O O O O O O	RRRRORRRRORRROOORRRRROOORRRRRRRRRRRRRR	RR R R R O R R R R R R R R R R R R R R	RR R R R R R R R R R R R R R R R R R	Plotted  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
RI MANIFEST CT NPDES CT SEH	0.250 TP 0.500		0 NR 0	0 NR 0	NR NR 0	NR NR NR	NR NR NR	0 0 0
EDR HIGH RISK HISTORICAL RECORDS								
EDR Exclusive Records								
EDR MGP EDR US Hist Auto Stat EDR US Hist Cleaners	1.000 0.250 0.250		0 0 0	0 0 0	0 NR NR	0 NR NR	NR NR NR	0 0 0
EDR RECOVERED GOVERNMENT ARCHIVES								
Exclusive Recovered Gov	vt. Archives							
CT RGA HWS	TP		NR	NR	NR	NR	NR	0

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
CT RGA LUST	TP		NR	NR	NR	NR	NR	0
- Totals		0	0	3	7	0	0	10

## NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

Direction Distance

Elevation Site Database(s) EPA ID Number

A1 MAIORINO RESIDENCE CT LUST \$102571269
South 426 CHURCH CT CPCS N/A

1/8-1/4 BROOKLYN, CT 06234

0.164 mi.

Actual:

295 ft.

868 ft. Site 1 of 2 in cluster A

Relative: LUST: Lower LUST ld:

 LUST Id:
 0

 UST Facility Id:
 0

 LUST Case Id:
 45210

 Lust Status:
 Pending

Processing Status: continuing excavation by Shire

EPA Reportable: False False Motor Fuel: Diesel: False Gasoline: False Other: False Other Release: Not reported No Release: False Leak: False Tank: False Piping: False Overfill: False Removal: False Incident Date: 03/17/1997 Entry Date: Not reported Site Case Id: Not reported

UST Site Id: 0

Cost Recovery Spill Case #: 0

Old SITS Number: 0

Case Log Id: 388

Monthly Report Id: 0

UST Owner Id: 0

LUST Owner Id: AG

UST Event Id: 0

Contact Info: Aaron Green LUST Program

Contact EMail: Not reported UNKNOWN Site Contact City, St, Zip: 2nd Contact: Not reported 2nd Contact EMail: Not reported 2nd Contact Address: Not reported 2nd Contact City, St, Zip: UNKNOWN 2nd Contact Address 2: Not reported 2nd Contact City 2: Not reported 2nd Contact Phone Number: Not reported 2nd Contact Fax Number: Not reported 2nd Contact Type: Not reported Facility City Num: 19

Site Contact: Not reported Site Contact Address: Not reported Site Contact Add 2: Not reported Not reported Site Contact City 2: Site Contact Phone: Not reported Site Contact Fax: Not reported Site Contact Type: Not reported Department Contact 1: Not reported Department Contact 2: Not reported

OCSRD 3/27/97

Offsite Source: False

Referral Source:

TC4441785.2s Page 8

**EDR ID Number** 

Distance
Elevation Site

Database(s)

#### **MAIORINO RESIDENCE (Continued)**

Date Referred: 1997-03-27 00:00:00

Emergency: False Private Heating Fuel: True Commercial Heating Fuel: False Commercial HF < 2100 Gal.: False Commercial HF > 2100 Gal.: False Commercial HF - Size Unk: False No LUST Site: False Cost Recvry Prgm Candidate: False OCSRD Complete: False Follow Up Flag: False Alternate Water Supply: False Relocation: False Responsible Party: False Responsible EMail: Not reported Resp Party Name: Not reported Resp Party Address: Not reported Resp Party City, St, Zip: Not reported Resp Party Town Number: UNKNOWN Resp Party Phone: Not reported Resp Party Fax: Not reported Resp Party Name 2: Not reported Resp Party Address 2: Not reported Resp Party Phone 2: Not reported Investigator Id: 20 Follow Update: Not reported Area Lextent: Not reported Annual Precipitation: Not reported Affected Population: Not reported Population Setting: Not reported Ground Water Direction: Not reported **Ground Water Gradient:** Not reported Hydro Basin: Not reported Drastic: Not reported Geo Setting: Not reported Ground Water Classification: Not reported Receptor: Not reported **Ground Water Flow Direction:** Not reported Ground Water Depth: Not reported Areas Of Concern: Not reported Free Product Inches: Not reported Fund Date: Not reported Fund Planned: No Fund Obligated: No

Fund Outlayed: No Fund Judgment: No Fund Recovered: No Cellar Borings: False Install Micro Wells: False Ground Water Sample: False Soil Sample: True Soil Gas: False Site Inspect: False Soil Excavate: True Geo Probe: False False Survev: Potable Well Sample: False S102571269

**EDR ID Number** 

**EPA ID Number** 

Direction Distance

Elevation Site Database(s) EPA ID Number

## **MAIORINO RESIDENCE (Continued)**

S102571269

**EDR ID Number** 

Sample MWS: False Ground Water Gauging: False Soil Venting: False Active: False NOV Action: None NOV Issued: Not reported Not reported NOV Due: Not reported NOV Received: NOV Closed: Not reported NOV Disc Date: Not reported NOV Issued Date: Not reported NOV Compliance Sched: Not reported NOV Admin Order: Not reported NOV Referred To Ag: Not reported Stop All NOV Actions: False Release Invest Rpt: False DEP App Letter 1: False Correct Action Plan: False DEP App Letter 2: False Rem Sys Install: False Rem Sys Install Date: Not reported Closure Date: Not reported Rem Sys Monitoring Rpt: False **Qrtly Gwater Mon Rpts:** False Closure Req Rpt: False **DEP Closure Letter:** False Referred To: Not reported No Wells: Not reported Lph Wells: Not reported

No Wells:

Lph Wells:

User Stamp:

Date Stamp:

Correspondence:

Not reported

Not reported

Not reported

Not reported

Not reported

Environmental Impact: +- 500 gal. #2 lost to soil

FollowUp: Not reported GW Comments: Not reported Location Desc: Not reported NOV Comments: Not reported

Release Desc: +- 500 gal. #2 lost to soil

Running Comments: tank removed previously, lines not removed, leak via lines to grave,

soil & septic system removed

Work Performed: excavate soil

LUST Id: 1849 UST Facility Id: Not reported LUST Case Id: 29958 Lust Status: Investigation **Processing Status:** Not reported EPA Reportable: False Motor Fuel: False Diesel: False Gasoline: False Other: False Other Release: Not reported No Release: False Leak: False Tank: False Piping: False

Distance Elevation

on Site Database(s) EPA ID Number

#### **MAIORINO RESIDENCE (Continued)**

S102571269

**EDR ID Number** 

Overfill: False False Removal: Incident Date: 03/17/1997 Not reported Entry Date: Site Case Id: Not reported UST Site Id: Not reported Cost Recovery Spill Case #: Not reported Old SITS Number: Not reported Case Log Id: Not reported Monthly Report Id: Not reported UST Owner Id: LUST Owner Id:

Not reported UST Event Id: 1848 Contact Info: Not reported Contact EMail: Not reported UNKNOWN Site Contact City, St, Zip: 2nd Contact: Not reported 2nd Contact EMail: Not reported 2nd Contact Address: Not reported UNKNOWN 2nd Contact City, St, Zip: 2nd Contact Address 2: Not reported 2nd Contact City 2: Not reported 2nd Contact Phone Number: Not reported 2nd Contact Fax Number: Not reported 2nd Contact Type: Not reported Facility City Num: 19

Not reported

Site Contact:

Site Contact Address: Not reported Site Contact Add 2: Not reported Site Contact City 2: Not reported Site Contact Phone: Not reported Site Contact Fax: Not reported Site Contact Type: Not reported Department Contact 1: Not reported Department Contact 2: Not reported Referral Source: Not reported Offsite Source: False Date Referred: Not reported Emergency: False Private Heating Fuel: True Commercial Heating Fuel: False Commercial HF < 2100 Gal.: False Commercial HF > 2100 Gal.: False Commercial HF - Size Unk: False No LUST Site: False Cost Recvry Prgm Candidate: False OCSRD Complete: False Follow Up Flag: False Alternate Water Supply: False Relocation: False Responsible Party: False

Responsible Party:
Responsible EMail:
Resp Party Name:
Resp Party Address:
Resp Party City,St,Zip:
Resp Party Town Number:
Resp Party Phone:
Resp Party Phone:

Hase
Not reported
UNKNOWN
Not reported

Distance Elevation Site

ite Database(s) EPA ID Number

#### **MAIORINO RESIDENCE (Continued)**

S102571269

**EDR ID Number** 

Resp Party Fax:
Resp Party Name 2:
Resp Party Address 2:
Resp Party Phone 2:
Not reported
Not reported
Not reported
Not reported
20

Follow Update: Not reported Not reported Area Lextent: Not reported Annual Precipitation: Affected Population: Not reported Population Setting: Not reported **Ground Water Direction:** Not reported **Ground Water Gradient:** Not reported Hydro Basin: Not reported Drastic: Not reported Geo Setting: Not reported **Ground Water Classification:** Not reported Not reported Receptor: Ground Water Flow Direction: Not reported Ground Water Depth: Not reported Areas Of Concern: Not reported Free Product Inches: Not reported Fund Date: Not reported

Fund Planned: No Fund Obligated: No Fund Outlayed: No Fund Judgment: No Fund Recovered: No Cellar Borings: False Install Micro Wells: False Ground Water Sample: False Soil Sample: False Soil Gas: False Site Inspect: False Soil Excavate: False Geo Probe: False False Survey: Potable Well Sample: False Sample MWS: False Ground Water Gauging: False Soil Venting: False Active: False NOV Action: None NOV Issued: Not reported NOV Due: Not reported NOV Received: Not reported NOV Closed: Not reported NOV Disc Date: Not reported NOV Issued Date: Not reported NOV Compliance Sched: Not reported NOV Admin Order: Not reported NOV Referred To Aq: Not reported Stop All NOV Actions: False Release Invest Rpt: False DEP App Letter 1: False Correct Action Plan: False DEP App Letter 2: False

False

Rem Sys Install:

MAP FINDINGS Map ID

Direction Distance

**EDR ID Number** Elevation Site Database(s) **EPA ID Number** 

**MAIORINO RESIDENCE (Continued)** 

S102571269

Rem Sys Install Date: Not reported Not reported Closure Date: Rem Sys Monitoring Rpt: False **Qrtly Gwater Mon Rpts:** False Closure Req Rpt: False **DEP Closure Letter:** False Referred To: Not reported Not reported No Wells: Lph Wells: Not reported User Stamp: Not reported Date Stamp: Not reported

Correspondence: Action: Issued: Received:2/17/1999status date is date of data cleanup

**Environmental Impact:** Not reported FollowUp: Not reported **GW Comments:** Not reported Location Desc: Not reported **NOV Comments:** Not reported Release Desc: Not reported

**Running Comments:** tank removed previously, lines not removed, leak via lines to grave,

soil & septic system removed

Work Performed: Not reported

CPCS:

LUST Site Type: Lust Status code:

Lust Status: Investigation PTP Form: Not reported Program: Not reported

Comments: Tank Removed Previously, Lines Not Removed, Leak Via Lines To Grave,

Soil & Septic System Removed

Leaking Underground Storage Tanks Investigation Site Type Definition:

**A2 MAIORINO RESIDENCE** CT CPCS S105738870 South **426 CHURCH STREET** N/A

**BROOKLYN, CT 06234** 1/8-1/4 0.164 mi.

868 ft. Site 2 of 2 in cluster A

CPCS: Relative:

LUST Site Type: Lower Lust Status code:

Actual: Lust Status: Pending 295 ft. PTP Form: Not reported Program: Not reported Comments: Not reported

> Site Type Definition: Leaking Underground Storage Tanks Pending

MAP FINDINGS Map ID

Direction Distance

**EDR ID Number** Elevation Site Database(s) **EPA ID Number** 

**ROGERS CORP CERC-NFRAP** 1000217500 NNE ONE TECHNOLOGY DR CORRACTS CTD001141167

**RCRA-TSDF** 

**RCRA-LQG** 

1/4-1/2 ROGERS, CT 06263 0.409 mi.

2162 ft. **US FIN ASSUR** 2020 COR ACTION Relative: **US AIRS** Lower

**CT ENF CT Financial Assurance** Actual:

**RI MANIFEST** 230 ft. **NY MANIFEST NJ MANIFEST** 

CERC-NFRAP:

0102017 Site ID:

Federal Facility: Not a Federal Facility NPL Status: Not on the NPL Non NPL Status: Deferred to RCRA

CERCLIS-NFRAP Site Contact Details:

Contact Sequence ID: 13326151.00000 Person ID: 13004278.00000

CERCLIS-NFRAP Site Alias Name(s):

ROGERS CORP Alias Name: Alias Address: Not reported WINDHAM, CT

Program Priority:

Description: **Environmental Justice Indicator** 

CERCLIS-NFRAP Assessment History:

Action: **DISCOVERY** 

Date Started: 07/12/85 Date Completed: Priority Level: Not reported

SITE INSPECTION Action:

Date Started: // Date Completed: 01/19/90

Deferred to RCRA (Subtitle C) Priority Level:

Action: ARCHIVE SITE

Date Started: Date Completed: 01/25/96 Priority Level: Not reported

PRELIMINARY ASSESSMENT Action:

Date Started: //

Date Completed: 03/25/86

Priority Level: Low priority for further assessment

CORRACTS:

EPA ID: CTD001141167

EPA Region:

Direction Distance

**EDR ID Number** Elevation Site **EPA ID Number** Database(s)

**ROGERS CORP (Continued)** 

1000217500

Area Name: **ENTIRE FACILITY** 

19940503 Actual Date:

CA075HI - CA Prioritization, Facility or area was assigned a high Action:

corrective action priority

NAICS Code(s): 326113 54171

> Unlaminated Plastics Film and Sheet (except Packaging) Manufacturing Research and Development in the Physical, Engineering, and Life

Sciences

Original schedule date: Not reported Schedule end date: Not reported

EPA ID: CTD001141167

EPA Region:

Area Name: **ENTIRE FACILITY** 

Actual Date: 19970805

Action: CA725IN - Current Human Exposures Under Control, More information is

needed to make a determination

NAICS Code(s): 326113 54171

> Unlaminated Plastics Film and Sheet (except Packaging) Manufacturing Research and Development in the Physical, Engineering, and Life

Sciences

Original schedule date: Not reported Schedule end date: Not reported

EPA ID: CTD001141167

EPA Region:

Area Name: **ENTIRE FACILITY** 

Actual Date: 19970805

Action: CA750IN - Migration of Contaminated Groundwater under Control, More

information is needed to make a determination

NAICS Code(s): 326113 54171

Unlaminated Plastics Film and Sheet (except Packaging) Manufacturing Research and Development in the Physical, Engineering, and Life

Sciences

Original schedule date: Not reported Schedule end date: Not reported

EPA ID: CTD001141167

EPA Region:

Area Name: **ENTIRE FACILITY** 

Actual Date: 19940411

Action: CA050RF - RFA Completed, Assessment was an RFA

NAICS Code(s): 326113 54171

> Unlaminated Plastics Film and Sheet (except Packaging) Manufacturing Research and Development in the Physical, Engineering, and Life

Sciences

Original schedule date: Not reported Schedule end date: Not reported

EPA ID: CTD001141167

EPA Region:

Area Name: **ENTIRE FACILITY** 

Actual Date: 19980515

CA100 - RFI Imposition Action:

NAICS Code(s): 326113 54171

> Unlaminated Plastics Film and Sheet (except Packaging) Manufacturing Research and Development in the Physical, Engineering, and Life

Direction Distance

Elevation Site **EPA ID Number** Database(s)

**ROGERS CORP (Continued)** 

1000217500

**EDR ID Number** 

Sciences

Original schedule date: Not reported Schedule end date: Not reported

EPA ID: CTD001141167

EPA Region:

**ENTIRE FACILITY** Area Name:

Actual Date: 20040421

Action: CA725YE - Current Human Exposures Under Control, Yes, Current Human

Exposures Under Control has been verified

326113 54171 NAICS Code(s):

> Unlaminated Plastics Film and Sheet (except Packaging) Manufacturing Research and Development in the Physical, Engineering, and Life

Original schedule date: 20040930 Schedule end date: Not reported

CTD001141167 EPA ID: EPA Region:

Area Name:

**ENTIRE FACILITY** 

Actual Date: 20040421

Action: CA750YE - Migration of Contaminated Groundwater under Control, Yes,

Migration of Contaminated Groundwater Under Control has been verified

NAICS Code(s): 326113 54171

Unlaminated Plastics Film and Sheet (except Packaging) Manufacturing

Research and Development in the Physical, Engineering, and Life

Sciences

Original schedule date: 20040930 Schedule end date: Not reported

RCRA-TSDF:

Date form received by agency: 02/19/2014

Facility name: ROGERS CORP

Facility address: ONE TECHNOLOGY DR

ROGERS, CT 06263

EPA ID: CTD001141167

MICHAL J WERBECKI Contact: Contact address: ONE TECHNOLOGY DR

ROGERS, CT 06263

Contact country: US

Contact telephone: (860) 779-4765

Contact email: MICHAL.WERBECKI@ROGERSCORPORATION.COM

EPA Region: Land type: Private Classification: **TSDF** 

Description: Handler is engaged in the treatment, storage or disposal of hazardous

Classification: Large Quantity Generator

Handler: generates 1,000 kg or more of hazardous waste during any Description:

calendar month; or generates more than 1 kg of acutely hazardous waste during any calendar month; or generates more than 100 kg of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month; or generates 1 kg or less of acutely hazardous waste during any calendar month, and accumulates more than 1 kg of acutely hazardous waste at any time; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting

Distance Elevation

Site Database(s) EPA ID Number

#### **ROGERS CORP (Continued)**

1000217500

**EDR ID Number** 

from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates more than 100 kg of that material at any time

Owner/Operator Summary:

Owner/Op end date:

Owner/operator name: ROGERS CORP
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 05/15/1935

Owner/operator name: ROGERS CORP
Owner/operator address: TECHNOLOGY DR
ROGERS, CT 06263

Not reported

Owner/operator country: US

Owner/operator telephone: (860) 774-9605

Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 05/15/1935
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No Mixed waste (haz. and radioactive): No Recycler of hazardous waste: No Transporter of hazardous waste: No Treater, storer or disposer of HW: Yes Underground injection activity: No On-site burner exemption: No Furnace exemption: No Used oil fuel burner: No Used oil processor: No User oil refiner: No Used oil fuel marketer to burner: No Used oil Specification marketer: No Used oil transfer facility: No Used oil transporter: No

. Waste code: D001

. Waste name: IGNITABLE WASTE

Waste code: D002

Waste name: CORROSIVE WASTE

Waste code: D003

Waste code:

Waste name: REACTIVE WASTE

D008

Waste name: LEAD

Waste code: D009
Waste name: MERCURY

Direction Distance Elevation

Site Database(s) EPA ID Number

ROGERS CORP (Continued)

1000217500

**EDR ID Number** 

. Waste code: D011 . Waste name: SILVER

Waste code: D022

. Waste name: CHLOROFORM

Waste code: D035

Waste name: METHYL ETHYL KETONE

. Waste code: D040

. Waste name: TRICHLORETHYLENE

Waste code: F003

. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL

ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL

ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT
MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT
NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS
CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED
SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR
MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL

BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

WIIXTORE

Waste code: F005

. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL

KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE,

2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF

THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: LABP. Waste name: LAB PACK

. Waste code: U044

. Waste name: CHLOROFORM (OR) METHANE, TRICHLORO-

Waste code: U159

Waste name: 2-BUTANONE (I,T) (OR) METHYL ETHYL KETONE (MEK) (I,T)

. Waste code: U220

. Waste name: BENZENE, METHYL- (OR) TOLUENE

Waste code: U223

Waste name: BENZENE, 1,3-DIISOCYANATOMETHYL- (R,T) (OR) TOLUENE DIISOCYANATE (R,T)

Waste code: U228

Waste name: ETHENE, TRICHLORO- (OR) TRICHLOROETHYLENE

. Waste code: U239

. Waste name: BENZENE, DIMETHYL- (I,T) (OR) XYLENE (I)

Historical Generators:

Date form received by agency: 02/23/2012

Site name: ROGERS CORP ROGERS

Distance EDR ID Number
Elevation Site EPA ID Number

ROGERS CORP (Continued) 1000217500

Classification: Large Quantity Generator

. Waste code: D001

Waste name: IGNITABLE WASTE

. Waste code: D002

. Waste name: CORROSIVE WASTE

Waste code: D003

Waste name: REACTIVE WASTE

Waste code: D008
Waste name: LEAD

Waste code: D009
Waste name: MERCURY

Waste code: D011
Waste name: SILVER

. Waste code: D018
. Waste name: BENZENE

Waste code: D035

. Waste name: METHYL ETHYL KETONE

. Waste code: D039

Waste name: TETRACHLOROETHYLENE

Waste code: D040

Waste name: TRICHLORETHYLENE

. Waste code: F003

. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL

ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL

ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT

MIXTURES.

Waste code: F005

Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL

KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE,

2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF

THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: LABP
. Waste name: LAB PACK

. Waste code: U080

Distance Elevation Site

Site Database(s) EPA ID Number

ROGERS CORP (Continued) 1000217500

. Waste name: METHANE, DICHLORO- (OR) METHYLENE CHLORIDE

. Waste code: U159

. Waste name: 2-BUTANONE (I,T) (OR) METHYL ETHYL KETONE (MEK) (I,T)

Waste code: U220

. Waste name: BENZENE, METHYL- (OR) TOLUENE

Waste code: U239

Waste name: BENZENE, DIMETHYL- (I,T) (OR) XYLENE (I)

Date form received by agency: 05/06/2010
Site name: ROGERS CORP
Classification: Large Quantity Generator

Waste code: D001

Waste name: IGNITABLE WASTE

. Waste code: D002

Waste name: CORROSIVE WASTE

. Waste code: D003

. Waste name: REACTIVE WASTE

. Waste code: D008
. Waste name: LEAD
. Waste code: D009

. Waste name: MERCURY
. Waste code: D011

. Waste code: D018
. Waste name: BENZENE

Waste code: D035

Waste name:

. Waste name: METHYL ETHYL KETONE

**SILVER** 

Waste code: D039

Waste name: TETRACHLOROETHYLENE

Waste code: D040

Waste name: TRICHLORETHYLENE

Waste code: F003

. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL

ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL

ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL

BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT

MIXTURES.

**EDR ID Number** 

Distance Elevation

Site Database(s) EPA ID Number

**ROGERS CORP (Continued)** 

1000217500

**EDR ID Number** 

. Waste code: F005

. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL

KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE,

2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF

THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Waste code: LABP
Waste name: LAB PACK

Waste code: P098

. Waste name: POTASSIUM CYANIDE (OR) POTASSIUM CYANIDE K(CN)

Waste code: U159

Waste name: 2-BUTANONE (I,T) (OR) METHYL ETHYL KETONE (MEK) (I,T)

Waste code: U220

Waste name: BENZENE, METHYL- (OR) TOLUENE

Waste code: U239

. Waste name: BENZENE, DIMETHYL- (I,T) (OR) XYLENE (I)

Date form received by agency: 02/25/2008
Site name: ROGERS CORP
Classification: Large Quantity Generator

. Waste code: D001

. Waste name: IGNITABLE WASTE

Waste code: D002

Waste name: CORROSIVE WASTE

Waste code: D008
Waste name: LEAD

Waste code: D009
Waste name: MERCURY

Waste code: D035

. Waste name: METHYL ETHYL KETONE

Waste code: F003

. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL

ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR

MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT

MIXTURES.

Waste code: F005

. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL

Distance EDR ID Number Elevation Site EDR ID Number Database(s) EPA ID Number

**ROGERS CORP (Continued)** 

1000217500

KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF

THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: LABP
. Waste name: LAB PACK

Date form received by agency: 02/23/2006
Site name: ROGERS CORP
Classification: Large Quantity Generator

Waste code: D001

Waste name: IGNITABLE WASTE

Waste code: D002

Waste name: CORROSIVE WASTE

Waste code: D003

. Waste name: REACTIVE WASTE

. Waste code: D005 . Waste name: BARIUM

. Waste code: D009
. Waste name: MERCURY

Waste code: D035

Waste name: METHYL ETHYL KETONE

Waste code: F002

Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE,

METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE,

CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE,

ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2,

TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND

SPENT SOLVENT MIXTURES.

Waste code: F003

. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL

ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL

BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT

MIXTURES.

. Waste code: F005

. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL

Direction Distance Elevation

**EDR ID Number EPA ID Number** Site Database(s)

## **ROGERS CORP (Continued)**

1000217500

KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Waste code: LABP Waste name: LAB PACK

P098 Waste code:

POTASSIUM CYANIDE (OR) POTASSIUM CYANIDE K(CN) Waste name:

Waste code:

Waste name: 2-PROPANONE (I) (OR) ACETONE (I)

Waste code:

Waste name: METHANOL (I) (OR) METHYL ALCOHOL (I)

Date form received by agency: 03/03/2004 Site name: ROGERS CORP

Classification: Large Quantity Generator

Waste code: CR01

WASTE PCBs Waste name:

Waste code: CR02 Waste name: WASTE OIL

Waste code: D001

**IGNITABLE WASTE** Waste name:

Waste code:

Waste name: **CORROSIVE WASTE** 

Waste code: D003

REACTIVE WASTE Waste name:

Waste code: D006 CADMIUM Waste name:

Waste code: D009 Waste name: **MERCURY** 

F002 Waste code:

Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE,

METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE,

CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE,

ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2,

TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND

SPENT SOLVENT MIXTURES.

Waste code: F003

THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL Waste name:

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Elevation Site EDR ID Number
Database(s) EPA ID Number

**ROGERS CORP (Continued)** 

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ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: P022

. Waste name: CARBON DISULFIDE

Waste code: P098

Waste name: POTASSIUM CYANIDE (OR) POTASSIUM CYANIDE K(CN)

Waste code: U044

. Waste name: CHLOROFORM (OR) METHANE, TRICHLORO-

. Waste code: U057

. Waste name: CYCLOHEXANONE (I)

Waste code: U080

. Waste name: METHANE, DICHLORO- (OR) METHYLENE CHLORIDE

. Waste code: U122

Waste name: FORMALDEHYDE

. Waste code: U188 . Waste name: PHENOL

. Waste code: U201

. Waste name: 1,3-BENZENEDIOL (OR) RESORCINOL

. Waste code: U211

Waste name: CARBON TETRACHLORIDE (OR) METHANE, TETRACHLORO-

Waste code: U213

Waste name: FURAN, TETRAHYDRO-(I) (OR) TETRAHYDROFURAN (I)

Waste code: U225

Waste name: BROMOFORM (OR) METHANE, TRIBROMO-

Waste code: U228

Waste name: ETHENE, TRICHLORO- (OR) TRICHLOROETHYLENE

Date form received by agency: 02/25/2004
Site name: ROGERS CORP
Classification: Large Quantity Generator

. Waste code: D001

Waste name: IGNITABLE WASTE

. Waste code: D002

. Waste name: CORROSIVE WASTE

. Waste code: D003

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ation Site Database(s) EPA ID Number

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. Waste name: REACTIVE WASTE

. Waste code: D009
. Waste name: MERCURY

. Waste code: F001

. Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS USED IN DEGREASING:

TETRACHLOROETHYLENE, TRICHLORETHYLENE, METHYLENE CHLORIDE, 1,1,1-TRICHLOROETHANE, CARBON TETRACHLORIDE AND CHLORINATED

FLUOROCARBONS; ALL SPENT SOLVENT MIXTURES/BLENDS USED IN DEGREASING CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED

IN F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE

SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Waste code: F003

Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL

ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL

ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT

MIXTURES.

Waste code: P098

. Waste name: POTASSIUM CYANIDE (OR) POTASSIUM CYANIDE K(CN)

Date form received by agency: 02/25/2000
Site name: ROGERS CORP
Classification: Large Quantity Generator

Date form received by agency: 02/27/1998
Site name: ROGERS CORP
Classification: Large Quantity Generator

Date form received by agency: 02/29/1996
Site name: ROGERS CORP.
Classification: Large Quantity Generator

Date form received by agency: 03/01/1994
Site name: ROGERS CORP
Classification: Large Quantity Generator

Date form received by agency: 02/28/1992
Site name: ROGERS CORP
Classification: Large Quantity Generator

Date form received by agency: 02/20/1990
Site name: ROGERS CORP
Classification: Large Quantity Generator

Date form received by agency: 11/18/1980
Site name: ROGERS CORP
Classification: Not a generator, verified

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ROGERS CORP (Continued) 1000217500

. Waste code: D000 . Waste name: Not Defined

. Waste code: D001

. Waste name: IGNITABLE WASTE

Waste code: D002

Waste name: CORROSIVE WASTE

. Waste code: D003

. Waste name: REACTIVE WASTE

. Waste code: D004 . Waste name: ARSENIC

. Waste code: D005 . Waste name: BARIUM

Waste code: D006
Waste name: CADMIUM

Waste code: D007

Waste name: CHROMIUM

Waste code: D008
Waste name: LEAD

Waste code: F001

. Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS USED IN DEGREASING:

TETRACHLOROETHYLENE, TRICHLORETHYLENE, METHYLENE CHLORIDE, 1,1,1-TRICHLOROETHANE, CARBON TETRACHLORIDE AND CHLORINATED

FLUOROCARBONS; ALL SPENT SOLVENT MIXTURES/BLENDS USED IN DEGREASING CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED

IN F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F002

Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE,

METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE,

CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE,

ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2,

TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND

SPENT SOLVENT MIXTURES.

. Waste code: F003

. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL

ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL

ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL

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**ROGERS CORP (Continued)** 

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BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F004

. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: CRESOLS, CRESYLIC ACID,

AND NITROBENZENE; AND THE STILL BOTTOMS FROM THE RECOVERY OF THESE SOLVENTS; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND

SPENT SOLVENT MIXTURES.

Waste code: F005

. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL

KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE,

2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF

THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Waste code: F006

. Waste name: WASTEWATER TREATMENT SLUDGES FROM ELECTROPLATING OPERATIONS, EXCEPT

FROM THE FOLLOWING PROCESSES: (1) SULFURIC ACID ANODIZING OF ALUMINUM; (2) TIN PLATING ON CARBON STEEL; (3) ZINC PLATING (SEGREGATED BASIS) ON CARBON STEEL; (4) ALUMINUM OR ZINC-ALUMINUM PLATING ON CARBON STEEL; (5) CLEANING/STRIPPING ASSOCIATED WITH TIN, ZINC, AND ALUMINUM PLATING ON CARBON STEEL; AND (6) CHEMICAL ETCHING AND MILLING OF

ALUMINUM.

. Waste code: F007

. Waste name: SPENT CYANIDE PLATING BATH SOLUTIONS FROM ELECTROPLATING OPERATIONS.

Waste code: F009

Waste name: SPENT STRIPPING AND CLEANING BATH SOLUTIONS FROM ELECTROPLATING

OPERATIONS IN WHICH CYANIDES ARE USED IN THE PROCESS.

. Waste code: P005

. Waste name: 2-PROPEN-1-OL (OR) ALLYL ALCOHOL

. Waste code: P012

. Waste name: ARSENIC OXIDE AS2O3 (OR) ARSENIC TRIOXIDE

Waste code: P014

. Waste name: BENZENETHIOL (OR) THIOPHENOL

Waste code: P030

Waste name: CYANIDES (SOLUBLE CYANIDE SALTS), NOT OTHERWISE SPECIFIED

Waste code: P054

. Waste name: AZIRIDINE (OR) ETHYLENEIMINE

Waste code: P065

. Waste name: FULMINIC ACID, MERCURY(2+) SALT (R,T) (OR) MERCURY FULMINATE (R,T)

Waste code: P105

. Waste name: SODIUM AZIDE

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. Waste code: P106

. Waste name: SODIUM CYANIDE (OR) SODIUM CYANIDE NA(CN)

. Waste code: U002

. Waste name: 2-PROPANONE (I) (OR) ACETONE (I)

Waste code: U007

Waste name: 2-PROPENAMIDE (OR) ACRYLAMIDE

Waste code: U008

. Waste name: 2-PROPENOIC ACID (I) (OR) ACRYLIC ACID (I)

Waste code: U009

. Waste name: 2-PROPENENITRILE (OR) ACRYLONITRILE

. Waste code: U012

. Waste name: ANILINE (I,T) (OR) BENZENAMINE (I,T)

Waste code: U019

. Waste name: BENZENE (I,T)

. Waste code: U030

. Waste name: 4-BROMOPHENYL PHENYL ETHER (OR) BENZENE, 1-BROMO-4-PHENOXY-

. Waste code: U031

. Waste name: 1-BUTANOL (I) (OR) N-BUTYL ALCOHOL (I)

Waste code: U037

. Waste name: BENZENE, CHLORO- (OR) CHLOROBENZENE

. Waste code: U044

. Waste name: CHLOROFORM (OR) METHANE, TRICHLORO-

. Waste code: U052

. Waste name: CRESOL (CRESYLIC ACID) (OR) PHENOL, METHYL-

. Waste code: U056

. Waste name: BENZENE, HEXAHYDRO- (I) (OR) CYCLOHEXANE (I)

. Waste code: U057

Waste name: CYCLOHEXANONE (I)

. Waste code: U069

Waste name: 1,2-BENZENEDICARBOXYLIC ACID, DIBUTYL ESTER (OR) DIBUTYL PHTHALATE

Waste code: U080

. Waste name: METHANE, DICHLORO- (OR) METHYLENE CHLORIDE

. Waste code: U088

. Waste name: 1,2-BENZENEDICARBOXYLIC ACID, DIETHYL ESTER (OR) DIETHYL PHTHALATE

. Waste code: U102

. Waste name: 1,2-BENZENEDICARBOXYLIC ACID, DIMETHYL ESTER (OR) DIMETHYL PHTHALATE

Waste code: U107

. Waste name: 1,2-BENZENEDICARBOXYLIC ACID, DIOCTYL ESTER (OR) DI-N-OCTYL PHTHALATE

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e EDR ID Number on Site Database(s) EPA ID Number

ROGERS CORP (Continued) 1000217500

. Waste code: U112

. Waste name: ACETIC ACID, ETHYL ESTER (I) (OR) ETHYL ACETATE (I)

. Waste code: U113

. Waste name: 2-PROPENOIC ACID, ETHYL ESTER (I) (OR) ETHYL ACRYLATE (I)

Waste code: U117

. Waste name: ETHANE, 1,1'-OXYBIS-(I) (OR) ETHYL ETHER (I)

. Waste code: U122

Waste name: FORMALDEHYDE

Waste code: U123

. Waste name: FORMIC ACID (C,T)

Waste code: U124

. Waste name: FURAN (I) (OR) FURFURAN (I)

. Waste code: U125

. Waste name: 2-FURANCARBOXALDEHYDE (I) (OR) FURFURAL (I)

. Waste code: U134

Waste name: HYDROFLUORIC ACID (C,T) (OR) HYDROGEN FLUORIDE (C,T)

Waste code: U140

. Waste name: 1-PROPANOL, 2-METHYL- (I,T) (OR) ISOBUTYL ALCOHOL (I,T)

Waste code: U144

. Waste name: ACETIC ACID, LEAD(2+) SALT (OR) LEAD ACETATE

. Waste code: U151 . Waste name: MERCURY

Waste code: U154

. Waste name: METHANOL (I) (OR) METHYL ALCOHOL (I)

Waste code: U156

. Waste name: CARBONOCHLORIDIC ACID, METHYL ESTER, (I,T) (OR) METHYL CHLOROCARBONATE

(I,T)

. Waste code: U159

. Waste name: 2-BUTANONE (I,T) (OR) METHYL ETHYL KETONE (MEK) (I,T)

Waste code: U160

Waste name: 2-BUTANONE, PEROXIDE (R,T) (OR) METHYL ETHYL KETONE PEROXIDE (R,T)

Waste code: U161

Waste name: 4-METHYL-2-PENTANONE (I) (OR) METHYL ISOBUTYL KETONE (I) (OR)

PENTANOL, 4-METHYL-

Waste code: U162

. Waste name: 2-PROPENOIC ACID, 2-METHYL-, METHYL ESTER (I,T) (OR) METHYL

METHACRYLATE (I,T)

. Waste code: U169

. Waste name: BENZENE, NITRO- (OR) NITROBENZENE (I,T)

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. Waste code: U188 . Waste name: PHENOL

. Waste code: U190

. Waste name: 1,3-ISOBENZOFURANDIONE (OR) PHTHALIC ANHYDRIDE

. Waste code: U196 . Waste name: PYRIDINE

Waste code: U197

. Waste name: 2,5-CYCLOHEXADIENE-1,4-DIONE (OR) P-BENZOQUINONE

. Waste code: U201

. Waste name: 1,3-BENZENEDIOL (OR) RESORCINOL

. Waste code: U204

Waste name: SELENIOUS ACID (OR) SELENIUM DIOXIDE

Waste code: U205

. Waste name: SELENIUM SULFIDE (OR) SELENIUM SULFIDE SES2 (R,T)

Waste code: U210

. Waste name: ETHENE, TETRACHLORO- (OR) TETRACHLOROETHYLENE

. Waste code: U213

. Waste name: FURAN, TETRAHYDRO-(I) (OR) TETRAHYDROFURAN (I)

. Waste code: U219 . Waste name: THIOUREA

Waste code: U220

. Waste name: BENZENE, METHYL- (OR) TOLUENE

. Waste code: U221

. Waste name: BENZENEDIAMINE, AR-METHYL- (OR) TOLUENEDIAMINE

Waste code: U222

Waste name: BENZENAMINE, 2-METHYL-, HYDROCHLORIDE (OR) O-TOLUIDINE HYDROCHLORIDE

Waste code: U223

. Waste name: BENZENE, 1,3-DIISOCYANATOMETHYL- (R,T) (OR) TOLUENE DIISOCYANATE (R,T)

. Waste code: U225

. Waste name: BROMOFORM (OR) METHANE, TRIBROMO-

Waste code: U226

. Waste name: ETHANE, 1,1,1-TRICHLORO- (OR) METHYL CHLOROFORM

. Waste code: U228

Waste name: ETHENE, TRICHLORO- (OR) TRICHLOROETHYLENE

. Waste code: U235

Waste name: 1-PROPANOL, 2,3-DIBROMO-, PHOSPHATE (3:1) (OR)

TRIS(2,3,-DIBROMOPROPYL) PHOSPHATE

. Waste code: U238

. Waste name: CARBAMIC ACID, ETHYL ESTER (OR) ETHYL CARBAMATE (URETHANE)

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. Waste code: U239

. Waste name: BENZENE, DIMETHYL- (I,T) (OR) XYLENE (I)

Date form received by agency: 08/18/1980
Site name: ROGERS CORP
Classification: Large Quantity Generator

Waste code: D000
Waste name: Not Defined

. Waste code: D001

. Waste name: IGNITABLE WASTE

Waste code: D002

Waste name: CORROSIVE WASTE

Waste code: D003

. Waste name: REACTIVE WASTE

Waste code: D004
Waste name: ARSENIC

Waste code: D005
Waste name: BARIUM

. Waste code: D006
. Waste name: CADMIUM

. Waste code: D007 . Waste name: CHROMIUM

. Waste code: D008 . Waste name: LEAD

. Waste code: F001

Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS USED IN DEGREASING:

TETRACHLOROETHYLENE, TRICHLORETHYLENE, METHYLENE CHLORIDE, 1,1,1-TRICHLOROETHANE, CARBON TETRACHLORIDE AND CHLORINATED

FLUOROCARBONS; ALL SPENT SOLVENT MIXTURES/BLENDS USED IN DEGREASING CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE

SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F002

Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE,

METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE,

CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2,

TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND

SPENT SOLVENT MIXTURES.

. Waste code: F003

. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL

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# **ROGERS CORP (Continued)**

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ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F004

. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: CRESOLS, CRESYLIC ACID,

AND NITROBENZENE; AND THE STILL BOTTOMS FROM THE RECOVERY OF THESE SOLVENTS; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND

SPENT SOLVENT MIXTURES.

Waste code: F005

Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL

KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE,

2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF

THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Waste code: F006

. Waste name: WASTEWATER TREATMENT SLUDGES FROM ELECTROPLATING OPERATIONS, EXCEPT FROM THE FOLLOWING PROCESSES: (1) SULFURIC ACID ANODIZING OF ALUMINUM;

(2) TIN PLATING ON CARBON STEEL; (3) ZINC PLATING (SEGREGATED BASIS) ON CARBON STEEL; (4) ALUMINUM OR ZINC-ALUMINUM PLATING ON CARBON STEEL; (5) CLEANING/STRIPPING ASSOCIATED WITH TIN, ZINC, AND ALUMINUM PLATING ON CARBON STEEL; AND (6) CHEMICAL ETCHING AND MILLING OF

ALUMINUM.

. Waste code: F007

. Waste name: SPENT CYANIDE PLATING BATH SOLUTIONS FROM ELECTROPLATING OPERATIONS.

Waste code: F009

Waste name: SPENT STRIPPING AND CLEANING BATH SOLUTIONS FROM ELECTROPLATING

OPERATIONS IN WHICH CYANIDES ARE USED IN THE PROCESS.

Waste code: P005

. Waste name: 2-PROPEN-1-OL (OR) ALLYL ALCOHOL

Waste code: P012

Waste name: ARSENIC OXIDE AS203 (OR) ARSENIC TRIOXIDE

Waste code: P014

Waste name: BENZENETHIOL (OR) THIOPHENOL

. Waste code: P019 . Waste name: Not Defined

. Waste code: P030

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EPA ID Number

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. Waste name: CYANIDES (SOLUBLE CYANIDE SALTS), NOT OTHERWISE SPECIFIED

. Waste code: P053
. Waste name: Not Defined

. Waste code: P054

. Waste name: AZIRIDINE (OR) ETHYLENEIMINE

. Waste code: P065

Waste name: FULMINIC ACID, MERCURY(2+) SALT (R,T) (OR) MERCURY FULMINATE (R,T)

. Waste code: P080 . Waste name: Not Defined

. Waste code: P090 . Waste name: Not Defined

. Waste code: P100
. Waste name: Not Defined

. Waste code: P105

Waste name: SODIUM AZIDE

. Waste code: P106

Waste name: SODIUM CYANIDE (OR) SODIUM CYANIDE NA(CN)

. Waste code: U002

. Waste name: 2-PROPANONE (I) (OR) ACETONE (I)

. Waste code: U007

. Waste name: 2-PROPENAMIDE (OR) ACRYLAMIDE

. Waste code: U008

. Waste name: 2-PROPENOIC ACID (I) (OR) ACRYLIC ACID (I)

Waste code: U009

. Waste name: 2-PROPENENITRILE (OR) ACRYLONITRILE

Waste code: U012

. Waste name: ANILINE (I,T) (OR) BENZENAMINE (I,T)

Waste code: U013 Waste name: Not Defined

Waste code: U019

Waste name: BENZENE (I,T)

Waste code: U030

. Waste name: 4-BROMOPHENYL PHENYL ETHER (OR) BENZENE, 1-BROMO-4-PHENOXY-

Waste code: U031

. Waste name: 1-BUTANOL (I) (OR) N-BUTYL ALCOHOL (I)

. Waste code: U037

. Waste name: BENZENE, CHLORO- (OR) CHLOROBENZENE

. Waste code: U044

Direction Distance Elevation

Site Database(s) EPA ID Number

ROGERS CORP (Continued) 1000217500

. Waste name: CHLOROFORM (OR) METHANE, TRICHLORO-

. Waste code: U052

. Waste name: CRESOL (CRESYLIC ACID) (OR) PHENOL, METHYL-

Waste code: U054
Waste name: Not Defined

Waste code: U056

Waste name: BENZENE, HEXAHYDRO- (I) (OR) CYCLOHEXANE (I)

Waste code: U057

Waste name: CYCLOHEXANONE (I)

Waste code: U069

. Waste name: 1,2-BENZENEDICARBOXYLIC ACID, DIBUTYL ESTER (OR) DIBUTYL PHTHALATE

Waste code: U080

. Waste name: METHANE, DICHLORO- (OR) METHYLENE CHLORIDE

Waste code: U088

. Waste name: 1,2-BENZENEDICARBOXYLIC ACID, DIETHYL ESTER (OR) DIETHYL PHTHALATE

Waste code: U102

. Waste name: 1,2-BENZENEDICARBOXYLIC ACID, DIMETHYL ESTER (OR) DIMETHYL PHTHALATE

. Waste code: U107

. Waste name: 1,2-BENZENEDICARBOXYLIC ACID, DIOCTYL ESTER (OR) DI-N-OCTYL PHTHALATE

Waste code: U112

. Waste name: ACETIC ACID, ETHYL ESTER (I) (OR) ETHYL ACETATE (I)

. Waste code: U113

Waste name: 2-PROPENOIC ACID, ETHYL ESTER (I) (OR) ETHYL ACRYLATE (I)

. Waste code: U117

. Waste name: ETHANE, 1,1'-OXYBIS-(I) (OR) ETHYL ETHER (I)

. Waste code: U122

Waste name: FORMALDEHYDE

. Waste code: U123

. Waste name: FORMIC ACID (C,T)

. Waste code: U124

. Waste name: FURAN (I) (OR) FURFURAN (I)

Waste code: U125

. Waste name: 2-FURANCARBOXALDEHYDE (I) (OR) FURFURAL (I)

Waste code: U134

Waste name: HYDROFLUORIC ACID (C,T) (OR) HYDROGEN FLUORIDE (C,T)

. Waste code: U140

. Waste name: 1-PROPANOL, 2-METHYL- (I,T) (OR) ISOBUTYL ALCOHOL (I,T)

. Waste code: U144

**EDR ID Number** 

Direction Distance Elevation

Site Database(s) EPA ID Number

ROGERS CORP (Continued) 1000217500

. Waste name: ACETIC ACID, LEAD(2+) SALT (OR) LEAD ACETATE

. Waste code: U151 . Waste name: MERCURY

Waste code: U154

. Waste name: METHANOL (I) (OR) METHYL ALCOHOL (I)

. Waste code: U156

. Waste name: CARBONOCHLORIDIC ACID, METHYL ESTER, (I,T) (OR) METHYL CHLOROCARBONATE

(I,T)

Waste code: U159

. Waste name: 2-BUTANONE (I,T) (OR) METHYL ETHYL KETONE (MEK) (I,T)

. Waste code: U160

. Waste name: 2-BUTANONE, PEROXIDE (R,T) (OR) METHYL ETHYL KETONE PEROXIDE (R,T)

Waste code: U161

Waste name: 4-METHYL-2-PENTANONE (I) (OR) METHYL ISOBUTYL KETONE (I) (OR)

PENTANOL, 4-METHYL-

Waste code: U162

Waste name: 2-PROPENOIC ACID, 2-METHYL-, METHYL ESTER (I,T) (OR) METHYL

METHACRYLATE (I,T)

Waste code: U169

. Waste name: BENZENE, NITRO- (OR) NITROBENZENE (I,T)

. Waste code: U188 . Waste name: PHENOL

Waste code: U190

. Waste name: 1,3-ISOBENZOFURANDIONE (OR) PHTHALIC ANHYDRIDE

. Waste code: U196 . Waste name: PYRIDINE

Waste code: U197

Waste name: 2,5-CYCLOHEXADIENE-1,4-DIONE (OR) P-BENZOQUINONE

Waste code: U201

. Waste name: 1,3-BENZENEDIOL (OR) RESORCINOL

. Waste code: U204

. Waste name: SELENIOUS ACID (OR) SELENIUM DIOXIDE

Waste code: U205

. Waste name: SELENIUM SULFIDE (OR) SELENIUM SULFIDE SES2 (R,T)

Waste code: U210

Waste name: ETHENE, TETRACHLORO- (OR) TETRACHLOROETHYLENE

. Waste code: U213

. Waste name: FURAN, TETRAHYDRO-(I) (OR) TETRAHYDROFURAN (I)

. Waste code: U219

**EDR ID Number** 

Distance Elevation

Site Database(s) EPA ID Number

ROGERS CORP (Continued)

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**EDR ID Number** 

. Waste name: THIOUREA

. Waste code: U220

. Waste name: BENZENE, METHYL- (OR) TOLUENE

. Waste code: U221

. Waste name: BENZENEDIAMINE, AR-METHYL- (OR) TOLUENEDIAMINE

Waste code: U222

. Waste name: BENZENAMINE, 2-METHYL-, HYDROCHLORIDE (OR) O-TOLUIDINE HYDROCHLORIDE

Waste code: U223

Waste name: BENZENE, 1,3-DIISOCYANATOMETHYL- (R,T) (OR) TOLUENE DIISOCYANATE (R,T)

Waste code: U225

. Waste name: BROMOFORM (OR) METHANE, TRIBROMO-

Waste code: U226

Waste name: ETHANE, 1,1,1-TRICHLORO- (OR) METHYL CHLOROFORM

Waste code: U228

. Waste name: ETHENE, TRICHLORO- (OR) TRICHLOROETHYLENE

. Waste code: U229 . Waste name: Not Defined

Waste code: U235

Waste name: 1-PROPANOL, 2,3-DIBROMO-, PHOSPHATE (3:1) (OR)

TRIS(2,3,-DIBROMOPROPYL) PHOSPHATE

. Waste code: U238

. Waste name: CARBAMIC ACID, ETHYL ESTER (OR) ETHYL CARBAMATE (URETHANE)

Waste code: U239

. Waste name: BENZENE, DIMETHYL- (I,T) (OR) XYLENE (I)

Biennial Reports:

Last Biennial Reporting Year: 2013

Annual Waste Handled:

Waste code: D001

Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF

LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT

WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

Amount (Lbs): 22713

Waste code: D002

Waste name: A WASTE WHICH HAS A PH OF LESS THAN 2 OR GREATER THAN 12.5 IS

CONSIDERED TO BE A CORROSIVE HAZARDOUS WASTE. SODIUM HYDROXIDE, A CAUSTIC SOLUTION WITH A HIGH PH, IS OFTEN USED BY INDUSTRIES TO CLEAN OR DEGREASE PARTS. HYDROCHLORIC ACID, A SOLUTION WITH A LOW PH, IS USED BY MANY INDUSTRIES TO CLEAN METAL PARTS PRIOR TO PAINTING. WHEN THESE CAUSTIC OR ACID SOLUTIONS BECOME CONTAMINATED AND MUST BE

Direction Distance

**EDR ID Number** Elevation Site Database(s) **EPA ID Number** 

**ROGERS CORP (Continued)** 

DISPOSED, THE WASTE WOULD BE A CORROSIVE HAZARDOUS WASTE.

Amount (Lbs): 2961

D003 Waste code:

Waste name: A MATERIAL IS CONSIDERED TO BE A REACTIVE HAZARDOUS WASTE IF IT IS

> NORMALLY UNSTABLE, REACTS VIOLENTLY WITH WATER, GENERATES TOXIC GASES WHEN EXPOSED TO WATER OR CORROSIVE MATERIALS, OR IF IT IS CAPABLE OF DETONATION OR EXPLOSION WHEN EXPOSED TO HEAT OR A FLAME. ONE EXAMPLE

OF SUCH WASTE WOULD BY WASTE GUNPOWDER.

Amount (Lbs): 579

Waste code: D005 Waste name: **BARIUM** Amount (Lbs): 485

Waste code: D008 LEAD Waste name: Amount (Lbs): 785

Waste code: D009 **MERCURY** Waste name:

Amount (Lbs): 781

Waste code: D011 Waste name: **SILVER** Amount (Lbs): 120

Waste code: D018 Waste name: **BENZENE** Amount (Lbs): 985

Waste code: D035

Waste name: METHYL ETHYL KETONE

Amount (Lbs): 4250

Waste code: D039

**TETRACHLOROETHYLENE** Waste name:

Amount (Lbs): 500

Waste code: D040

Waste name: TRICHLOROETHYLENE

Amount (Lbs): 500

Waste code: F003

THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL Waste name:

ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL

ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NON-HALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS, AND, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT

MIXTURES.

Amount (Lbs): 20025

Waste code: F005 1000217500

Direction Distance

**EDR ID Number** Elevation **EPA ID Number** Site Database(s)

**ROGERS CORP (Continued)** 

1000217500

Waste name: THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL

KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE,

2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF

THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Amount (Lbs): 4250

Waste code: LABP Waste name: LAB PACK Amount (Lbs): 485

Waste code: U080

Waste name: METHANE, DICHLORO-

Amount (Lbs): 485

Waste code: U159

Waste name: 2-BUTANONE (I,T)

Amount (Lbs): 1723

Waste code: U220

BENZENE. METHYL-Waste name:

Amount (Lbs): 1685

Waste code: U239

Waste name: BENZENE, DIMETHYL- (I,T)

Amount (Lbs): 1685

Corrective Action Summary:

Event date: 04/11/1994

Event: RFA Completed, Assessment was an RFA.

Event date: 05/03/1994

Event: CA Prioritization, Facility or area was assigned a high corrective

action priority.

Event date: 08/05/1997

Current Human Exposures under Control, More information is needed to Event:

make a determination.

Event date: 08/05/1997

Igration of Contaminated Groundwater under Control, More information Event:

is needed to make a determination.

Event date: 05/15/1998 Event: **RFI** Imposition

Event date:

Current Human Exposures under Control, Yes, Current Human Exposures Event:

Under Control has been verified. Based on a review of information contained in the EI determination, current human exposures are expected to be under control at the facility under current and reasonably expected conditions. This determination will be re-evaluated when the Agency/State becomes aware of significant

changes at the facility.

Direction Distance

**EDR ID Number** Elevation **EPA ID Number** Site Database(s)

**ROGERS CORP (Continued)** 

1000217500

Event date: 04/21/2004

Event: Igration of Contaminated Groundwater under Control, Yes, Migration of

Contaminated Groundwater Under Control has been verified. Based on a review of information contained in the EI determination, it has been determined that migration of contaminated groundwater is under control at the facility. Specifically, this determination indicates that the migration of contaminated groundwater is under control, and that monitoring will be conducted to confirm that contaminated groundwater remains within the existing area of contaminated groundwater. This determination will be re-evaluated when the Agency becomes aware of

significant changes at the facility.

Facility Has Received Notices of Violations:

Regulation violated: Not reported

State Statute or Regulation Area of violation:

Date violation determined: 01/23/2008 Date achieved compliance: 02/28/2008 Violation lead agency: State

Enforcement action: WRITTEN INFORMAL

Enforcement action date: 01/30/2008

Action Satisfied (Case Closed) Enf. disposition status:

Enf. disp. status date: 02/28/2008 Enforcement lead agency: State Proposed penalty amount: Not reported Final penalty amount: Not reported Paid penalty amount: Not reported

Regulation violated: Not reported

Area of violation: TSD IS-Financial Requirements

Date violation determined: 12/20/2006 Date achieved compliance: 12/06/2007 Violation lead agency: State

Enforcement action: WRITTEN INFORMAL

Enforcement action date: 03/16/2007

Enf. disposition status: Action Satisfied (Case Closed)

Enf. disp. status date: 12/06/2007 Enforcement lead agency: State

Proposed penalty amount: Not reported Final penalty amount: Not reported Paid penalty amount: Not reported

Regulation violated: Not reported

Area of violation: TSD IS-Financial Requirements

Date violation determined: 09/05/2006 12/06/2007 Date achieved compliance: Violation lead agency: State

Enforcement action: WRITTEN INFORMAL

Enforcement action date: 03/16/2007

Enf. disposition status: Action Satisfied (Case Closed)

Enf. disp. status date: 12/06/2007 Enforcement lead agency: State Proposed penalty amount: Not reported Final penalty amount: Not reported Paid penalty amount: Not reported

Regulation violated: SR - 22a-449(c0-102(a) Area of violation: Generators - Pre-transport

Distance Elevation

vation Site Database(s) EPA ID Number

**ROGERS CORP (Continued)** 

1000217500

**EDR ID Number** 

Date violation determined: 02/19/1997
Date achieved compliance: 01/19/1999
Violation lead agency: State

Enforcement action: WRITTEN INFORMAL

Enforcement action date: 12/07/1998
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: SR - 22a-449(c)-102(a)(2)(E)
Area of violation: Generators - Pre-transport

Date violation determined: 02/19/1997
Date achieved compliance: 01/19/1999
Violation lead agency: State

Enforcement action: WRITTEN INFORMAL

Enforcement action date: 12/07/1998
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State

Proposed penalty amount: Not reported Final penalty amount: Not reported Paid penalty amount: Not reported

Regulation violated: SR - 22a-449(c)-102(a)
Area of violation: Generators - Pre-transport

Date violation determined: 02/19/1997
Date achieved compliance: 01/19/1999
Violation lead agency: State

Enforcement action: WRITTEN INFORMAL

Enforcement action date: 12/07/1998
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Paid penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: SR - 22a-449(c)-102(a)
Area of violation: Generators - General

Date violation determined: 02/19/1997
Date achieved compliance: 01/19/1999
Violation lead agency: State

Violation lead agency. State

Enforcement action: WRITTEN INFORMAL

Enforcement action date: 12/07/1998
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported

Proposed penalty amount: Not reported Not reported Paid penalty amount: Not reported Not reported Not reported

Regulation violated: SR - 105(a)(1)(D)

Area of violation: TSD IS-General Facility Standards

Date violation determined: 08/11/1993

Direction Distance

**EDR ID Number** Elevation Site **EPA ID Number** Database(s)

# **ROGERS CORP (Continued)**

1000217500

Date achieved compliance: 02/26/1997 Violation lead agency: State Enforcement action: Not reported Enforcement action date: Not reported Enf. disposition status: Not reported Enf. disp. status date: Not reported Enforcement lead agency: Not reported Proposed penalty amount: Not reported Final penalty amount: Not reported Paid penalty amount: Not reported

SR - 105(a) 102(a) Regulation violated:

Area of violation: TSD - Contingency Plan and Emergency Procedures

Date violation determined: 08/11/1993 Date achieved compliance: 01/19/1999 Violation lead agency: State

WRITTEN INFORMAL Enforcement action:

Enforcement action date: 12/07/1998 Enf. disposition status: Not reported Enf. disp. status date: Not reported Enforcement lead agency: State

Proposed penalty amount: Not reported Final penalty amount: Not reported Paid penalty amount: Not reported

Regulation violated: SR - 22a-449(c)-105(a) Area of violation: Generators - Pre-transport

Date violation determined: 08/11/1993 Date achieved compliance: 02/19/1997 Violation lead agency: State

WRITTEN INFORMAL Enforcement action:

Enforcement action date: 12/07/1998 Enf. disposition status: Not reported Enf. disp. status date: Not reported Enforcement lead agency: State Proposed penalty amount: Not reported Final penalty amount: Not reported Paid penalty amount: Not reported

Regulation violated: SR - 22(a)-449(c) - 102(a) Generators - General Area of violation: 08/11/1993 Date violation determined:

02/19/1997

Violation lead agency: State Enforcement action: Not reported Enforcement action date: Not reported Enf. disposition status: Not reported Enf. disp. status date: Not reported Enforcement lead agency: Not reported Not reported Proposed penalty amount: Final penalty amount: Not reported Paid penalty amount: Not reported

Date achieved compliance:

Regulation violated: SR - 22a-449(c)-102(a) Area of violation: Generators - General

08/11/1993 Date violation determined: Date achieved compliance: 02/19/1997

Distance

Elevation Site Database(s) EPA ID Number

# **ROGERS CORP (Continued)**

1000217500

**EDR ID Number** 

Violation lead agency: State

Enforcement action: WRITTEN INFORMAL

Enforcement action date: 12/07/1998
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported TSD - General Area of violation: Date violation determined: 05/23/1990 Date achieved compliance: 09/25/1991 Violation lead agency: State Enforcement action: Not reported Enforcement action date: Not reported Enf. disposition status: Not reported Enf. disp. status date: Not reported Enforcement lead agency: Not reported Not reported Proposed penalty amount: Final penalty amount: Not reported Paid penalty amount: Not reported

Regulation violated: Not reported

Area of violation: TSD - Closure/Post-Closure

Date violation determined: 05/23/1990
Date achieved compliance: 01/08/1999
Violation lead agency: State

Enforcement action: WRITTEN INFORMAL

Enforcement action date: 12/07/1998
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported

Area of violation: TSD - Financial Requirements

Date violation determined: 05/23/1990 Date achieved compliance: 09/25/1991 Violation lead agency: State Enforcement action: Not reported Enforcement action date: Not reported Enf. disposition status: Not reported Enf. disp. status date: Not reported Enforcement lead agency: Not reported Proposed penalty amount: Not reported Final penalty amount: Not reported Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD - General
Date violation determined: 11/09/1988
Date achieved compliance: 09/25/1991
Violation lead agency: State

Direction Distance Elevation

**EDR ID Number** Site Database(s) **EPA ID Number** 

# **ROGERS CORP (Continued)**

1000217500

Enforcement action: Not reported Not reported Enforcement action date: Enf. disposition status: Not reported Enf. disp. status date: Not reported Enforcement lead agency: Not reported Proposed penalty amount: Not reported Final penalty amount: Not reported Paid penalty amount: Not reported

Regulation violated: Not reported TSD - General Area of violation: Date violation determined: 08/12/1987 Date achieved compliance: 09/25/1991 Violation lead agency: State Enforcement action: Not reported Enforcement action date: Not reported Not reported Enf. disposition status: Enf. disp. status date: Not reported Enforcement lead agency: Not reported Proposed penalty amount: Not reported Final penalty amount: Not reported Paid penalty amount: Not reported

Regulation violated: Not reported

Area of violation: Formal Enforcement Agreement or Order

Date violation determined: 08/12/1987 Date achieved compliance: 09/25/1991 Violation lead agency: State Enforcement action: Not reported Enforcement action date: Not reported Enf. disposition status: Not reported Enf. disp. status date: Not reported Enforcement lead agency: Not reported Proposed penalty amount: Not reported Final penalty amount: Not reported Paid penalty amount: Not reported

Regulation violated: Not reported Area of violation: TSD - General Date violation determined: 05/05/1986 03/31/1989 Date achieved compliance:

Violation lead agency: State

Enforcement action: WRITTEN INFORMAL

08/07/1986 Enforcement action date: Enf. disposition status: Not reported Enf. disp. status date: Not reported Enforcement lead agency: State

Proposed penalty amount: Not reported Final penalty amount: Not reported Paid penalty amount: Not reported

Regulation violated: Not reported

Area of violation: TSD - Financial Requirements

Date violation determined: 11/08/1985 Date achieved compliance: 02/19/1986 Violation lead agency: State

Enforcement action: WRITTEN INFORMAL

Direction Distance

Elevation Site Database(s) EPA ID Number

ROGERS CORP (Continued)

1000217500

**EDR ID Number** 

Enforcement action date: 02/11/1986
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported Area of violation: TSD - General Date violation determined: 04/24/1985
Date achieved compliance: 03/31/1989
Violation lead agency: State

Enforcement action: WRITTEN INFORMAL

Enforcement action date: 06/12/1985
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

**Evaluation Action Summary:** 

Evaluation date: 01/29/2014

Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE

Area of violation:

Date achieved compliance:

Evaluation lead agency:

Not reported

State

Evaluation date: 03/30/2012

Evaluation: FINANCIAL RECORD REVIEW

Area of violation:
Date achieved compliance:
Evaluation lead agency:
Not reported
State

Evaluation date: 01/23/2008

Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE

Area of violation: State Statute or Regulation

Date achieved compliance: 02/28/2008 Evaluation lead agency: State

Evaluation date: 12/20/2006

Evaluation: FINANCIAL RECORD REVIEW Area of violation: TSD IS-Financial Requirements

Date achieved compliance: 12/06/2007 Evaluation lead agency: State

Evaluation date: 09/05/2006

Evaluation: FOCUSED COMPLIANCE INSPECTION

Area of violation: TSD IS-Financial Requirements

Date achieved compliance: 12/06/2007 Evaluation lead agency: State

Evaluation date: 09/22/1999

Evaluation: COMPLIANCE SCHEDULE EVALUATION

Area of violation: TSD - Contingency Plan and Emergency Procedures

Date achieved compliance: 01/19/1999

Direction Distance

Elevation Site Database(s) EPA ID Number

ROGERS CORP (Continued)

1000217500

**EDR ID Number** 

Evaluation lead agency: State

Evaluation date: 09/22/1999

Evaluation: COMPLIANCE SCHEDULE EVALUATION

Area of violation: TSD - Closure/Post-Closure

Date achieved compliance: 01/08/1999 Evaluation lead agency: State

Evaluation date: 09/22/1999

Evaluation: COMPLIANCE SCHEDULE EVALUATION

Area of violation: Generators - General

Date achieved compliance: 01/19/1999 Evaluation lead agency: State

Evaluation date: 09/22/1999

Evaluation: COMPLIANCE SCHEDULE EVALUATION

Area of violation: Generators - Pre-transport

Date achieved compliance: 01/19/1999 Evaluation lead agency: State

Evaluation date: 02/19/1997

Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE

Area of violation: TSD - Closure/Post-Closure

Date achieved compliance: 01/08/1999 Evaluation lead agency: State

Evaluation date: 02/19/1997

Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE

Area of violation: Generators - General

Date achieved compliance: 01/19/1999 Evaluation lead agency: State

Evaluation date: 02/19/1997

Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE Area of violation: TSD - Contingency Plan and Emergency Procedures

Date achieved compliance: 01/19/1999 Evaluation lead agency: State

Evaluation date: 02/19/1997

Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE

Area of violation: Generators - Pre-transport

Date achieved compliance: 01/19/1999 Evaluation lead agency: State

Evaluation date: 08/11/1993

Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE Area of violation: TSD - Contingency Plan and Emergency Procedures

Date achieved compliance: 01/19/1999 Evaluation lead agency: State

Evaluation date: 08/11/1993

Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE

Area of violation: TSD IS-General Facility Standards

Date achieved compliance: 02/26/1997 Evaluation lead agency: State

Evaluation date: 08/11/1993

Direction Distance

Elevation Site Database(s) EPA ID Number

ROGERS CORP (Continued) 1000217500

Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE

Area of violation: Generators - General

Date achieved compliance: 02/19/1997 Evaluation lead agency: State

Evaluation date: 08/11/1993

Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE

Area of violation: Generators - Pre-transport

Date achieved compliance: 02/19/1997 Evaluation lead agency: State

Evaluation date: 08/11/1993

Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE

Area of violation: TSD - Closure/Post-Closure

Date achieved compliance: 01/08/1999 Evaluation lead agency: State

Evaluation date: 09/25/1991

Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE

Area of violation:
Date achieved compliance:
Evaluation lead agency:
Not reported
State

Evaluation date: 05/23/1990

Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE

Area of violation: TSD - Closure/Post-Closure

Date achieved compliance: 01/08/1999 Evaluation lead agency: State

Evaluation date: 05/23/1990

Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE

Area of violation: TSD - General Date achieved compliance: 09/25/1991 Evaluation lead agency: State

Evaluation date: 05/23/1990

Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE

Area of violation: TSD - Financial Requirements

Date achieved compliance: 09/25/1991 Evaluation lead agency: State

Evaluation date: 11/09/1988

Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE

Area of violation: TSD - General Date achieved compliance: 09/25/1991 Evaluation lead agency: State

Evaluation date: 08/12/1987

Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE

Area of violation: TSD - General Date achieved compliance: 09/25/1991 Evaluation lead agency: State

Evaluation date: 08/12/1987

Evaluation: GROUNDWATER MONITORING EVALUATION

Area of violation: TSD - General Date achieved compliance: 09/25/1991

**EDR ID Number** 

Direction Distance

Elevation Site Database(s) EPA ID Number

ROGERS CORP (Continued) 1000217500

Evaluation lead agency: State

Evaluation date: 08/12/1987

Evaluation: COMPLIANCE SCHEDULE EVALUATION Area of violation: Formal Enforcement Agreement or Order

Date achieved compliance: 09/25/1991 Evaluation lead agency: State

Evaluation date: 05/05/1986

Evaluation: COMPLIANCE SCHEDULE EVALUATION

Area of violation:

Date achieved compliance:

Evaluation lead agency:

Not reported

Not reported

State

Evaluation date: 05/05/1986

Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE

Area of violation: TSD - General Date achieved compliance: 03/31/1989 Evaluation lead agency: State

Evaluation date: 11/08/1985

Evaluation: FINANCIAL RECORD REVIEW Area of violation: TSD - Financial Requirements

Date achieved compliance: 02/19/1986 Evaluation lead agency: State

Evaluation date: 04/24/1985

Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE

Area of violation: TSD - General Date achieved compliance: 03/31/1989 Evaluation lead agency: State

US FIN ASSUR:

EPA ID: CTD001141167

Provider: ROGERS CORPORATION

EPA region:

County: WINDHAM
Mechanism type: FINANCIAL TEST
Mechanism ID: FINANCIAL TEST

Cost estimate: 126560 Face value: 123957 Effective date: 3/23/2012

2020 COR ACTION:

EPA ID: CTD001141167

Region: 1

Action: Not reported

ENFORCEMENT:

Enforcement Action ID: NOVWSWDH07028

Enforcement Type Code: NOV
Program Id: HWENF
Enforcement Action Date: 03/16/2007
Penalty Amount: Not reported
Sep Amt: Not reported

Bureau Name: BUREAU OF WASTE MANAGEMENT

Program: Not reported

**EDR ID Number** 

MAP FINDINGS Map ID

Direction Distance

**EDR ID Number** Elevation Site Database(s) **EPA ID Number** 

**ROGERS CORP (Continued)** 

1000217500

Status: Not reported Not reported Date of Discovery: Resolution Date: Not reported Resolution Type: Not reported Staff: Not reported **ENF Action Comment:** Not reported Number Violations: Not reported Civil Penalty: Not reported SEP Description: Not reported Associated Els: Not reported Client Affiliation Type: Not reported Affiliation Name: Not reported Affiliation Address Line1: Not reported Affiliation Address Line2: Not reported Affiliation City/State/Zip: Not reported Not reported Contact Title: Contact Name: Not reported Contact EMail: Not reported

CT Financial Assurance 1:

Region:

I.D. NUMBER: CTD001141167 Owner Name: Rogers Corporation

128712 Closure Costs: Post Closure Costs: 0 Correction Action Costs: 0

Corporate Guarantee: Not reported Financial Test: Yes

Certificate of Insurance: Not reported Not reported Letter of Credit: Trust Fund: Not reported Surety Bond: Not reported Other: Not reported

RI MANIFEST:

EPA Id: CTD001141167 Manifest Document Number: CTF0920702 **GEN Cert Date:** 2/1/2001 RID040098352 TSDF Id:

TSDF Name: NORTHLAND ENVIRONMENTAL INC.

TSDF Date: Not reported Transporter 2 Id: Not reported Not reported Transporter 2 Name: Transporter Receipt Date: Not reported

Number Of Containers:

Container Type: Not reported CR04 Waste Code1: Waste Code2: Not reported Waste Code3: Not reported Not reported Fee Exempt Code: Comment: Not reported

Details:

EPA ID: CTD001141167 Manifest Docket Number: CTF0920702 Waste Description: **RAIN WATER** 

Quantity: 170

Direction Distance Elevation

evation Site Database(s) EPA ID Number

# **ROGERS CORP (Continued)**

1000217500

**EDR ID Number** 

WT/Vol Units: G
Item Number: 14120

Transporter Name: FLEET ENVIRONMENTAL SERVICES

Transporter EPA ID: MA5000004531
GEN Cert Date: 2/1/2001
Transporter Receipt Date: Not reported
Transporter 2 Receipt Date: Not reported
TSDF Receipt Date: Not reported
Transporter 2 ID: Not reported

NY MANIFEST:

EPA ID: CTD001141167

Country: USA

Location Address 1: MAIN STREET
Location Address 2: Not reported
Location City: ROGERS
Location State: CT
Location Zip Code: 06263
Location Zip Code 4: Not reported

Mailing Info:

Name: ROGERS CORPORATION
Contact: LEE ROBERT F MGR ENVIR EN

Address: MAIN STREET
City/State/Zip: ROGERS, CT 06263

Country: USA

Phone: 203-774-1312

# Manifest:

Document ID: Not reported Manifest Status: Not reported MAD985286988 Trans1 State ID: Trans2 State ID: NYD982792814 Generator Ship Date: 11/05/2009 Trans1 Recv Date: 11/05/2009 Trans2 Recv Date: 11/17/2009 TSD Site Recv Date: 11/18/2009 Part A Recv Date: Not reported Part B Recv Date: Not reported Generator EPA ID: CTD001141167 Trans1 EPA ID: Not reported Trans2 EPA ID: Not reported NYD049836679 TSDF ID: Waste Code: Not reported Quantity: 4950.0

Units: K - Kilograms (2.2 pounds)

Number of Containers: 1.0

Container Type: TP - Tanks, portable

Handling Method: B Incineration, heat recovery, burning.

Specific Gravity: 1.0 Year: 2009

Manifest Tracking Num: 002877453FLE

Import Ind: N Export Ind: N Discr Quantity Ind: N

MAP FINDINGS Map ID

Direction Distance

**EDR ID Number** Elevation Site Database(s) **EPA ID Number** 

# **ROGERS CORP (Continued)**

1000217500

Discr Type Ind: Ν Ν Discr Residue Ind: Discr Partial Reject Ind: Ν Discr Full Reject Ind: Ν

Manifest Ref Num: Not reported Alt Fac RCRA Id: Not reported Not reported Alt Fac Sign Date: Mgmt Method Type Code: H141

Document ID: Not reported Not reported Manifest Status: MAD985286988 Trans1 State ID: Trans2 State ID: NYD982792814 Generator Ship Date: 11/05/2009 Trans1 Recv Date: 11/05/2009 Trans2 Recy Date: 11/17/2009 TSD Site Recv Date: 11/18/2009 Part A Recv Date: Not reported Part B Recv Date: Not reported Generator EPA ID: CTD001141167 Trans1 EPA ID: Not reported Trans2 EPA ID: Not reported TSDF ID: NYD049836679 Waste Code: Not reported Quantity: 4950.0

Units: K - Kilograms (2.2 pounds)

Number of Containers: 1.0

Container Type: TP - Tanks, portable

Handling Method: B Incineration, heat recovery, burning.

Specific Gravity: 1.0 Year: 2009

Manifest Tracking Num: 002877453FLE

Import Ind: Ν Export Ind: Ν Discr Quantity Ind: Ν Discr Type Ind: Ν Discr Residue Ind: Ν Discr Partial Reject Ind: Ν Discr Full Reject Ind: Ν

Manifest Ref Num: Not reported Alt Fac RCRA Id: Not reported Alt Fac Sign Date: Not reported Mgmt Method Type Code: H141

Document ID: Not reported Manifest Status: Not reported Trans1 State ID: NYD046765574 Trans2 State ID: Not reported 05/02/2007 Generator Ship Date: Trans1 Recv Date: 05/02/2007 Trans2 Recv Date: Not reported TSD Site Recv Date: 05/03/2007 Part A Recv Date: Not reported Part B Recv Date: Not reported Generator EPA ID: CTD001141167

Direction Distance Elevation

vation Site Database(s) EPA ID Number

# **ROGERS CORP (Continued)**

1000217500

**EDR ID Number** 

Trans1 EPA ID: Not reported
Trans2 EPA ID: Not reported
TSDF ID: NYD049836679
Waste Code: Not reported
Quantity: 18180
Units: P - Pounds

Number of Containers: 1

Container Type: CM - Metal boxes, cases, roll-offs

Handling Method: T Chemical, physical, or biological treatment.

Specific Gravity: 1 Year: 2007

Manifest Tracking Num: 002546320JJK

Import Ind: N
Export Ind: N
Discr Quantity Ind: Y
Discr Type Ind: N
Discr Residue Ind: N
Discr Partial Reject Ind: N
Discr Full Reject Ind: N

Manifest Ref Num:
Alt Fac RCRA Id:
Not reported
Not reported
Not reported
Not reported
Mgmt Method Type Code:
H132

Document ID: Not reported Manifest Status: Not reported Trans1 State ID: MAC300008059 Trans2 State ID: Not reported Generator Ship Date: 08/15/2007 Trans1 Recv Date: 08/15/2007 Trans2 Recv Date: Not reported TSD Site Recv Date: 08/16/2007 Part A Recv Date: Not reported Not reported Part B Recv Date: CTD001141167 Generator EPA ID: Not reported Trans1 EPA ID: Trans2 EPA ID: Not reported NYD049836679 TSDF ID: Waste Code: Not reported Quantity: 3180

Number of Containers: 1

Units:

Container Type: CM - Metal boxes, cases, roll-offs

P - Pounds

Handling Method: L Landfill.
Specific Gravity: 1
Year: 2007

Manifest Tracking Num: 000164944JJK

Import Ind: N
Export Ind: N
Discr Quantity Ind: Y
Discr Type Ind: N
Discr Residue Ind: N
Discr Partial Reject Ind: N
Discr Full Reject Ind: N

Manifest Ref Num: Not reported Alt Fac RCRA Id: Not reported

MAP FINDINGS Map ID

Direction Distance

**EDR ID Number** Elevation Site Database(s) **EPA ID Number** 

# **ROGERS CORP (Continued)**

1000217500

Alt Fac Sign Date: Not reported Mgmt Method Type Code: H132

Document ID: Not reported Manifest Status: Not reported Trans1 State ID: NYD046765574 Trans2 State ID: Not reported Generator Ship Date: 05/04/2007 Trans1 Recv Date: 05/04/2007 Trans2 Recv Date: Not reported 05/07/2007 TSD Site Recv Date: Part A Recv Date: Not reported Part B Recv Date: Not reported CTD001141167 Generator EPA ID: Trans1 EPA ID: Not reported Trans2 EPA ID: Not reported NYD049836679 TSDF ID: Waste Code: Not reported Quantity: 23180 Units: P - Pounds

Number of Containers: 1

Container Type: CM - Metal boxes, cases, roll-offs

Handling Method: T Chemical, physical, or biological treatment.

Specific Gravity:

Year: 2007

Manifest Tracking Num: 002546316JJK

Import Ind: **Export Ind:** Ν Discr Quantity Ind: Υ Discr Type Ind: Ν Discr Residue Ind: Ν Discr Partial Reject Ind: Ν Discr Full Reject Ind: Ν

Manifest Ref Num: Not reported Alt Fac RCRA Id: Not reported Alt Fac Sign Date: Not reported Mgmt Method Type Code: H132

Document ID: NYG0649152 Manifest Status: Not reported Trans1 State ID: 246928TN Trans2 State ID: Not reported Generator Ship Date: 11/03/1998 11/03/1998 Trans1 Recv Date: Trans2 Recv Date: Not reported TSD Site Recv Date: 11/04/1998 Part A Recv Date: Not reported Part B Recv Date: Not reported CTD001141167 Generator EPA ID: Trans1 EPA ID: MAD084814136 Trans2 EPA ID: Not reported TSDF ID: NYD049836679

Waste Code: B003 - PETROLEUM OIL WITH 500 PPM OR > PCB

00200 Quantity:

Units: K - Kilograms (2.2 pounds)

MAP FINDINGS Map ID

Direction Distance

**EDR ID Number** Elevation Site Database(s) **EPA ID Number** 

# **ROGERS CORP (Continued)**

1000217500

Number of Containers: 002

Container Type: DM - Metal drums, barrels

Handling Method: B Incineration, heat recovery, burning.

Specific Gravity: 01.00 Year: 1998

Document ID: NYO2909079 Manifest Status: Completed copy

Trans1 State ID: CT019 Trans2 State ID: Not reported 03/24/1983 Generator Ship Date: 03/24/1983 Trans1 Recv Date:

Trans2 Recv Date:

TSD Site Recv Date: 03/31/1983 Part A Recv Date: 04/07/2003 Part B Recv Date: 04/07/2003 Generator EPA ID: CTD001141167 Trans1 EPA ID: CTD000636498 Trans2 EPA ID: Not reported TSDF ID: NYD080336241

Waste Code: B005 - PCB ARTICLES WITH 500 PPM OR > PCB

00518 Quantity: Units: P - Pounds Number of Containers: 001

Container Type: DM - Metal drums, barrels

Handling Method: L Landfill. Specific Gravity: 100 Year: 1983

Document ID: NYB7449282 Completed copy Manifest Status: Trans1 State ID: 4905BXOK Trans2 State ID: 4903BXOK Generator Ship Date: 05/01/1996 Trans1 Recv Date: 05/01/1996 Trans2 Recv Date: 05/13/1996 TSD Site Recv Date: 05/13/1996 Part A Recv Date: 05/09/1996 Part B Recv Date: 05/22/1996 Generator EPA ID: CTD001141167 Trans1 EPA ID: ARD981908551 Trans2 EPA ID: ARD981908551 TSDF ID: NYD000632372

D003 - NON-LISTED REACTIVE WASTES Waste Code:

Quantity: 00010 Units: P - Pounds Number of Containers: 001

Container Type: DF - Fiberboard or plastic drums (glass) Handling Method: T Chemical, physical, or biological treatment.

Specific Gravity: 1996 Year:

Document ID: NYB7660152

Manifest Status: Completed after the designated time period for a TSDF to get a copy to the DEC

Direction Distance Elevation

stance EDR ID Number evation Site Database(s) EPA ID Number

#### **ROGERS CORP (Continued)**

1000217500

 Trans1 State ID:
 TN78923

 Trans2 State ID:
 Not reported

 Generator Ship Date:
 06/26/1996

 Trans1 Recv Date:
 06/26/1996

Trans2 Recv Date: / /

TSD Site Recv Date: 07/15/1996
Part A Recv Date: 08/23/1996
Part B Recv Date: 07/29/1996
Generator EPA ID: CTD001141167
Trans1 EPA ID: CT5000000570
Trans2 EPA ID: Not reported
TSDF ID: NY0000343889

Waste Code: D009 - MERCURY 0.2 MG/L TCLP

Quantity: 00150
Units: P - Pounds
Number of Containers: 002

Container Type: DF - Fiberboard or plastic drums (glass)

Handling Method: R Material recovery of more than 75 percent of the total material.

Specific Gravity: 100

Waste Code: D009 - MERCURY 0.2 MG/L TCLP

Quantity: 00040 Units: P - Pounds

Number of Containers: 001

Container Type: CF - Fiber or plastic boxes, cartons

Handling Method: R Material recovery of more than 75 percent of the total material.

Specific Gravity: 100 Year: 1996

Document ID: NYB4164246

Manifest Status: Completed copy
Trans1 State ID: PD9796NY
Trans2 State ID: Not reported
Generator Ship Date: 06/17/1994
Trans1 Recv Date: 06/17/1994
Trans2 Recv Date: / /

TSD Site Recv Date: 06/21/1994
Part A Recv Date: 07/11/1994
Part B Recv Date: 06/30/1994
Generator EPA ID: CTD001141167
Trans1 EPA ID: NYD980769947
Trans2 EPA ID: Not reported
TSDF ID: NYD000632372

Waste Code: D003 - NON-LISTED REACTIVE WASTES

Quantity: 00015 Units: P - Pounds

Number of Containers: 001

Container Type: DM - Metal drums, barrels

Handling Method: T Chemical, physical, or biological treatment.

Specific Gravity: 100 Year: 1994

Document ID: NYA6089247

Manifest Status: Completed copy

Trans1 State ID: S62738NY

Trans2 State ID: Not reported

Direction Distance

Elevation Site Database(s) EPA ID Number

**ROGERS CORP (Continued)** 

1000217500

**EDR ID Number** 

 Generator Ship Date:
 02/27/1987

 Trans1 Recv Date:
 02/27/1987

Trans2 Recv Date: / /

TSD Site Recv Date: 03/03/1987
Part A Recv Date: 03/17/1987
Part B Recv Date: 03/06/1987
Generator EPA ID: CTD001141167
Trans1 EPA ID: NYD097644801
Trans2 EPA ID: Not reported
TSDF ID: NYD000632372

Waste Code: D004 - ARSENIC 5.0 MG/L TCLP

Quantity: 00025 Units: P - Pounds Number of Containers: 001

Container Type: DM - Metal drums, barrels

Handling Method: T Chemical, physical, or biological treatment.

Specific Gravity: 100 Year: 1987

Document ID: NYA5462964

Manifest Status: Completed after the designated time period for a TSDF to get a copy to the DEC

Trans1 State ID: S62738NY
Trans2 State ID: Not reported
Generator Ship Date: 09/15/1987
Trans1 Recv Date: 09/15/1987

Trans2 Recv Date: / /

TSD Site Recv Date: 09/22/1987
Part A Recv Date: 10/22/1987
Part B Recv Date: 09/24/1987
Generator EPA ID: CTD001141167
Trans1 EPA ID: NYD097644801
Trans2 EPA ID: Not reported
TSDF ID: NYD000632372

Waste Code: D002 - NON-LISTED CORROSIVE WASTES

Quantity: 00025 Units: P - Pounds Number of Containers: 001

Container Type: DM - Metal drums, barrels

Handling Method: T Chemical, physical, or biological treatment.

Specific Gravity: 100

Waste Code: D002 - NON-LISTED CORROSIVE WASTES

Quantity: 00025 Units: P - Pounds Number of Containers: 001

Container Type: DM - Metal drums, barrels

Handling Method: T Chemical, physical, or biological treatment.

Specific Gravity: 100

Waste Code: D002 - NON-LISTED CORROSIVE WASTES

Quantity: 00025 Units: P - Pounds Number of Containers: 001

Container Type: DM - Metal drums, barrels

Handling Method: T Chemical, physical, or biological treatment.

Specific Gravity: 100

Waste Code: D001 - NON-LISTED IGNITABLE WASTES

Quantity: 00025

Direction Distance Elevation

n Site Database(s) EPA ID Number

# **ROGERS CORP (Continued)**

1000217500

**EDR ID Number** 

Units: P - Pounds

Number of Containers: 001

Container Type: DM - Metal drums, barrels

Handling Method: B Incineration, heat recovery, burning.

Specific Gravity: 100 Year: 1987

Document ID: NYO2372841
Manifest Status: Completed copy

Trans1 State ID: MA005
Trans2 State ID: Not reported
Generator Ship Date: 05/09/1984
Trans1 Recv Date: 05/09/1984

Trans2 Recv Date: / /

TSD Site Recv Date: 05/10/1984

Part A Recv Date: 05/14/1984

Part B Recv Date: 05/21/1984

Generator EPA ID: CTD001141167

Trans1 EPA ID: MAD062179890

Trans2 EPA ID: Not reported

TSDF ID: NYD080469935

Waste Code: D001 - NON-LISTED IGNITABLE WASTES

Quantity: 00150

Units: G - Gallons (liquids only)\* (8.3 pounds)

Number of Containers: 001

Container Type: TT - Cargo tank, tank trucks

Handling Method: B Incineration, heat recovery, burning.

Not reported

Specific Gravity: 100 Year: 1984

Document ID:

Manifest Status: Not reported MAD985286988 Trans1 State ID: Trans2 State ID: NYD982792814 Generator Ship Date: 06/07/2010 Trans1 Recv Date: 06/07/2010 Trans2 Recv Date: 06/21/2010 TSD Site Recv Date: 06/22/2010 Part A Recv Date: Not reported Part B Recv Date: Not reported Generator EPA ID: CTD001141167 Trans1 EPA ID: Not reported Trans2 EPA ID: Not reported TSDF ID: NYD049836679 Waste Code: Not reported Quantity: 1129.0

Units: K - Kilograms (2.2 pounds)

Number of Containers: 1.0

Container Type: TP - Tanks, portable

Handling Method: L Landfill.
Specific Gravity: 1.0
Year: 2010

Manifest Tracking Num: 003185924FLE

Import Ind: N Export Ind: N

Direction Distance Elevation

Site Database(s) EPA ID Number

# **ROGERS CORP (Continued)**

1000217500

**EDR ID Number** 

Discr Quantity Ind: N
Discr Type Ind: N
Discr Residue Ind: N
Discr Partial Reject Ind: N
Discr Full Reject Ind: N

Manifest Ref Num:
Alt Fac RCRA Id:
Not reported
Not reported
Not reported
Not reported
Not reported
Mgmt Method Type Code:
H141

#### NJ MANIFEST:

EPA Id: CTD001141167 Mail Address: Not reported Mail City/State/Zip: Not reported Facility Phone: Not reported **Emergency Phone:** Not reported Contact: Not reported Comments: Not reported SIC Code: Not reported

County: 00 Municipal: 00

Previous EPA Id: Not reported

Gen Flag: X

Trans Flag: Not reported

TSDF Flag: X

Name Change: Not reported Date Change: Not reported

# Manifest:

Transporter-1 Date:

Manifest Number: 000141295VES EPA ID: CTD001141167 Date Shipped: 09/25/2007 TSDF EPA ID: NJD980536593 Transporter EPA ID: NJD080631369 Transporter 2 EPA ID: NJD054126164 Transporter 3 EPA ID: Not reported Transporter 4 EPA ID: Not reported Transporter 5 EPA ID: Not reported Transporter 6 EPA ID: Not reported Transporter 7 EPA ID: Not reported Transporter 8 EPA ID: Not reported Transporter 10 EPA ID: Not reported Date Trans1 Transported Waste: 09/25/2007 Date Trans2 Transported Waste: 09/28/2007 Date Trans3 Transported Waste: Not reported Date Trans4 Transported Waste: Not reported Date Trans5 Transported Waste: Not reported Date Trans6 Transported Waste: Not reported Date Trans7 Transported Waste: Not reported Date Trans8 Transported Waste: Not reported Date Trans9 Transported Waste: Not reported Date Trans10 Transported Waste: Not reported Date TSDF Received Waste: 09/28/2007 TSDF EPA Facility Name: Not reported QTY Units: Not reported Transporter SEQ ID: Not reported

Not reported

Direction Distance Elevation

Site Database(s) EPA ID Number

# **ROGERS CORP (Continued)**

1000217500

**EDR ID Number** 

Waste SEQ ID: Not reported Not reported Waste Type Code 2: Not reported Waste Type Code 3: Waste Type Code 4: Not reported Waste Type Code 5: Not reported Waste Type Code 6: Not reported Date Accepted: Not reported Manifest Discrepancy Type: Not reported Data Entry Number: Not reported Was Load Rejected: No

Reason Load Was Rejected: Not reported

Waste:

Manifest Year:
Waste Code:
D003
Hand Code:
H14
Quantity:
1 P

Manifest Number: NJA5123435 EPA ID: CTD001141167 Date Shipped: 05/11/2004 TSDF EPA ID: NJD980536593 Transporter EPA ID: NJD080631369 Transporter 2 EPA ID: NJD054126164 Transporter 3 EPA ID: Not reported Transporter 4 EPA ID: Not reported Transporter 5 EPA ID: Not reported Transporter 6 EPA ID: Not reported Transporter 7 EPA ID: Not reported Transporter 8 EPA ID: Not reported Transporter 10 EPA ID: Not reported Date Trans1 Transported Waste: 05/12/2004 Date Trans2 Transported Waste: 05/17/2004 Date Trans3 Transported Waste: Not reported Date Trans4 Transported Waste: Not reported Date Trans5 Transported Waste: Not reported Date Trans6 Transported Waste: Not reported Date Trans7 Transported Waste: Not reported Date Trans8 Transported Waste: Not reported Date Trans9 Transported Waste: Not reported Date Trans10 Transported Waste: Not reported Date TSDF Received Waste: 05/18/2004 TSDF EPA Facility Name: Not reported QTY Units: Not reported Transporter SEQ ID: Not reported Transporter-1 Date: Not reported Waste SEQ ID: Not reported Waste Type Code 2: Not reported Not reported Waste Type Code 3: Not reported Waste Type Code 4: Not reported Waste Type Code 5: Waste Type Code 6: Not reported Not reported Date Accepted: Manifest Discrepancy Type: Not reported Data Entry Number: 06070422 Was Load Rejected:

Reason Load Was Rejected: Not reported

Direction Distance

Distance Elevation Site EDR ID Number

EDR ID Number

EPA ID Number

4 CT DOT SEARLES ROAD DISPOSAL FACILITY #33/POMFRET DOT GARAGE CERCLIS 1000230561
SW POMFRET ROAD CT SHWS CTD982199150

1/4-1/2 POMFRET, CT 06258 0.471 mi.

CT SDADB CT CPCS

2489 ft.

286 ft.

Relative: CERCLIS:

Lower Site ID: 0101604

EPA ID: CTD982199150
Actual: Facility County: WINDHAM

Short Name: CT DOT SEARLES ROAD DISPO

Congressional District: 02

IFMS ID: Not reported SMSA Number: Not reported USGC Hydro Unit: 01100001

Federal Facility: Not a Federal Facility

DMNSN Number: 0.00000 Site Orphan Flag: N

RCRA ID: Not reported
USGS Quadrangle: Not reported
Site Init By Prog: Not reported
NFRAP Flag: Not reported
Parent ID: Not reported
RST Code: Not reported
EPA Region: 01
Classification: Not reported

Classification: Not reported
Site Settings Code: Not reported
NPL Status: Not on the NPL
DMNSN Unit Code: Not reported
RBRAC Code: Not reported
RResp Fed Agency Code: Not reported

Non NPL Status: Other Cleanup Activity: State-Lead Cleanup

Non NPL Status Date: 12/27/02 Site Fips Code: 09015 CC Concurrence Date: //

CC Concurrence FY: Not reported Alias EPA ID: Not reported Site FUDS Flag: Not reported

CERCLIS Site Contact Name(s):

Contact ID: 13004278.00000
Contact Name: Margaret Morris
Contact Tel: Not reported

Contact Title: Site Assessment Manager (SAM)

Contact Email: Not reported

CERCLIS Site Alias Name(s):

Alias ID: 101

Alias Name: POMFRET DOT GARAGE
Alias Address: POMFRET LANDING ROAD
BROOKLYN, CT 06234

Alias Comments: Not reported

Site Description: Based upon state letter of 05-17-02

**CERCLIS Assessment History:** 

Action Code: 001

Action: DISCOVERY

Date Started: / /

MAP FINDINGS Map ID

Direction Distance

Elevation Site Database(s) **EPA ID Number** 

#### CT DOT SEARLES ROAD DISPOSAL FACILITY #33/POMFRET DOT GARAGE (Continued)

1000230561

**EDR ID Number** 

Date Completed: 09/11/87 Not reported Priority Level: Operable Unit: SITEWIDE

Primary Responsibility: State, Fund Financed

Planning Status: Not reported Urgency Indicator: Not reported Action Anomaly: Not reported

Action Code: 001

PRELIMINARY ASSESSMENT Action:

Date Started: Date Completed: 01/29/88

Priority Level: Low priority for further assessment

SITEWIDE Operable Unit:

State, Fund Financed Primary Responsibility:

Planning Status: Not reported Urgency Indicator: Not reported Action Anomaly: Not reported

Action Code: 001

SITE INSPECTION Action:

Date Started:

07/07/93 Date Completed:

Priority Level: Low priority for further assessment

Operable Unit: SITEWIDE Primary Responsibility: **EPA Fund-Financed** Planning Status: Not reported Not reported

Urgency Indicator: Action Anomaly: Not reported

Action Code: 001

SITE REASSESSMENT Action:

Date Started: Date Completed: 08/02/01

Low priority for further assessment Priority Level:

Operable Unit: **SITEWIDE** EPA Fund-Financed Primary Responsibility: Planning Status: Not reported Urgency Indicator: Not reported Action Anomaly: Not reported

SHWS:

State ID: 348

PTP Id Number: Not reported Not reported WPC Number: CTD982199150 EPA ID: PO Office: Not reported

Lat/Long:

Location Method: Not reported

Groundwater Class: GΑ Surface Water Qualification:

CHLR VOC, SOLVENTS Waste Category:

LANDFILL Disposal Method:

MAP FINDINGS Map ID

Direction Distance

**EDR ID Number** Elevation Site Database(s) **EPA ID Number** 

#### CT DOT SEARLES ROAD DISPOSAL FACILITY #33/POMFRET DOT GARAGE (Continued)

1000230561

Sample: False Other Dept of Env. Protection: DOT

Updated By: BOBOWICZ, H. A.

Update Program: **FPRE** Date Updated: 4/28/1993 Duplicate: False Program: **SUPERFUND** 7/6/1987 Inventory Date: On Inventory: True Assessed: True 87 Group: ΕN

**INVENTORY** 87 Origin:

On 87: True

UNDER STUDY BY DOT. (7/87) CERCLIS AND INVENTORY SHOW SITE ON SEARLES Comments:

ROAD IN POMFRET. CERCLIS TO BE CORRECTED (6/93)

Site Discovery and Assessment:

Facility ID: 348 Rem Master ID: 443

PTP Id: Not reported WPC Number: Not reported Not reported Postal District: Latitude: Not reported Not reported Longitude: Lat/Long Determined By: Not reported

Ground Water Quality Classification: GA Surface Water Quality Classification:

Waste Type: CHLR VOC, SOLVENTS

LANDFILL Disposal: Sample Data Available: False

Updated By: BOBOWICZ, H. A.

Update Program: **FPRE** Updated: 4/28/1993 Date Created: Not reported Duplicate: False

SDA Federal:

EPA CERCLIS Id: Not reported Number EPA RCRIS Id: Not reported True Site on EPA's CERCLIS: Site Archived from CERCLIS: False Archive Date: Not reported EPA's Removal at Site: False Deferred to another EPA Program: False EPA Env Priority Initiative Site: False Federal Facility: False Site on EPA's National Priority List: False Part of an NPL site: False RCRA Generator Status: Not reported RCRA Permit Status: Not reported

SDA Referral:

Referral Id: 341

Source of referral: **SUPERFUND** Date Received: 7/6/1987 DEP Staff Assigned:

**SUPERFUND** Remediation Program: Date dt\_assigned: 7/6/1987

Direction Distance Elevation

ce EDR ID Number ion Site Database(s) EPA ID Number

#### CT DOT SEARLES ROAD DISPOSAL FACILITY #33/POMFRET DOT GARAGE (Continued)

1000230561

Remediation Complete Approved DEP/Verified by LEP: 7/6/1987
Outcome: INVENTORY

SDA Remedial:

Remedial Id: Not reported PTP Id: Not reported Remediation Program: Not reported Remediation Program Entered: Not reported Staff Assigned: Not reported Remediation Program: Not reported Date dt\_assign: Not reported Project Phase: Not reported Order issued: Not reported Order Number: Not reported Date order issued: Not reported Remedial Investigation Start: Not reported Remedial Investigation Completed: Not reported Remedial Design Start: Not reported Remedial Design complet: Not reported Remedial Action Start: Not reported Remedial Action Completed: Not reported Date Oper/ maintenance Started: Not reported GW monitoring: Not reported Remediation complete Approved DEP/Verified by LEP: Not reported

SDA Orders:

Order Id: Not reported Order Number: Not reported Date order issued: Not reported Staff Assigned: Not reported Not reported Type of Order: Order Respondent: Not reported Admin Appeal Date: Not reported Date of Admin Appeal Ruling: Not reported Date of Admin Appeal Ruling: Not reported Date of Final Order: Not reported Date of Court Appeal: Not reported Date of Court Ruling: Not reported Date of Court Ruling: Not reported Date Order Modified: Not reported Date Referred to AG: Not reported Judgement: Not reported Date of AGR judgement: Not reported Penalty assessed: Not reported Order Complete: Not reported In compliance: Not reported Comments: Not reported

SDADB:

SDA Waste:

Waste Id: 5

Waste Type: CHLR VOC

Description: Chlorinated Volatile Organic Compounds

CPCS:

Site Type: Sites
Lust Status code: Not reported

Map ID MAP FINDINGS Direction

Distance

**EDR ID Number** Elevation Site Database(s) **EPA ID Number** 

### CT DOT SEARLES ROAD DISPOSAL FACILITY #33/POMFRET DOT GARAGE (Continued)

Lust Status: Not reported PTP Form: Not reported

Program: -1

Under Study By Dot. (7/87) Cerclis And Inventory Show Site On Searles Road In Pomfret. Cerclis To Be Corrected (6/93) Comments:

Site Type Definition: Inventory of Hazardous Waste Disposal Sites 1000230561

Count: 6 records. ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
DAYVILLE	S105738637	BOUDREAU WELDING	MAIN ST.	06241	CT LUST, CT CPCS
KILLINGLY	S100996733	WILLIAM PRYM CO. INC.	ROUTE 101	06239	CT SHWS, CT SDADB, CT CPCS
KILLINGLY	S110775258	DAYVILLE SHELL 136299	1095 NORTH MAIN STREET (ROUTE	06239	CT LUST, CT CPCS
KILLINGLY	U002023313	ROGERS CORP	1 TECHNOLOGY DR.	06239	CT VCP, CT CPCS
KILLINGLY	S110280374	ROGERS CORP	1 TECHNOLOGY DR.	06239	CT LUST, CT SPILLS
POMFRET	S110280760	CT DOT POMFRET (HART # 33)	SEARLES ROAD		CT VCP

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

**Number of Days to Update:** Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

### STANDARD ENVIRONMENTAL RECORDS

#### Federal NPL site list

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 03/26/2015 Source: EPA
Date Data Arrived at EDR: 04/08/2015 Telephone: N/A

Number of Days to Update: 75 Next Scheduled EDR Contact: 10/19/2015
Data Release Frequency: Quarterly

**NPL Site Boundaries** 

Sources

EPA's Environmental Photographic Interpretation Center (EPIC)

Telephone: 202-564-7333

EPA Region 1 EPA Region 6

Telephone 617-918-1143 Telephone: 214-655-6659

EPA Region 3 EPA Region 7

Telephone 215-814-5418 Telephone: 913-551-7247

EPA Region 4 EPA Region 8

Telephone 404-562-8033 Telephone: 303-312-6774

EPA Region 5 EPA Region 9

Telephone 312-886-6686 Telephone: 415-947-4246

EPA Region 10

Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 03/26/2015 Source: EPA
Date Data Arrived at EDR: 04/08/2015 Telephone: N/A

Number of Days to Update: 75 Next Scheduled EDR Contact: 10/19/2015
Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Source: EPA

Date of Government Version: 10/15/1991 Date Data Arrived at EDR: 02/02/1994 Date Made Active in Reports: 03/30/1994

Number of Days to Update: 56

Telephone: 202-564-4267 Last EDR Contact: 08/15/2011

Next Scheduled EDR Contact: 11/28/2011 Data Release Frequency: No Update Planned

#### Federal Delisted NPL site list

Delisted NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 03/26/2015 Date Data Arrived at EDR: 04/08/2015 Date Made Active in Reports: 06/22/2015

Number of Days to Update: 75

Source: EPA Telephone: N/A

Last EDR Contact: 07/09/2015

Next Scheduled EDR Contact: 10/19/2015 Data Release Frequency: Quarterly

#### Federal CERCLIS list

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 03/26/2015 Date Data Arrived at EDR: 04/08/2015 Date Made Active in Reports: 06/11/2015

Number of Days to Update: 64

Source: Environmental Protection Agency

Telephone: 703-603-8704 Last EDR Contact: 07/10/2015

Next Scheduled EDR Contact: 10/19/2015 Data Release Frequency: Varies

CERCLIS: Comprehensive Environmental Response, Compensation, and Liability Information System

CERCLIS contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 10/25/2013 Date Data Arrived at EDR: 11/11/2013 Date Made Active in Reports: 02/13/2014

Number of Days to Update: 94

Telephone: 703-412-9810 Last EDR Contact: 05/29/2015

Source: EPA

Next Scheduled EDR Contact: 09/07/2015 Data Release Frequency: Quarterly

#### Federal CERCLIS NFRAP site List

CERCLIS-NFRAP: CERCLIS No Further Remedial Action Planned

Archived sites are sites that have been removed and archived from the inventory of CERCLIS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list this site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.

Date of Government Version: 10/25/2013 Date Data Arrived at EDR: 11/11/2013 Date Made Active in Reports: 02/13/2014

Number of Days to Update: 94

Source: EPA Telephone: 703-412-9810 Last EDR Contact: 05/29/2015

Next Scheduled EDR Contact: 09/07/2015 Data Release Frequency: Quarterly

#### Federal RCRA CORRACTS facilities list

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 06/09/2015 Date Data Arrived at EDR: 06/26/2015 Date Made Active in Reports: 09/16/2015

Number of Days to Update: 82

Source: EPA

Telephone: 800-424-9346 Last EDR Contact: 06/26/2015

Next Scheduled EDR Contact: 10/12/2015 Data Release Frequency: Quarterly

#### Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 06/09/2015 Date Data Arrived at EDR: 06/26/2015 Date Made Active in Reports: 09/16/2015

Number of Days to Update: 82

Source: Environmental Protection Agency

Telephone: (888) 372-7341 Last EDR Contact: 06/26/2015

Next Scheduled EDR Contact: 10/12/2015 Data Release Frequency: Quarterly

#### Federal RCRA generators list

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 06/09/2015 Date Data Arrived at EDR: 06/26/2015 Date Made Active in Reports: 09/16/2015

Number of Days to Update: 82

Source: Environmental Protection Agency

Telephone: (888) 372-7341 Last EDR Contact: 06/26/2015

Next Scheduled EDR Contact: 10/12/2015 Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 06/09/2015 Date Data Arrived at EDR: 06/26/2015 Date Made Active in Reports: 09/16/2015

Number of Days to Update: 82

Source: Environmental Protection Agency

Telephone: (888) 372-7341 Last EDR Contact: 06/26/2015

Next Scheduled EDR Contact: 10/12/2015 Data Release Frequency: Quarterly

RCRA-CESQG: RCRA - Conditionally Exempt Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 06/09/2015 Date Data Arrived at EDR: 06/26/2015 Date Made Active in Reports: 09/16/2015

Number of Days to Update: 82

Source: Environmental Protection Agency

Telephone: (888) 372-7341 Last EDR Contact: 06/26/2015

Next Scheduled EDR Contact: 10/12/2015 Data Release Frequency: Varies

#### Federal institutional controls / engineering controls registries

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 05/28/2015 Date Data Arrived at EDR: 05/29/2015 Date Made Active in Reports: 06/11/2015

Number of Days to Update: 13

Source: Department of the Navy Telephone: 843-820-7326 Last EDR Contact: 08/12/2015

Next Scheduled EDR Contact: 11/30/2015 Data Release Frequency: Varies

#### US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 06/09/2015 Date Data Arrived at EDR: 06/26/2015 Date Made Active in Reports: 09/02/2015

Number of Days to Update: 68

Source: Environmental Protection Agency

Telephone: 703-603-0695 Last EDR Contact: 08/31/2015

Next Scheduled EDR Contact: 12/14/2015 Data Release Frequency: Varies

#### US INST CONTROL: Sites with Institutional Controls

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 06/09/2015 Date Data Arrived at EDR: 06/26/2015 Date Made Active in Reports: 09/02/2015

Number of Days to Update: 68

Source: Environmental Protection Agency

Telephone: 703-603-0695 Last EDR Contact: 08/31/2015

Next Scheduled EDR Contact: 12/14/2015 Data Release Frequency: Varies

### Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 06/22/2015 Date Data Arrived at EDR: 06/26/2015 Date Made Active in Reports: 09/16/2015

Number of Days to Update: 82

Source: National Response Center, United States Coast Guard

Telephone: 202-267-2180 Last EDR Contact: 06/26/2015

Next Scheduled EDR Contact: 10/12/2015 Data Release Frequency: Annually

### State- and tribal - equivalent CERCLIS

SHWS: Inventory of Hazardous Disposal Sites

State Hazardous Waste Sites. State hazardous waste site records are the states' equivalent to CERCLIS. These sites may or may not already be listed on the federal CERCLIS list. Priority sites planned for cleanup using state funds (state equivalent of Superfund) are identified along with sites where cleanup will be paid for by potentially responsible parties. Available information varies by state.

Date of Government Version: 04/23/2010 Date Data Arrived at EDR: 04/23/2010 Date Made Active in Reports: 05/25/2010

Number of Days to Update: 32

Source: Department of Energy & Environmental Protection

Telephone: 860-424-3705 Last EDR Contact: 07/06/2015

Next Scheduled EDR Contact: 10/19/2015
Data Release Frequency: No Update Planned

SDADB: Site Discovery and Assessment Database

All sites reported to Permitting, Enforcement, and Remediation Division where it is suspected that hazardous waste may have been disposed or sites that are eligible for listing on the State Inventory of Hazardous Waste Disposal Sites.

Date of Government Version: 04/23/2010 Date Data Arrived at EDR: 04/23/2010 Date Made Active in Reports: 05/25/2010

Number of Days to Update: 32

Source: Department of Energy & Environmental Protection

Telephone: 860-424-3705 Last EDR Contact: 07/06/2015

Next Scheduled EDR Contact: 10/19/2015 Data Release Frequency: No Update Planned

#### State and tribal landfill and/or solid waste disposal site lists

SWF/LF: List of Landfills/Transfer Stations

Solid Waste Facilities/Landfill Sites. SWF/LF type records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. Depending on the state, these may be active or inactive facilities or open dumps that failed to meet RCRA Subtitle D Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 07/02/2015 Date Data Arrived at EDR: 07/28/2015 Date Made Active in Reports: 08/05/2015

Number of Days to Update: 8

Source: Department of Energy & Environmental Protection

Telephone: 860-424-3366 Last EDR Contact: 07/28/2015

Next Scheduled EDR Contact: 11/09/2015 Data Release Frequency: Annually

#### State and tribal leaking storage tank lists

LUST: Leaking Underground Storage Tank List

Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state.

Date of Government Version: 07/24/2015 Date Data Arrived at EDR: 07/29/2015 Date Made Active in Reports: 08/05/2015

Number of Days to Update: 7

Source: Department of Energy & Environmental Protection

Telephone: 860-424-3376 Last EDR Contact: 07/06/2015

Next Scheduled EDR Contact: 10/19/2015 Data Release Frequency: Semi-Annually

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 03/30/2015

Date Data Arrived at EDR: 04/28/2015 Date Made Active in Reports: 06/22/2015

Number of Days to Update: 55

Source: EPA Region 7 Telephone: 913-551-7003 Last EDR Contact: 07/22/2015

Next Scheduled EDR Contact: 11/09/2015 Data Release Frequency: Varies

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 04/30/2015 Date Data Arrived at EDR: 05/05/2015 Date Made Active in Reports: 06/22/2015

Number of Days to Update: 48

Source: EPA Region 8 Telephone: 303-312-6271 Last EDR Contact: 07/22/2015

Next Scheduled EDR Contact: 11/09/2015 Data Release Frequency: Quarterly

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 01/08/2015 Date Data Arrived at EDR: 01/08/2015 Date Made Active in Reports: 02/09/2015

Number of Days to Update: 32

Source: Environmental Protection Agency

Telephone: 415-972-3372 Last EDR Contact: 07/31/2015

Next Scheduled EDR Contact: 11/09/2015 Data Release Frequency: Quarterly

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land
A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 02/03/2015 Date Data Arrived at EDR: 04/30/2015 Date Made Active in Reports: 06/22/2015

Number of Days to Update: 53

Source: EPA Region 1 Telephone: 617-918-1313 Last EDR Contact: 07/31/2015

Next Scheduled EDR Contact: 11/09/2015 Data Release Frequency: Varies

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 07/21/2015 Date Data Arrived at EDR: 07/29/2015 Date Made Active in Reports: 10/13/2015

Number of Days to Update: 76

Source: EPA Region 10 Telephone: 206-553-2857 Last EDR Contact: 07/22/2015

Next Scheduled EDR Contact: 11/09/2015 Data Release Frequency: Quarterly

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land

Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

Date of Government Version: 07/28/2015 Date Data Arrived at EDR: 08/07/2015 Date Made Active in Reports: 10/13/2015

Number of Days to Update: 67

Source: EPA, Region 5 Telephone: 312-886-7439 Last EDR Contact: 07/22/2015

Next Scheduled EDR Contact: 11/09/2015 Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 07/30/2015 Date Data Arrived at EDR: 08/07/2015 Date Made Active in Reports: 10/13/2015

Number of Days to Update: 67

Source: EPA Region 4 Telephone: 404-562-8677 Last EDR Contact: 07/22/2015

Next Scheduled EDR Contact: 11/09/2015 Data Release Frequency: Semi-Annually

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 05/13/2015 Date Data Arrived at EDR: 08/03/2015 Date Made Active in Reports: 10/13/2015

Number of Days to Update: 71

Source: EPA Region 6 Telephone: 214-665-6597 Last EDR Contact: 07/22/2015

Next Scheduled EDR Contact: 11/09/2015 Data Release Frequency: Varies

### State and tribal registered storage tank lists

FEMA UST: Underground Storage Tank Listing

A listing of all FEMA owned underground storage tanks.

Date of Government Version: 01/01/2010 Date Data Arrived at EDR: 02/16/2010 Date Made Active in Reports: 04/12/2010

Number of Days to Update: 55

Source: FEMA

Telephone: 202-646-5797 Last EDR Contact: 07/10/2015

Next Scheduled EDR Contact: 10/28/2015 Data Release Frequency: Varies

UST: Underground Storage Tank Data

Registered Underground Storage Tanks. UST's are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA) and must be registered with the state department responsible for administering the UST program. Available information varies by state program.

Date of Government Version: 08/25/2015 Date Data Arrived at EDR: 09/01/2015 Date Made Active in Reports: 09/22/2015

Number of Days to Update: 21

Source: Department of Energy & Environmental Protection

Telephone: 860-424-3376 Last EDR Contact: 08/31/2015

Next Scheduled EDR Contact: 12/14/2015 Data Release Frequency: Semi-Annually

AST: Marine Terminals and Tank Information

A listing of bulk petroleum facilities that receive petroleum by a vessel.

Date of Government Version: 07/01/2015 Date Data Arrived at EDR: 08/04/2015 Date Made Active in Reports: 09/01/2015

Number of Days to Update: 28

Source: Department of Energy & Environmental Protection

Telephone: 860-424-3233 Last EDR Contact: 08/03/2015

Next Scheduled EDR Contact: 10/19/2015 Data Release Frequency: Varies

INDIAN UST R5: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 07/28/2015 Date Data Arrived at EDR: 08/07/2015 Date Made Active in Reports: 10/13/2015

Number of Days to Update: 67

Source: EPA Region 5 Telephone: 312-886-6136 Last EDR Contact: 07/22/2015

Next Scheduled EDR Contact: 11/09/2015

Data Release Frequency: Varies

INDIAN UST R10: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 07/21/2015 Date Data Arrived at EDR: 07/29/2015 Date Made Active in Reports: 10/13/2015

Number of Days to Update: 76

Source: EPA Region 10 Telephone: 206-553-2857 Last EDR Contact: 07/22/2015

Next Scheduled EDR Contact: 11/09/2015 Data Release Frequency: Quarterly

INDIAN UST R1: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 02/03/2015 Date Data Arrived at EDR: 04/30/2015 Date Made Active in Reports: 06/22/2015

Number of Days to Update: 53

Source: EPA, Region 1 Telephone: 617-918-1313 Last EDR Contact: 07/31/2015

Next Scheduled EDR Contact: 11/09/2015 Data Release Frequency: Varies

INDIAN UST R7: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 09/23/2014 Date Data Arrived at EDR: 11/25/2014 Date Made Active in Reports: 01/29/2015

Number of Days to Update: 65

Source: EPA Region 7 Telephone: 913-551-7003 Last EDR Contact: 07/22/2015

Next Scheduled EDR Contact: 11/09/2015 Data Release Frequency: Varies

INDIAN UST R9: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 12/14/2014 Date Data Arrived at EDR: 02/13/2015 Date Made Active in Reports: 03/13/2015

Number of Days to Update: 28

Source: EPA Region 9 Telephone: 415-972-3368 Last EDR Contact: 07/31/2015

Next Scheduled EDR Contact: 11/09/2015 Data Release Frequency: Quarterly

INDIAN UST R6: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 05/13/2015 Date Data Arrived at EDR: 08/03/2015 Date Made Active in Reports: 10/13/2015

Number of Days to Update: 71

Source: EPA Region 6 Telephone: 214-665-7591 Last EDR Contact: 07/22/2015

Next Scheduled EDR Contact: 11/09/2015 Data Release Frequency: Semi-Annually

INDIAN UST R4: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 07/30/2015 Date Data Arrived at EDR: 08/07/2015 Date Made Active in Reports: 10/13/2015

Number of Days to Update: 67

Source: EPA Region 4 Telephone: 404-562-9424 Last EDR Contact: 07/22/2015

Next Scheduled EDR Contact: 11/09/2015 Data Release Frequency: Semi-Annually

INDIAN UST R8: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 07/28/2015 Date Data Arrived at EDR: 08/14/2015 Date Made Active in Reports: 10/13/2015

Number of Days to Update: 60

Source: EPA Region 8 Telephone: 303-312-6137 Last EDR Contact: 07/22/2015

Next Scheduled EDR Contact: 11/09/2015 Data Release Frequency: Quarterly

#### State and tribal institutional control / engineering control registries

#### ENG CONTROLS: Engineering Controls Listing

An Engineered Control is a permanent physical structure designed to safely isolate pollutants which would otherwise not comply with the self-implementing remedial options allowed in the Connecticut Remediation Standard Regulations (RSRs). The ECGD includes a description of what is eligible to be considered as an Engineered Control under section 22a-133k-2(f)(2) of the RSRs, a description of the information necessary for the preparation of complete and approvable applications, a step-by-step outline of the review and approval process, and supplemental resources provided in the appendices.

Date of Government Version: 03/05/2013 Date Data Arrived at EDR: 05/07/2013 Date Made Active in Reports: 06/19/2013

Number of Days to Update: 43

Source: Department of Energy & Environmental Protection

Telephone: 860-424-3000 Last EDR Contact: 08/07/2015

Next Scheduled EDR Contact: 11/16/2015 Data Release Frequency: Varies

AUL: ELUR Sites

Environmental Land Use Restriction sites.

Date of Government Version: 08/18/2015 Date Data Arrived at EDR: 08/21/2015 Date Made Active in Reports: 09/22/2015

Number of Days to Update: 32

Source: Department of Energy & Environmental Protection

Telephone: 860-424-3912 Last EDR Contact: 08/07/2015

Next Scheduled EDR Contact: 11/23/2015 Data Release Frequency: Varies

#### State and tribal voluntary cleanup sites

INDIAN VCP R1: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 09/29/2014 Date Data Arrived at EDR: 10/01/2014 Date Made Active in Reports: 11/06/2014

Number of Days to Update: 36

Source: EPA, Region 1 Telephone: 617-918-1102 Last EDR Contact: 06/26/2015

Next Scheduled EDR Contact: 10/12/2015 Data Release Frequency: Varies

VCP: Voluntary Remediation Sites

Sites involved in the Voluntary Remediation Program.

Date of Government Version: 08/18/2015 Date Data Arrived at EDR: 08/21/2015 Date Made Active in Reports: 09/22/2015

Number of Days to Update: 32

Source: Department of Energy & Environmental Protection

Telephone: 860-424-3705 Last EDR Contact: 08/07/2015

Next Scheduled EDR Contact: 11/23/2015 Data Release Frequency: Varies

INDIAN VCP R7: Voluntary Cleanup Priority Lisitng

A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008 Date Data Arrived at EDR: 04/22/2008 Date Made Active in Reports: 05/19/2008

Number of Days to Update: 27

Source: EPA, Region 7 Telephone: 913-551-7365 Last EDR Contact: 04/20/2009

Next Scheduled EDR Contact: 07/20/2009

Data Release Frequency: Varies

#### State and tribal Brownfields sites

**BROWNFIELDS: Brownfields Inventory** 

CBRA has identified over 200 brownfield sites eligible for redevelopment. In most cases these are prime properties for commercial or industrial use. CBRA's grants, assistance and financing lower the financial risks and eliminate the legal, regulatory and environmental risks of redevelopment.

Date of Government Version: 06/20/2015 Date Data Arrived at EDR: 06/24/2015 Date Made Active in Reports: 07/21/2015

Number of Days to Update: 27

Source: Connecticut Brownfields Redevelopment Authority

Telephone: 860-258-7833 Last EDR Contact: 06/17/2015

Next Scheduled EDR Contact: 10/05/2015

Data Release Frequency: Varies

**BROWNFIELDS 2: Brownfields Inventory** 

A brownfield site is generally defined as "real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant or contaminanta?!"

Date of Government Version: 11/30/2004 Date Data Arrived at EDR: 06/26/2009 Date Made Active in Reports: 07/09/2009

Number of Days to Update: 13

Source: Department of Energy & Environmental Protection

Telephone: 860-424-3705 Last EDR Contact: 06/25/2015

Next Scheduled EDR Contact: 10/05/2015 Data Release Frequency: Varies

### ADDITIONAL ENVIRONMENTAL RECORDS

#### Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites

Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 06/22/2015 Date Data Arrived at EDR: 06/24/2015 Date Made Active in Reports: 09/02/2015

Number of Days to Update: 70

Source: Environmental Protection Agency

Telephone: 202-566-2777 Last EDR Contact: 06/24/2015

Next Scheduled EDR Contact: 10/05/2015 Data Release Frequency: Semi-Annually

#### Local Lists of Landfill / Solid Waste Disposal Sites

SWRCY: Recycling Facilities
A listing of recycling facilities.

Date of Government Version: 04/16/2015 Date Data Arrived at EDR: 04/23/2015 Date Made Active in Reports: 04/30/2015

Number of Days to Update: 7

Source: Department of Energy & Environmental Protection

Telephone: 860-424-3223 Last EDR Contact: 06/10/2015

Next Scheduled EDR Contact: 09/28/2015 Data Release Frequency: Varies

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands

Location of open dumps on Indian land.

Date of Government Version: 12/31/1998 Date Data Arrived at EDR: 12/03/2007 Date Made Active in Reports: 01/24/2008

Number of Days to Update: 52

Source: Environmental Protection Agency

Telephone: 703-308-8245 Last EDR Contact: 05/01/2015

Next Scheduled EDR Contact: 08/17/2015 Data Release Frequency: Varies

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations

A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009 Date Data Arrived at EDR: 05/07/2009 Date Made Active in Reports: 09/21/2009

Number of Days to Update: 137

Source: EPA, Region 9 Telephone: 415-947-4219 Last EDR Contact: 07/22/2015

Next Scheduled EDR Contact: 11/09/2015
Data Release Frequency: No Update Planned

ODI: Open Dump Inventory

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985 Date Data Arrived at EDR: 08/09/2004 Date Made Active in Reports: 09/17/2004

Number of Days to Update: 39

Source: Environmental Protection Agency

Telephone: 800-424-9346 Last EDR Contact: 06/09/2004 Next Scheduled EDR Contact: N/A

Data Release Frequency: No Update Planned

#### Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL: National Clandestine Laboratory Register

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 06/01/2015 Date Data Arrived at EDR: 06/02/2015 Date Made Active in Reports: 09/16/2015

Number of Days to Update: 106

Source: Drug Enforcement Administration

Telephone: 202-307-1000 Last EDR Contact: 08/31/2015

Next Scheduled EDR Contact: 12/14/2015 Data Release Frequency: No Update Planned

CDL: Clandestine Drug Lab Listing

A listing of clandestine drug lab locations included in the Spills database.

Date of Government Version: 07/28/2015 Date Data Arrived at EDR: 07/31/2015 Date Made Active in Reports: 09/01/2015

Number of Days to Update: 32

Source: Department of Energy & Environmental Protection

Telephone: 860-424-3361 Last EDR Contact: 07/06/2015

Next Scheduled EDR Contact: 10/19/2015 Data Release Frequency: Quarterly

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 05/15/2015 Date Data Arrived at EDR: 06/02/2015 Date Made Active in Reports: 09/16/2015

Number of Days to Update: 106

Source: Drug Enforcement Administration

Telephone: 202-307-1000 Last EDR Contact: 08/31/2015

Next Scheduled EDR Contact: 12/14/2015 Data Release Frequency: Quarterly

#### Local Land Records

CT PROPERTY: Property Transfer Filings

A listing of sites that meet the definition of a hazardous waste establishment. They can be generators, dry cleaners, furniture strippers, etc. These sites have been sold to another owner.

Date of Government Version: 08/18/2015 Date Data Arrived at EDR: 08/21/2015 Date Made Active in Reports: 09/22/2015

Number of Days to Update: 32

Source: Department of Energy & Environmental Protection

Telephone: 860-424-3705 Last EDR Contact: 08/07/2015

Next Scheduled EDR Contact: 11/23/2015 Data Release Frequency: Semi-Annually

LIENS: Environmental Liens Listing

A listing of environmental liens placed by the Cost Recovery Program.

Date of Government Version: 05/20/2014 Date Data Arrived at EDR: 05/23/2014 Date Made Active in Reports: 06/03/2014

Number of Days to Update: 11

Source: Department of Energy & Environmental Protection

Telephone: 860-424-3120 Last EDR Contact: 05/18/2015

Next Scheduled EDR Contact: 08/31/2015 Data Release Frequency: Varies

LIENS 2: CERCLA Lien Information

A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 02/18/2014 Date Data Arrived at EDR: 03/18/2014 Date Made Active in Reports: 04/24/2014

Number of Days to Update: 37

Source: Environmental Protection Agency

Telephone: 202-564-6023 Last EDR Contact: 07/22/2015

Next Scheduled EDR Contact: 11/09/2015 Data Release Frequency: Varies

#### Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 06/24/2015 Date Data Arrived at EDR: 06/26/2015 Date Made Active in Reports: 09/02/2015

Number of Days to Update: 68

Source: U.S. Department of Transportation

Telephone: 202-366-4555 Last EDR Contact: 06/26/2015

Next Scheduled EDR Contact: 10/12/2015 Data Release Frequency: Annually

SPILLS: Oil & Chemical Spill Database Oil and Chemical Spill Data.

Date of Government Version: 07/28/2015 Date Data Arrived at EDR: 07/31/2015 Date Made Active in Reports: 09/01/2015

Number of Days to Update: 32

Source: Department of Energy & Environmental Protection

Telephone: 860-424-3024 Last EDR Contact: 07/06/2015

Next Scheduled EDR Contact: 10/19/2015 Data Release Frequency: Semi-Annually

SPILLS 90: SPILLS90 data from FirstSearch

Spills 90 includes those spill and release records available exclusively from FirstSearch databases. Typically, they may include chemical, oil and/or hazardous substance spills recorded after 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 90.

Date of Government Version: 10/15/2012 Date Data Arrived at EDR: 01/03/2013 Date Made Active in Reports: 02/11/2013

Number of Days to Update: 39

Source: FirstSearch Telephone: N/A

Last EDR Contact: 01/03/2013 Next Scheduled EDR Contact: N/A

Data Release Frequency: No Update Planned

#### Other Ascertainable Records

RCRA NonGen / NLR: RCRA - Non Generators / No Longer Regulated

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 06/09/2015 Date Data Arrived at EDR: 06/26/2015 Date Made Active in Reports: 09/16/2015

Number of Days to Update: 82

Source: Environmental Protection Agency

Telephone: (888) 372-7341 Last EDR Contact: 06/26/2015

Next Scheduled EDR Contact: 10/12/2015 Data Release Frequency: Varies

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 01/31/2015 Date Data Arrived at EDR: 07/08/2015 Date Made Active in Reports: 10/13/2015

Number of Days to Update: 97

Source: U.S. Army Corps of Engineers

Telephone: 202-528-4285 Last EDR Contact: 09/11/2015

Next Scheduled EDR Contact: 12/21/2015 Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005 Date Data Arrived at EDR: 11/10/2006 Date Made Active in Reports: 01/11/2007

Number of Days to Update: 62

Source: USGS Telephone: 888-275-8747

Last EDR Contact: 07/14/2015

Next Scheduled EDR Contact: 10/28/2015 Data Release Frequency: Semi-Annually

#### FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 12/31/2005 Date Data Arrived at EDR: 02/06/2006 Date Made Active in Reports: 01/11/2007

Number of Days to Update: 339

Source: U.S. Geological Survey Telephone: 888-275-8747 Last EDR Contact: 07/14/2015

Next Scheduled EDR Contact: 10/28/2015

Data Release Frequency: N/A

#### SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 03/07/2011 Date Data Arrived at EDR: 03/09/2011 Date Made Active in Reports: 05/02/2011

Number of Days to Update: 54

Source: Environmental Protection Agency

Telephone: 615-532-8599 Last EDR Contact: 05/21/2015

Next Scheduled EDR Contact: 08/31/2015 Data Release Frequency: Varies

#### US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 06/01/2015 Date Data Arrived at EDR: 06/02/2015 Date Made Active in Reports: 09/16/2015

Number of Days to Update: 106

Source: Environmental Protection Agency

Telephone: 202-566-1917 Last EDR Contact: 08/12/2015

Next Scheduled EDR Contact: 11/30/2015 Data Release Frequency: Quarterly

#### EPA WATCH LIST: EPA WATCH LIST

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 08/30/2013 Date Data Arrived at EDR: 03/21/2014 Date Made Active in Reports: 06/17/2014

Number of Days to Update: 88

Source: Environmental Protection Agency

Telephone: 617-520-3000 Last EDR Contact: 08/04/2015

Next Scheduled EDR Contact: 11/23/2015 Data Release Frequency: Quarterly

#### 2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 04/22/2013 Date Data Arrived at EDR: 03/03/2015 Date Made Active in Reports: 03/09/2015

Number of Days to Update: 6

Source: Environmental Protection Agency

Telephone: 703-308-4044 Last EDR Contact: 05/14/2015

Next Scheduled EDR Contact: 08/24/2015 Data Release Frequency: Varies

#### TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2012 Date Data Arrived at EDR: 01/15/2015 Date Made Active in Reports: 01/29/2015

Number of Days to Update: 14

Source: EPA

Telephone: 202-260-5521 Last EDR Contact: 06/25/2015

Next Scheduled EDR Contact: 10/05/2015 Data Release Frequency: Every 4 Years

#### TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2013 Date Data Arrived at EDR: 02/12/2015 Date Made Active in Reports: 06/02/2015

Number of Days to Update: 110

Source: EPA

Telephone: 202-566-0250 Last EDR Contact: 01/29/2015

Next Scheduled EDR Contact: 06/08/2015 Data Release Frequency: Annually

#### SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/2009 Date Data Arrived at EDR: 12/10/2010 Date Made Active in Reports: 02/25/2011

Number of Days to Update: 77

Source: EPA

Telephone: 202-564-4203 Last EDR Contact: 07/22/2015

Next Scheduled EDR Contact: 11/09/2015 Data Release Frequency: Annually

#### ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 11/25/2013 Date Data Arrived at EDR: 12/12/2013 Date Made Active in Reports: 02/24/2014

Number of Days to Update: 74

Source: EPA

Telephone: 703-416-0223 Last EDR Contact: 06/12/2015

Next Scheduled EDR Contact: 09/21/2015 Data Release Frequency: Annually

RMP: Risk Management Plans

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 02/01/2015 Date Data Arrived at EDR: 02/13/2015 Date Made Active in Reports: 03/25/2015

Number of Days to Update: 40

Source: Environmental Protection Agency

Telephone: 202-564-8600 Last EDR Contact: 07/22/2015

Next Scheduled EDR Contact: 11/09/2015

Data Release Frequency: Varies

#### RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995 Date Data Arrived at EDR: 07/03/1995 Date Made Active in Reports: 08/07/1995

Number of Days to Update: 35

Source: EPA

Telephone: 202-564-4104 Last EDR Contact: 06/02/2008

Next Scheduled EDR Contact: 09/01/2008 Data Release Frequency: No Update Planned

### PRP: Potentially Responsible Parties

A listing of verified Potentially Responsible Parties

Date of Government Version: 10/25/2013 Date Data Arrived at EDR: 10/17/2014 Date Made Active in Reports: 10/20/2014

Number of Days to Update: 3

Source: EPA

Telephone: 202-564-6023 Last EDR Contact: 05/14/2015

Next Scheduled EDR Contact: 08/24/2015 Data Release Frequency: Quarterly

#### PADS: PCB Activity Database System

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 07/01/2014 Date Data Arrived at EDR: 10/15/2014 Date Made Active in Reports: 11/17/2014

Number of Days to Update: 33

Source: EPA

Telephone: 202-566-0500 Last EDR Contact: 07/17/2015

Next Scheduled EDR Contact: 10/28/2015 Data Release Frequency: Annually

### ICIS: Integrated Compliance Information System

The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 01/23/2015 Date Data Arrived at EDR: 02/06/2015 Date Made Active in Reports: 03/09/2015

Number of Days to Update: 31

Source: Environmental Protection Agency

Telephone: 202-564-5088 Last EDR Contact: 07/09/2015

Next Scheduled EDR Contact: 10/28/2015 Data Release Frequency: Quarterly

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009 Date Data Arrived at EDR: 04/16/2009 Date Made Active in Reports: 05/11/2009

Number of Days to Update: 25

Source: EPA/Office of Prevention, Pesticides and Toxic Substances

Telephone: 202-566-1667 Last EDR Contact: 05/20/2015

Next Scheduled EDR Contact: 09/07/2015 Data Release Frequency: Quarterly

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009 Date Data Arrived at EDR: 04/16/2009 Date Made Active in Reports: 05/11/2009

Number of Days to Update: 25

Source: EPA Telephone: 202-566-1667 Last EDR Contact: 05/20/2015

Next Scheduled EDR Contact: 09/07/2015 Data Release Frequency: Quarterly

MLTS: Material Licensing Tracking System

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 06/26/2015 Date Data Arrived at EDR: 07/10/2015 Date Made Active in Reports: 10/13/2015

Number of Days to Update: 95

Source: Nuclear Regulatory Commission

Telephone: 301-415-7169 Last EDR Contact: 09/03/2015

Next Scheduled EDR Contact: 12/21/2015 Data Release Frequency: Quarterly

COAL ASH DOE: Steam-Electric Plant Operation Data

A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2005 Date Data Arrived at EDR: 08/07/2009 Date Made Active in Reports: 10/22/2009

Number of Days to Update: 76

Source: Department of Energy Telephone: 202-586-8719 Last EDR Contact: 07/13/2015

Next Scheduled EDR Contact: 10/28/2015 Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List

A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 07/01/2014 Date Data Arrived at EDR: 09/10/2014 Date Made Active in Reports: 10/20/2014

Number of Days to Update: 40

Source: Environmental Protection Agency

Telephone: N/A

Last EDR Contact: 06/12/2015

Next Scheduled EDR Contact: 09/21/2015 Data Release Frequency: Varies

PCB TRANSFORMER: PCB Transformer Registration Database

The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 02/01/2011 Date Data Arrived at EDR: 10/19/2011 Date Made Active in Reports: 01/10/2012

Number of Days to Update: 83

Source: Environmental Protection Agency Telephone: 202-566-0517

Last EDR Contact: 07/31/2015

Next Scheduled EDR Contact: 11/09/2015 Data Release Frequency: Varies

RADINFO: Radiation Information Database

The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 07/07/2015 Date Data Arrived at EDR: 07/09/2015 Date Made Active in Reports: 09/16/2015

Number of Days to Update: 69

Source: Environmental Protection Agency

Telephone: 202-343-9775 Last EDR Contact: 07/09/2015

Next Scheduled EDR Contact: 10/19/2015 Data Release Frequency: Quarterly

#### HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing

A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006 Date Data Arrived at EDR: 03/01/2007 Date Made Active in Reports: 04/10/2007

Number of Days to Update: 40

Source: Environmental Protection Agency

Telephone: 202-564-2501 Last EDR Contact: 12/17/2007

Next Scheduled EDR Contact: 03/17/2008

Data Release Frequency: No Update Planned

### HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing

A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006 Date Data Arrived at EDR: 03/01/2007 Date Made Active in Reports: 04/10/2007

Number of Days to Update: 40

Source: Environmental Protection Agency

Telephone: 202-564-2501 Last EDR Contact: 12/17/2008

Next Scheduled EDR Contact: 03/17/2008 Data Release Frequency: No Update Planned

#### DOT OPS: Incident and Accident Data

Department of Transporation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 07/31/2012 Date Data Arrived at EDR: 08/07/2012 Date Made Active in Reports: 09/18/2012

Number of Days to Update: 42

Source: Department of Transporation, Office of Pipeline Safety

Telephone: 202-366-4595 Last EDR Contact: 08/04/2015

Next Scheduled EDR Contact: 11/16/2015 Data Release Frequency: Varies

#### CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 12/31/2014 Date Data Arrived at EDR: 04/17/2015 Date Made Active in Reports: 06/02/2015

Number of Days to Update: 46

Source: Department of Justice, Consent Decree Library

Telephone: Varies

Last EDR Contact: 06/22/2015

Next Scheduled EDR Contact: 10/12/2015 Data Release Frequency: Varies

### BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2013 Date Data Arrived at EDR: 02/24/2015 Date Made Active in Reports: 09/30/2015

Number of Days to Update: 218

Source: EPA/NTIS Telephone: 800-424-9346 Last EDR Contact: 08/28/2015

Next Scheduled EDR Contact: 12/07/2015 Data Release Frequency: Biennially

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater

than 640 acres.

Date of Government Version: 12/31/2005 Date Data Arrived at EDR: 12/08/2006 Date Made Active in Reports: 01/11/2007

Number of Days to Update: 34

Source: USGS

Telephone: 202-208-3710 Last EDR Contact: 07/14/2015

Next Scheduled EDR Contact: 10/28/2015 Data Release Frequency: Semi-Annually

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 09/14/2010 Date Data Arrived at EDR: 10/07/2011 Date Made Active in Reports: 03/01/2012

Number of Days to Update: 146

Source: Department of Energy Telephone: 505-845-0011 Last EDR Contact: 05/26/2015

Next Scheduled EDR Contact: 09/07/2015 Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 11/25/2014 Date Data Arrived at EDR: 11/26/2014 Date Made Active in Reports: 01/29/2015

Number of Days to Update: 64

Source: Environmental Protection Agency

Telephone: 703-603-8787 Last EDR Contact: 07/07/2015

Next Scheduled EDR Contact: 10/19/2015 Data Release Frequency: Varies

LEAD SMELTER 2: Lead Smelter Sites

A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2001 Date Data Arrived at EDR: 10/27/2010 Date Made Active in Reports: 12/02/2010

Number of Days to Update: 36

Source: American Journal of Public Health

Telephone: 703-305-6451 Last EDR Contact: 12/02/2009 Next Scheduled EDR Contact: N/A

Data Release Frequency: No Update Planned

US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)

The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 07/22/2015 Date Data Arrived at EDR: 07/24/2015 Date Made Active in Reports: 09/02/2015

Number of Days to Update: 40

Source: EPA

Telephone: 202-564-2496 Last EDR Contact: 06/22/2015

Next Scheduled EDR Contact: 10/05/2015 Data Release Frequency: Annually

US AIRS MINOR: Air Facility System Data A listing of minor source facilities.

Date of Government Version: 07/22/2015 Date Data Arrived at EDR: 07/24/2015 Date Made Active in Reports: 09/02/2015

Number of Days to Update: 40

Source: EPA

Telephone: 202-564-2496 Last EDR Contact: 06/22/2015

Next Scheduled EDR Contact: 10/22/2015 Data Release Frequency: Annually

US MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information

Date of Government Version: 05/14/2015 Date Data Arrived at EDR: 06/03/2015 Date Made Active in Reports: 09/02/2015

Number of Days to Update: 91

Source: Department of Labor, Mine Safety and Health Administration

Telephone: 303-231-5959 Last EDR Contact: 09/01/2015

Next Scheduled EDR Contact: 12/14/2015 Data Release Frequency: Semi-Annually

US MINES 2: Ferrous and Nonferrous Metal Mines Database Listing

This map layer includes ferrous (ferrous metal mines are facilities that extract ferrous metals, such as iron ore or molybdenum) and nonferrous (Nonferrous metal mines are facilities that extract nonferrous metals, such as gold, silver, copper, zinc, and lead) metal mines in the United States.

Source: USGS

Date of Government Version: 12/05/2005 Date Data Arrived at EDR: 02/29/2008 Date Made Active in Reports: 04/18/2008

Number of Days to Update: 49

Telephone: 703-648-7709 Last EDR Contact: 06/05/2015

Next Scheduled EDR Contact: 09/14/2015 Data Release Frequency: Varies

US MINES 3: Active Mines & Mineral Plants Database Listing

Active Mines and Mineral Processing Plant operations for commodities monitored by the Minerals Information Team of the USGS.

Date of Government Version: 04/14/2011 Date Data Arrived at EDR: 06/08/2011 Date Made Active in Reports: 09/13/2011

Number of Days to Update: 97

Source: USGS

Telephone: 703-648-7709 Last EDR Contact: 06/05/2015

Next Scheduled EDR Contact: 09/14/2015 Data Release Frequency: Varies

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail, EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 01/18/2015 Date Data Arrived at EDR: 02/27/2015 Date Made Active in Reports: 03/25/2015

Number of Days to Update: 26

Source: EPA

Telephone: (617) 918-1111 Last EDR Contact: 06/10/2015

Next Scheduled EDR Contact: 09/21/2015 Data Release Frequency: Quarterly

AIRS: Permitted Air Sources Listing

A listing of permitted air sources in Connecticut.

Date of Government Version: 01/30/2015 Date Data Arrived at EDR: 01/30/2015 Date Made Active in Reports: 02/03/2015

Number of Days to Update: 4

Source: Department of Energy & Environmental Protection

Telephone: 860-424-3026 Last EDR Contact: 07/24/2015

Next Scheduled EDR Contact: 11/09/2015 Data Release Frequency: Varies

CPCS: Contaminated or Potentially Contaminated Sites

A list of Contaminated or Potentially Contaminated Sites within Connecticut. This list represents the "Hazardous Waste Facilities," as defined in Section 22a-134f of the Connecticut General Statutes (CGS). The list contains the following types of sites: Sites listed on the Inventory of Hazardous Waste Disposal Sites; Sites subject to the Property Transfer Act; Sites at which underground storage tanks are known to have leaked; Sites at which hazardous waste subject to the RCRA; Sites that are included in EPA's (CERCLIS); Sites that are the subject of an order issued by the Commissioner of DEP that requires investigation and remediation of a potential or known source of pollution; and Sites that have entered into one of the Department's Voluntary Remediation Programs.

Date of Government Version: 06/15/2015 Date Data Arrived at EDR: 08/17/2015 Date Made Active in Reports: 09/01/2015

Number of Days to Update: 15

Source: Department of Energy & Environmental Protection

Telephone: 860-424-3766 Last EDR Contact: 08/07/2015

Next Scheduled EDR Contact: 11/23/2015 Data Release Frequency: Quarterly

DRYCLEANERS: Drycleaner Facilities
A listing of drycleaner facility locations.

Date of Government Version: 07/18/2008 Date Data Arrived at EDR: 08/08/2008 Date Made Active in Reports: 08/27/2008

Number of Days to Update: 19

Source: Department of Energy & Environmental Protection

Telephone: 860-424-3026 Last EDR Contact: 06/10/2015

Next Scheduled EDR Contact: 09/28/2015 Data Release Frequency: Varies

**ENFORCEMENT:** Enforcement Case Listing

The types of enforcement actions included are administrative consent orders, final unilateral orders and final dispositions of civil cases through the Attorney General's Office.

Date of Government Version: 07/24/2015 Date Data Arrived at EDR: 07/27/2015 Date Made Active in Reports: 08/05/2015

Number of Days to Update: 9

Source: Department of Energy & Environmental Protection

Telephone: 860-424-3265 Last EDR Contact: 07/20/2015

Next Scheduled EDR Contact: 11/02/2015 Data Release Frequency: Varies

Financial Assurance 1: Financial Assurance Information Listing

A listing containing RCRA financial assurance information submitted on behalf of the CT DEP's Program Analysis Group of the Waste Engineering and Enforcement Division.

Date of Government Version: 07/23/2014 Date Data Arrived at EDR: 07/01/2014 Date Made Active in Reports: 07/09/2014

Number of Days to Update: 8

Source: Department of Energy & Environmental Protection

Telephone: 860-418-5930 Last EDR Contact: 06/17/2015

Next Scheduled EDR Contact: 10/05/2015 Data Release Frequency: Varies

Financial Assurance 2: Financial Assurance Information Listing

A listing of financial assurance information for solid waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 06/17/2015 Date Data Arrived at EDR: 08/07/2015 Date Made Active in Reports: 09/01/2015

Number of Days to Update: 25

Source: Department of Energy & Environmental Protection

Telephone: 860-418-5930 Last EDR Contact: 06/17/2015

Next Scheduled EDR Contact: 10/05/2015 Data Release Frequency: Varies

LEAD: Lead Inspection Database

The Lead Poisoning Prevention and Control Program lead inspection database.

Date of Government Version: 03/26/2014 Date Data Arrived at EDR: 03/27/2014 Date Made Active in Reports: 05/08/2014

Number of Days to Update: 42

Source: Department of Public Health

Telephone: 860-509-7299 Last EDR Contact: 06/05/2015

Next Scheduled EDR Contact: 09/21/2015 Data Release Frequency: Varies

LWDS: Connecticut Leachate and Wastewater Discharge Sites

The Leachate and Waste Water Discharge Inventory Data Layer (LWDS) includes point locations digitized from Leachate and Wastewater Discharge Source maps compiled by the Connecticut DEP. These maps locate surface and groundwater discharges that (1) have received a waste water discharge permit from the state or (2) are historic and now defunct waste sites or (3) are locations of accidental spills, leaks, or discharges of a variety of liquid or solid wastes.

Date of Government Version: 07/17/2009 Date Data Arrived at EDR: 10/21/2009 Date Made Active in Reports: 10/30/2009

Number of Days to Update: 9

Source: Department of Energy & Environmental Protection

Telephone: N/A

Last EDR Contact: 10/15/2014

Next Scheduled EDR Contact: 01/26/2015 Data Release Frequency: Varies

CT MANIFEST: Hazardous Waste Manifest Data

Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 07/30/2013 Date Data Arrived at EDR: 08/19/2013 Date Made Active in Reports: 10/03/2013

Number of Days to Update: 45

Source: Department of Energy & Environmental Protection

Telephone: 860-424-3375 Last EDR Contact: 05/18/2015

Next Scheduled EDR Contact: 08/31/2015
Data Release Frequency: No Update Planned

NPDES: Wastewater Permit Listing

A listing of permits issued by the DEP.

Date of Government Version: 08/07/2015 Date Data Arrived at EDR: 08/07/2015 Date Made Active in Reports: 09/01/2015

Number of Days to Update: 25

Source: Department of Energy & Environmental Protection

Telephone: 860-424-3832 Last EDR Contact: 08/07/2015

Next Scheduled EDR Contact: 10/12/2015 Data Release Frequency: Varies

SEH: List of Significant Environmental Hazards Report to DEEP

The Significant Environmental Hazard Statute is intended to identify and abate short-term risks associated with specific environmental conditions identified in the statute. After abatement of short-term risks (meaning abatement of the significant environmental hazard condition), there may still be potential long-term risks associated with the release. However, a significant environmental hazard can be considered abated under the statute even though potential long-term risks may not have been addressed.

Date of Government Version: 06/30/2015 Date Data Arrived at EDR: 07/24/2015 Date Made Active in Reports: 08/05/2015

Number of Days to Update: 12

Source: Department of Energy & Environmental Protection

Telephone: 860-424-3766 Last EDR Contact: 07/20/2015

Next Scheduled EDR Contact: 11/02/2015

Data Release Frequency: Varies

### **EDR HIGH RISK HISTORICAL RECORDS**

### **EDR Exclusive Records**

EDR MGP: EDR Proprietary Manufactured Gas Plants

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A Date Data Arrived at EDR: N/A Date Made Active in Reports: N/A Number of Days to Update: N/A Source: EDR, Inc. Telephone: N/A Last EDR Contact: N/A

Next Scheduled EDR Contact: N/A

Data Release Frequency: No Update Planned

EDR US Hist Auto Stat: EDR Exclusive Historic Gas Stations

EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A Date Data Arrived at EDR: N/A Date Made Active in Reports: N/A Number of Days to Update: N/A Source: EDR, Inc. Telephone: N/A Last EDR Contact: N/A

Next Scheduled EDR Contact: N/A Data Release Frequency: Varies

EDR US Hist Cleaners: EDR Exclusive Historic Dry Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc. Telephone: N/A Last EDR Contact: N/A

Next Scheduled EDR Contact: N/A Data Release Frequency: Varies

#### **EDR RECOVERED GOVERNMENT ARCHIVES**

#### Exclusive Recovered Govt. Archives

RGA HWS: Recovered Government Archive State Hazardous Waste Facilities List

The EDR Recovered Government Archive State Hazardous Waste database provides a list of SHWS incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Energy & Environmental Protection formerly know as the DEP which changes in July 2011 in Connecticut.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/02/2014
Number of Days to Update: 185

Source: Department of Energy & Environmental Protection

Telephone: N/A

Last EDR Contact: 06/01/2012 Next Scheduled EDR Contact: N/A Data Release Frequency: Varies

RGA LUST: Recovered Government Archive Leaking Underground Storage Tank

The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Energy & Environmental Protection formerly know as the DEP which changes in July 2011 in Connecticut.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/02/2014
Number of Days to Update: 185

Source: Department of Energy & Environmental Protection

Telephone: N/A

Last EDR Contact: 06/01/2012 Next Scheduled EDR Contact: N/A Data Release Frequency: Varies

### OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

NJ MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2013 Date Data Arrived at EDR: 07/17/2015 Date Made Active in Reports: 08/12/2015

Number of Days to Update: 26

Source: Department of Environmental Protection

Telephone: N/A

Last EDR Contact: 07/13/2015

Next Scheduled EDR Contact: 10/28/2015 Data Release Frequency: Annually

NY MANIFEST: Facility and Manifest Data

Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD

facility.

Date of Government Version: 08/01/2015 Date Data Arrived at EDR: 08/06/2015 Date Made Active in Reports: 08/24/2015

Number of Days to Update: 18

Source: Department of Environmental Conservation

Telephone: 518-402-8651 Last EDR Contact: 08/06/2015

Next Scheduled EDR Contact: 11/16/2015 Data Release Frequency: Annually

PA MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2014 Date Data Arrived at EDR: 07/24/2015 Date Made Active in Reports: 08/18/2015

Number of Days to Update: 25

Source: Department of Environmental Protection

Telephone: 717-783-8990 Last EDR Contact: 07/20/2015

Next Scheduled EDR Contact: 11/02/2015 Data Release Frequency: Annually

RI MANIFEST: Manifest information

Hazardous waste manifest information

Date of Government Version: 12/31/2013 Date Data Arrived at EDR: 06/19/2015 Date Made Active in Reports: 07/15/2015

Number of Days to Update: 26

Source: Department of Environmental Management

Telephone: 401-222-2797 Last EDR Contact: 05/26/2015

Next Scheduled EDR Contact: 09/07/2015 Data Release Frequency: Annually

VT MANIFEST: Hazardous Waste Manifest Data Hazardous waste manifest information.

Date of Government Version: 03/26/2015 Date Data Arrived at EDR: 06/03/2015 Date Made Active in Reports: 07/20/2015

Number of Days to Update: 47

Source: Department of Environmental Conservation

Telephone: 802-241-3443 Last EDR Contact: 07/20/2015

Next Scheduled EDR Contact: 11/02/2015 Data Release Frequency: Annually

WI MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2014 Date Data Arrived at EDR: 03/19/2015 Date Made Active in Reports: 04/07/2015

Number of Days to Update: 19

Source: Department of Natural Resources

Telephone: N/A

Last EDR Contact: 06/11/2015

Next Scheduled EDR Contact: 09/28/2015 Data Release Frequency: Annually

Oil/Gas Pipelines

Source: PennWell Corporation Telephone: 281-546-1505

Petroleum Bundle (Crude Oil, Refined Products, Petrochemicals, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)) N = Natural Gas Bundle (Natural Gas, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)). This map includes information copyrighted by PennWell Corporation. This information is provided on a best effort basis and PennWell Corporation does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of PennWell.

Electric Power Transmission Line Data

Source: PennWell Corporation Telephone: 800-823-6277

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Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

#### AHA Hospitals:

Source: American Hospital Association, Inc.

Telephone: 312-280-5991

The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing

Source: Centers for Medicare & Medicaid Services

Telephone: 410-786-3000

A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services,

a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes

Source: National Institutes of Health

Telephone: 301-594-6248

Information on Medicare and Medicaid certified nursing homes in the United States.

**Public Schools** 

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on elementary

and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Licensed Child Care Facilities

Source: Department of Public Health

Telephone: 860-509-8045

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 2003 & 2011 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Tidal Wetlands

Source: Department of Energy & Environmental Protection

Telephone: 860-424-4054

Current USGS 7.5 Minute Topographic Map Source: U.S. Geological Survey

### STREET AND ADDRESS INFORMATION

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# **GEOCHECK®-PHYSICAL SETTING SOURCE ADDENDUM**

#### **TARGET PROPERTY ADDRESS**

NABOZNY SOLAR SITE 101 WOODS HILL ROAD POMFRET, CT 06259

### **TARGET PROPERTY COORDINATES**

Latitude (North): 41.8309 - 41° 49' 51.24" Longitude (West): 71.9209 - 71° 55' 15.24"

Universal Tranverse Mercator: Zone 19 UTM X (Meters): 257440.2 UTM Y (Meters): 4634913.5

Elevation: 364 ft. above sea level

### **USGS TOPOGRAPHIC MAP**

Target Property Map: 5642109 DANIELSON, CT

Version Date: 2012

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principal investigative components:

- 1. Groundwater flow direction, and
- 2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

### **GROUNDWATER FLOW DIRECTION INFORMATION**

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

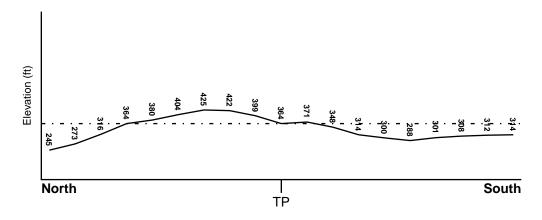
### **TOPOGRAPHIC INFORMATION**

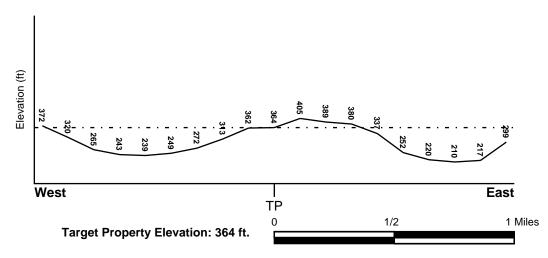
Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

#### TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General SW

#### SURROUNDING TOPOGRAPHY: ELEVATION PROFILES





Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

### HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

**FEMA FLOOD ZONE** 

FEMA Flood
Target Property County Electronic Data

WINDHAM, CT Not Available

Flood Plain Panel at Target Property: Not Reported

Additional Panels in search area: Not Reported

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property Data Coverage

DANIELSON YES - refer to the Overview Map and Detail Map

### **HYDROGEOLOGIC INFORMATION**

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

### Site-Specific Hydrogeological Data\*:

Search Radius: 1.25 miles Status: Not found

### **AQUIFLOW®**

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

 MAP ID
 FROM TP
 GROUNDWATER FLOW

 Not Reported
 GROUNDWATER FLOW

### **GROUNDWATER FLOW VELOCITY INFORMATION**

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

### GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

#### **ROCK STRATIGRAPHIC UNIT**

#### **GEOLOGIC AGE IDENTIFICATION**

Era: Paleozoic Category: Volcanic Rocks

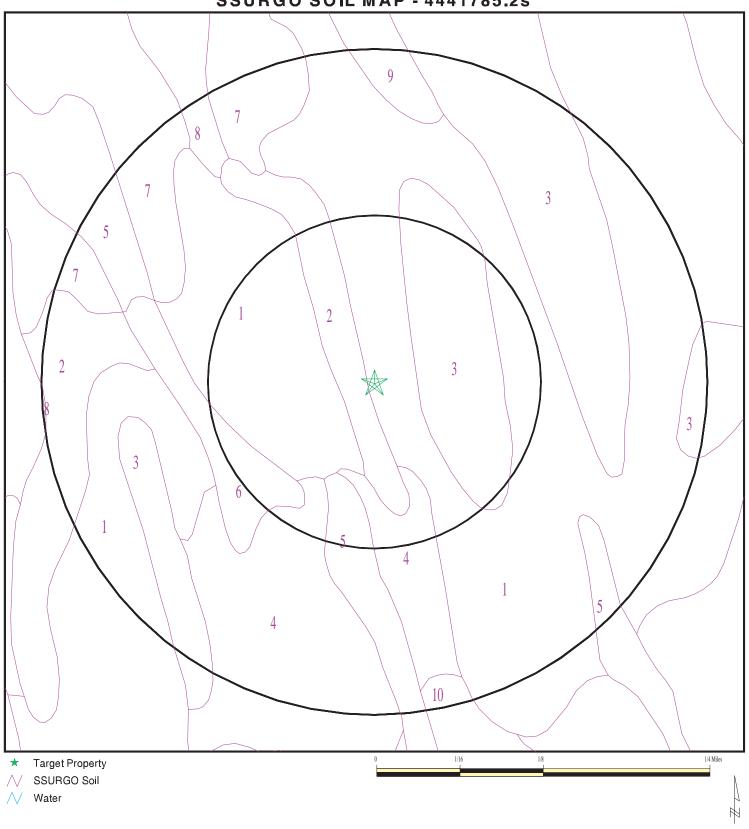
System: Ordovician

Series: Ordovician volcanic rocks

Code: Ov (decoded above as Era, System & Series)

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

# **SSURGO SOIL MAP - 4441785.2s**



SITE NAME: Nabozny Solar Site
ADDRESS: 101 Woods Hill Road
Pomfret CT 06259
LAT/LONG: 41.8309 / 71.9209

CLIENT: Tighe & Bond CONTACT: Samantha Avis INQUIRY #: 4441785.2s

DATE: October 19, 2015 7:16 pm

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### DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. The following information is based on Soil Conservation Service SSURGO data.

Soil Map ID: 1

Soil Component Name: Woodbridge

Soil Surface Texture: fine sandy loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward

movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Moderately well drained

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 61 inches

	Soil Layer Information										
	Boundary			Classification		Saturated hydraulic					
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil	conductivity micro m/sec	Soil Reaction (pH)				
1	0 inches	7 inches	fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 6 Min: 4.5				
2	7 inches	18 inches	fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 6 Min: 4.5				
3	18 inches	25 inches	fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 6 Min: 4.5				
4	25 inches	29 inches	fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 6 Min: 4.5				

Soil Layer Information									
Layer	Boundary		Boundary	Classification		Saturated hydraulic			
	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil	conductivity micro m/sec	Oon Reaction		
5	29 inches	42 inches	gravelly fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 1.4 Min: 0.01	Max: 6 Min: 4.5		
6	42 inches	64 inches	gravelly fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 1.4 Min: 0.01	Max: 6 Min: 4.5		

## Soil Map ID: 2

Soil Component Name: Paxton

Soil Surface Texture: fine sandy loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward

movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Well drained

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 61 inches

Soil Layer Information									
Layer	Boundary		Boundary Class		fication	Saturated hydraulic			
	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		Soil Reaction (pH)		
1	0 inches	7 inches	fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 6.5 Min: 4.5		

Soil Layer Information									
Layer	Boundary			Classification		Saturated hydraulic			
	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil	conductivity micro m/sec	Soil Reaction (pH)		
2	7 inches	14 inches	fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14 Min: 4	Max: 6 Min: 4.5		
3	14 inches	25 inches	fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14 Min: 4	Max: 6 Min: 4.5		
4	25 inches	64 inches	gravelly fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 1.41 Min: 0.01	Max: 6 Min: 4.5		

### Soil Map ID: 3

Soil Component Name: Woodbridge

Soil Surface Texture: fine sandy loam

Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures. Hydrologic Group:

Soil Drainage Class: Moderately well drained

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 61 inches

Soil Layer Information									
	Boundary			Classification		Saturated hydraulic			
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil	conductivity micro m/sec	Soil Reaction (pH)		
1	0 inches	7 inches	fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 6 Min: 4.5		
2	7 inches	18 inches	fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 6 Min: 4.5		
3	18 inches	25 inches	fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 6 Min: 4.5		
4	25 inches	29 inches	fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 6 Min: 4.5		
5	29 inches	42 inches	gravelly fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 1.4 Min: 0.01	Max: 6 Min: 4.5		
6	42 inches	64 inches	gravelly fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 1.4 Min: 0.01	Max: 6 Min: 4.5		

### Soil Map ID: 4

Soil Component Name: Woodbridge

Soil Surface Texture: fine sandy loam

Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures. Hydrologic Group:

Soil Drainage Class: Moderately well drained

# **GEOCHECK<sup>®</sup> - PHYSICAL SETTING SOURCE SUMMARY**

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 61 inches

	Boundary			Classification		Saturated hydraulic	
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil	conductivity micro m/sec	Soil Reaction (pH)
1	0 inches	7 inches	fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 6 Min: 4.5
2	7 inches	18 inches	fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 6 Min: 4.5
3	18 inches	25 inches	fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 6 Min: 4.5
4	25 inches	29 inches	fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 6 Min: 4.5
5	29 inches	42 inches	gravelly fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 1.4 Min: 0.01	Max: 6 Min: 4.5
6	42 inches	64 inches	gravelly fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 1.4 Min: 0.01	Max: 6 Min: 4.5

Soil Map ID: 5

Soil Component Name: Ridgebury

Soil Surface Texture: slightly decomposed plant material

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high

water table, or are shallow to an impervious layer.

Soil Drainage Class: Poorly drained

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

#### **Soil Layer Information** Saturated **Boundary** Classification hydraulic conductivity **Unified Soil** Layer Upper Lower Soil Texture Class **AASHTO Group Soil Reaction** micro m/sec (pH) 1 0 inches 1 inches slightly Not reported Not reported Max: 42 Max: Min: decomposed Min: 4 plant material 2 COARSE-GRAINED Max: 42 1 inches 5 inches fine sandy loam Silt-Clay Max: 6 Min: Materials (more SOILS, Sands, Min: 4 4.5 than 35 pct. Sands with fines, passing No. Silty Sand. 200), Silty Soils. COARSE-GRAINED Max: 42 Max: 6 Min: 3 5 inches 14 inches fine sandy loam Silt-Clay Materials (more SOILS, Sands, Min: 4 4.5 than 35 pct. Sands with fines, passing No. Silty Sand. 200), Silty Soils. 4 14 inches 20 inches fine sandy loam Silt-Clay COARSE-GRAINED Max: 42 Max: 6 Min: Materials (more SOILS, Sands, Min: 4 4.5 Sands with fines, than 35 pct. passing No. Silty Sand. 200), Silty Soils. COARSE-GRAINED 5 20 inches 59 inches sandy loam Silt-Clay Max: 1.4 Max: 6 Min: Materials (more SOILS, Sands, Min: 0.01 4.5 than 35 pct. Sands with fines, passing No. Silty Sand. 200), Silty Soils.

Soil Map ID: 6

Soil Component Name: Ridgebury

Soil Surface Texture: fine sandy loam

Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer. Hydrologic Group:

Soil Drainage Class: Poorly drained

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches Depth to Watertable Min: > 8 inches

			Soil Layer	Information			
	Вои	ındary		Classif	fication	Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	5 inches	fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 4	Max: 6 Min: 4.5
2	5 inches	14 inches	fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 4	Max: 6 Min: 4.5
3	14 inches	20 inches	fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 4	Max: 6 Min: 4.5
4	20 inches	59 inches	sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 1.4 Min: 0.01	Max: 6 Min: 4.5

Soil Map ID: 7

Soil Component Name: Woodbridge

Soil Surface Texture: fine sandy loam

Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures. Hydrologic Group:

Soil Drainage Class: Moderately well drained

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 61 inches

			Soil Layer	Information			
	Boundary			Classi	Classification		
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil	hydraulic conductivity micro m/sec	Soil Reaction (pH)
1	0 inches	7 inches	fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 6 Min: 4.5
2	7 inches	18 inches	fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 6 Min: 4.5
3	18 inches	25 inches	fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 6 Min: 4.5
4	25 inches	29 inches	fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 6 Min: 4.5
5	29 inches	42 inches	gravelly fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 1.4 Min: 0.01	Max: 6 Min: 4.5

	Soil Layer Information									
	Bou	ndary		Classif	ication	Saturated hydraulic				
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil	1				
6	42 inches	64 inches	gravelly fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 1.4 Min: 0.01	Max: 6 Min: 4.5			

Soil Map ID: 8

Soil Component Name: Canton

Soil Surface Texture: moderately decomposed plant material

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep,

moderately well and well drained soils with moderately coarse

textures.

Soil Drainage Class: Well drained

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information										
	Воц	ındary		Classification		Saturated hydraulic				
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		Soil Reaction (pH)			
1	0 inches	1 inches	moderately decomposed plant material	A-8	Highly organic soils, Peat.	Max: 141 Min: 42	Max: 5.5 Min: 3.5			
2	1 inches	3 inches	gravelly fine sandy loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 6 Min: 3.5			

			Soil Layer	Information			
	Bou	ındary		Classification		Saturated hydraulic	
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil	conductivity micro m/sec	Soil Reaction (pH)
3	3 inches	14 inches	gravelly loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 6 Min: 3.5
4	14 inches	24 inches	gravelly loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 6 Min: 3.5
5	24 inches	29 inches	gravelly loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 6 Min: 3.5
6	29 inches	60 inches	very gravelly loamy sand	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 6 Min: 3.5

#### Soil Map ID: 9

Soil Component Name: Canton

Soil Surface Texture: moderately decomposed plant material

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep,

moderately well and well drained soils with moderately coarse

textures.

Soil Drainage Class: Well drained

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

	Soil Layer Information									
	Вои	ındary		Classi	fication	Saturated hydraulic				
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil	conductivity micro m/sec				
1	0 inches	1 inches	moderately decomposed plant material	A-8	Highly organic soils, Peat.	Max: 141 Min: 42	Max: 5.5 Min: 3.5			
2	1 inches	3 inches	gravelly fine sandy loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 6 Min: 3.5			
3	3 inches	14 inches	gravelly loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 6 Min: 3.5			
4	14 inches	24 inches	gravelly loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 6 Min: 3.5			
5	24 inches	29 inches	gravelly loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 6 Min: 3.5			
6	29 inches	60 inches	very gravelly loamy sand	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 6 Min: 3.5			

#### Soil Map ID: 10

Soil Component Name: Charlton

Soil Surface Texture: fine sandy loam

Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse Hydrologic Group:

textures.

Soil Drainage Class: Well drained

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 74 inches

Depth to Watertable Min: > 0 inches

	Bou	indary		Classification		Saturated hydraulic	
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil	conductivity micro m/sec	Soil Reaction (pH)
1	0 inches	3 inches	fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 4	Max: 6 Min: 4.5
2	3 inches	7 inches	fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 4	Max: 6 Min: 4.5
3	7 inches	18 inches	fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 4	Max: 6 Min: 4.5
4	18 inches	27 inches	gravelly fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 4	Max: 6 Min: 4.5
5	27 inches	64 inches	gravelly fine sandy loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 4	Max: 6 Min: 4.5

#### **LOCAL / REGIONAL WATER AGENCY RECORDS**

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

LOCATION

#### WELL SEARCH DISTANCE INFORMATION

DATABASE SEARCH DISTANCE (miles)

Federal USGS 1.000

Federal FRDS PWS Nearest PWS within 1 mile

State Database 1.000

#### FEDERAL USGS WELL INFORMATION

MAP ID WELL ID FROM TP

2 USGS40000229119 1/2 - 1 Mile NE

#### FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

MAP ID WELL ID FROM TP

No PWS System Found

Note: PWS System location is not always the same as well location.

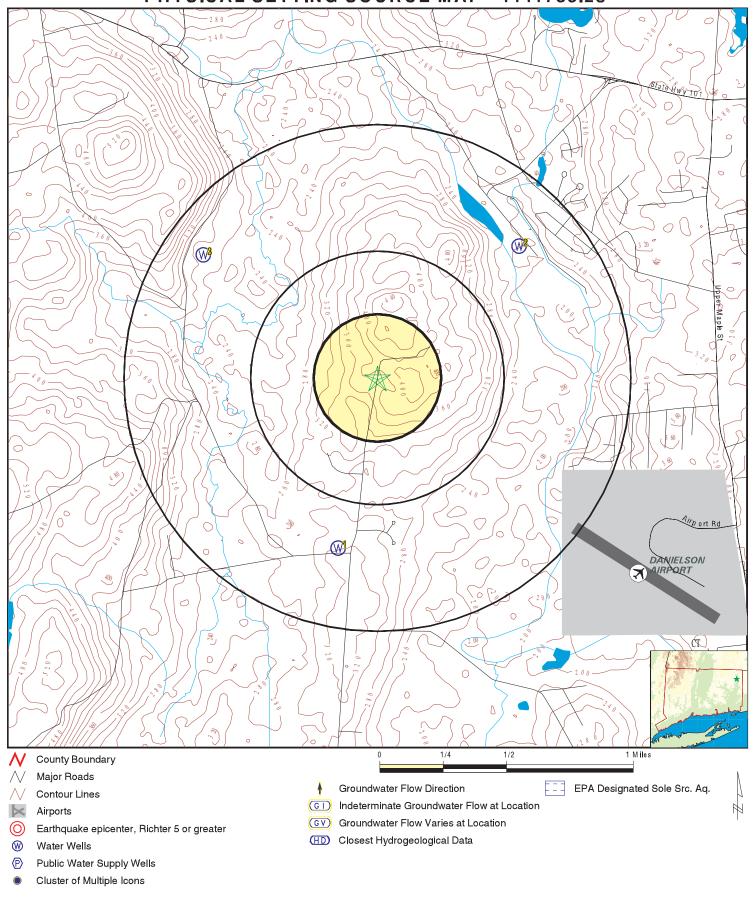
#### STATE DATABASE WELL INFORMATION

 MAP ID
 WELL ID
 FROM TP

 1
 CTC0000000000280
 1/2 - 1 Mile SSW

 3
 CTNC00000000641
 1/2 - 1 Mile NW

## PHYSICAL SETTING SOURCE MAP - 4441785.2s



SITE NAME: Nabozny Solar Site ADDRESS: 101 Woods Hill Road Pomfret CT 06259

41.8309 / 71.9209

LAT/LONG:

CLIENT: Tighe & Bond CONTACT: Samantha Avis INQUIRY#: 4441785.2s

DATE: October 19, 2015 7:16 pm

#### **GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS**

Map ID Direction Distance

Elevation Database EDR ID Number

SSW 1/2 - 1 Mile CT WELLS CTC00000000280

Lower

CT Community Well

Well ID: 298 Well Name: Well 1

Supply System ID: 19005 Supply System Name: BROOKLYN MANOR

Source Status: Active Type: Drilled

Groundwater Aquifer Type: Bedrock GIS Date/Method: 1984 Tablet Digitize

Depth:280 FeetDepth to Bedrock:0 FeetWell Diameter:0Casing Diameter:0Pump Capacity:10Safe Yield:.01099

2 NE FED USGS USGS40000229119 1/2 - 1 Mile

Lower

Org. Identifier: USGS-CT

Formal name: USGS Connecticut Water Science Center

Monloc Identifier: USGS-415018071543801

Monloc name: CT-KI 10
Monloc type: Well
Monloc desc: Not Reported

Huc code: 01100001 Drainagearea value: Not Reported Not Reported Contrib drainagearea: Not Reported Drainagearea Units: Contrib drainagearea units: Not Reported Latitude: 41.8384316 Longitude: -71.9100725 Sourcemap scale: Not Reported Horiz Acc measure: Horiz Acc measure units: Unknown Unknown

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 201
Vert measure units: feet Vertacc measure val: 1

Vert accmeasure units: feet

Vertcollection method: Interpolated from topographic map

Vert coord refsys: NGVD29 Countrycode: US

Aquifername: New England crystalline-rock aquifers
Formation type: Non-Carbonate Crystalline Bedrock
Aquifer type: Not Reported

Construction date: Not Reported Welldepth:

Welldepth units: ft Wellholedepth: Not Reported

Wellholedepth units: Not Reported

Ground-water levels, Number of Measurements: 0

NW 1/2 - 1 Mile Lower

CT WELLS CTNC0000000641

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## **GEOCHECK®-PHYSICAL SETTING SOURCE MAP FINDINGS**

CT Non-Community Well

Well ID: 558 Well Name: Well

Supply System ID: 1120332 Supply System Name: The Steak-umm Company, L.L.C.

Source Status: Active Type: Drilled

Groundwater Aquifer Type: Bedrock GIS Date/Method: 1999 Screen Digitize

Depth:0 FeetDepth to Bedrock:0 FeetWell Diameter:0Casing Diameter:0Pump Capacity:0Safe Yield:0

New ID: CT1120332

## GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS RADON

#### AREA RADON INFORMATION

State Database: CT Radon

Radon Test Results

City	# Sites	< 4 Pci/L	4 < 10 Pci/L	10 < 20 Pci/L	20 < 50 Pci/L	50 < 100 Pci/L	> 100 Pci/L
Sterling	72	52 (72.2)	13 (18)	4 (5.6)	4 (4.2)	0 (0)	0 (0)
Thompson	2	0 (0)	0 (0)	2 (100)	0 (0)	0 (0)	0 (0)
Willimantic	2	2 (100)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
Windham	82	67 (81.7)	12 (14.6)	3 (3.7)	0 (0)	0 (0)	0 (0)
Woodstock	20	15 (75)	5 (25)	0 (0)	0 (0)	0 (0)	0 (0)
Canterbury	8	4 (50)	1 (12.5)	2 (25)	1 (12.5)	0 (0)	0 (0)
Abington	1	1 (100)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
Brooklyn	5	3 (60)	2 (40)	0 (0)	0 (0)	0 (0)	0 (0)
Chaplin	97	78 (80.4)	18 (1)	1 (18.6)	0 (0)	0 (0)	0 (0)
Danielson	5	3(60)	1 (20)	1 (20)	0 (0)	0 (0)	0 (0)
Dayville	7	5 (71.4)	2 (28.6)	0 (0)	0 (0)	0 (0)	0 (0)
Hampton	2	1 (50)	0 (0)	0 (0)	1 (50)	0 (0)	0 (0)
Lisbon	3	1 (33.3)	2 (66.7)	0 (0)	0 (0)	0 (0)	0 (0)
Moosup	3	3 (100)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
North Windham	6	1 (16.7)	4 (66.7)	1 (16.7)	0 (0)	0 (0)	0 (0)
Pomfret	85	76 (89.4)	6 (7.1)	2 (2.4)	3 (3.5)	0 (0)	0 (0)
Pomfret Center	12	4 (33.3)	7 (58.3)	1 (8.3)	0 (0)	0 (0)	0 (0)
Putnam	1	1 (100)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
Scotland	22	12 (54.5)	7 (9.1)	1 (4.5)	2 (9.1)	0 (0)	0 (0)
South Windham	1	1 (100)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)

Federal EPA Radon Zone for WINDHAM County: 2

Note: Zone 1 indoor average level > 4 pCi/L.

: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.

: Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for Zip Code: 06259

Number of sites tested: 2

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	Not Reported	Not Reported	Not Reported	Not Reported
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	3.300 pCi/L	50%	50%	0%

### PHYSICAL SETTING SOURCE RECORDS SEARCHED

#### **TOPOGRAPHIC INFORMATION**

USGS 7.5' Digital Elevation Model (DEM)

Source: United States Geologic Survey

EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Current USGS 7.5 Minute Topographic Map Source: U.S. Geological Survey

#### HYDROLOGIC INFORMATION

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 2003 & 2011 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Tidal Wetlands

Source: Department of Energy & Environmental Protection

Telephone: 860-424-4054

#### HYDROGEOLOGIC INFORMATION

AQUIFLOW<sup>R</sup> Information System

Source: EDR proprietary database of groundwater flow information

EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

#### **GEOLOGIC INFORMATION**

Geologic Age and Rock Stratigraphic Unit

Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Services

The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Services (NRCS)

Telephone: 800-672-5559

SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Services, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

#### PHYSICAL SETTING SOURCE RECORDS SEARCHED

#### LOCAL / REGIONAL WATER AGENCY RECORDS

#### FEDERAL WATER WELLS

PWS: Public Water Systems

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)

This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

#### STATE RECORDS

Connecticut Leachate and Wastewater Discharge Sites

Source: Department of Environmental Protection

The Leachate and Waste Water Discharge Inventory Data Layer (LWDS) includes point locations digitized from Leachate and Wastewater Discharge Source maps compiled by the Connecticut DEP. These maps locate surface and groundwater discharges that (1) have received a waste water discharge permit from the state or (2) are historic and now defunct waste sites or (3) are locations of accidental spills, leaks, or discharges of a variety of liquid or solid wastes.

#### EPA-Approved Sole Source Aquifers in Connecticut

Source: EPA

Sole source aquifers are defined as an aquifer designated as the sole or principal source of drinking water for a given aquifer service area; that is, an aquifer which is needed to supply 50% or more of the drinking water for the area and for which there are no reasonable alternative sources should the aquifer become contaminated.

#### Community and Non-Community Water System Wells

Source: Department of Public Health, Water Supplies Section

Telephone: 860-509-7333

Active, emergency and inactive wells used for potable purposes that are owned and operated by active community and non-community water systems in Connecticut.

#### OTHER STATE DATABASE INFORMATION

#### **RADON**

State Database: CT Radon

Source: Department of Public Health

Telephone: 860-509-7367 Radon Statistical Summary

#### Area Radon Information

Source: USGS

Telephone: 703-356-4020

The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

#### PHYSICAL SETTING SOURCE RECORDS SEARCHED

EPA Radon Zones Source: EPA

Telephone: 703-356-4020

Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor

radon levels.

#### OTHER

Airport Landing Facilities: Private and public use landing facilities

Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater

Source: Department of Commerce, National Oceanic and Atmospheric Administration

Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary faultlines, prepared

in 1975 by the United State Geological Survey

#### STREET AND ADDRESS INFORMATION

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## **Nabozny Solar Site**

101 Woods Hill Road Pomfret, CT 06259

Inquiry Number: 4441785.5

October 20, 2015

## **The EDR-City Directory Abstract**



#### **TABLE OF CONTENTS**

#### **SECTION**

**Executive Summary** 

**Findings** 

**City Directory Images** 

**Thank you for your business.**Please contact EDR at 1-800-352-0050 with any questions or comments.

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#### **EXECUTIVE SUMMARY**

#### **DESCRIPTION**

Environmental Data Resources, Inc.'s (EDR) City Directory Abstract is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's City Directory Abstract includes a search and abstract of available city directory data. For each address, the directory lists the name of the corresponding occupant at five year intervals.

Business directories including city, cross reference and telephone directories were reviewed, if available, at approximately five year intervals for the years spanning 1993 through 2013. This report compiles information gathered in this review by geocoding the latitude and longitude of properties identified and gathering information about properties within 1320 feet of the target property.

A summary of the information obtained is provided in the text of this report.

#### **RESEARCH SUMMARY**

The following research sources were consulted in the preparation of this report. An "X" indicates where information was identified in the source and provided in this report.

<u>Year</u>	<u>Source</u>	<u>TP</u>	<u>Adjoining</u>	Text Abstract	Source Image
2013	Cole Information Services	-	-	-	-
2008	Cole Information Services	-	-	-	-
2003	Cole Information Services	-	-	-	-
1998	Cole Information Services	-	-	-	-
1993	Cole Information Services	-	-	-	-

## **FINDINGS**

#### TARGET PROPERTY INFORMATION

#### **ADDRESS**

101 Woods Hill Road Pomfret, CT 06259

### **FINDINGS DETAIL**

Target Property research detail.

## **FINDINGS**

#### **ADJOINING PROPERTY DETAIL**

The following Adjoining Property addresses were researched for this report. Detailed findings are provided for each address.

No Addresses Found

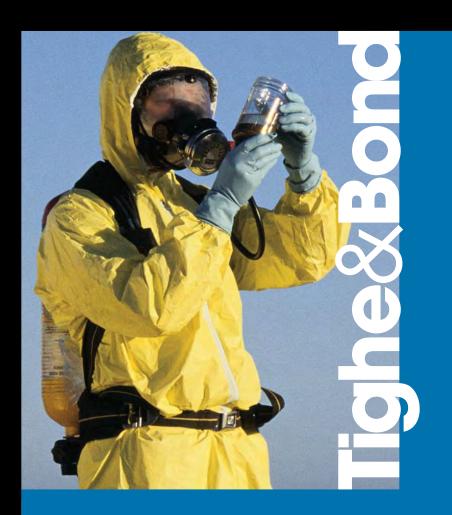
## **FINDINGS**

#### TARGET PROPERTY: ADDRESS NOT IDENTIFIED IN RESEARCH SOURCE

The following Target Property addresses were researched for this report, and the addresses were not identified in the research source.

<u>Address Researched</u> <u>Address Not Identified in Research Source</u>

101 Woods Hill Road 2013, 2008, 2003, 1998, 1993



## **Nabozny Solar Site**

101 Woods Hill Road Pomfret, CT 06259

Inquiry Number: 4441785.9

October 19, 2015

# The EDR Aerial Photo Decade Package



## **EDR Aerial Photo Decade Package**

Environmental Data Resources, Inc. (EDR) Aerial Photo Decade Package is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's professional researchers provide digitally reproduced historical aerial photographs, and when available, provide one photo per decade.

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## **Date EDR Searched Historical Sources:**

Aerial Photography October 19, 2015

## **Target Property:**

101 Woods Hill Road Pomfret, CT 06259

<u>Year</u>	<u>Scale</u>	<u>Details</u>	<u>Source</u>
1941	Aerial Photograph. Scale: 1"=750'	Flight Date: November 12, 1941	EDR
1951	Aerial Photograph. Scale: 1"=500'	Flight Date: October 13, 1951	EDR
1951	Aerial Photograph. Scale: 1"=500'	Flight Date: October 13, 1951	EDR
1963	Aerial Photograph. Scale: 1"=250'	Flight Date: October 06, 1963	EDR
1963	Aerial Photograph. Scale: 1"=250'	Flight Date: October 06, 1963	EDR
1963	Aerial Photograph. Scale: 1"=250'	Flight Date: October 06, 1963	EDR
1963	Aerial Photograph. Scale: 1"=250'	Flight Date: October 06, 1963	EDR
1963	Aerial Photograph. Scale: 1"=250'	Flight Date: October 06, 1963	EDR
1969	Aerial Photograph. Scale: 1"=500'	Flight Date: June 10, 1969	EDR
1969	Aerial Photograph. Scale: 1"=500'	Flight Date: June 10, 1969	EDR
1969	Aerial Photograph. Scale: 1"=500'	Flight Date: June 10, 1969	EDR
1980	Aerial Photograph. Scale: 1"=1000'	Flight Date: March 19, 1980	EDR
1986	Aerial Photograph. Scale: 1"=500'	Flight Date: March 23, 1986	EDR
1986	Aerial Photograph. Scale: 1"=500'	Flight Date: March 23, 1986	EDR
1986	Aerial Photograph. Scale: 1"=500'	Flight Date: March 23, 1986	EDR
1990	Aerial Photograph. Scale: 1"=500'	Flight Date: May 02, 1990	EDR
1990	Aerial Photograph. Scale: 1"=500'	Flight Date: May 02, 1990	EDR
1990	Aerial Photograph. Scale: 1"=500'	Flight Date: May 02, 1990	EDR
1991	Aerial Photograph. Scale: 1"=500'	DOQQ - acquisition dates: April 12, 1991	USGS/DOQQ

<b>Year</b> 1991	Scale Aerial Photograph. Scale: 1"=500'	Details DOQQ - acquisition dates: April 12, 1991	Source USGS/DOQQ
1991	Aerial Photograph. Scale: 1"=500'	DOQQ - acquisition dates: April 12, 1991	USGS/DOQQ
1991	Aerial Photograph. Scale: 1"=500'	DOQQ - acquisition dates: April 12, 1991	USGS/DOQQ
1996	Aerial Photograph. Scale: 1"=500'	Flight Date: April 15, 1996	EDR
1996	Aerial Photograph. Scale: 1"=500'	Flight Date: April 15, 1996	EDR
1996	Aerial Photograph. Scale: 1"=500'	Flight Date: April 15, 1996	EDR
2005	Aerial Photograph. Scale: 1"=500'	Flight Year: 2005	USDA/NAIP
2005	Aerial Photograph. Scale: 1"=500'	Flight Year: 2005	USDA/NAIP
2005	Aerial Photograph. Scale: 1"=500'	Flight Year: 2005	USDA/NAIP
2005	Aerial Photograph. Scale: 1"=500'	Flight Year: 2005	USDA/NAIP
2006	Aerial Photograph. Scale: 1"=500'	Flight Year: 2006	USDA/NAIP
2006	Aerial Photograph. Scale: 1"=500'	Flight Year: 2006	USDA/NAIP
2006	Aerial Photograph. Scale: 1"=500'	Flight Year: 2006	USDA/NAIP
2006	Aerial Photograph. Scale: 1"=500'	Flight Year: 2006	USDA/NAIP
2008	Aerial Photograph. Scale: 1"=500'	Flight Year: 2008	USDA/NAIP
2008	Aerial Photograph. Scale: 1"=500'	Flight Year: 2008	USDA/NAIP
2008	Aerial Photograph. Scale: 1"=500'	Flight Year: 2008	USDA/NAIP
2008	Aerial Photograph. Scale: 1"=500'	Flight Year: 2008	USDA/NAIP
2010	Aerial Photograph. Scale: 1"=500'	Flight Year: 2010	USDA/NAIP
2010	Aerial Photograph. Scale: 1"=500'	Flight Year: 2010	USDA/NAIP
2010	Aerial Photograph. Scale: 1"=500'	Flight Year: 2010	USDA/NAIP
2010	Aerial Photograph. Scale: 1"=500'	Flight Year: 2010	USDA/NAIP
2012	Aerial Photograph. Scale: 1"=500'	Flight Year: 2012	USDA/NAIP

Year	Scale	Details State of the state of t	Source
2012	Aerial Photograph. Scale: 1"=500'	Flight Year: 2012	USDA/NAIP
2012	Aerial Photograph. Scale: 1"=500'	Flight Year: 2012	USDA/NAIP
2012	Aerial Photograph. Scale: 1"=500'	Flight Year: 2012	USDA/NAIP



















































1" = 1000'

State of Connecticut

**INQUIRY #:** 4441785.9

**YEAR:** 1996

= 500'





























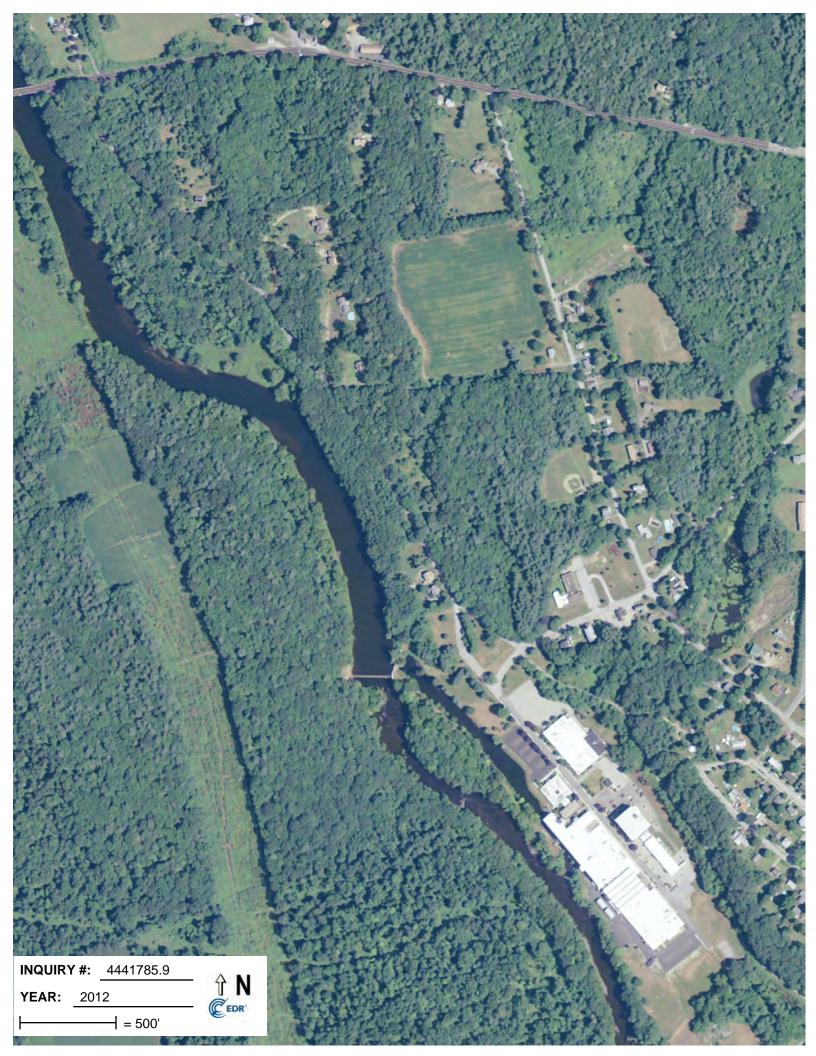
















## **Nabozny Solar Site**

101 Woods Hill Road Pomfret, CT 06259

Inquiry Number: 4441785.4

October 19, 2015

# **EDR** Historical Topographic Map Report



## **EDR Historical Topographic Map Report**

Environmental Data Resources, Inc.s (EDR) Historical Topographic Map Report is designed to assist professionals in evaluating potential liability on a target property resulting from past activities. EDRs Historical Topographic Map Report includes a search of a collection of public and private color historical topographic maps, dating back to the early 1900s.

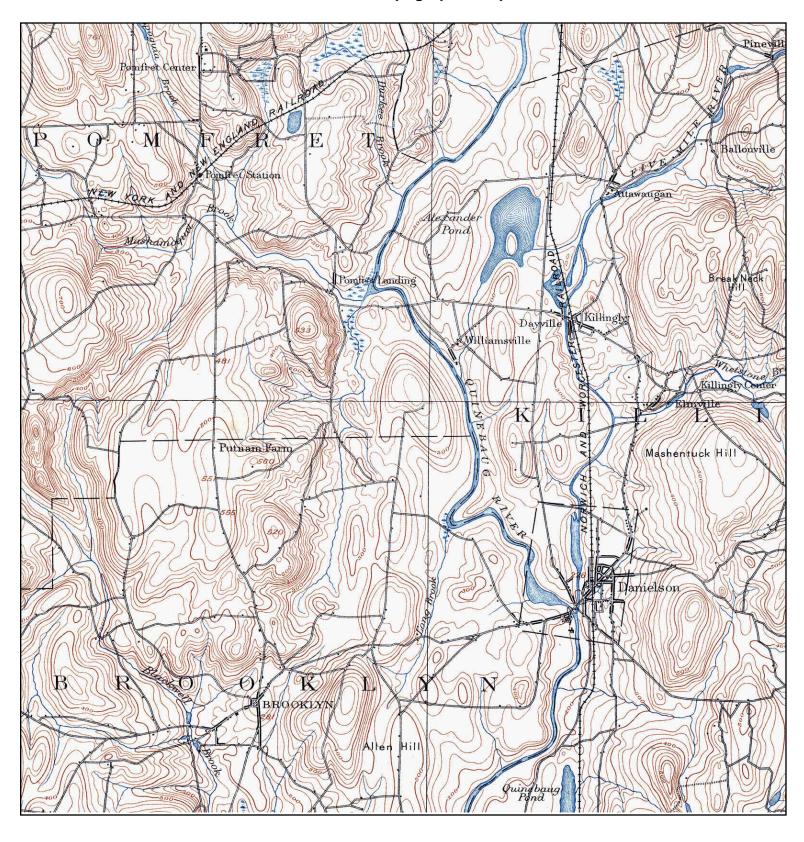
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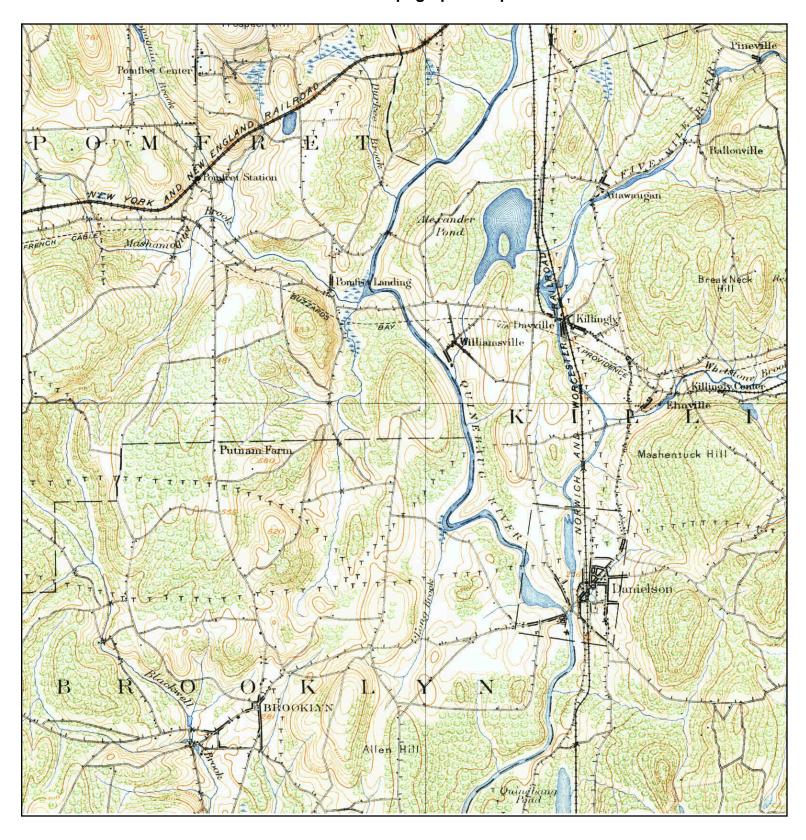
TARGET QUAD
NAME: PUTNAM

MAP YEAR: 1893

SERIES: 15 SCALE: 1:62500 SITE NAME: Nabozny Solar Site ADDRESS: 101 Woods Hill Road

Pomfret, CT 06259

LAT/LONG: 41.8309 / -71.9209





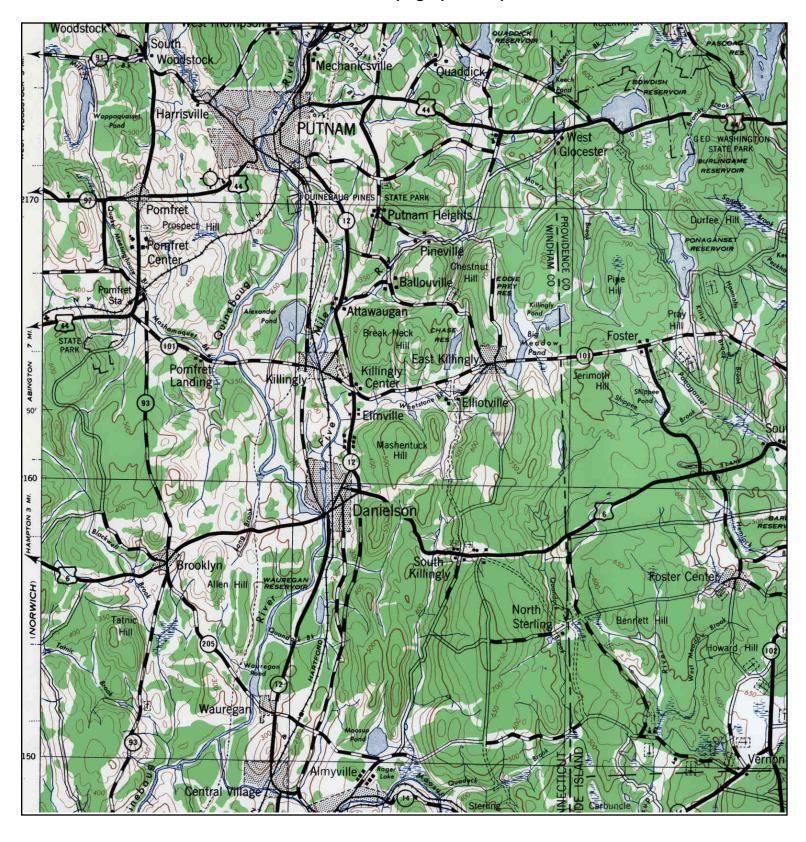
TARGET QUAD NAME: PUTNAM

MAP YEAR: 1915

SERIES: 15 SCALE: 1:62500 SITE NAME: Nabozny Solar Site ADDRESS: 101 Woods Hill Road

Pomfret, CT 06259

LAT/LONG: 41.8309 / -71.9209



N A TARGET QUAD

NAME: PUTNAM MAP YEAR: 1943

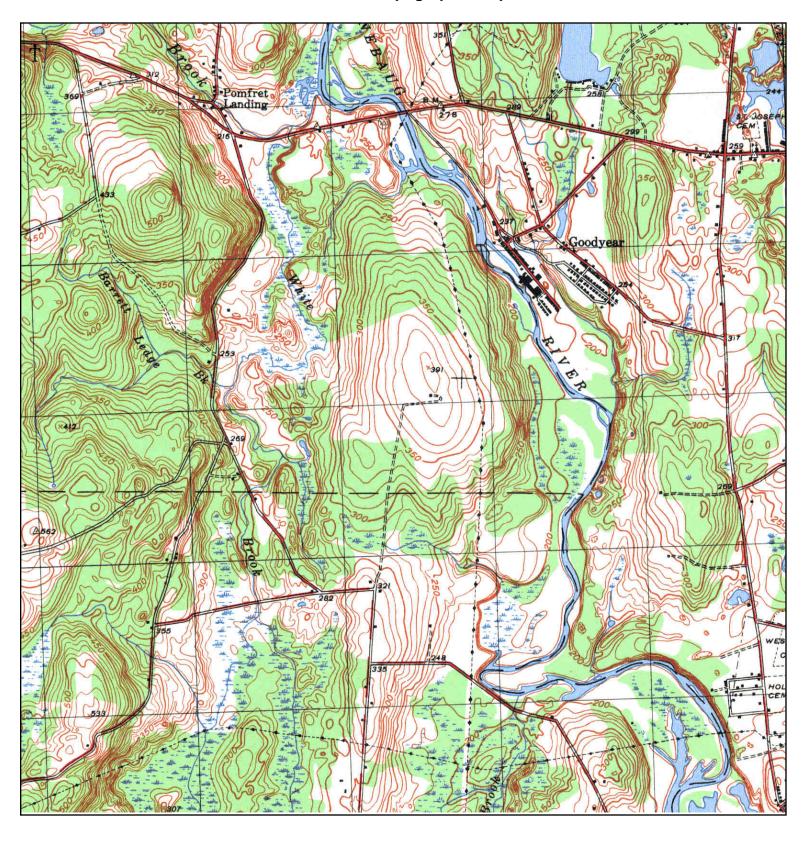
SERIES: 30

SCALE: 1:125000

SITE NAME: Nabozny Solar Site ADDRESS: 101 Woods Hill Road

Pomfret, CT 06259

LAT/LONG: 41.8309 / -71.9209





TARGET QUAD

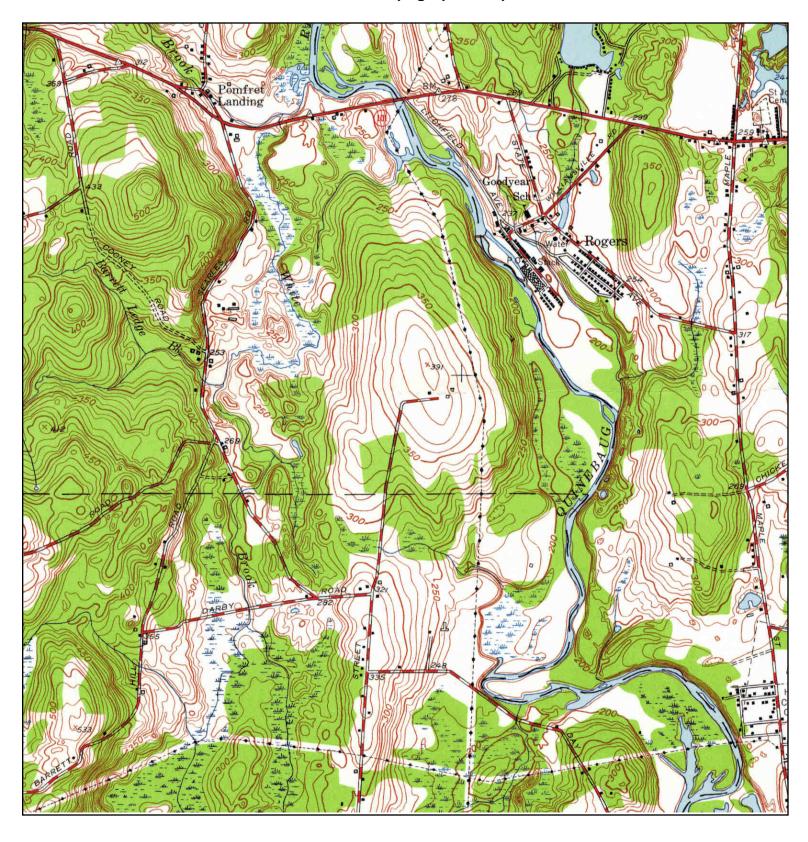
NAME: DANIELSON

MAP YEAR: 1947

SERIES: 7.5 SCALE: 1:25000 SITE NAME: Nabozny Solar Site

ADDRESS: 101 Woods Hill Road Pomfret, CT 06259

LAT/LONG: 41.8309 / -71.9209





TARGET QUAD

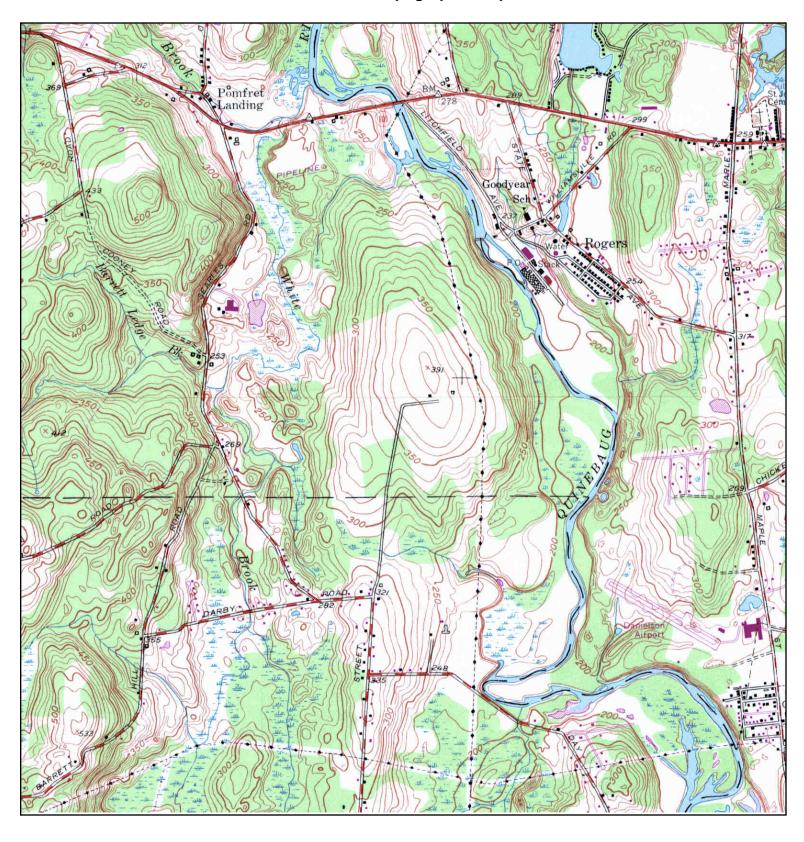
NAME: DANIELSON

MAP YEAR: 1955

SERIES: 7.5 SCALE: 1:24000 SITE NAME: Nabozny Solar Site

ADDRESS: 101 Woods Hill Road Pomfret, CT 06259

LAT/LONG: 41.8309 / -71.9209





TARGET QUAD

NAME: DANIELSON MAP YEAR: 1970

PHOTOREVISED FROM:1955

SERIES: 7.5 SCALE: 1:24000 SITE NAME: Nabozny Solar Site ADDRESS: 101 Woods Hill Road

Pomfret, CT 06259 LAT/LONG: 41.8309 / -71.9209

# **Nabozny Solar Site**

101 Woods Hill Road Pomfret, CT 06259

Inquiry Number: 4441785.3

October 19, 2015

# **Certified Sanborn® Map Report**



# Certified Sanborn® Map Report

10/19/15

Site Name:Client Name:Nabozny Solar SiteTighe & Bond101 Woods Hill Road213 Court Street

Pomfret, CT 06259 Middletown, CT 06457

EDR Inquiry # 4441785.3 Contact: Samantha Avis



The Sanborn Library has been searched by EDR and maps covering the target property location as provided by Tighe & Bond were identified for the years listed below. The Sanborn Library is the largest, most complete collection of fire insurance maps. The collection includes maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow, and others. Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by the Sanborn Library LLC, the copyright holder for the collection. Results can be authenticated by visiting www.edrnet.com/sanborn.

The Sanborn Library is continually enhanced with newly identified map archives. This report accesses all maps in the collection as of the day this report was generated.

#### Certified Sanborn Results:

Site Name: Nabozny Solar Site
Address: 101 Woods Hill Road
City, State, Zip: Pomfret, CT 06259

**Cross Street:** 

**P.O.** # S1992

Project: Nabonzy Solar Site Certification # D6E4-4E66-A5F1



This report certifies that the complete holdings of the Sanborn Library, LLC collection have been searched based on client supplied target property information, and fire insurance maps covering the target property were not found.



Sanborn® Library search results Certification # D6E4-4E66-A5F1

The Sanborn Library includes more than 1.2 million fire insurance maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow and others which track historical property usage in approximately 12,000 American cities and towns. Collections searched:

✓ Library of Congress

University Publications of America

▼ EDR Private Collection

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