

**STORMWATER POLLUTION PREVENTION PLAN**  
**for**  
**EARTH PRODUCTS EXCAVATION**

5 Quinebaug Camp Road  
Canterbury, CT 06331  
(860) 376-2537

**PPP Contact(s):**

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**PPP Preparation Date:**

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# 1 SITE DESCRIPTION AND CONTACT INFORMATION

## 1.1 Facility Description (Section 5(c)(2)(a))

### Facility Information

Name of Facility: 5 Quinebaug Camp Road Earth Products Excavation

Street: 5 Quinebaug Camp Road (access from Camp Road)

City: Canterbury

State: CT

ZIP Code: 06331

County: Windham County

Latitude/Longitude

Latitude:

Longitude:

41° 38' 28" N

71° 58' 12" W

Method for determining latitude/longitude : Google Earth

Estimated area of industrial activity at site exposed to stormwater: 19.0 acres

### Discharge Information

Does this facility discharge stormwater into an MS4? ☐ Yes ☒ No

If yes, name of MS4 operator: Not Applicable

Name(s) of water(s) that receive stormwater from the facility: Aspinook Pond (Quinebaug River)

Are any of the discharges directly into any segment of an "impaired" water? ☒ Yes ☐ No

If Yes, identify name of the impaired water (and segment, if applicable): Aspinook Pond – CT3700-00-5+L4 01

Identify the pollutant(s) causing the impairment: Chlorophyll-a, Excess Algal Growth, Nutrient/Eutrophication Biological Indicators (TKN, NO3, Total Phosphorous)

For pollutants identified, is there reason to believe they will be present in the discharge? Pollutant presence not anticipated in excess of background levels. Potential discharges from sediment traps will flow overland for approximately 300 feet before reaching the water body.

For pollutants identified, which have a completed TMDL? No TMDL

Primary SIC Code or 2-letter Activity Code: 1442 (Mining, Construction Sand and Gravel)

Identify applicable sector and subsector: Sector B (Non-Metallic Mines and Quarries, Stone Cutting)

**Facility Operator(s):**

Name: American Industries, Inc.

Address: Attn: Pasquale Camputaro, 630 Plainfield Road

City, State, Zip Code: Jewett City, CT 06351

Telephone Number: (860) 376-2537

Email address: [pcamputaro@americanind.net](mailto:pcamputaro@americanind.net)

Fax number: (860) 376-3909

**Facility Owner(s):**

Name: P&J Holdings, LLC.

Address: Attn: Pasquale Camputaro, 630 Plainfield Road

City, State, Zip Code: Jewett City, CT 06351

Telephone Number: (860) 376-2537

Email address: [pcamputaro@americanind.net](mailto:pcamputaro@americanind.net)

Fax number: (860) 376-3909

**SWPPP Contact:**

Name: Steve Walsh, American Industries, Inc.

Telephone number: (860) 234-1234

Email address: [swalsh@americanind.net](mailto:swalsh@americanind.net)

Fax number: (860) 376-3909

**Facility Description:**

The proposed excavation will result in the removal of approximately 257,200 cubic yards of material from 19.0 acres of the total 51.6 acres that form the property. The proposed excavation and operating areas are to be located outside of the limits of the Aquifer Protection Area, NDDB Habitat, and Regulated Areas of the adjacent watercourses and wetlands. The excavation will be completed in phases, with no phase exceeding 5 acres of operating area at any given time. The excavation is proposed to be completed in five (5) phases with each phase to be restored concurrently with the start of the following phase. Sediment traps will be constructed downgradient of each active phase as shown on the Site Plans.

## 1.2 General Location Map (Section 5(c)(2)(B))

See Attachment A for General Location Map. The property is located on the USGS Plainfield Quad.

## 1.3 Pollution Prevention Team (Section 5(c)(2)(C))

<u>Staff Names</u>	<u>Individual Responsibilities</u>	<u>Phone</u>
Steve Walsh	Project superintendent	860-234-1234
Christine Walsh	Assistant project superintendent	860-376-2537
_____	Site foreman (to be determined)	_____

The members noted above provide coverage for both 1<sup>st</sup> and 2<sup>nd</sup> shift, and are the 24-hour emergency contacts. These members are responsible for implementing and updating the SWPPP, and completing monthly inspections of the stormwater management controls. At least one team member shall be present at the facility or on call during all operational shifts.

## 2 POTENTIAL POLLUTANT SOURCES

### 2.1 Site Map (Section 5(c)(2)(D)(i))

The facility site maps are included in Attachment B. The site maps are included in the plans entitled “American Industries, Inc., Proposed Earth Products Excavation, 5 Quinebaug Camp Road, Canterbury, Connecticut, March 2017, Cover through Sheet 12 of 12.”

The site maps include the following information:

- North arrow and surveyed property lines:
  - See Sheets 2 and 3.
- Location of existing buildings and structures:
  - The property is undeveloped and there are no existing buildings or structures.
- The overall site size, the amount of total impervious area on the site, and the amount of impervious area in each drainage outfall:
  - Property size is included on Sheet 2, operating area size is included on Sheet 3, the proposed impervious areas are shown on Sheets 3 and 4 (impervious fueling pad only), sediment traps are shown on Sheets 3 through 7.
- An outline of each outfall’s drainage area and direction of flow within the drainage area:
  - The drainage area consists of the proposed excavation and will discharge to the proposed sediment traps.
- Identification of existing structural control measures installed to reduce pollutants in stormwater runoff:
  - Proposed wood chip berm/sediment fence barriers are shown on Sheets 3 through 7. Proposed concrete fueling pad is shown on Sheets 3 and 4.
- Locations of all stormwater conveyances including catch basins, ditches, pipes, and swales, as well as the location of any non-stormwater discharges:
  - There will be no non-stormwater discharges. Diversion ditches may be installed on an as needed basis to direct runoff to the proposed sediment traps.
- Identification of and the areal extent of any wetlands to which stormwater discharges:
  - Limits of wetlands are shown on Sheets 2 and 3. The proposed sediment traps discharge approximately 100 feet or more upgradient of the limits of the wetlands.
- Identification of the receiving surface water body or bodies to which the site discharges, including the identification of any impaired waters, and identification of any impaired waters with Total Maximum Daily Loads (TMDL) established:
  - Runoff from the operating area will flow through sediment traps prior to approximately 300 feet of overland flow before entering Aspinook Pond.
- Locations where major spills or leaks have occurred:
  - No known spills or leaks have occurred at the site. The Stormwater Pollution Prevention Plan will be updated over the course of the operation as needed.
- Locations of all stormwater monitoring points, including latitude and longitude:
  - Stormwater monitoring will be completed at the discharges of the sediment traps, which will be excavated and relocated by phase of excavation.
- Locations of discharges to a municipal storm sewer system:
  - Not applicable.
- Locations of discharges to groundwater through an infiltration system:
  - Not applicable.
- Locations where any drainage run-on enters the site:
  - The proposed excavation is located at the high point of the site, stormwater run-on is not a concern for the operation.

- Locations of activities that are exposed to precipitation, including but not limited to:
  - Fueling stations: Concrete fueling pad on Sheets 3 and 4.
  - Vehicle and equipment storage: Designated area on Sheet 4.
  - Maintenance, and/or cleaning areas: Maintenance and/or cleaning will not be completed on site.
  - Loading/unloading areas: Trucks will be loaded with material at the point of excavation.
  - Locations used for the treatment, storage or disposal of wastes: No wastes will be treated, stored, or disposed of on site.
  - Liquid storage tanks: No liquid storage tanks will be kept on site.
  - Deicing material storage areas: No deicing materials will be stored on site.
  - Processing areas: No material processing will be completed on site.
  - Raw, intermediate, or finished product storage areas: Topsoil and subsoil stockpiles are shown on Sheets 4 through 7.
  - Areas with the potential for erosion that may impact surface waters or wetlands, and any other potential pollutant sources: Disturbed areas will be limited to the proposed excavation and will not impact surface waters or wetlands.
- Additional mapping requirements for Sector B activities:
  - Mining or milling site boundaries access and haul roads: Boundaries for each phase of the excavation and associated haul roads are shown on Sheets 4 through 7.
  - Outdoor manufacturing, outdoor storage, and materials handling and disposal areas: Stockpile areas are identified on Sheets 4 through 7.
  - Outdoor chemicals and explosives storage areas: No chemicals or explosives will be used on site.
  - Overburden, materials, soils, or waste storage areas: Subsoil and stockpile areas are identified on Sheets 4 through 7. No waste materials will be stored on site.
  - Location of on-site and off-site mine drainage dewatering or other process water surface waters: No dewatering or stormwater discharges will occur. The bottom of the excavation is above seasonal high groundwater.
  - Location(s) of reclaimed areas: Restoration areas are shown on Sheets 4 through 7.
  - Location(s) of all permitted discharges covered under an NPDES permit: Not applicable.

## 2.2 Inventory of Exposed Materials and Summary of Potential Pollutant Sources (Sections 5(c)(2)(ii) and 5(c)(2)(iii))

The following areas of the site were evaluated for potential pollutants:

- Loading and unloading: All truck loading will occur at or near the point of excavation. Materials to be loaded included sand and gravel. Potential pollutants are limited to fugitive dust.
- Operations roof areas: No structures are proposed for the operation. The only roof area may be a shipping container, if it is determined to be required for the operation. Potential pollutants from a roof area would be limited to fugitive dust.
- Outdoor storage activities: Outdoor storage is limited to the topsoil and subsoil stockpiles, and temporary storage of stumps and sand and gravel waiting to be loaded off site. Potential pollutants from the storage areas are limited to fugitive dust.
- Outdoor manufacturing or processing activities: No material processing will occur on site.
- Dust or particulate generating processes: No material processing will occur on site.
- Onsite waste disposal practices: No waste materials will be disposed of on site.



As a Sector B operation the site was evaluated for the following additional pollutants:

- Pollutants likely to be present based on the mineralogy of the waste rock: Proposed operation is a sand and gravel operation and there will be no waste rock.
- Toxicity and quantity of chemicals used, produced or discharged: No chemicals will be used for the operation.
- Chemicals used in blasting materials: No blasting will occur on site.

See Table 1, below, for a list of the exposed materials and potential pollutants on site and how they have been mitigated.

Table 1  
Material Inventory/ Potential Pollutants

<b>Activity/ Exposed Material</b>	<b>Onsite Location of Activity/ Material</b>	<b>Associated Outfall Number</b>	<b>Associated Pollutants</b>	<b>Method of storage/ Extent of exposure of activity</b>	<b>Description of Storage (Tank type, size, AST, UST, etc.)</b>	<b>Control measures used to minimize exposure</b>	<b>Location and description of structural or non- structural measures to control pollutants/ treatment devices installed to treat stormwater runoff</b>
Excavation	Excavation/ Operating Area	Sediment Trap	Dust, erosion	Stormwater through operating area	Not Applicable	Dust control watering, restoration by phase	Water truck, restoration with subsoil, topsoil, grass seed and mulch by phase, wood chip berm/sediment fence at excavation limits
Loading	Excavation/ Operating Area	Sediment Trap	Dust	Stormwater through operating	Not Applicable	Dust control watering	Water truck
Haul Roads	Throughout Site	Sediment Trap	Dust, sediment tracking	Stormwater through operating area	Not Applicable	Anti-tracking pad, dust control watering	Water truck, maintenance of anti- tracking pad
Soil Stockpiles	Operating Area	Sediment Trap	Dust, erosion	Stormwater through operating area	Not Applicable	Temporary seeding, sediment fence barrier	Seed stockpiles immediately and install downgradient sediment fence
Fueling Area	Staging Area	Sediment Trap	Diesel fuel	Stormwater through operating	Delivery service	Concrete fueling pad, spill kit	Fueling on concrete pad only, clean up all spills immediately

## 2.3 Spills and Leaks

No known spills or leaks have occurred at this site. Table 2, below, shall be updated if a spill or leak of five gallons or more of petroleum products, or toxic or hazardous substances (per Appendix B Tables II, III, and V and Appendix D of the Regulations of Connecticut State Agencies (<http://www.ct.gov/deep/lib/deep/regulations/22a/22a-430-3and4.pdf>) ) occurs during the operation of the facility. CT DEEP shall be notified using the form included in Attachment C if a spill or leak occurs.

Table 2  
List of Significant (> 5 gallons) Spills and Leaks (3 years prior to date of certification of the Plan)

Additional Inventory Requirements by Sector (see Section 5(f) of the general permit)								Response Procedures	Corrective Measures Taken
Date  (MM/DD/YY)	(check one)		Location  (see map)	Description					
	Spill	Leak		Type of Material	Quantity	Source	Reason		

## 2.4 Presence of Non-Stormwater Discharges (Section 5(c)(2)(F))

The anticipated non-stormwater discharges for this site are as follows:

- Water misted for dust control via a water truck throughout the access roads of the site. Dust control misting quantities shall be limited to prevent discharges of non-stormwater runoff. The operating area is an excavation, so non-stormwater from dust control operations will not runoff of the site, but will infiltrate into the excavation area or drain into a sediment trap.

Evaluations shall be conducted in the future by a member of the PPT to ensure that there are no unauthorized non-stormwater discharges at the site after the commencement of site operation. These evaluations shall include the following:

- 1) Date of evaluation,
- 2) Method used to conduct evaluation (visual, testing analysis, etc.),
- 3) The outfalls or drainage points that were observed during the evaluation,

- 4) Any allowable non-stormwater discharges and permitted wastewater discharges that occur at the site with their corresponding wastewater discharge permit numbers and corresponding outfall,
- 5) All other non-stormwater discharges found at the site,
- 6) Description of actions taken to eliminate non-stormwater discharges such as a list of control measures used to eliminate unauthorized discharge(s), if any were identified,
- 7) A Non-Stormwater Discharge Certification shall be signed by a professional engineer (PE) licensed to practice in the State of Connecticut or a Certified Hazardous Materials Manager (CHMM). This Non-Stormwater Discharge Certification form is in Attachment D.
- 8) Record of these evaluations shall be noted below:

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## 2.5 Impaired Waters (Sections 3(b)(9), 5(e)(1)(D), and 5(g))

Stormwater runoff from the property flows into the Aspinook Pond section of the Quinebaug River (CT3700-00-5+L4\_01). The river has been designated as Impaired for recreational uses due to Chlorophyll-a, Excess Algal Growth, and Nutrient/Eutrophication Biological Indicators, as noted on the CT DEEP Impaired Waters Monitoring Table. NO TMDL has been set for Aspinook Pond. No additional monitoring is required due to the Impaired Waters designation. The proposed excavation has been designed so that runoff from the operating areas will drain to sediment traps prior to discharging approximately 300 feet upgradient of Aspinook Pond.

### 2.5.1 Mercury

All freshwaters of the state are considered impaired for fish consumption due to atmospheric deposition of mercury. No stormwater will be exposed to mercury as part of this operation.

### 2.5.2 Nitrogen

A statewide TMDL is being implemented to address nitrogen loading to Long Island Sound in order to achieve water quality standards for dissolved oxygen in the Sound. Monitoring for nitrogen in stormwater runoff, in the form of nitrate and total Kjeldahl nitrogen, has already been incorporated into the general permit. Additional monitoring for TKN and nitrate is not required if the concentration of these parameters in the stormwater is below the benchmarks. The proposed excavation has been designed so that there will be no discharge of stormwater runoff from the operating area.

### 3 STORMWATER CONTROL MEASURES (Sections 5(b) and 5(f))

Control measures are the best management practices (BMPs) or other structural or non-structural practices that are used to prevent or minimize the discharge of pollutants in stormwater. Typically, a combination of management procedures, structural controls, and employee training provides the most effective means of stormwater management. Proposed stormwater control measures are identified on Sheet 3 in Attachment B. Details for the installation of the stormwater control measures are shown on Sheet 11 in Attachment B. An erosion and sediment control plan and pollution prevention plan are shown on Sheet 12 in Attachment B.

#### 3.1 Control Measure Elements:

##### **Good Housekeeping (Section 5(b)(1))**

Good housekeeping practices are a practical and cost-effective way to prevent potential pollutant sources from coming into contact with stormwater. Good housekeeping is a particularly essential component of stormwater management at quarries, sand and gravel operations, public works facilities, landfills and transfer stations.

It is intended that maintenance, storage of fluids and chemicals, and all trash and waste disposal will occur off site at an appropriate facility. Any minor onsite maintenance and all fueling operations will take place on the concrete fueling pad. Equipment shall be stored in the designated area, and shall be kept in good working order (no leaks of oil or hydraulic fluid).

##### **Vehicle or Equipment Washing (Section 5(b)(2))**

Vehicle and equipment washing is prohibited at this site.

##### **Floor Drains (Section 5(b)(3))**

There are no floor drains at this site.

##### **Roof Areas (Section 5(b)(4))**

If a job trailer/storage container is determined to be required that will constitute the only roof area in the facility. Collection of dust will be minimized by dust control measures during the excavation phases. The container will be removed at the completion of site restoration.

##### **Minimize Exposure (Section 5(b)(5))**

An effective way to minimize stormwater pollution is to eliminate opportunities for stormwater to come into contact with industrial activities and polluting materials. The site will have a designated concrete pad for fueling. At this location potential pollutants will be confined to a specific area where they can be controlled and contained. Although the excavation areas will be exposed to rain, snow, snowmelt and runoff, these areas will be graded such that runoff will be directed into the excavation where it will be runoff to the proposed sediment traps. Stormwater runoff from the active operating areas will discharge to the sediment traps prior to running off of the site.

### **Sediment and Erosion Control (Section 5(b)(6))**

Sediment and erosion controls will comply with the 2002 Connecticut Guidelines for Soil Erosion and Sediment Control, and the 2004 Connecticut Stormwater Quality Manual.

The project involves a significant amount of excavation, filling and regrading including material storage and loading for transport offsite. Sediment fence and/or wood chip berms will be installed at the project limits prior to soil disturbance to prevent stormwater runoff carrying sediment from discharging offsite. In addition, an anti-tracking pad will be installed at the site access drive to prevent vehicles from tracking sediment onto Camp Road and other associated roadways. Sediment traps will be excavated downgradient of each of the phased operating areas in accordance with the site plans.

After site vegetation is cleared and removed, the stumps will be grubbed by phase. Following grubbing of each phase the overburden material will be stripped from the area to be excavated stockpiled at locations indicated on the site maps for future site restoration. Sediment fence will be installed downgradient of the stockpiles and they will be seeded for temporary stabilization. Disturbed areas in each phase of the excavation will be limited to 5.0 acres or less.

Prior to grubbing each phase a sediment trap will be excavated for use during that phase. Diversion swales will be installed as necessary to direct runoff to the sediment trap. Sediment traps shown on the site plans are sized in accordance with the procedures outlined in the 2002 Connecticut Guidelines for Soil Erosion and Sediment Control.

See Sheet 12 of the site plans in Attachment B for a detailed Erosion and Sediment Control Plan.

### **Management of Runoff (Section 5(b)(7))**

Stormwater runoff will flow into the proposed sediment traps for removal of sediment prior to discharging approximately 300 feet upgradient of Aspinook Pond. The proposed excavation is outside of the Aquifer Protection Area. The following measures will be implemented to prevent groundwater contamination:

- Prevent illicit discharges to stormwater, including fuel/chemical pollution releases to the ground.
  - All fueling will occur on a concrete fueling pad with a spill cleanup kit available. No other chemicals will be stored at the site.
- Minimize impervious coverage and disconnect large impervious areas with natural or landscape areas.
  - Proposed impervious areas are limited to a 500 square foot concrete fueling pad, and a job trailer/storage container if determined to be necessary for the operation.
- Direct paved surface runoff to aboveground type land treatment structures – sheet flow, surface swales, depressed grass islands, detention/retention and infiltration basins, and wet basins. These provide an opportunity for volatilization of volatile organic compounds to the extent possible before the stormwater can infiltrate into the ground.
  - All stormwater management on site will occur via overland sheet flow into the excavation.
- Provide necessary impervious pavement in high potential pollutant release areas. These “stormwater hot spots” include certain lands use types or storage and loading areas, fueling areas, intensive parking areas and roadways.
  - A concrete fueling pad will be installed for all fueling operations.
- Only use subsurface recharge structures such as dry wells, galleries, or leaching trenches, to directly infiltrate clean runoff such as rooftops, or other clean surfaces. These structures do not adequately allow

for attenuation of salts, solvents, fuels or other soluble compounds in groundwater that may be contained in runoff.

- No subsurface infiltration structures are proposed.
- Restrict pavement deicing chemicals, or use an environmentally suitable substitute such as sand only, or alternative de-icing agents such as calcium chloride or calcium magnesium.
- No de-icing chemicals or agents will be utilized at this site.

#### **Preventive Maintenance (Section 5(b)(8))**

The preventive maintenance program is intended to ensure that structural control measures and industrial equipment are kept in good operating condition and to prevent or minimize leaks and other releases of pollutants resulting in discharges of pollutants to surface waters. The program includes the following regular inspections:

- Weekly inspections of perimeter erosion and sediment controls (sediment fence and wood chip berms).
- Weekly inspections of anti-tracking pad.
- Weekly inspections of concrete fueling pad and spill cleanup kit.
- Monthly inspections of equipment for signs of leaks.

Inspection and maintenance logs are included in Attachment E and should be kept up to date and stored on site with the Plan.

#### **Spill Prevention and Response Procedures (Section 5(b)(9))**

A detailed Spill Prevention Plan is included on Sheet 12 of the site plans in Attachment B.

All fueling operations will take place on the concrete fueling pad and a spill cleanup kit is required to be available at the fueling pad. If minor maintenance occurs on site it shall also take place on the concrete fueling pad.

The following procedures will be implemented if it is determined that fluids need to be stored at the site:

- All containers (e.g., "Used Oil," "Spent Solvents", etc.) that could be susceptible to spillage or leakage shall be appropriately labeled in order to facilitate rapid response if spills or leaks occur.
- Containers shall be kept within a storage container, on a spill pallet.
- Safety Data Sheets (SDS) shall be located in the storage container.
- A spill cleanup kit shall be available at the concrete fueling pad during all fueling operations.
- Preventative measures such as drip pans shall be placed under leaking equipment or vehicles that are waiting to be repaired/removed from the site. Any contained oil or fuel shall be properly disposed of in compliance with all local, State and federal regulations;
- OSHA-approved spill kits and absorbent materials will be kept on site at all times where fuel is dispensed, used and stored.
- Weather-resistant forms for spill response procedures are posted at the storage container (see Attachment F for copy).

- Spill response contact information should be posted in locations that are readily accessible and available to employees.

### **Employee Training (Section 5(b)(10))**

Training in stormwater management is required for the members of the Pollution Prevention Team and for all employees who will operate excavating equipment at the site. Training of new employees shall be completed within 30 days of employment and at least once per year thereafter.

Training shall be conducted or supervised by a member of the Pollution Prevention Team or other qualified person. A sign in/sign out sheet at each training class shall be utilized to document that employees have participated. The sign in sheet is included in Attachment G of the Plan. Employee training records are routinely reviewed by Department staff during site inspections.

Training sessions shall include discussion of:

- Good housekeeping practices (Section 3)
- Sediment and erosion controls (Section 3)
- Management of runoff (Section 3)
- Preventative maintenance (Section 3)
- Spill prevention and response procedures (Section 3, Attachment F)
- Inspection procedures (Section 4)

### **Non-Stormwater Discharges (Sections 5(b)(11) and 5(c)(2)(F))**

It is not anticipated that there will be any non-stormwater discharges from the site. The only non-stormwater to be used at the site will be water for dust control purposes.

The Pollution Prevention Team shall manage and inspect the site and document any and all non-stormwater discharges that occur on site not listed above, and in Section 2 of this Plan and, if any, provide a procedure to eliminate same or modify this Plan accordingly.

### **Solid Deicing Material Storage (Section 5(b)(12))**

Deicing materials include pure salt, salt alternatives, and any other materials mixed with salt or salt alternative. Deicing materials will not be used or stored at this site.

### **Discharges to Impaired Waters**

The proposed sediment traps will discharge approximately 300 feet upgradient of Aspinook Pond. The proposed control measures include woodchip berm at project limits, limiting disturbed areas to less than 5.0 acres, installing sediment fence downgradient of stockpiles, seeding and mulching stockpiles, and installation of sediment traps and diversion swales by phase so that all runoff is treated by a sediment trap prior to discharging to undisturbed areas.

### **Sites Discharging to Municipal Separate Storm Sewer System**

There are no Municipal Separate Storm Sewer Systems in the vicinity of the site.

### **Additional Control Measure Requirements by Sector**

Sector B (Non-Metallic Mines and Quarries, Stone Cutting): Sediment and erosion controls, dust suppression and diversion of uncontaminated stormwater run-on.

- Sediment and Erosion Controls – See above and Erosion and Sediment Control Plan on Sheet 12 of Attachment B for additional information.
- Dust Suppression – See Erosion and Sediment Control Plan on Sheet 12 of Attachment B for additional information.
- Diversion of uncontaminated stormwater run-on – The proposed site is an earth products excavation. The excavation is generally located at the high point of the property so run-on will be very limited, if any, and diversion should not be required.



## 4 INSPECTIONS (Section 5(d))

The general permit requires two types of inspections, semi-annual comprehensive site inspections and routine inspections that must be conducted at least monthly. The focus of a site inspection is to ensure that management practices and control measures documented in Section 3 of the Plan are being implemented correctly and effectively, and to help determine if changes to stormwater management at the site need to be made.

### 4.1 Semi-Annual Inspections

#### **Person(s) responsible for conducting semi-annual facility inspections**

At least one member of the stormwater pollution prevention team must be involved in facility inspections.

#### **Schedules for conducting semi-annual facility inspections**

Semi-annual inspection shall be conducted in the spring (late March or early April, preferably during a rainfall event, in order to observe the assumed wettest time of the year and associated stormwater runoff and high groundwater conditions) and during September.

#### **Documents to be reviewed prior to the semi-annual inspection.**

This list may include:

- Current Pollution Prevention Plan (Plan) including any modifications that were made to it,
- The current site map indicating project status,
- All routine inspection reports for the year,
- All visual monitoring reports for the year,
- All analytical stormwater monitoring for the year,
- Any other pertinent documentation such as maintenance records, spill reports, etc.

#### **Inspection procedures**

Conduct inspections during rainfall events if possible. Specific items to be covered by the inspection include:

- Material handling areas.
- Stockpile areas.
- Roof areas (if applicable).
- Leaks or spills from equipment.
- Offsite tracking of sediment where vehicles enter or exit the site.
- Sediment fence or wood chip berms needing replacement, maintenance or repair.
- Vehicle storage, maintenance and repair areas.

Inspections shall include evidence of runoff leaving the excavation area, signs of erosion, fugitive dust, and spills in the vicinity of the concrete fueling pad.

## **Reporting and follow-up procedures**

Inspection reports prepared following semi-annual inspections must be signed by the permittee and retained as part of the Plan for at least five years after the date of the inspection. Inspection reports are routinely reviewed by Department staff during site inspections.

The inspection report should provide, at a minimum, the following information:

- The date of the inspection
- The name(s) and title(s) of the inspector(s)
- Weather information for the day(s) of the inspection
- Findings from the areas of the facility that were observed
- All observations relating to the implementation of the control measures including:
  - Previously unidentified discharges from the site
  - Evidence of, the potential for, pollutants entering the drainage system
  - Evidence of pollutants discharging to receiving waters at all facility outfall(s), and the condition or and around the outfall(s)
  - Status of control measures (are any in need of maintenance, repair or replacement)
  - Any incidents of non-compliance observed
- Additional control measures or other actions needed to address conditions requiring corrective action identified during the inspection, and a schedule to complete this step.
- Any required revisions to the Plan resulting from the inspection.

See the maintenance and inspection form in Attachment E.

## **4.2 Routine Inspections**

### **Person(s) responsible for conducting routine inspections**

At least one member of the stormwater pollution prevention team must be involved in facility inspections.

### **Schedules for conducting routine inspections**

In accordance with Erosion and Sediment Control plan inspections shall be completed on a weekly basis.

### **Inspection procedures**

Conduct inspections during rainfall events if possible. Specific items to be covered by the inspection include:

- Material handling areas.
- Stockpile areas.
- Roof areas (if applicable).
- Leaks or spills from equipment.
- Offsite tracking of sediment where vehicles enter or exit the site.
- Sediment fence or wood chip berms needing replacement, maintenance or repair.
- Vehicle storage, maintenance and repair areas.

Inspections shall include evidence of runoff leaving the excavation area, signs of erosion, fugitive dust, and

spills in the vicinity of the concrete fueling pad.

### **Reporting and follow-up procedures**

Routine inspection reports shall be retained as part of the Plan for at least five years after the date of the inspection. Inspection reports are routinely reviewed by Department staff during site inspections.

The inspection report should provide the following information:

- The inspection date and time.
- The name(s) and title(s) of the inspector(s).
- Weather information for the day(s) of the inspection A description of any discharges observed.
- A description of the visual quality of the discharges (sheen, turbidity, discoloration, etc.)
- Status of stormwater control measures (are any in need of maintenance, repair or need to be replaced?)
- Any incidents of non-compliance observed.
- Additional control measures or other actions needed to comply with permit requirements Any required revisions to the Plan resulting from the inspection.

See the maintenance and inspection information and the Inspection Form in Attachment E.

### **4.3 Additional Inspection Requirements by Sector**

There are no additional requirements for Sector B (Non-Metallic Mines and Quarries, Stone Cutting).

## 5 SCHEDULES AND PROCEDURES FOR MONITORING (Section 5(e))

The general permit requires both a visual assessment and analytical testing of stormwater discharges. The intent of this monitoring is to provide a qualitative and quantitative indicator of how well a facility's stormwater control efforts are working. The Pollution Prevention Team will review the monitoring data with an understanding of the permit requirements, benchmarks, and to make changes to the management practices and control measures, as necessary, to comply with the general permit. The discharge of the temporary sediment traps used during the active excavation phase will be sampled at the outlet spillway.

### 5.1 Visual Monitoring (Section 5(e)(A)(i))

Visual monitoring is to be conducted quarterly on samples taken during a storm event, and requires an assessment of the nature of the discharge based on several visual parameters. The purpose of conducting visual assessments is to make sure that stormwater discharges are free from objectionable characteristics that may indicate that existing control measures are not adequate or not being properly operated and maintained. These samples are taken at the same locations as the general and sector-specific monitoring.

The assessment should be conducted by a member of the stormwater pollution prevention team. The minimum inspection frequency must be once each quarter during the entire permit term. Quarters begin on January 1, April 1, July 1, and October 1.

Visual assessments shall be completed at the outlet of the sediment trap downgradient of the current phase of the excavation.

The visual assessment must be made of a sample in a clean, clear glass, or plastic container, and examined in a well-lit area. The permittee must visually inspect the sample for the presence of the following water quality characteristics:

- color
- odor
- clarity
- floating solids
- settled solids
- suspended solids
- foam
- oil sheen
- other obvious indicators of stormwater pollution

Results of visual monitoring shall be documented on the form included as Attachment H. Visual monitoring records must be kept in the Plan but are not required to be submitted to DEP unless requested. Provide the following information:

- The names and titles of individuals collecting the sample and performing the assessment
- Sample locations
- Sample collection and visual assessment date and time for each sample
- Nature of the discharge (i.e., runoff or snowmelt)
- Results of observations
- Probable sources of any observed stormwater contamination
- Actions taken to eliminate sources of stormwater contamination
- Document reasons if unable to collect a representative sample

## 5.2 General Monitoring Requirements (Section 5(e)(A)(ii))

Stormwater samples for laboratory analysis are required to be collected at least twice per year, once between October 1 and March 31 and once between April 1 and September 30.

### Standard Monitoring Parameters

Semi-annual monitoring shall be conducted for the parameters listed below:

- Chemical Oxygen Demand (mg/l)
- Total Oil and Grease (mg/l)
- pH (S.U.) of the discharge and of uncontaminated rainfall
- Total Suspended Solids (mg/l)
- Total Phosphorus (mg/l)
- Total Kjeldahl Nitrogen (mg/l)
- Nitrate as Nitrogen (mg/l)
- Total Copper (mg/l)
- Total Lead (mg/l)
- Total Zinc (mg/l)
- Aquatic Toxicity

Monitoring for Aquatic Toxicity must be conducted once per year during **the first two years** following authorization of discharges under this permit. This parameter shall be included in one of the regularly scheduled semiannual sample.

**Description of Monitoring Requirements:**

**Person(s) responsible for collecting the sample and for taking the sample to the laboratory:** Steve Walsh of American Industries, Inc., another designated staff member from American Industries, Inc. or a private consultant will be responsible for collecting the samples and taking the samples to the laboratory for analysis.

**What to monitor:** The parameters that need to be monitored and any applicable benchmark concentrations or effluent limits associated with each parameter are identified in this Plan.

**Where to monitor:** Monitoring is required at the outfall of the sediment trap collecting runoff from the active phase of the excavation. Sediment traps will be relocated as phases progress throughout the operation, and sampling will occur at the active sediment trap.

If stormwater runoff from the site does not discharge during a given semi-annual period at the Outfalls, sampling at those Outfalls for that period is not necessary and the Stormwater Monitoring Report must state "No Discharge" at which, if any, Outfalls. In such a case, it must be documented that these Outfalls had absolutely no discharge during that period.

**When to monitor:** This general permit requires this facility to conduct a visual assessment of stormwater samples on a quarterly basis, and to sample stormwater runoff for chemical analysis on a semi-annual basis. Semi-annual analytical samples should be taken concurrently with quarterly samples for visual assessment so the visual observations can be compared with laboratory results, and reduce the sampling burden.

The permittee/sampling firm should become familiar with local precipitation trends, storm patterns, and seasonal variations, and check local weather forecasts so sampling can be accomplished during upcoming precipitation events. Stormwater samples should be collected as early in the monitoring cycle as possible (never assume that the weather will cooperate with the need to sample during that time cycle).

**How to conduct the monitoring:** To collect stormwater samples from the designated monitoring points, follow the following procedures:

- Sediment Trap: collect runoff from the overflow spillway of the active sediment trap starting within the first thirty (30) minutes of flow at the sampling location during a storm event that occurs at least 72 hours after any previous storm event that generated a stormwater discharge.

Grab samples shall not be combined. Any sample containing snow or ice melt must be identified on the Stormwater Monitoring Report (SMR) form. All discharge samples shall be taken during the same storm event, if feasible.

The following information shall be collected for the storm events monitored:

- Date, discharge temperature, time of the start of the discharge, time of sampling, and magnitude (in inches) of the storm event sampled;
- The pH of the uncontaminated rainfall (before it contacts the ground); and
- The duration between the storm event sampled and the end of the most recent storm event that produced a discharge.

**Where the sample will be sent for analysis:** A state certified laboratory will analyze the stormwater samples.

The laboratory that will perform the sample analysis is:

Name of lab Microbac Laboratories, Inc.

Address 61 Luisa Viens Drive, Dayville, CT 06241

Contact name Nicole Audet

Phone number 860-774-6814 Ext. 125

Lab hours of operation 8:30-5:00 Monday-Friday

Any sampling procedures or paperwork required by the lab See Attachment I

A list of state certified laboratories can be obtained by calling the DEEP at 860-424-3018 and asking to speak to the Engineer of the Day.

**Who will prepare and sign the Stormwater Monitoring Report (SMR) for submittal to the DEEP:** Results will be submitted on the SMR to the DEEP within 90 days of sample collection, as required by this permit. The state approved laboratory will provide the SMR with analytical results to the PPT for signature. PPT members will be responsible for transmitting the SMR to DEEP. The Sector B SMR is included in Attachment J. Laboratory forms will not be accepted in lieu of the SMR. Failure to submit the SMR will be considered a violation of this general permit and will be subject to enforcement including penalty. If the laboratory or consultant fails to submit the SMR on behalf of the permittee, this constitutes a violation of the general permit.

If a sample is unable to be collected, submit the SMR with a notation of “No Discharge” and an explanation as to why the required sample was unable to be obtained. Reasons may include the absence of a 72-hour period of dry weather, the absence of a rain event that produces a stormwater discharge, the absence of a discharge from the Outfall or safety considerations preventing access to a stormwater discharge location. Timing of a rain event is not an acceptable reason to fail to sample unless it precludes the analysis of a parameter within the acceptable hold time specified by a laboratory.

### 5.3 Standard Monitoring Benchmarks

A benchmark is a standard to measure stormwater discharge quality. Analysis of the benchmark monitoring results can provide information about the characteristics of the stormwater runoff and how well the control measures are working.

Unless otherwise specified in the general permit, all pollutant parameters shall be tested according to methods prescribed in Title 40, Code of Federal Regulations (CFR), Part 136. Laboratory analysis must be consistent with Connecticut Reasonable Confidence Protocols.

PARAMETER	UNITS	LEVELS
Total Oil and Grease	mg/L	5
Chemical Oxygen Demand	mg/L	75
Sample pH	S.U.	5-9
Total Suspended Solids	mg/L	90
Total Phosphorous	mg/L	0.40
Total Kjeldahl Nitrogen	mg/L	2.30
Nitrate as Nitrogen	mg/L	1.10
Total Copper	mg/L	0.059
Total Lead	mg/L	0.076
Total Zinc	mg/L	0.160

Note: There is no benchmark for aquatic toxicity. Sampling for this parameter is conducted annually for the first two years only.

Once the lab results are received for the benchmark samples, compare these concentrations to the benchmark values that apply to this facility. The general permit requires that four benchmark samples be conducted, the average value of the four samples determined, and compared to the standard benchmark values for each parameter. If the average concentration of the samples exceeds the benchmark, then the permittee is required to evaluate whether changes to the control measures are necessary. In addition, prior to the collection of all four samples, if one or more sample results make an exceedance of the benchmark mathematically certain, the permittee is required to conduct this evaluation without waiting for the results of the remaining benchmark samples. See Section 5(e)(1)(B) and the table below.



**Evaluation of Benchmark Monitoring Results**  
**Section 5(e)(1)(B)**

<p style="text-align: center;"><b>Does the average of your four quarterly benchmark samples for any pollutant exceed the applicable benchmark concentration?</b></p> <p style="text-align: center;"><b>OR</b></p> <p style="text-align: center;"><b>If you have not yet completed your four quarterly benchmark samples, does the total value of your samples already make an exceedance of the benchmark mathematically certain (e.g., the sum of the concentration of your samples exceeds four times (4X) the benchmark concentration)?</b></p>	
<b>YES</b>	<b>NO</b>
<p>Within 120 days you must ...</p> <ul style="list-style-type: none"> <li>Evaluate whether modifications to the stormwater control measures used at your site are necessary. Consider whether there is a problem in the selection, design, installation, and/or operation of applicable control measures.</li> <li>Follow the evaluation and corrective action process in Section 5(e)(1)(B).</li> <li>If applicable, submit documentation of your evaluation to the Department *</li> <li>Update your Plan as required by Section 5(c)(5).</li> </ul> <p>-----</p> <p>An exceedance of a benchmark is not, in itself, a violation of the general permit.</p>	<p><b>You may discontinue monitoring for that parameter for the duration of the permit.</b></p> <p>Sample results below benchmark limits provide an indication that your control measures are working as intended to minimize the discharge of pollutants.</p> <p>You are still required to meet all requirements in the permit affecting the implementation and maintenance of your control measures, despite the good results of your benchmark monitor</p>

- Parameters without benchmarks must be sampled throughout the permit term, unless specifically noted.
- Although covered by a statewide TMDL addressing nitrogen loading to Long Island Sound, additional monitoring for TKN and nitrate is not required if the concentration of these parameters in your stormwater is below the benchmarks.

\*If you make a determination that no further pollutant reductions are technologically available and economically practicable and achievable in light of best industry practice to implement additional control measures or meet the benchmarks, you must continue monitoring once per year. Documentation that no further pollutant reductions are achievable must be submitted to DEEP for written approval. All records related to this documentation must be kept in the Plan.

\*If you make a determination that an exceedance of a benchmark is attributable solely to the presence of that pollutant in the natural background or in “run-on” entering from off-site, the permittee is not required to perform corrective actions or additional benchmark monitoring provided all of the following conditions are met:

- The average concentration of the benchmark monitoring results is less than or equal to the concentration of that pollutant in the natural background or off-site run-on;
  - Documentation supporting the rationale that benchmark exceedances are attributable solely to natural background or off-site pollutant levels is maintained in your Plan;
  - The infeasibility or impracticality of the diversion of off-site run-on is demonstrated;
  - You notify the DEEP on the final semi-annual benchmark SMR that the benchmark exceedances are attributable solely to natural background or off-site pollutant levels;
- AND
- The DEEP approves your documentation demonstrating that the benchmark exceedances are attributable solely to natural background or off-site pollutant levels.

#### 5.4 Sector Specific Monitoring and Benchmarks

Sector B facilities are not required to conduct additional monitoring.

#### 5.5 Additional Monitoring of Discharges to Impaired Waters

This facility does not discharge into impaired waters with an established TMDL.

##### **Discharges to Impaired Waters without an Established TMDL**

The parameters required to be monitored are TKN, NO<sub>3</sub> and Total Phosphorous which are already to be monitored under this permit.

##### **Discharges to Impaired Waters with an Established TMDL**

This section is not applicable.

#### 5.6 Sector Specific Effluent Limitations

Sector B facilities do not have specific effluent limitations.

## 5.7 Keeping Records of Implementation Activities

As inspections, monitoring, corrective actions, and other permit implementation activities are conducted, additional records will be generated, such as inspection reports and monitoring results. Keep this additional documentation on-site with the Plan, and ensure these records are accessible, complete, and up-to-date so that they demonstrate full compliance with the conditions of the permit. DEEP staff will expect to be able to review these records during compliance inspections.

Examples of this additional documentation include:

- Permit records – copies of the general permit registration form, any letters received from the permitting authority, and a copy of the general permit.
- Spill records – dates of any incidences of significant spills, leaks, or other releases that resulted in a discharge of pollutants, the circumstances leading to the release, actions taken in response to the release, and measures taken to prevent the recurrence of a release.
- Employee training records – keep copies of all employee training records, including dates, who was trained, and the training topics.
- Maintenance records – retain copies of all maintenance and repairs of control measures, including dates of regular maintenance, dates when maintenance needs were discovered, and dates when control measures were returned to full function.
- Inspection records – keep copies of all routine facility inspection reports, quarterly visual assessment reports, and semi-annual comprehensive site inspection reports.
- Monitoring records – retain records of all sampling results including data collection forms, lab results, and discharge monitoring reports (DMRs).
- Corrective action records – keep records of any corrective actions and follow-up activities conducted to demonstrate compliance with the permit.

## 6 Common Compliance Problems at Industrial Facilities

The following are common problems found during inspections of industrial sites. These are provided to assist the permittee in developing and maintaining an effective Plan. It is not enough to have a completed Plan at the site. To establish compliance with permit limits and conditions, the procedures must be implemented, control measures installed and maintained as described in the Plan, and make modifications as necessary to improve performance.

**No Plan developed.** Some facilities do not realize that they need to develop a Plan, or they may copy a generic Plan or a Plan for another facility. The Plan must be specific to the site and should address only the facility.

**Control measures described in the Plan are not used.** The Plan identifies stormwater control measures that are not actually being used at the site. The general permit holds the Permittee responsible for effectively implementing all control measures identified in the Plan. If the Plan has identified control measures not being used at the site, edit the Plan to accurately reflect those measures that are in fact being used.

**No Plan on-site.** A copy of the Plan is not available on-site for review when a permitting authority or other regulatory agency inspects the site. The Permittee is responsible for maintaining a copy on-site at all times. If the Plan is being updated off-site, keep a marked-up copy on-site or an electronic copy until the revised Plan arrives.

**Plan is not signed.** The responsible facility representative did not sign and authorize the current version of the Plan.

**Stormwater pollution prevention team not up-to-date.** The stormwater pollution prevention team identified in the Plan is not current. This is particularly a problem at facilities with high turnover, however, it is critical that this information be current. Also, identify if a consulting or engineering firm is participating as a member of the team.

**On-site staff not familiar with the Plan.** Upon arrival of an inspector, no one familiar with the stormwater program is available. A common permit requirement is that at least one employee per shift is familiar with the stormwater program and has access to the relevant files.

**Improper collection of samples.** Stormwater samples are collected from pooled areas on site. Pooled areas tend to concentrate pollutants and are not representative of the discharge from the site.

**Catch basins and stormwater outfalls haven't been cleaned.** The frequency for inspecting and cleaning catch basins and stormwater outfalls must be a part of the plan. Keep records of inspections and cleanouts with the Plan and available for review by Department staff.

**Uncovered dumpsters.** Dumpsters that receive metal waste are not covered or contained. Dumpsters from contract waste collection agencies are often not appropriately sealed and can leak oils or other contaminants.

**Containers without secondary containment.** Waste and chemical containers are stored without the proper coverage or secondary containment.

**Poor employee/contract staff training.** Employees or contract staff are not familiar with the stormwater management program. The Permittee is responsible for educating employees and contractors because if they release pollutants at the facility, the Permittee will be held responsible. If contractors are employed at the facility, they should be referred to in the Plan and required to be trained as a part of the contract.

**Inspection or monitoring records are not kept with the Plan.** Records of routine site inspections, visual assessments, or monitoring results are not available with the Plan for review during regulatory site inspections. All records on implementation of practices required in the permit must be kept with the Plan.

**Monitoring and inspection records are not reviewed.** Stormwater sample results and inspection reports provide an indication of how well the stormwater control measures are working. Review the monitoring and inspection records and determine if changes to the Plan, or how the Plan is being implemented, need to be made.

**Plan Availability** – Keep a copy of the current, signed and certified Plan at the facility, and make it available to EPA, State, local agency or other regulatory agency staff at the time of an onsite inspection or upon request. The Plan should also be made easily available to facility staff, and should be readily referred to during regular facility operations to ensure that all activities are implemented as described in the Plan.

## Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name: Pasquale Camputaro, for American Industries, Inc. and P&J Holdings, LLC.

Signature: 

Title: President

Company: American Industries, Inc.

Date: 6/23/17

Name: David C. McKay, PE, for Boundaries LLC.

Signature: 

Title: Project Engineer

Company: Boundaries LLC

Date: 5/22/17

## **ATTACHMENT “A”**

### **GENERAL LOCATION MAP**





**BOUNDARIES**

CIVIL ENGINEERING LAND SURVEYING LAND USE PLANNING SOIL SCIENCE  
Boundaries LLC  
179 Pachaug River Drive, Griswold, CT 06351  
T 860.376.2006 | www.boundariesllc.net



**Location Map**  
**(Plainfield Quad)**  
**American Industries, Inc.**  
5 Quinebaug Camp Road, Canterbury, CT

SCALE: 1"=2,000'

DATE: March 2017

JOB NO. 16-2468

FIGURE 1



## **ATTACHMENT “B”**

### **FACILITY SITE MAPS**

<u>Sheet No.</u>	<u>Description</u>
1	Cover Sheet
2	Improvement Location and Topographic Survey
3	Proposed Excavation - Overall Plan
4	Proposed Excavation - Phase 1
5	Proposed Excavation - Phase 2
6	Proposed Excavation - Phase 3
7	Proposed Excavation - Phase 4/5
8	Proposed Excavation - Cross Sections
9	Proposed Excavation - Cross Sections
10	Feasible Reuse Plan
11	Notes & Details
12	Erosion & Sediment Control Plan

American Industries, Inc.  
Proposed Earth Products Excavation  
5 Quinebaug Camp Road  
Canterbury, Connecticut  
March 2017

REV. A - PER NDDb COMMENTS - 07/18/17

Applicant: American Industries, Inc.  
630 Plainfield Rd  
Jewett City, CT 06351

Owner: Daniel M. & Lu-Ann Chykow  
PO Box 304  
Canterbury, CT 06331

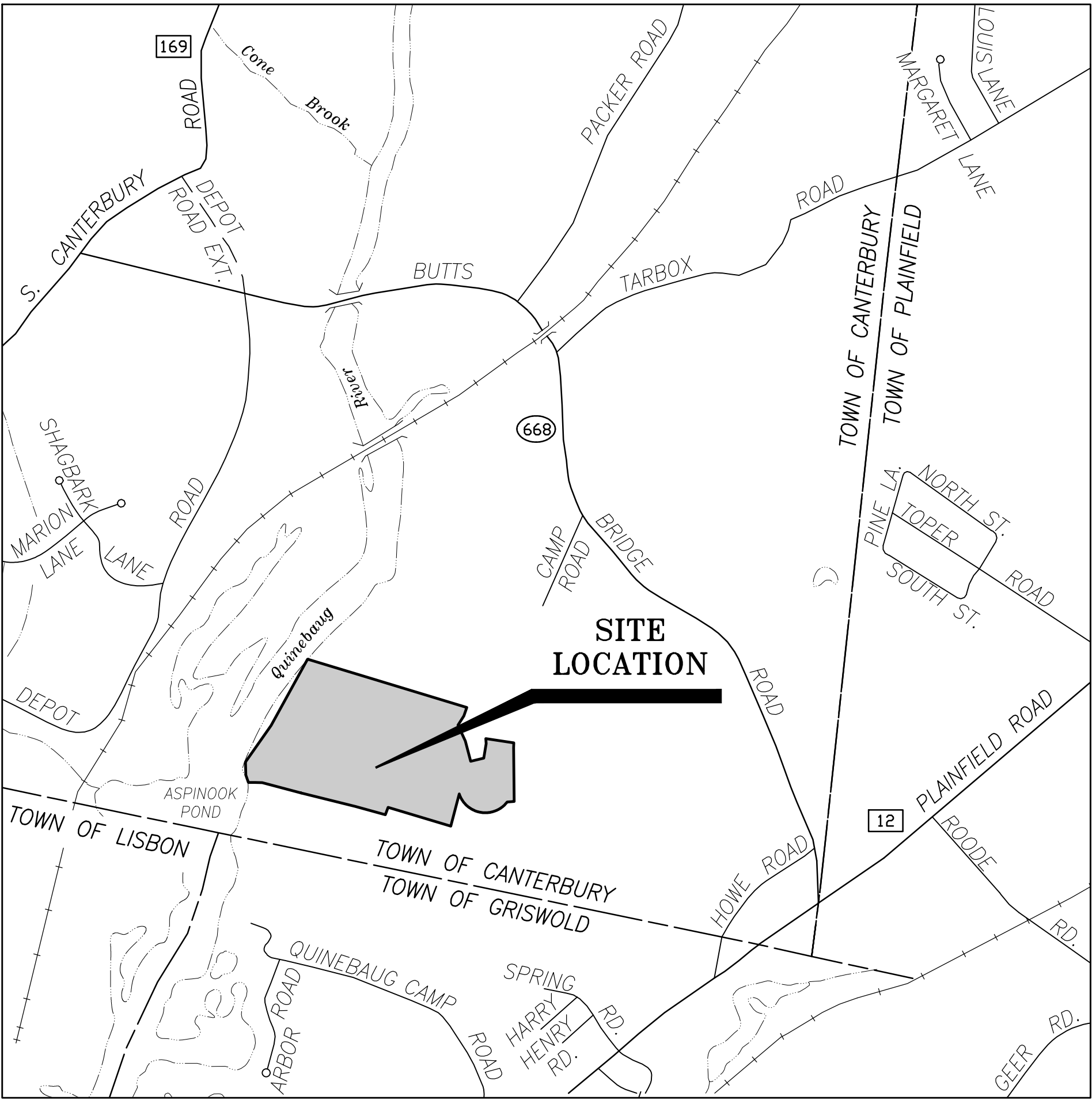
"APPROVED BY THE TOWN OF CANTERBURY INLAND WETLANDS  
& WATERCOURSES COMMISSION"

CHAIRMAN OR SECRETARY OF THE COMMISSION      DATE

"APPROVED BY THE TOWN OF CANTERBURY PLANNING &  
ZONING COMMISSION"

CHAIRMAN OR SECRETARY OF THE COMMISSION      DATE

PERMIT WILL EXPIRE ON: \_\_\_\_\_



Location Map

Scale: 1" = 1,000'

Sheet No.	Description
1	Cover Sheet
2	Improvement Location and Topographic Survey
3	Proposed Excavation - Overall Plan
4	Proposed Excavation - Phase 1
5	Proposed Excavation - Phase 2
6	Proposed Excavation - Phase 3
7	Proposed Excavation - Phase 4/5
8	Proposed Excavation - Cross Sections
9	Proposed Excavation - Cross Sections
10	Feasible Reuse Plan
11	Notes & Details
12	Erosion & Sediment Control Plan



LEGEND & ABBREVIATIONS

±	MORE OR LESS
TYP	TYPICAL
HDPE	HIGH DENSITY POLYETHYLENE PIPE
CI	CAST IRON
FF	FINISH FLOOR
CB	CATCH BASIN
TF	TOP OF FRAME
INV	INVERT
W/	WITH
WF #1	WETLAND FLAG
CONC	CONCRETE
MON	MONUMENT
REC	RECOVERED
N/F	NOW OR FORMERLY
x 200.0	EXISTING SPOT ELEVATION
x 200.0	PROPOSED SPOT ELEVATION
320	EXISTING CONTOUR
320	PROPOSED CONTOUR
	TREELINE
	PROPOSED TREELINE
●	ANGLE POINT
●	IRON PIN
●	DRILL HOLE
□	MONUMENT
□	FENCE POST
□	UTILITY POLE
□	GUY WIRE
□	CATCH BASIN
□	STORM DRAINAGE MANHOLE
□	DEEP TEST PIT
□	PERCOLATION TEST HOLE
□	SIGN
□	WELL
△	WETLAND FLAG

NOTE: A SURVEY CLOSING LINE IS A MATHEMATICAL LINE USED FOR TECHNICAL PURPOSES AND IS NOT TO BE CONSTRUED AS BEING A PROPERTY LINE.

Quinebaug River  
Approximate Edge of River  
(January 26, 2017)

Limit of Inland Wetlands  
Delineated By Demian A.  
Sorrentino, C.S.S.  
(January 2017)

Limit of Inland Wetlands  
Delineated By Demian A.  
Sorrentino, C.S.S.  
(January 2017)

Limit of Inland Wetlands  
Delineated By Demian A.  
Sorrentino, C.S.S.  
(January 2017)

Limit of Inland Wetlands  
Delineated By Demian A.  
Sorrentino, C.S.S.  
(January 2017)

Limit of Inland Wetlands  
Delineated By Demian A.  
Sorrentino, C.S.S.  
(January 2017)

Limit of Inland Wetlands  
Delineated By Demian A.  
Sorrentino, C.S.S.  
(January 2017)

SOILS LEGEND

18	CATDEN AND FREETOWN SOILS, 0-2% SLOPES
23A	SUDBURY SANDY LOAM, 0-5% SLOPES
34A	HERRIMAC FINE SANDY LOAM, 0-3% SLOPES
36A	WINDSOR LOAMY SAND, 0-3% SLOPES
38C	HINCKLEY LOAMY SAND, 3-15% SLOPES
100	SUNCOOK LOAMY FINE SAND
102	FOOTATUCK FINE SANDY LOAM

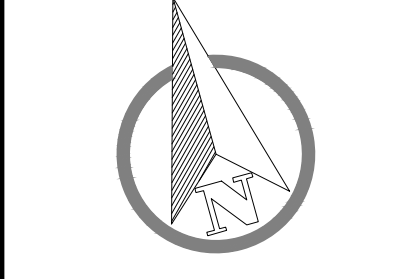
SURVEY NOTES

- THIS SURVEY HAS BEEN PREPARED PURSUANT TO THE REGULATIONS OF CONNECTICUT STATE AGENCIES SECTIONS 20-300B-1 THROUGH 20-300B-20 AND THE "STANDARDS FOR SURVEYS AND MAPS IN THE STATE OF CONNECTICUT" AS ADOPTED FOR USE BY THE CONNECTICUT ASSOCIATION OF LAND SURVEYORS, INC. ON SEPTEMBER 26, 1996. IT IS AN IMPROVEMENT LOCATION AND TOPOGRAPHIC SURVEY BASED ON RESURVEY AND CONFORMS TO HORIZONTAL CLASS A-2 AND TOPOGRAPHIC CLASS T-2 ACCURACY STANDARDS. IT IS INTENDED TO BE USED FOR MUNICIPAL PERMITTING.
- NORTH ORIENTATION DEPICTED HEREON IS APPROXIMATE NORTH AMERICAN DATUM 1983 (NAD83) BASED UPON GLOBAL POSITIONING SYSTEM OBSERVATIONS.
- VERTICAL DATUM DEPICTED HEREON IS BASED ON REFERENCE MAP 2.
- FIELD SURVEY WAS COMPLETED ON JANUARY 26, 2017. LAND RECORD AND RELATED RESEARCH WAS COMPLETED ON DECEMBER 14, 2016.
- ALL SUBTERRANEAN FEATURES AND IMPROVEMENTS MAY NOT BE DEPICTED OR NOTED HEREON.
- INLAND WETLANDS AND WATERCOURSES LOCATED UPON PROPERTY WERE DELINEATED BY DEMIAN A. SORRENTINO, C.S.S.
- RECORD TITLE TO THE SUBJECT PROPERTY MAY BE REFERENCED TO A QUIT CLAIM DEED FROM DANIEL M. CHYKOW TO LU-ANN CHYKOW AND DANIEL M. CHYKOW, DATED SEPTEMBER 18, 2001 AND RECORDED IN THE TOWN OF CANTERBURY LAND RECORDS, VOLUME 122, PAGE 342.
- THE SUBJECT PARCEL MAY BENEFIT FROM A RIGHT OF WAY CONTAINED IN A WARRANTY DEED FROM ALBERT L. HASKELL AND LOUISE A. HASKELL TO WILLIAM GUSE DATED MARCH 15, 1911 AND RECORDED IN THE TOWN OF CANTERBURY LAND RECORDS, VOLUME 33, PAGE 90.
- THE SUBJECT PROPERTY IS TOGETHER WITH A PROPOSED RIGHT-OF-WAY FOR ALL PURPOSES OF INGRESS AND EGRESS FROM CAMP ROAD TO THE SUBJECT PARCEL OVER LANDS NOW OR FORMERLY OF ADELMAN FAMILY LLC. LOCATION TO BE DETERMINED.

REFERENCE MAPS

- ESTATE OF ELIJAH BALDWIN, DATED 1920, MAP NO. 47 IN THE TOWN OF CANTERBURY LAND RECORDS.
- SITE DEVELOPMENT PLANS, PROPOSED GRAVEL EXCAVATION, KORYLUCK BROTHERS, LLC., BUTTS BRIDGE ROAD, CANTERBURY, CONNECTICUT, SCALE: 1" = 40', DATE: DECEMBER 2002, REVISED TO: JANUARY 17, 2003 PREPARED BY MCFARLAND JOHNSON, INC.
- EARTH EXCAVATION PLAN, PREPARED FOR ADELMAN FAMILY, LLC, 165 BUTTS BRIDGE ROAD, CANTERBURY, CONNECTICUT, DATE: 7/24/12, SCALE: VARIES, SHEETS 1 OF 7 THROUGH 7 OF 7, LAST REVISED 5-21-14, AS PREPARED BY TOWNE ENGINEERING, INC., WHICH PLAN IS ON FILE IN THE OFFICE OF THE CANTERBURY TOWN CLERK.
- PLAN OF LOTS SURVEYED FOR THE QUINEBAUG CAMPS ASSOCIATION, INC. IN THE TOWNS OF GRISWOLD AND CANTERBURY, SCALE 1"= 100', JAN. 31, 1954, WILLIAM W. PIKE, SURVEYOR, MAP NO. 200 IN THE TOWN OF CANTERBURY LAND RECORDS.
- PROPERTY SURVEY "EXISTING CONDITIONS PLAN" PREPARED FOR CAMP ROAD PARTNERS, LLC CAMP ROAD CANTERBURY, CONNECTICUT, SCALE: 1"= 50', SEPTEMBER, 2013, JOB I.D. NO. 13-2179, SHEET 2 OF 7, LAST REVISED 1-29-14. PREPARED BY BOUNDARIES L.L.C., GRISWOLD, CONNECTICUT.

Proposed Earth Products Excavation  
"Improvement Location and Topographic Survey"  
Prepared for  
American Industries, Inc.  
5 Quinebaug Camp Road, Canterbury, Connecticut



SCALE:	1" = 100'
DATE:	March 2017
JOB I.D. NO.	16-2468
Revisions	
REV. A - PER NDOB COMMENTS -	
07/18/17	

SHEET NO.

2  
12

I HAVE CONDUCTED AN ON-SITE SOIL INVESTIGATION OF THE PARCEL OF LAND DEPICTED HEREON. THE INTERMITTENT WATERCOURSES AND INLAND WETLAND BOUNDARIES AS PORTRAYED ARE AN ACCURATE REPRESENTATION OF THE DELINEATION PERFORMED IN THE FIELD.

"TO MY KNOWLEDGE AND BELIEF THIS MAP IS SUBSTANTIALLY CORRECT AS NOTED HEREON."

DEMIAN A. SORRENTINO, C.S.S.

DATE

JOHN U. FAULISE JR. L.S.

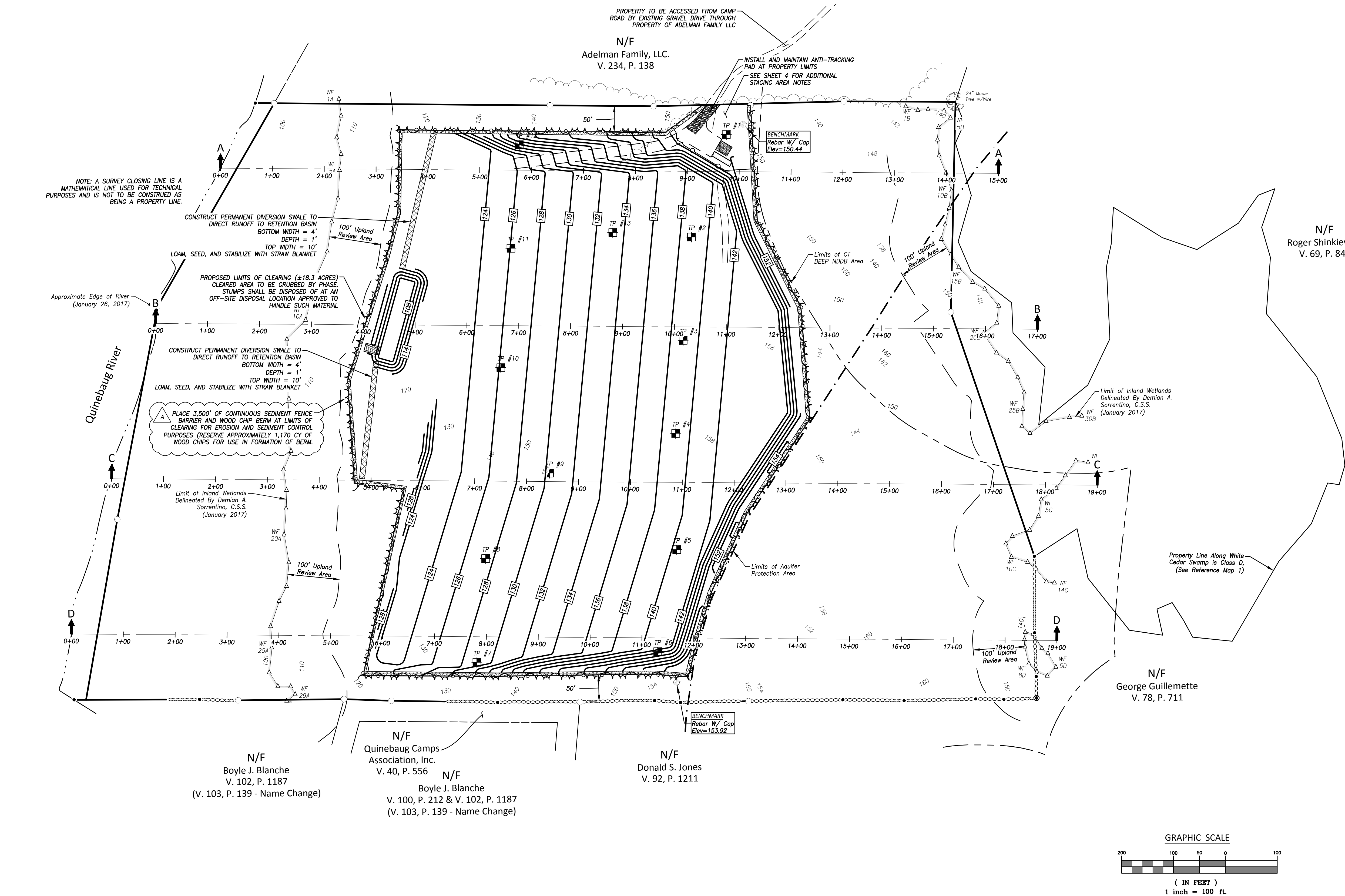
LICENSE NO.

DATE

70016







### TEST PIT OBSERVATIONS

TEST PITS WERE OBSERVED BY BOUNDARIES LLC ON FEBRUARY 23, 2017.

TP #1	0" - 6"	TOPSOIL
	6" - 28"	BROWN FINE TO MEDIUM LOAM
	28" - 34"	TAN FINE TO MEDIUM SAND
	34" - 133"	BROWN STRATIFIED COARSE SAND AND GRAVEL WITH TRACE BOULDERS
	133" - 216"	GRAY COMPACT SILTY SAND WITH TRACE GRAVEL
	216" - 234"	BROWN FINE TO MEDIUM SILTY SAND NO MOTTLING, NO GROUNDWATER, NO LEDGE
TP #2	0" - 6"	TOPSOIL
	6" - 24"	BROWN FINE TO MEDIUM LOAM
	24" - 60"	BROWN STRATIFIED COARSE SAND AND GRAVEL WITH TRACE BOULDERS
	60" - 216"	GRAY COMPACT FINE SILTY SAND WITH TRACE GRAVEL AND COBBLES NO MOTTLING, NO GROUNDWATER, NO LEDGE
TP #3	0" - 4"	TOPSOIL
	4" - 30"	BROWN FINE TO MEDIUM LOAM TAN TO GRAY COARSE STRATIFIED SAND AND GRAVEL
	30" - 156"	FINE COMPACT GRAY SILTY SAND BROWN FINE SILTY SAND WITH TRACE GRAVEL
	156" - 180"	NO MOTTLING, NO GROUNDWATER, NO LEDGE
	180" - 234"	
TP #4	0" - 4"	TOPSOIL
	4" - 24"	BROWN FINE TO MEDIUM LOAM
	24" - 162"	TAN TO GRAY COARSE STRATIFIED SAND AND GRAVEL
	162" - 228"	GRAY COMPACT FINE SILTY SAND NO MOTTLING, NO GROUNDWATER, NO LEDGE
TP #5	0" - 4"	TOPSOIL
	4" - 30"	BROWN FINE TO MEDIUM LOAM
	30" - 108"	TAN TO GRAY COARSE STRATIFIED SAND AND GRAVEL
	108" - 222"	GRAY COMPACT SILTY SAND WITH TRACE GRAVEL AND BOULDERS NO MOTTLING, GROUNDWATER AT 222", NO LEDGE
TP #6	0" - 4"	TOPSOIL
	4" - 30"	BROWN FINE TO MEDIUM LOAM
	30" - 72"	TAN TO GRAY COARSE STRATIFIED SAND AND GRAVEL
	72" - 174"	GRAY COMPACT SILTY SAND WITH TRACE GRAVEL AND BOULDERS NO MOTTLING, NO GROUNDWATER, NO LEDGE
TP #7	0" - 4"	TOPSOIL
	4" - 32"	BROWN FINE TO MEDIUM LOAM
	32" - 50"	GRAY FINE TO MEDIUM SILTY SAND
	50" - 112"	TAN TO GRAY STRATIFIED MEDIUM SAND AND GRAVEL
	112" - 192"	COMPACT GRAY SILTY SAND WITH TRACE GRAVEL
	192" - 222"	NO MOTTLING, GROUNDWATER AT 156", NO LEDGE
TP #8	0" - 4"	TOPSOIL
	4" - 40"	BROWN FINE TO MEDIUM LOAM
	40" - 112"	TAN TO GRAY MEDIUM TO COARSE SAND WITH GRAVEL
	112" - 180"	COMPACT GRAY SILTY SAND WITH TRACE GRAVEL
	180" - 222"	NO MOTTLING, GROUNDWATER AT 124", NO LEDGE
TP #9	0" - 4"	TOPSOIL
	4" - 18"	BROWN FINE TO MEDIUM LOAM WITH COBBLES
	18" - 108"	TAN TO GRAY COARSE SAND AND GRAVEL
	108" - 216"	GRAY COMPACT SILTY SAND WITH COBBLES AND BOULDERS NO MOTTLING, NO GROUNDWATER, NO LEDGE
TP #10	0" - 4"	TOPSOIL
	4" - 36"	BROWN FINE TO MEDIUM LOAM
	36" - 96"	GRAY COMPACT FINE SILTY SAND
	96" - 198"	TAN TO GRAY COARSE SAND AND GRAVEL WITH TRACE BOULDERS
	198" - 222"	COMPACT GRAY SILTY SAND WITH BOULDERS
	222" - 234"	NO MOTTLING, NO GROUNDWATER, NO LEDGE
TP #11	0" - 4"	TOPSOIL
	4" - 36"	BROWN FINE TO MEDIUM LOAM
	36" - 84"	GRAY FINE SILTY SAND WITH SOME GRAVEL
	84" - 156"	TAN TO GRAY MEDIUM SAND AND GRAVEL
	156" - 222"	NO MOTTLING, GROUNDWATER AT 128", NO LEDGE
TP #12	0" - 4"	TOPSOIL
	4" - 28"	BROWN FINE TO MEDIUM LOAM
	28" - 84"	TAN TO GRAY FINE SILTY SAND WITH TRACE GRAVEL
	84" - 140"	BROWN FINE TO COARSE SAND AND GRAVEL
	140" - 222"	TAN TO GRAY FINE TO MEDIUM SAND AND LITTLE GRAVEL
	222" - 234"	NO MOTTLING, NO GROUNDWATER, NO LEDGE
TP #13	0" - 4"	TOPSOIL
	4" - 18"	BROWN FINE TO MEDIUM LOAM
	18" - 48"	TAN TO GRAY FINE SILTY SAND WITH TRACE GRAVEL
	48" - 132"	BROWN STRATIFIED MEDIUM TO COARSE SAND AND GRAVEL
	132" - 222"	NO MOTTLING, NO GROUNDWATER, NO LEDGE
	222" - 234"	TP #13 CONDUCTED TO CONFIRM OVERBURDEN DEPTH

I HAVE CONDUCTED AN ON-SITE SOIL INVESTIGATION OF THE PARCEL OF LAND DEPICTED HEREON. THE INTERMITTENT WATERCOURSES AND INLAND WETLAND BOUNDARIES AS PORTRAYED ARE AN ACCURATE REPRESENTATION OF THE DELINEATION PERFORMED IN THE FIELD.

DEMIAN A. SORRENTINO, C.S.S.

DATE

DAVID C. MCKAY, P.E.

29102

LICENSE NO.

DATE

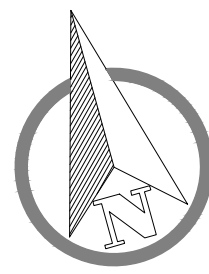
SEE SHEET 2 FOR LEGEND & ABBREVIATIONS

Proposed Earth Products Excavation  
"Proposed Excavation - Overall Plan"

Prepared for

American Industries, Inc.

5 Quinebaug Camp Road, Canterbury, Connecticut



SCALE: 1" = 100'

DATE: March 2017

JOB I.D. NO. 16-2468

Revisions

REV. A - PER NDDB COMMENTS - 07/18/17

SHEET NO.

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12

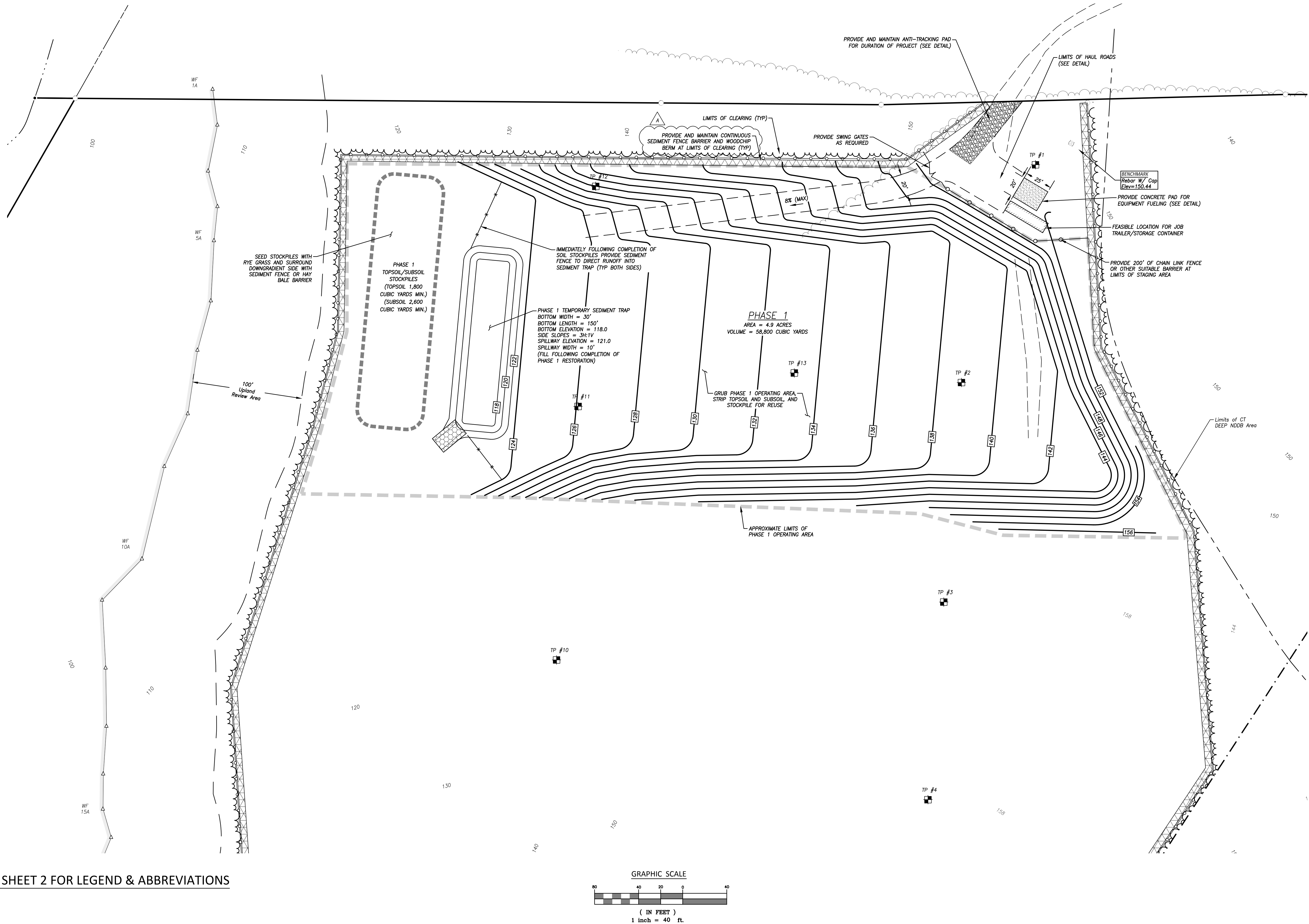


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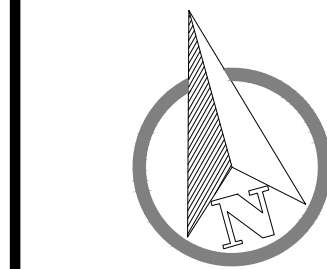


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OR OWNER WITHOUT THE EXPRESSED WRITTEN CONSENT OF BOUNDARIES LLC.

SEE SHEET 2 FOR LEGEND & ABBREVIATIONS



Proposed Earth Products Excavation  
"Proposed Excavation - Phase 1"  
Prepared for  
American Industries, Inc.  
5 Quinebaug Camp Road, Canterbury, Connecticut



SCALE:  
1" = 40'  
DATE:  
March 2017  
JOB I.D. NO.  
16-2468  
Revisions  
REV. A - PER NDBI COMMENTS -  
07/18/17

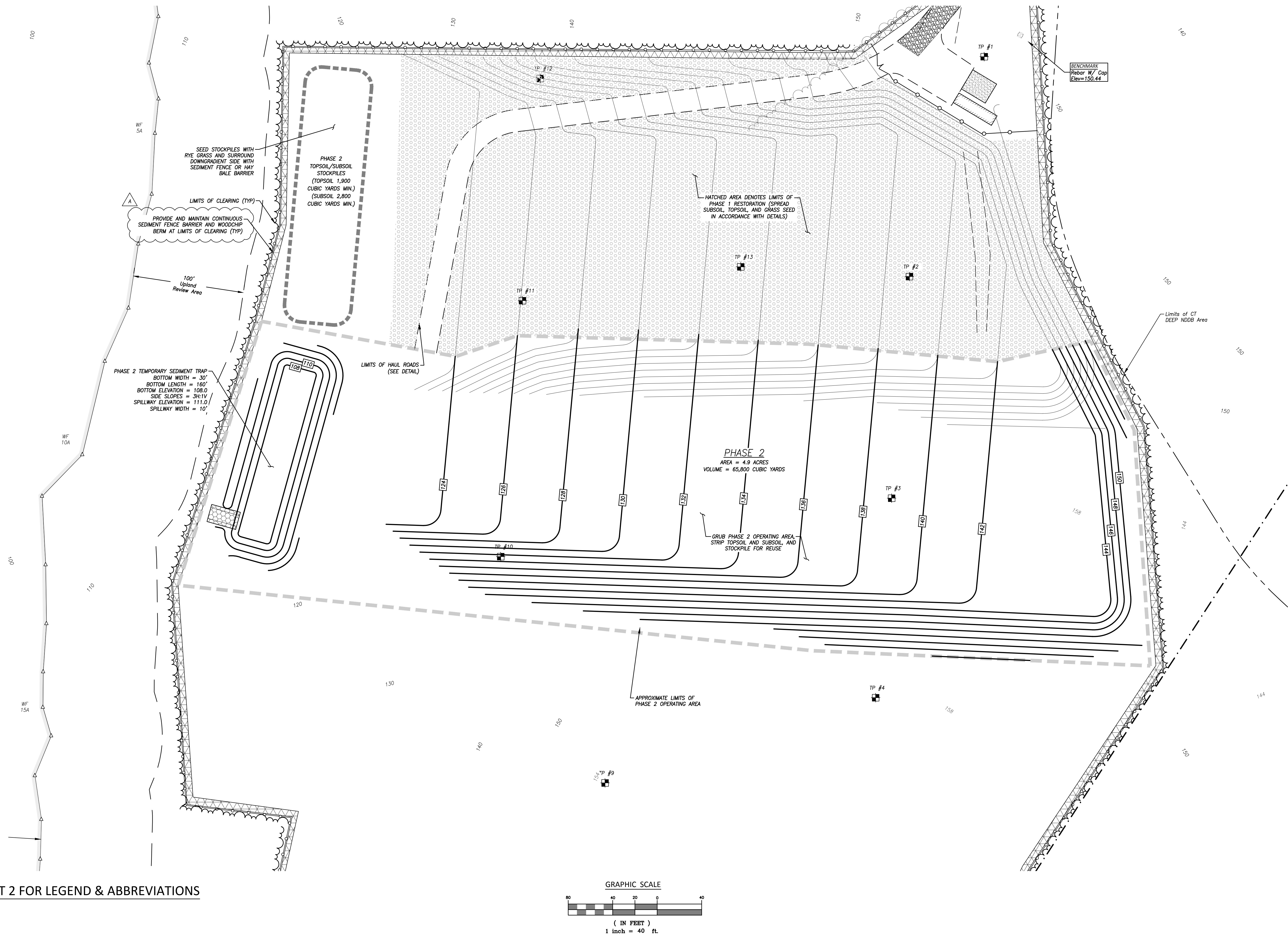
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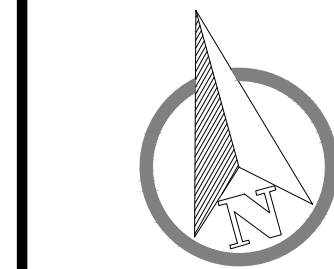


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SEE SHEET 2 FOR LEGEND & ABBREVIATIONS



Proposed Earth Products Excavation  
"Proposed Excavation - Phase 2"  
Prepared for  
American Industries, Inc.  
5 Quinebaug Camp Road, Canterbury, Connecticut



SCALE:	1" = 40'
DATE:	March 2017
JOB I.D. NO.	16-2468
Revisions	
REV. A - PER NDOB COMMENTS -	
07/18/17	

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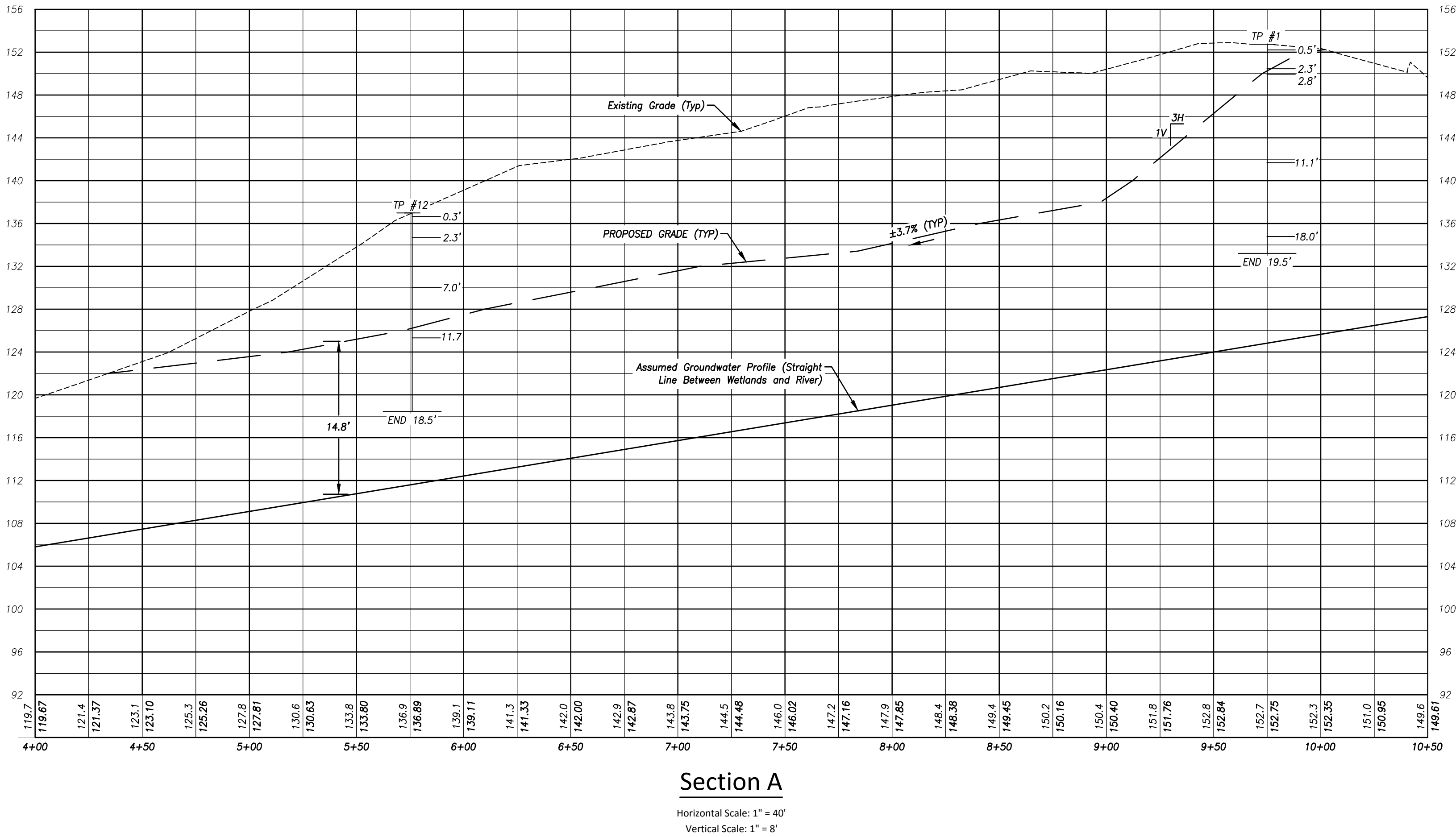
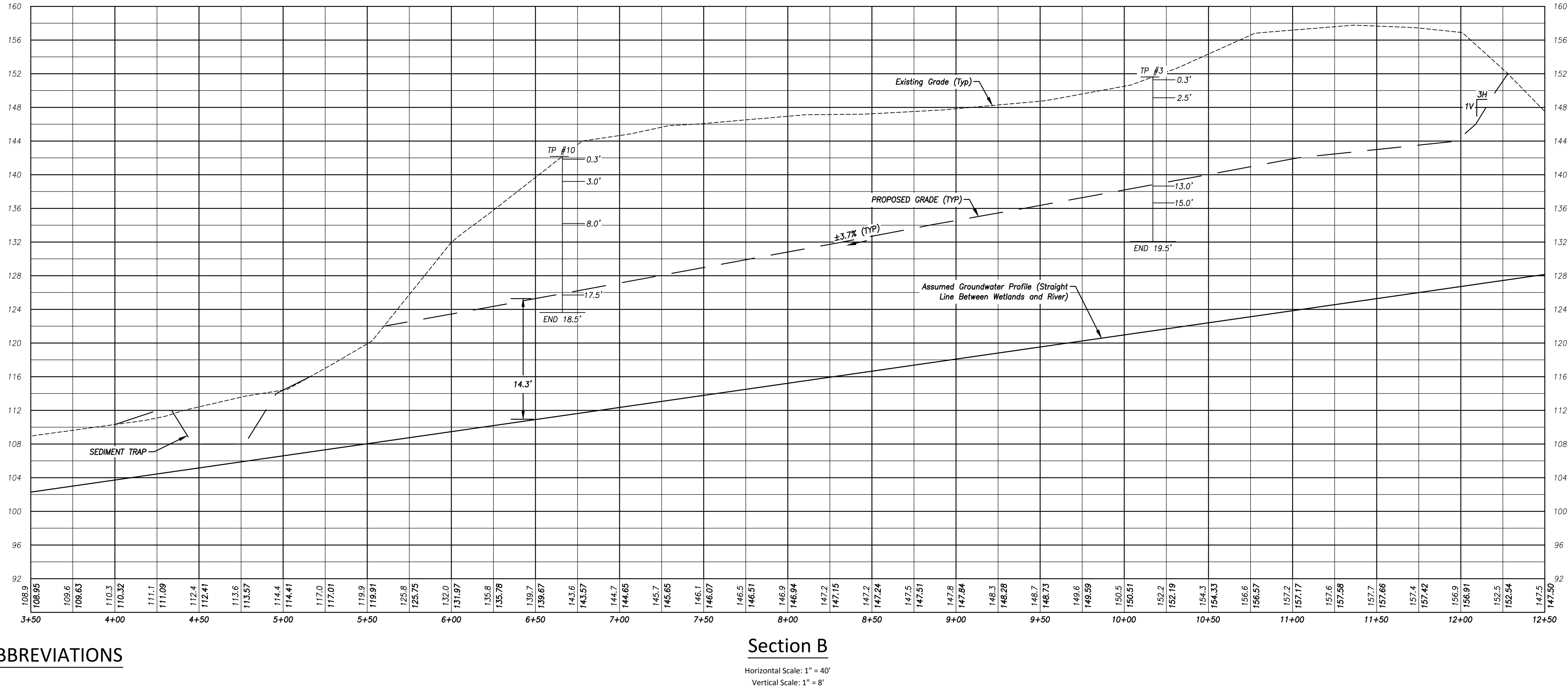






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SEE SHEET 2 FOR LEGEND & ABBREVIATIONS



Proposed Earth Products Excavation  
"Proposed Excavation - Cross Sections"  
Prepared for  
**American Industries, Inc.**  
5 Quinebaug Camp Road, Canterbury, Connecticut

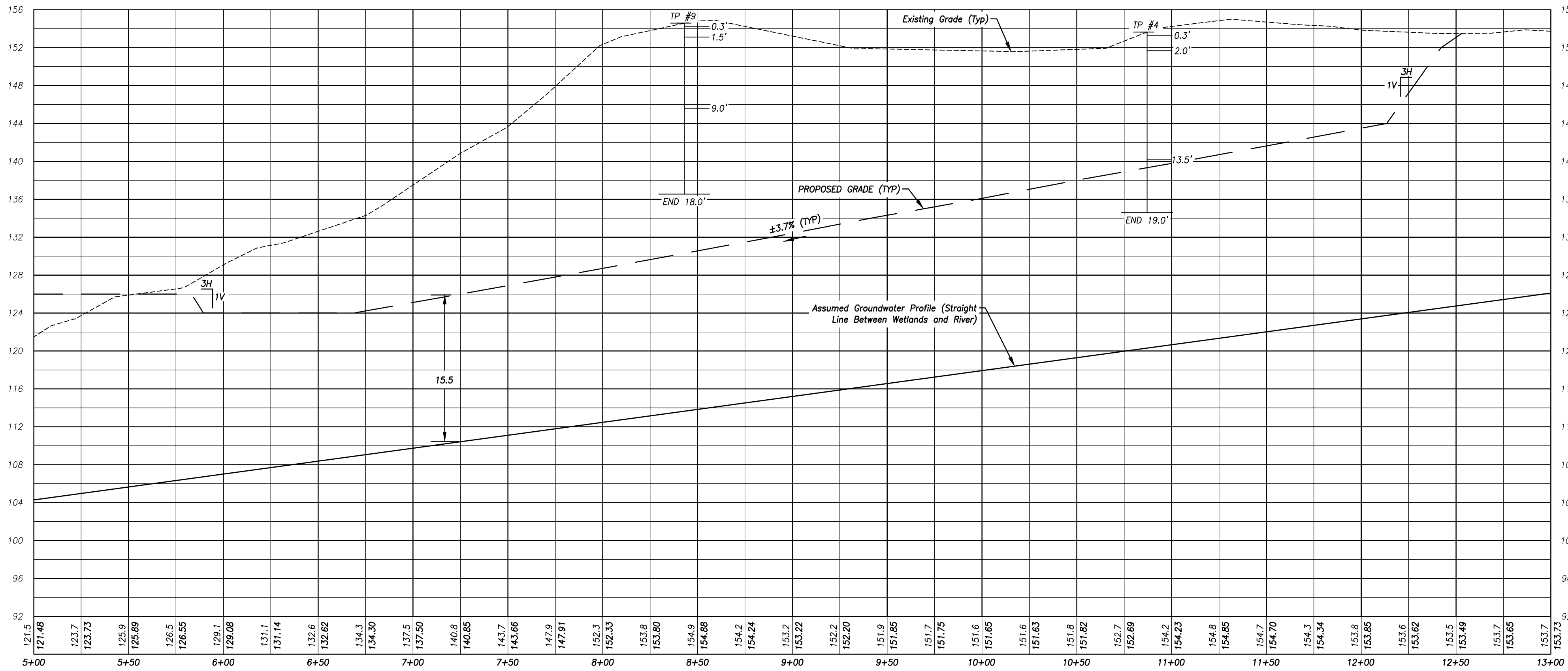
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DATE:	March 2017
JOB I.D. NO.	16-2468
Revisions	
REV. A - PER NDDC COMMENTS - 07/18/17	

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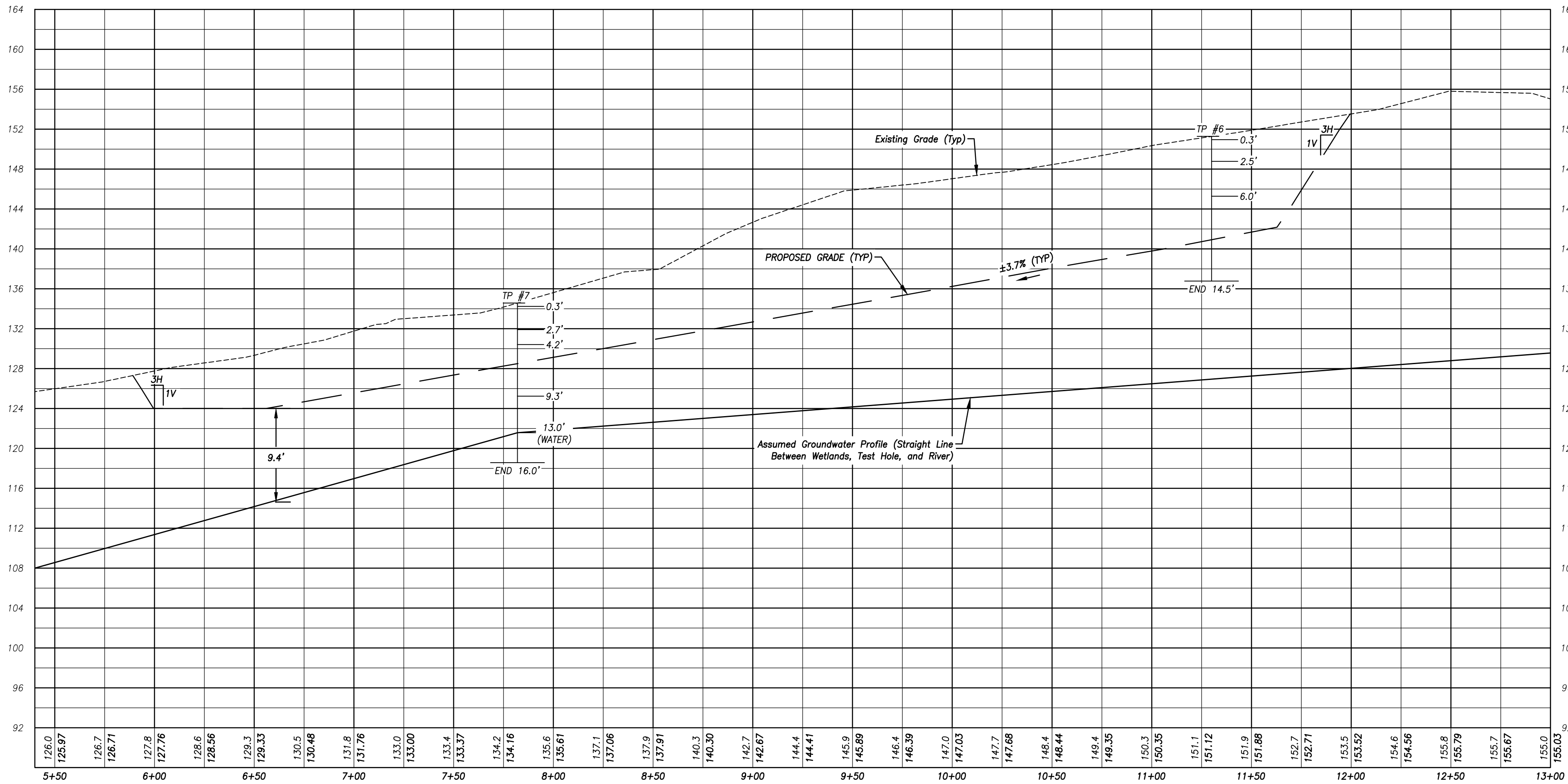
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SEE SHEET 2 FOR LEGEND & ABBREVIATIONS



Section C

Horizontal Scale: 1" = 40'  
Vertical Scale: 1" = 8'



Section D

Horizontal Scale: 1" = 40'  
Vertical Scale: 1" = 8'

Proposed Earth Products Excavation  
"Proposed Excavation - Cross Sections"  
Prepared for  
**American Industries, Inc.**  
5 Quinebaug Camp Road, Canterbury, Connecticut

SCALE:	As Noted
DATE:	March 2017
JOB I.D. NO.	16-2468
Revisions	
REV. A - PER NDDC COMMENTS - 07/18/17	

SHEET NO.

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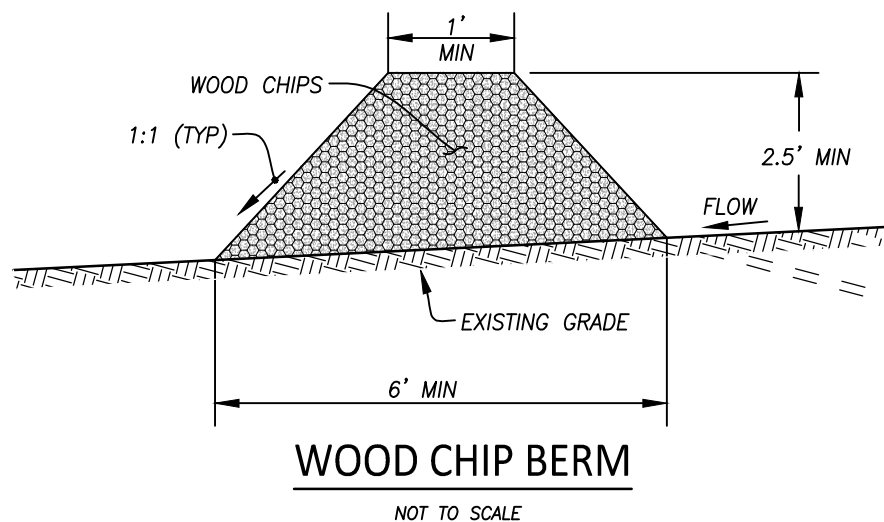




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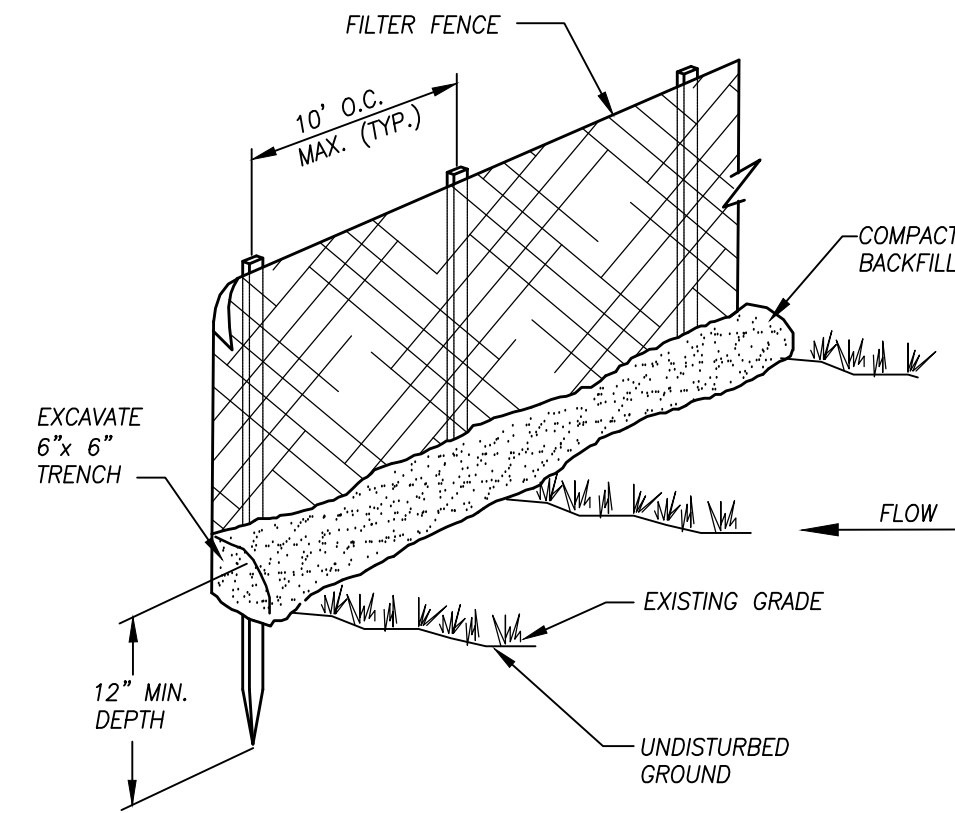
## HAUL ROUTE DIRECTIONS

1. INBOUND:
  - 1.1. TURN LEFT FROM PLAINFIELD ROAD (CT ROUTE #12) ONTO BUTTS BRIDGE ROAD (CT ROUTE #668).
  - 1.2. TRAVEL 4,400 FEET AND TURN LEFT ONTO CAMP ROAD.
  - 1.3. TRAVEL 760 FEET ON CAMP ROAD AND CONTINUE ONTO IMPROVED ACCESS DRIVEWAY THROUGH PROPERTY OF ADELMAN FAMILY LLC.
  - 1.4. TRAVEL 1,600 FEET THROUGH PROPERTY OF ADELMAN FAMILY LLC AND ENTER SUBJECT PROPERTY.
2. OUTBOUND:
  - 2.1. LEAVE SUBJECT PROPERTY AND TRAVEL 1,600 FEET ON IMPROVED ACCESS DRIVEWAY THROUGH PROPERTY OF ADELMAN FAMILY LLC.
  - 2.4. CONTINUE ONTO CAMP ROAD AND TRAVEL 760 FEET.
  - 2.5. TURN RIGHT ONTO BUTTS BRIDGE ROAD (CT ROUTE #668).
  - 2.6. TRAVEL 4,400 FEET AND TURN RIGHT ONTO PLAINFIELD ROAD (CT ROUTE #12).



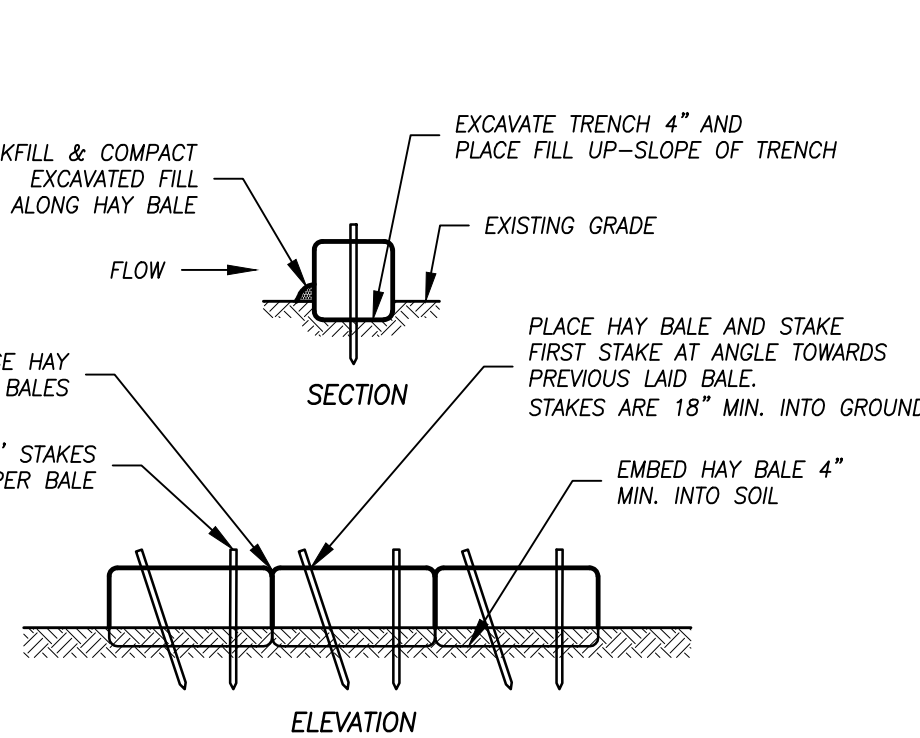
WOOD CHIP BERM

NOT TO SCALE



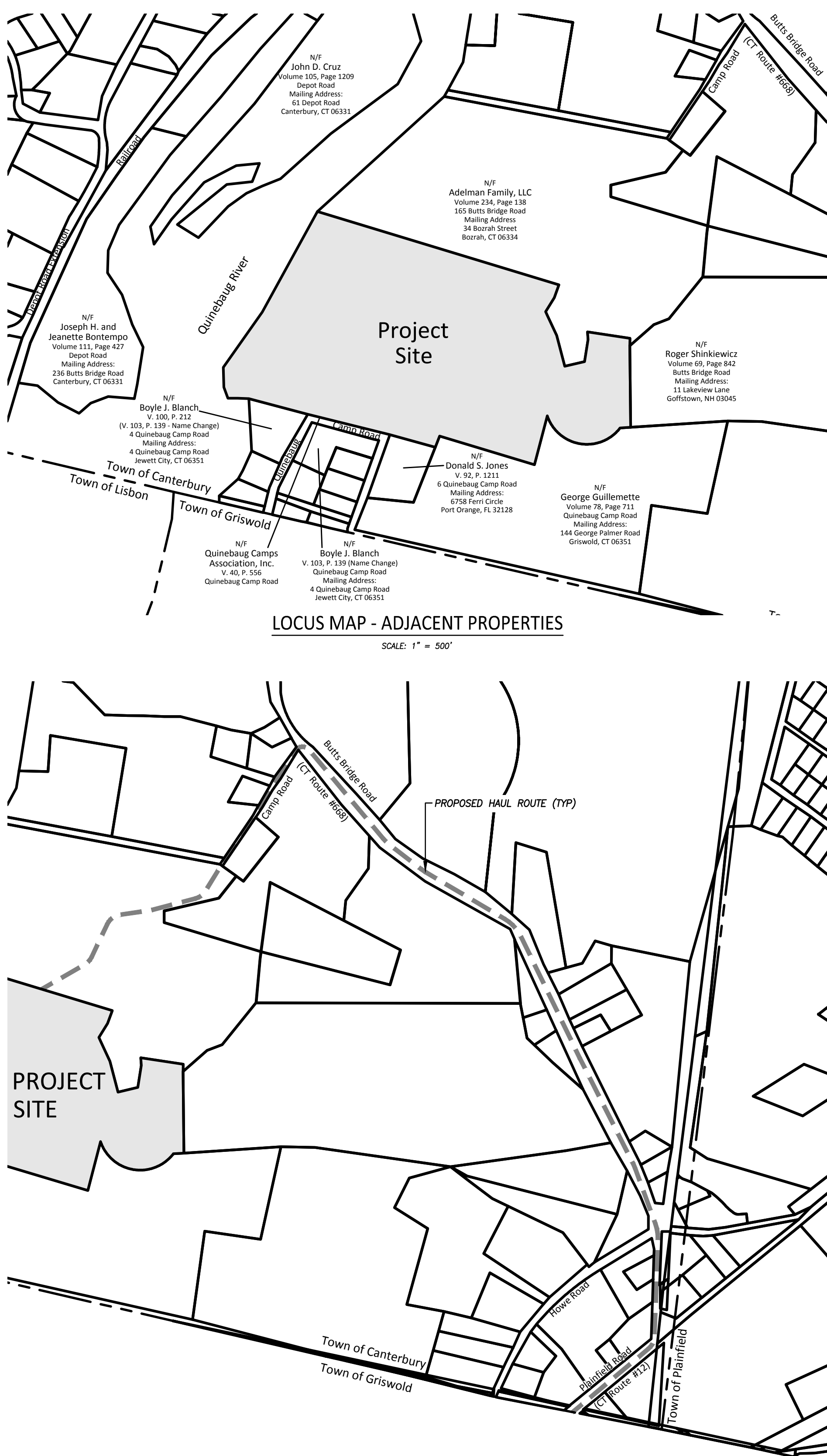
SEDIMENT FENCE DETAIL

NOT TO SCALE



HAY BALE BARRIER DETAIL

NOT TO SCALE



LOCUS MAP - ADJACENT PROPERTIES

SCALE: 1" = 500'

HAUL ROUTE MAP

SCALE: 1" = 500'

## GENERAL NOTES

1. THE PROJECT SITE IS LOCATED WITHIN A RURAL ZONE IN THE TOWN OF CANTERBURY. THE SUBJECT PROPERTY IS NOT LOCATED WITHIN 500 FEET OF ANOTHER MUNICIPALITY.
2. THIS PROJECT SITE IS LOCATED IN A ZONE "C" (AREA OF MINIMAL FLOODING) FLOOD HAZARD AREA AS TAKEN FROM THE LATEST FLOOD INSURANCE RATE MAP, TOWN OF CANTERBURY, CONNECTICUT, WINDHAM COUNTY, PANEL 26 OF 30, COMMUNITY PANEL 00013 D026 A, EFFECTIVE DATE OCTOBER 16, 1984 BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA). THE ADJACENT PORTION OF THE QUINEBAUG RIVER IS LOCATED IN A FLOOD HAZARD ZONE A8 (ELEVATION 100).
3. THE APPLICANT IS AMERICAN INDUSTRIES, INC. THE PROPERTY OWNERS ARE DANIEL M. AND LU-ANN CHYKOW.
4. ALL EXISTING UTILITIES ARE APPROXIMATELY SHOWN. THE CONTRACTOR SHALL VERIFY ALL UTILITY LOCATIONS AND ELEVATIONS PRIOR TO ANY CONSTRUCTION. CONTRACTOR SHALL CONTACT "CALL-BEFORE-YOU-DIG" AT 1-800-922-4455 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION. COORDINATE ALL CONNECTIONS OF UTILITIES WITH THE RESPECTIVE UTILITY PROVIDER.
5. THIS PROPOSAL INVOLVES THE EXCAVATION, PROCESSING AND REMOVAL OF 257,200+ CUBIC YARDS (CY) OF EARTH PRODUCTS IN 5 PHASES ON 18.3+ ACRES OF AN 56.1+ ACRE PROPERTY INCLUDING UTILIZATION OF A CONCRETE FUELING PAD AND OTHER ASSOCIATED SITE IMPROVEMENTS.
6. THIS PROPOSED PROJECT MAY BE SUBJECT TO GENERAL PERMIT REGISTRATION FROM THE CONNECTICUT DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION. THE APPLICANT IS RESPONSIBLE FOR ALL STATE AND FEDERAL PERMITS AS REQUIRED.
7. AN OSHA APPROVED SPILL KIT SHALL BE PROVIDED AND ACCESSIBLE ON SITE AT ALL TIMES.
8. A WATER TRUCK WILL BE USED AS NECESSARY TO CONTROL DUST IN THE EXPOSED OPERATION AREAS PRIOR TO STABILIZATION.
9. FUEL MAY NOT BE STORED AT THE SITE. FUELING SHALL BE ACCOMPLISHED UTILIZING A FUEL DELIVERY SERVICE. ALL REFUELING SHALL BE COMPLETED ON THE CONCRETE FUELING PAD. A SPILL KIT SHALL BE IMMEDIATELY AVAILABLE DURING ALL FUELING OPERATIONS.

## NARRATIVE

THIS PROPOSAL INVOLVES THE EXCAVATION, PROCESSING AND REMOVAL OF 257,200+ CUBIC YARDS (CY) OF EARTH PRODUCTS IN 5 PHASES ON 18.3+ ACRES OF AN 56.1+ ACRE PROPERTY LOCATED ON QUINEBAUG CAMP ROAD, A PRIVATE ROAD OFF OF BUTTS BRIDGE ROAD IN THE TOWN OF CANTERBURY. PROPOSED ACTIVITIES INCLUDE A TEMPORARY STORAGE CONTAINER (IF NEEDED), CONCRETE FUELING PAD, IMPROVEMENTS TO PORTIONS OF AN EXISTING GRAVEL DRIVE FOR ACCESS TO CAMP ROAD, AND OTHER ASSOCIATED SITE IMPROVEMENTS.

THE SITE IS BORDERED BY AN EXISTING GRAVEL OPERATION TO THE NORTH, DEVELOPED RESIDENTIAL PROPERTY TO THE SOUTH, A WETLAND SYSTEM TO THE EAST, AND THE QUINEBAUG RIVER TO THE WEST.

THE PROPOSED EXCAVATION WILL BE COMPLETED IN THE FOLLOWING PHASES:

PHASE 1	58,800 CY	4.9+ ACRES
PHASE 2	65,800 CY	4.9+ ACRES
PHASE 3	72,200 CY	5.0+ ACRES
PHASE 4	45,700 CY	4.5+ ACRES
PHASE 5	14,700 CY	2.0+ ACRES
TOTAL	257,200 CY	18.3+ ACRES

THE SITE IS AN EXISTING OPEN LOT THAT WAS FORMERLY UTILIZED FOR LOGGING. THE MAJORITY OF THE PROPOSED EXCAVATION AREA IS SPARSELY WOODED AND CONSISTS OF THE CENTRAL PORTION OF THE PROPERTY AWAY FROM REGULATED AREAS. THERE IS NO PROPOSED ACTIVITY WITHIN THE UPLAND REVIEW AREA OF THE QUINEBAUG RIVER, EASTERLY WETLANDS SYSTEM, AQUIFER PROTECTION AREA, AND CT DEEP NODD AREA. THERE IS AN EXISTING GRAVEL DRIVE THAT PROVIDES ACCESS TO THE SITE THROUGH THE ADJUTING PROPERTY FROM CAMP ROAD. AN EASEMENT FOR USE OF THE GRAVEL DRIVE FOR ACCESS TO THE SITE HAS BEEN FILED IN THE TOWN OF CANTERBURY LAND RECORDS. THE SITE TOPOGRAPHY IN THE MAJORITY OF THE SITE IS GENTLY SLOPING (3-5%). THE AREA BETWEEN THE PROPOSED EXCAVATION AND THE WETLANDS SYSTEM TO THE EAST HAS BEEN PREVIOUSLY EXCAVATED AND CONSISTS OF IRREGULAR HOLES AND MOUNDS.

ACCORDING TO THE NATURAL RESOURCES CONSERVATION SERVICE (NRCS) WEB SOIL SURVEY, THE SOILS LOCATED ON THE SUBJECT PROPERTY ARE:

18	CATDEN AND FRETOWN SOILS, 0-2% SLOPES
53A	SUBORDINATE LOAMY LOAM, 0-3% SLOPES
34A	MERRIMAC FINE SANDY LOAM, 0-3% SLOPES
36A	WINDSOR LOAMY SAND, 0-3% SLOPES
19C	WINCKLEY LOAMY SAND, 3-15% SLOPES
100	SUNCOCK LOAMY FINE SAND
102	FOOTLOCK FINE SANDY LOAM

THIS PROJECT HAS BEEN DIVIDED INTO 5 PHASES. THE PROPOSED ACTIVITIES WILL TAKE PLACE AS FOLLOWS:

- PHASE 1 WILL CONSIST OF THE EXCAVATION AND REMOVAL OF APPROXIMATELY 58,800+ CY FROM A 4.9+ ACRE AREA. PRIOR TO EXCAVATION THIS PHASE WILL INCLUDE CLEARING THE PROPOSED 19.0+ ACRE OPERATING AREA AND INSTALLATION OF A WOOD CHIP BERM FOR EROSION CONTROL PURPOSES AT THE CLEARING LIMITS SURROUNDING THE PROPOSED EXCAVATION. THE PROPOSED PHASE 1 OPERATING AREA WILL BE GRUBBED AND TOPSOIL AND SUBSOIL STRIPPED AND STOCKPILED FOR REUSE. A TEMPORARY SEDIMENT TRAP WILL BE CONSTRUCTED PRIOR TO BEGINNING THE EXCAVATION. IT IS ESTIMATED THAT THIS PHASE WILL RESULT IN 20 HAULING TRIPS PER DAY AND WILL TAKE APPROXIMATELY 6 MONTHS TO COMPLETE.
- PHASE 2 WILL CONSIST OF EXCAVATION AND REMOVAL OF APPROXIMATELY 65,800 CY EARTH PRODUCTS FROM THE TOTAL 4.9+ ACRE EXCAVATION/OPERATION AREA SOUTHERLY OF THE PHASE 1 AREA. THIS PHASE WILL OVERLAP A PORTION OF THE PHASE 1 EMBANKMENT. THIS PHASE ALSO INCLUDES THE RESTORATION OF THE PHASE 1 DISTURBED AREAS AND FILLING THE PHASE 1 TEMPORARY SEDIMENT TRAP WHERE EXCAVATION IS COMPLETE. THE PROPOSED PHASE 2 OPERATING AREA WILL BE GRUBBED, AND TOPSOIL AND SUBSOIL STRIPPED AND STOCKPILED FOR REUSE. IT IS ESTIMATED THAT THIS PHASE WILL RESULT IN 20 HAULING TRIPS PER DAY AND WILL TAKE APPROXIMATELY 7 MONTHS TO COMPLETE.
- PHASE 3 WILL CONSIST OF EXCAVATION AND REMOVAL OF APPROXIMATELY 72,200 CY EARTH PRODUCTS FROM THE TOTAL 5.0+ ACRE EXCAVATION/OPERATION AREA SOUTHERLY OF THE PHASE 2 AREA. THIS PHASE WILL OVERLAP A PORTION OF THE PHASE 2 EMBANKMENT. THIS PHASE ALSO INCLUDES THE RESTORATION OF THE PHASE 2 DISTURBED AREAS WHERE EXCAVATION IS COMPLETE. THE PHASE 2 TEMPORARY SEDIMENT TRAP WILL BE UTILIZED FOR PHASE 3. THE PROPOSED PHASE 3 OPERATING AREA WILL BE GRUBBED, AND TOPSOIL AND SUBSOIL STRIPPED AND STOCKPILED FOR REUSE. IT IS ESTIMATED THAT THIS PHASE WILL RESULT IN 20 HAULING TRIPS PER DAY AND WILL TAKE APPROXIMATELY 7 MONTHS TO COMPLETE.
- PHASE 4 WILL CONSIST OF EXCAVATION AND REMOVAL OF APPROXIMATELY 45,700 CY EARTH PRODUCTS FROM THE TOTAL 4.5+ ACRE EXCAVATION/OPERATION AREA SOUTHERLY OF THE PHASE 3 AREA. THIS PHASE WILL OVERLAP A PORTION OF THE PHASE 3 EMBANKMENT. THIS PHASE ALSO INCLUDES THE RESTORATION OF THE PHASE 3 DISTURBED AREAS WHERE EXCAVATION IS COMPLETE. THE PROPOSED PHASE 4 OPERATING AREA WILL BE GRUBBED, AND TOPSOIL AND SUBSOIL STRIPPED AND STOCKPILED FOR REUSE. THE PHASE 4 TEMPORARY SEDIMENT TRAP WILL BE UTILIZED FOR PHASE 5. THE PROPOSED PHASE 5 OPERATING AREA WILL BE GRUBBED, AND TOPSOIL AND SUBSOIL STRIPPED AND STOCKPILED FOR REUSE. IT IS ESTIMATED THAT THIS PHASE WILL RESULT IN 20 HAULING TRIPS PER DAY AND WILL TAKE APPROXIMATELY 3 MONTHS TO COMPLETE.
- PHASE 5 WILL CONSIST OF EXCAVATION AND REMOVAL OF APPROXIMATELY 14,700 CY EARTH PRODUCTS FROM THE TOTAL 2.0+ ACRE EXCAVATION/OPERATION AREA SOUTHERLY OF THE PHASE 4 AREA. THIS PHASE WILL OVERLAP A PORTION OF THE PHASE 4 EMBANKMENT. THIS PHASE ALSO INCLUDES THE RESTORATION OF THE PHASE 4 DISTURBED AREAS WHERE EXCAVATION IS COMPLETE. THE PHASE 4 TEMPORARY SEDIMENT TRAP WILL BE UTILIZED FOR PHASE 5. THE PROPOSED PHASE 5 OPERATING AREA WILL BE GRUBBED, AND TOPSOIL AND SUBSOIL STRIPPED AND STOCKPILED FOR REUSE. IT IS ESTIMATED THAT THIS PHASE WILL RESULT IN 20 HAULING TRIPS PER DAY AND WILL TAKE APPROXIMATELY 3 MONTHS TO COMPLETE.
- FOLLOWING COMPLETION OF PHASE 5, ALL REMAINING DISTURBED AREAS WILL BE RESTORED USING THE STOCKPILED TOPSOIL AND SUBSOIL, AND SEEDING WITH THE SPECIFIED GRASS MIX. FEASIBLE REUSE OF THE PROPERTY COULD CONSIST OF THE PLANTING OF WHITE PINE TREES FOR FUTURE LOGGING, OR OTHER AGRICULTURAL USE.

SEDIMENT TRAPS WILL BE EXCAVATED AT THE DOWNGRADIENT LIMITS OF ALL DISTURBED AREAS PRIOR TO EXPORTING MATERIALS. THE SEDIMENT TRAPS ARE SIZED FOR 134 CUBIC YARDS OF VOLUME PER ACRE OF CONTRIBUTING AREA.

ALL PROPOSED FINAL EARTH SLOPES SHALL NOT EXCEED 3:1 HORIZONTAL TO VERTICAL. TOPSOIL AND SUBSOIL WILL BE STOCKPILED AND UTILIZED IN THE FINAL GRADING AND STABILIZATION OF EACH PHASE AS THE PROJECT PROCEEDS. A MINIMUM OF 6" OF SUBSOIL AND 4" OF TOPSOIL WILL BE SPREAD OVER THE ALL DISTURBED AREAS AFTER EACH PHASE IS COMPLETE. THIS TOPSOIL WILL THEN BE SEEDING WITH THE SPECIFIED GRASS MIX AND MULCHED WITH A HIGH QUALITY HAY OR STRAW.

THROUGHOUT THE PROJECT AND ESPECIALLY DURING DRY PERIODS, DUST CONTROL MEASURES WILL BE IMPLEMENTED AT THE PROJECT SITE. DUST CONTROL SHALL BE MAINTAINED BY WATERING WITH A TANK TRUCK ON AN AS NEEDED BASIS IN ORDER TO ENSURE THAT AMBIENT DUST CONDITIONS ARE MINIMIZED DURING THE PROJECT. NO WASHING OF EARTH PRODUCTS IS PROPOSED WITH THIS APPLICATION.

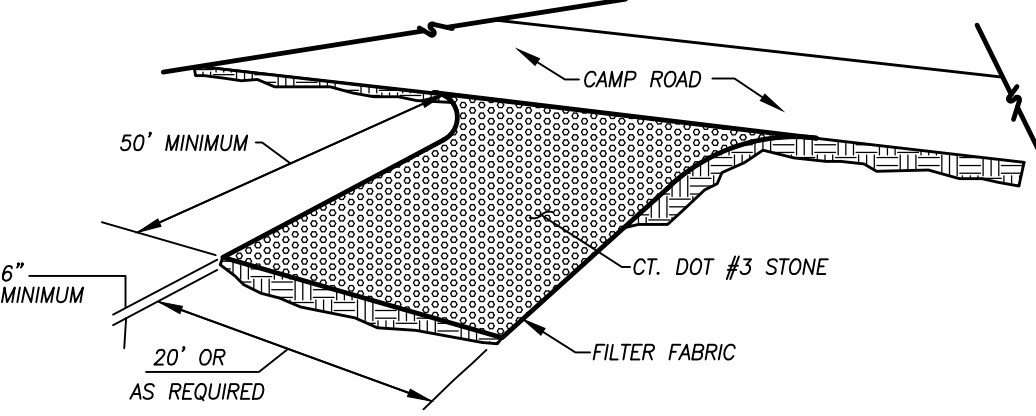
HOURS OF OPERATION SHALL BE LIMITED TO 7:00 AM TO 4:30 PM MONDAY THROUGH FRIDAY AND 8:00 AM TO 1:00 PM ON SATURDAY UNLESS AUTHORIZED OTHERWISE BY CANTERBURY LAND USE OFFICE PER SECTION 16.6 OF THE CANTERBURY ZONING REGULATIONS. NO OPERATIONS WILL TAKE PLACE ON SUNDAYS OR LEGAL HOLIDAYS.

EXCAVATION AND PROCESSING EQUIPMENT TO BE USED IN THIS OPERATION WILL INCLUDE A FRONT END LOADER, A BULLDOZER, AN EXCAVATOR, AND TRAILER DUMP TRUCKS FOR TRANSPORTING EARTH PRODUCTS OFFSITE.

FUELING OF EXCAVATION EQUIPMENT SHALL BE BY A DIESEL FUEL TRUCK AND BE ACCOMPLISHED ON A CONCRETE FUELING PAD. AN OSHA APPROVED SPILL KIT SHALL BE PROVIDED ON SITE AT ALL TIMES DURING THIS OPERATION. OSHA MAINTENANCE OF EQUIPMENT SHALL BE COMPLETED SUCH THAT ALL RUNOFF FROM DISTURBED AREAS WILL ENTER THE TEMPORARY SEDIMENT TRAPS PRIOR TO LEAVING THE OPERATING AREA. DUE TO THE EXISTING TOPOGRAPHY AND THE PERVIOUS TYPE OF EARTH MATERIAL ENCOUNTERED, GROUNDWATER ELEVATIONS AND SOILS INVESTIGATION COMPLETED FOR THE PROJECT (AND PREVIOUSLY APPROVED SURROUNDING PROJECTS), GROUNDWATER BREAKOUT WITHIN PROPOSED EXCAVATION AREAS IS NOT ANTICIPATED FOR THIS PROJECT.

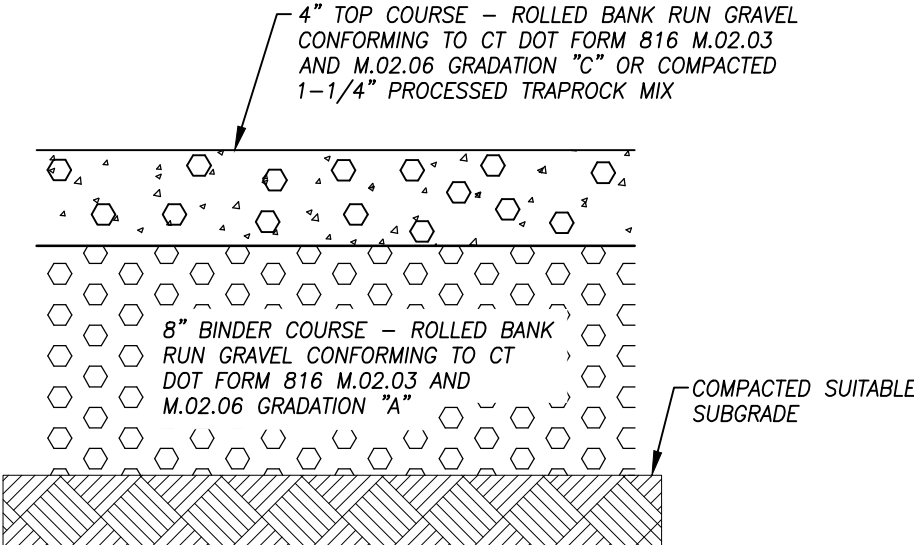
## CONSTRUCTION SEQUENCE

1. SECURE ALL NECESSARY LOCAL, STATE, AND FEDERAL PERMITS. REGISTER FOR ALL APPLICABLE STATE AND FEDERAL PERMITS AS REQUIRED.
2. A HERPETOLOGIST FAMILAR WITH THE REQUIREMENTS OF THE EASTERN SPADEFOOT TOAD AND BLUE SPOTTED SALAMANDER SHALL INSPECT THE PROJECT AREA FOR EVIDENCE OF BREEDING POOLS AND UNDERGROUND BURROWING AREAS AND DELINEATE THESE AREAS. ANY DELINEATED AREAS SHALL BE AVOIDED DURING THE OPERATION OF THE EXCAVATION. HERPETOLOGIST SHALL EDUCATE WORKERS REGARDING THE EASTERN SPADEFOOT TOAD AND BLUE SPOTTED SALAMANDER. ANY VISUAL ENCOUNTERS SHALL BE REPORTED TO DEEP-NODD PROGRAM AT DEEP-NODDREQUEST@CT.GOV WITH REFERENCE #201704554.
3. MAKE IMPROVEMENTS TO PORTIONS OF GRAVEL DRIVE FROM CAMP ROAD AS REQUIRED. INSTALL ANTI-TRACKING PAD AT CONSTRUCTION ENTRANCE FROM ADELMAN FAMILY LLC PROPERTY. INSTALL GATES, FENCE, AND CONCRETE FUELING PAD.
4. CLEAR AND DISPOSE OF VEGETATION FROM PROJECT AREA. PLACE WOOD CHIP BERM AT LIMITS OF CLEARING FOR EROSION AND SEDIMENT CONTROL PURPOSES. GRUB STUMPS AND STRIP SUBSOIL AND TOPSOIL FROM PHASE 1 AT LOCATION SHOWN FOR FUTURE REUSE. SURROUND THE DOWNGRADIENT UNSTABILIZED PORTION OF SOIL STOCKPILES WITH SEDIMENT FENCE, STAKED HAY BALES OR OTHER APPROVED EROSION CONTROL METHOD. STABILIZE THIS STOCKPILE AREA BY SEEDING WITH RYEGRASS. STUMPS SHALL BE STOCKPILED ON SITE AND, ONCE ACCUMULATED, REMOVE FROM SITE AND DISPOSE OF IN AN APPROVED LOCATION. IN AN APPROVED LOCATION, CONSTRUCT TEMPORARY SEDIMENT TRAP FOR USE DURING PHASE 1.
5. BEGIN PHASE 1 EXCAVATION INCLUDING THE HAUL ROADS. UTILIZE DESIGNATED AREAS FOR MATERIAL STORAGE.
6. PRIOR TO COMMENCEMENT OF PHASE 2, PERMANENTLY STABILIZE ALL FINALIZED SLOPES WHICH WILL RECEIVE NO FURTHER DISTURBANCE IN PHASE 1 WITH SUBSOIL (6" MINIMUM) AND TOPSOIL (4" MINIMUM), SEED WITH GRASS AND MULCH.
7. GRUB STUMPS AND STRIP SUBSOIL AND TOPSOIL FROM PHASE 2 AREA. STOCKPILE SOIL AT LOCATION SHOWN FOR FUTURE REUSE. SURROUND THE DOWNGRADIENT UNSTABILIZED PORTION OF SOIL STOCKPILES WITH SEDIMENT FENCE, STAKED HAY BALES OR OTHER APPROVED EROSION CONTROL METHOD. STUMPS SHALL BE STOCKPILED ON SITE AND, ONCE ACCUMULATED, BE REMOVED FROM SITE AND DISPOSED OF IN AN APPROVED MANNER AT AN APPROVED LOCATION. CONSTRUCT TEMPORARY SEDIMENT TRAP FOR USE DURING PHASE 2.
8. BEGIN PHASE 2 EXCAVATION UTILIZING THE DESIGNATED AREAS FOR EQUIPMENT/MATERIAL STORAGE.
9. PRIOR TO COMMENCEMENT OF PHASE 3, PERMANENTLY STABILIZE ALL FINALIZED SLOPES WHICH WILL RECEIVE NO FURTHER DISTURBANCE IN PHASE 2 WITH SUBSOIL (6" MINIMUM) AND TOPSOIL (4" MINIMUM), SEED WITH GRASS AND MULCH.
10. GRUB STUMPS AND STRIP SUBSOIL AND TOPSOIL FROM PHASE 3 AREA. STOCKPILE SOIL AT LOCATION SHOWN FOR FUTURE REUSE. SURROUND THE DOWNGRADIENT UNSTABILIZED PORTION OF SOIL STOCKPILES WITH SEDIMENT FENCE, STAKED HAY BALES OR OTHER APPROVED EROSION CONTROL METHOD. STUMPS SHALL BE STOCKPILED ON SITE AND, ONCE ACCUMULATED, BE REMOVED FROM SITE AND DISPOSED OF IN AN APPROVED MANNER AT AN APPROVED LOCATION. CONSTRUCT TEMPORARY SEDIMENT TRAP FOR USE DURING PHASE 3.
11. BEGIN PHASE 3 EXCAVATION UTILIZING THE DESIGNATED AREAS FOR EQUIPMENT/MATERIAL STORAGE.
12. PRIOR TO COMMENCEMENT OF PHASE 4, PERMANENTLY STABILIZE ALL FINALIZED SLOPES WHICH WILL RECEIVE NO FURTHER DISTURBANCE IN PHASE 3 WITH SUBSOIL (6" MINIMUM) AND TOPSOIL (4" MINIMUM), SEED WITH GRASS AND MULCH.
13. GRUB STUMPS AND STRIP SUBSOIL AND TOPSOIL FROM PHASE 4 AREA. STOCKPILE SOIL AT LOCATION SHOWN FOR FUTURE REUSE. SURROUND THE DOWNGRADIENT UNSTABILIZED PORTION OF SOIL STOCKPILES WITH SEDIMENT FENCE, STAKED HAY BALES OR OTHER APPROVED EROSION CONTROL METHOD. STUMPS SHALL BE STOCKPILED ON SITE AND, ONCE ACCUMULATED, BE REMOVED FROM SITE AND DISPOSED OF IN AN APPROVED MANNER AT AN APPROVED LOCATION. CONSTRUCT TEMPORARY SEDIMENT TRAP FOR USE DURING PHASE 4.
14. BEGIN PHASE 4 EXCAVATION UTILIZING THE DESIGNATED AREAS FOR EQUIPMENT/MATERIAL STORAGE.
15. PRIOR TO COMMENCEMENT OF PHASE 5, PERMANENTLY STABILIZE ALL FINALIZED SLOPES WHICH WILL RECEIVE NO FURTHER DISTURBANCE IN PHASE 4 WITH SUBSOIL (6" MINIMUM) AND TOPSOIL (4" MINIMUM), SEED WITH GRASS AND MULCH. UTILIZE PHASE 4 SEDIMENT TRAP FOR PHASE 5.
16. AFTER PROPOSED SLOPE/GRADES ARE ATTAINED AROUND THE PERIMETER OF THE PHASE 5 AREA AND WITHIN THE SITE OPERATION AREA, RESTORE ALL REMAINING DISTURBED AREAS WITH SUBSOIL (6" MINIMUM) AND TOPSOIL (4" MINIMUM). SEED WITH GRASS AND MULCH. AT COMPLETION OF THE PROJECT, ACCUMULATED SEDIMENT AND SILT SHALL BE REMOVED FROM THE PHASE 2 SEDIMENT TRAP. THE DISTURBED AREAS SHALL BE LOADED (6" MINIMUM OF SUBSOIL AND 4" MINIMUM OF TOPSOIL), SEEDING WITH GRASS AND MULCHED SO IT WILL ACT AS RETENTION BASIN AFTER STABILIZATION/PROJECT COMPLETION. REMOVE ALL EXCESS MATERIAL AND EQUIPMENT, AND DEMOLISH CONCRETE FUELING PAD, AND PROPERLY DISPOSE OF CONCRETE. AFTER ALL AREAS HAVE BEEN PERMANENTLY STABILIZED, REMOVE EROSION CONTROL MEASURES.



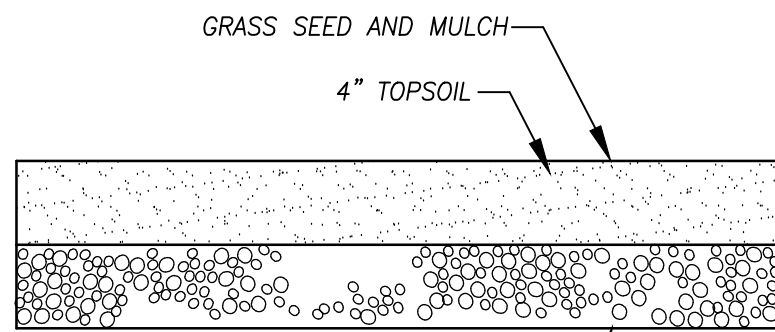
ANTI-TRACKING PAD DETAIL

NOT TO SCALE



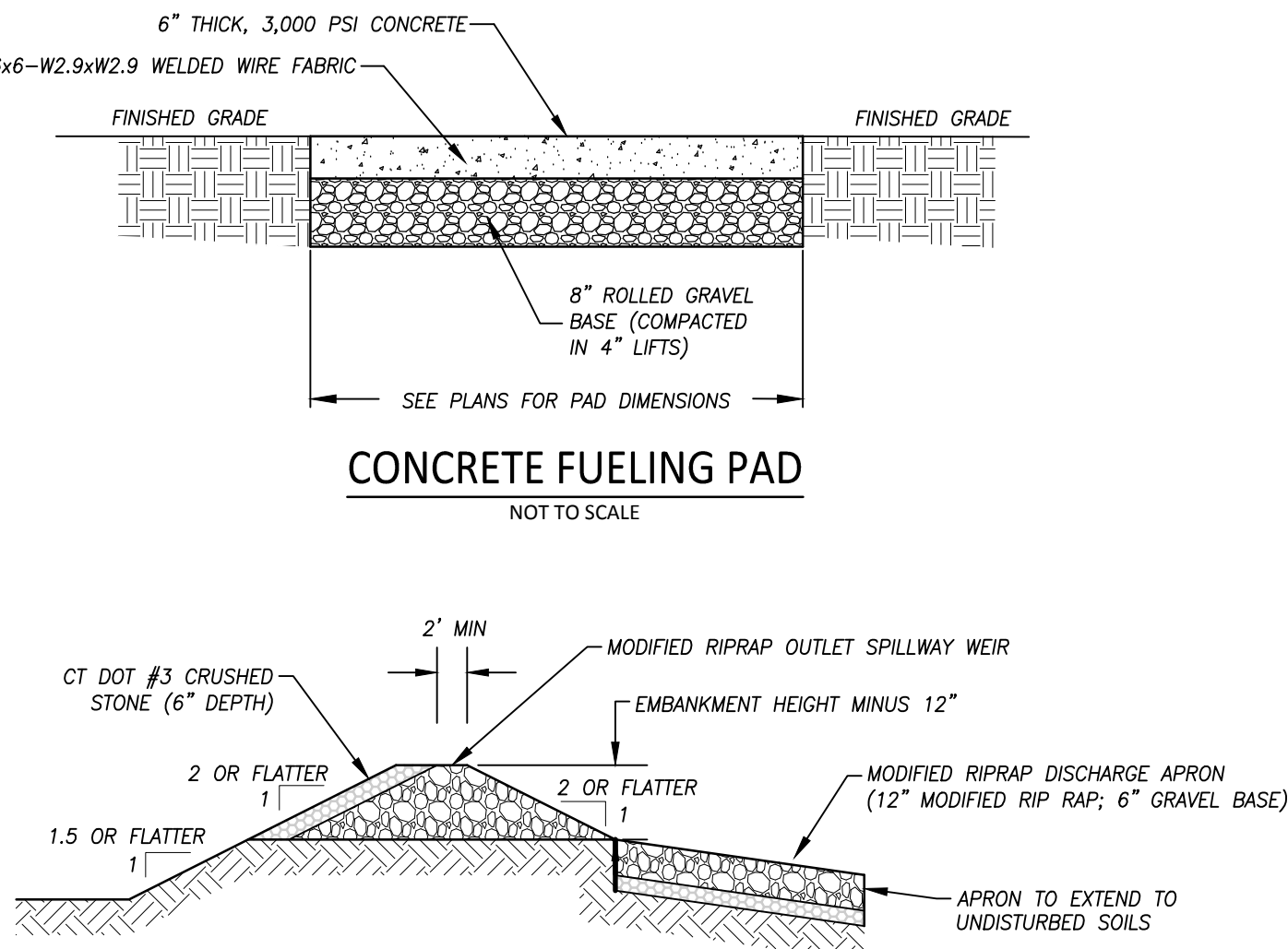
TRAFFIC BOUND GRAVEL SURFACE

NOT TO SCALE



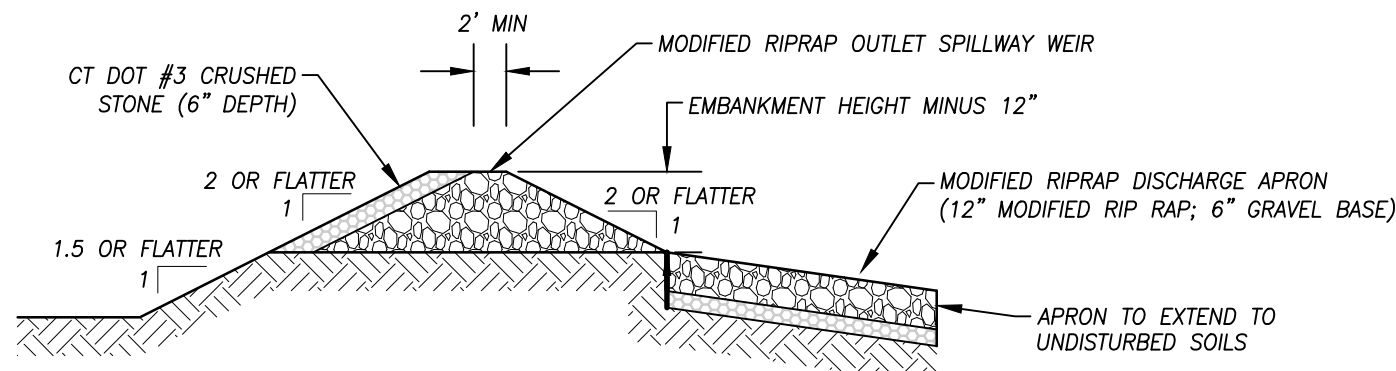
LOAM & SEED CROSS SECTION DETAIL

NOT TO SCALE



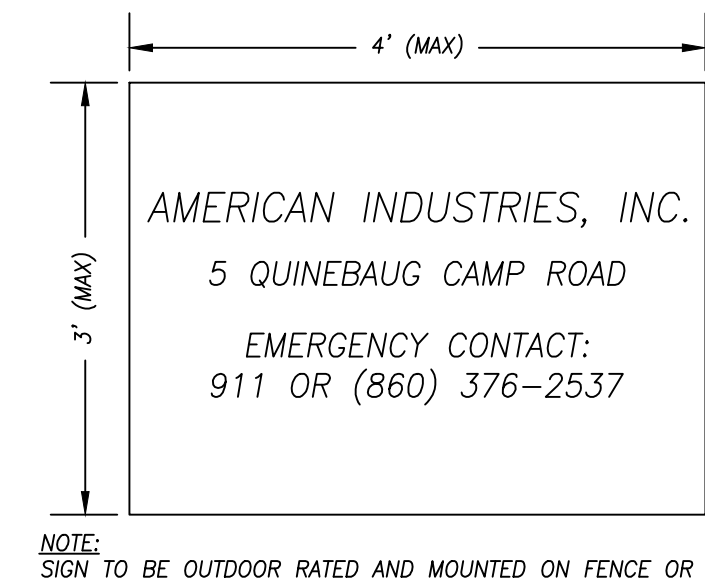
CONCRETE FUELING PAD

NOT TO SCALE



SEDIMENT TRAP SPILLWAY DETAIL

NOT TO SCALE



FEASIBLE SIGN DETAIL

NOT TO SCALE

DAVID C. McRAY, P.E. 29102  
LICENSE NO. DATE

Proposed Earth Products Excavation  
"Notes and Details"

Prepared for

American Industries, Inc.

5 Quinebaug Camp Road, Canterbury, Connecticut

SCALE:	As Noted
DATE:	March 2017
JOB I.D. NO.	16-2468
Revisions	
REV. A - PER NODD COMMENTS -	07/18/17

SHEET NO.

11

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P:\CIVIL 3D PROJECTS\2016\16-2468 AMERICAN-CAMP RD.DWG\DESIGN\A1 EARTH PRODUCTS EXCAVATION.DWG

REFERENCE IS MADE TO:

- 1. CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL, MAY 2002.
- 2. NATURAL RESOURCES CONSERVATION SERVICE WEB SOIL SURVEY.

EROSION CONTROL OPERATION & MAINTENANCE:

THE EXCAVATION OPERATOR SHALL BE RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF EROSION AND SEDIMENT CONTROL MEASURES THROUGHOUT THE PROJECT. NO EXCAVATION SHALL PROCEED UNTIL PROPER SEDIMENTATION AND EROSION CONTROL METHODS HAVE BEEN INSTALLED AS THE SEQUENCE OF CONSTRUCTION NECESSITATES.

MAINTENANCE OF EROSION AND SEDIMENT CONTROLS SHALL BE COMPLETED IN ACCORDANCE WITH THE CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL (2002). THE CONTRACTOR SHALL MAINTAIN A COPY OF THE GUIDELINES ON-SITE AND REFER TO THE APPROPRIATE MAINTENANCE PROCEDURES THAT SHALL BE UTILIZED DURING THE CONSTRUCTION. A SUMMARY OF THE MAINTENANCE REQUIREMENTS FOR THE PROJECT IS PROVIDED BELOW.

DURING OPERATIONS, ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED IN PROPER WORKING ORDER. DISTURBED AREAS SHALL BE KEPT TO A MINIMUM AND SHALL ONLY TAKE PLACE WHERE IMMEDIATELY REQUIRED TO FURTHER CONSTRUCTION. IT IS DESIRABLE FROM AN EROSION PREVENTION PERSPECTIVE TO MINIMIZE DISTURBED AREAS. DISTURBED AREAS SHALL NOT EXCEED 5.0 ACRES AT ANY ONE TIME. FINAL GRADING AND SEEDING SHALL TAKE PLACE AS SOON AS PRACTICAL.

A RAIN GAUGE SHALL BE PLACED AT THE PROJECT IN A WORKABLE LOCATION AND MONITORED DURING RAINFALL PERIODS UNTIL ALL DISTURBED AREAS ARE STABILIZED.

EVERY PRECAUTION SHALL BE USED DURING CONSTRUCTION TO PREVENT AND MINIMIZE THE DEGRADATION OF THE EXISTING WATER QUALITY FROM STORMWATER RUNOFF DURING CONSTRUCTION. ALL ACTIVITIES SHALL BE IN CONFORMANCE TO AND CONSISTENT WITH ALL APPLICABLE WATER QUALITY STANDARDS AND MANAGEMENT PRACTICES AS SET FORTH BY LOCAL, STATE AND FEDERAL AGENCIES.

THE SITE OPERATOR SHALL APPOINT AN ONSITE AGENT WHO SHALL BE PERSONALLY RESPONSIBLE FOR IMPLEMENTING THIS EROSION AND SEDIMENT CONTROL PLAN AND ENFORCING THE PRESCRIBED SAFEGUARDS DURING THE EXCAVATION AND OPERATION PERIOD. THIS RESPONSIBILITY INCLUDES THE INSTALLATION AND MAINTENANCE OF CONTROL MEASURES THROUGHOUT THE PROJECT, INFORMING ALL PARTIES ENGAGED ON SITE OF THE REQUIREMENTS AND OBJECTIVES OF THE PLAN, NOTIFYING THE PROPER AGENCY AND OFFICIALS OF ANY TRANSFER OF THIS RESPONSIBILITY.

THE APPLICANT SHALL BE RESPONSIBLE FOR REGISTERING FOR ANY APPLICABLE GENERAL PERMIT FOR THE OPERATION WITH THE DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION.

ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REPAIRED, CLEANED AND/OR REPLACED AS NECESSARY THROUGHOUT THE PROJECT IN ORDER TO MAINTAIN COMPLETE AND INTEGRAL EROSION AND SEDIMENT CONTROL PROTECTION. ONCE IN PLACE, ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO REMAIN IN PLACE IN PROPER CONDITION AND BE CONTINUOUSLY MAINTAINED UNTIL FINAL SITE RESTORATION HAS BEEN COMPLETED. FOLLOWING SUCH PERMANENT STABILIZATION, THE EROSION AND SEDIMENT CONTROL MEASURES SHALL BE DISMANTLED, REMOVED, AND DISPOSED OF IN AN APPROVED MANNER. ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES BEYOND THOSE SHOWN ON THE PLANS OR PRESCRIBED HEREIN SHALL BE PUT IN PLACE, WHENEVER NECESSARY, TO ADDRESS FIELD CONDITIONS AND/OR AS ORDERED BY THE ENGINEER.

QUALIFIED PERSONNEL PROVIDED BY THE OPERATOR SHALL INSPECT DISTURBED AREAS AND THE LOCATIONS WHERE VEHICLES ENTER AND LEAVE THE SITE. THESE AREAS SHALL BE INSPECTED AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND WITHIN TWENTY-FOUR HOURS OF THE END OF A STORM EVENT WITH 0.5 INCHES OR GREATER OF RAINFALL. ADDITIONAL MEASURES BEYOND THOSE INDICATED AND/OR SHOWN ON THIS PLAN SET OR PRESCRIBED HEREIN SHALL BE PUT IN PLACE, WHENEVER NECESSARY, TO ADDRESS FIELD CONDITIONS AND/OR AS ORDERED BY THE ENGINEER, WHERE SITES HAVE BEEN TEMPORARILY OR FINALLY STABILIZED, SUCH INSPECTION SHALL BE CONDUCTED AT LEAST ONCE EVERY MONTH FOR THREE CONSECUTIVE MONTHS.

NO SOIL, FILL OR OTHER MATERIALS SHALL BE DEPOSITED IN SURROUNDING INLAND WETLANDS UNLESS PERMITTED BY THE LOCAL REGULATORY AUTHORITY.

ALL TEMPORARY STORAGE AND/OR STOCKPILE AREAS SHALL BE PROPERLY STABILIZED TO PREVENT EROSION AND SUITABLY CONTAINED TO PREVENT TURBID RUNOFF.

DUMPING OF OIL OR OTHER DELETERIOUS MATERIALS ON THE GROUND IS FORBIDDEN. THE APPLICANT SHALL PROVIDE A MEANS OF CATCHING, RETAINING AND PROPERLY DISPOSING OF DRAINED OIL, REMOVED OIL FILTERS, OR OTHER DELETERIOUS MATERIAL FROM EQUIPMENT USED ON SITE. VEHICLE MAINTENANCE SHALL BE COMPLETED OFF SITE. ALL OIL SPILLS SHALL BE IMMEDIATELY REPORTED TO THE DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION/HAZARDOUS MATERIALS OFFICE. FAILURE TO DO SO MAY RESULT IN THE IMPOSITION OF FINES UNDER THE APPLICABLE CONNECTICUT GENERAL STATUTES.

DURING CONSTRUCTION, THE SITE CONTRACTOR SHALL BE RESPONSIBLE FOR SITE INSPECTION AND MAINTENANCE TO ASSURE PROPER PERFORMANCE OF EROSION CONTROL MEASURES. INSPECTION AND MAINTENANCE SHALL INCLUDE, AT A MINIMUM, THE FOLLOWING:

- INSPECT ALL SEDIMENT FENCE, WOOD CHIP BERMS AND OTHER EROSION CONTROL MEASURES. REPAIR OR REPLACE ANY DAMAGED PORTION IN ORDER TO INSURE ITS PROPER AND EFFECTIVE OPERATION. REMOVE ACCUMULATED SEDIMENT IF REQUIRED (GREATER THAN 4" DEPTH).
- INSPECT ALL STOCKPILES. REPAIR OR REPLACE ANY DAMAGED PORTION OF EROSION CONTROL MEASURES SURROUNDING THESE AREAS IN ORDER TO PREVENT SEDIMENTATION DOWNGRADIENT.
- INSPECT GRASS RESTORED AREAS. REVEGETATE ANY ERODED OR DISTURBED AREAS TO PROVIDE PERMANENT STABILIZATION. RESEED AND/OR REVEGETATE ANY AREAS THAT DO NOT HAVE A SUITABLE STAND OF GRASS OR ANY SOURCED AREAS TO PROVIDE PERMANENT STABILIZATION.
- INSPECT ANTI-TRACKING PAD. REMOVE AND DISPOSE OF PAD AND REPLACE IF PAD IS NO LONGER FUNCTIONING EFFICIENTLY OR ACCUMULATED SEDIMENT IS TO A DEPTH OF 2" BELOW THE STONE SURFACE.
- INSPECT SEDIMENT TRAPS. REMOVE AND DISPOSE OF COLLECTED SEDIMENT WHEN HALF OF THE WET STORAGE CAPACITY HAS BEEN FILLED WITH SEDIMENT.
- INSPECT AREAS DOWNGRADIENT OF ALL EXCAVATIONS. REMOVE SEDIMENT RELEASES AND STABILIZE ANY ERODED AREAS IF FOUND. REPAIR OR IMPROVE EROSION CONTROL MEASURES THAT ALLOWED THE SEDIMENT RELEASE.

EROSION AND SEDIMENT CONTROL  
BEST MANAGEMENT PRACTICES (BMP'S)

MINIMIZE DISTURBED AREA AND PROTECT NATURAL FEATURES AND SOIL

TOPSOIL:

TOPSOIL AND SUBSOIL WILL BE REMOVED AND STOCKPILED ON SITE AND UTILIZED FOR FINAL GRADING. ADDITIONAL TOPSOIL, IF REQUIRED, WILL BE SUPPLIED FROM AN OFF-SITE SOURCE. EXCESS MATERIALS RESULTING FROM "CUT SLOPES" IN THE AREAS OF THE PROPOSED CONSTRUCTION THAT ARE NOT INTENDED FOR REUSE WILL BE IMMEDIATELY REMOVED FROM THE SITE. WHEN SOIL IS STOCKPILED, THE SLOPE OF THE STOCKPILE WILL NOT EXCEED 2 HORIZONTAL TO 1 VERTICAL.

INSTALLATION SCHEDULE: AS NOTED, EXCAVATED TOPSOIL WILL BE STOCKPILED ON SITE. SEDIMENT FENCE WILL BE PLACED AROUND ANY STOCKPILES THAT ARE NOT IMMEDIATELY REMOVED FROM THE SITE TO PROTECT THE EXISTING DRAINAGE DITCHES AND OFF SITE AREAS.

MAINTENANCE AND INSPECTION: THE CUT AND FILL AREAS WILL BE INSPECTED WEEKLY FOR EROSION. THESE AREAS WILL BE STABILIZED IMMEDIATELY WITH EROSION CONTROLS OR GRADED TO AVOID POSSIBLE DISTURBANCE TO THE EXISTING DRAINAGE DITCHES OR OFF SITE AREAS. SEE ALSO MAINTENANCE AND INSPECTION PROCEDURES FOR SILT FENCE.

CONTROL STORMWATER FLOWING ONTO AND THROUGH THE PROJECT

AREA FOR SILT TO ACCUMULATE:

BMP/INSTALLATION SCHEDULE: BEFORE ANY GRADING OPERATIONS BEGIN, A WOOD CHIP BERM OR SEDIMENT FENCE WILL BE INSTALLED ADJACENT TO THE AREAS UNDER CONSTRUCTION JUST OUTSIDE THE LIMITS OF DISTURBANCE. OTHER ADJACENT OFF-SITE AREAS WILL ALWAYS BE PROTECTED BY A SEDIMENT FENCE OR ANOTHER BMP UNTIL FINAL STABILIZATION IS ACHIEVED.

MAINTENANCE AND INSPECTION: THE GRADED AREAS AND WOOD CHIP BERM OR SEDIMENT FENCE WILL BE INSPECTED WEEKLY TO ENSURE THAT THERE ARE NO STRUCTURAL FAILURES AND IMMEDIATELY AFTER RAIN EVENTS.

CONSTRUCTION SPECIFICATIONS

WOOD CHIP BERM:

THE MATERIAL FOR WOOD CHIP BERMS WILL BE ACQUIRED IN CONJUNCTION WITH THE REMOVAL AND CHIPPING OF TREES LOCATED WITHIN THE PROJECT AREA.

INSTALLATION: ERECT WOOD CHIP BERM IN A CONTINUOUS FASHION AT THE SPECIFIED HEIGHT AND WIDTH.

MAINTENANCE:

- 1. SEDIMENT SHOULD BE REMOVED ONCE IT HAS ACCUMULATED TO A DEPTH OF 4".
- 2. BERM SHOULD BE REPAIRED IF IT HAS BEEN BREACHED.
- 3. BERM CAN BE LEFT IN PLACE PERMANENTLY AND LEFT TO DETERIORATE.
- 4. ALL SEDIMENT ACCUMULATED AT THE BERM SHOULD BE REMOVED AND PROPERLY DISPOSED OF IF THE BERM IS TO BE REMOVED.

SEDIMENT FENCE:

- 1. THE MATERIAL FOR SEDIMENT FENCES SHOULD BE A PERVIOUS SHEET OF SYNTHETIC FABRIC SUCH AS POLYPROPYLENE, NYLON, POLYESTER, OR POLYETHYLENE YARN.
- 2. THE STAKES USED TO ANCHOR THE FILTER FABRIC SHOULD BE WOOD OR METAL. WOODEN STAKES SHOULD BE AT LEAST 3 FEET LONG AND HAVE A MINIMUM DIAMETER OF 2 INCHES IF A HARDWOOD LIKE OAK IS USED. STAKES FROM SOFT WOODS LIKE PINE SHOULD BE AT LEAST 4 INCHES IN DIAMETER.
- 3. ERECT SEDIMENT FENCE IN A CONTINUOUS FASHION FROM A SINGLE ROLL OF FABRIC TO ELIMINATE GAPS IN THE FENCE. IF A CONTINUOUS ROLL OF FABRIC IS NOT AVAILABLE, OVERLAP THE FABRIC FROM BOTH DIRECTIONS ONLY AT STAKES OR POSTS. OVERLAP AT LEAST 6 INCHES. EXCAVATE A TRENCH TO BURY THE BOTTOM OF THE FABRIC FENCE AT LEAST 6 INCHES BELOW THE GROUND SURFACE. THIS HELPS TO PREVENT GAPS FROM FORMING NEAR THE GROUND SURFACE. GAPS WOULD MAKE THE FENCING USELESS AS A SEDIMENT BARRIER.

- 4. THE HEIGHT OF THE FENCE POSTS SHOULD BE 16 TO 34 INCHES ABOVE THE ORIGINAL GROUND SURFACE. SPACE THE POSTS NO MORE THAN 10 FEET APART.
- 5. THE FENCE SHOULD BE DESIGNED TO WITHSTAND THE RUNOFF FROM A 10-YEAR PEM STORM EVENT.

ONCE INSTALLED, IT SHOULD REMAIN IN PLACE UNTIL ALL AREAS UPSLOPE HAVE BEEN PERMANENTLY STABILIZED BY VEGETATION OR OTHER MEANS.

INSTALLATION:

- 1. DIG A 6" DEEP TRENCH ON THE UPHILL SIDE OF THE PROPOSED BARRIER LOCATION.
- 2. POSITION THE POSTS ON THE DOWNHILL SIDE OF THE FABRIC BARRIER AND DRIVE THE POST 12" INTO THE GROUND.
- 3. LAY THE BOTTOM 6" OF THE FABRIC BARRIER IN THE TRENCH TO PREVENT UNDERMINING AND BACKFILL.

MAINTENANCE:

- 1. SEDIMENT SHOULD BE REMOVED ONCE IT HAS ACCUMULATED TO 4" DEPTH.
- 2. FILTER FABRIC SHOULD BE REPLACED WHENEVER IT HAS DETERIORATED TO SUCH AN EXTENT THAT THE EFFECTIVENESS OF THE FABRIC IS REDUCED (APPROXIMATELY SIX MONTHS).
- 3. SEDIMENT FENCE SHOULD REMAIN IN PLACE UNTIL DISTURBED AREAS HAVE BEEN PERMANENTLY STABILIZED.
- 4. ALL SEDIMENT ACCUMULATED AT THE FENCE SHOULD BE REMOVED AND PROPERLY DISPOSED OF BEFORE THE FENCE IS REMOVED.

INSPECTION:

- 1. INSPECT SEDIMENT FENCE BEFORE ANTICIPATED STORM EVENTS (OR SERIES OF STORM EVENTS SUCH AS INTERMITTENT SHOWERS OVER ONE OR MORE DAYS) AND WITHIN 24 HOURS AFTER THE END OF A STORM EVENT OF 0.5 INCHES OR GREATER, AND AT LEAST ONCE EVERY SEVEN CALENDAR DAYS, AT LEAST 72 HOURS APART.
- 2. WHERE SITES HAVE BEEN FINALLY OR TEMPORARILY STABILIZED, SUCH INSPECTIONS MAY BE CONDUCTED ONCE PER MONTH.

HAY/STRAW BALE BARRIER

INSTALLATION:

- 1. EXCAVATE TRENCH 4" AND PLACE MATERIAL UPSLOPE OF TRENCH.
- 2. PLACE BALES IN A SINGLE ROW IN THE TRENCH, LENGTHWISE, WITH ENDS OF ADJACENT BALES TIGHTLY ABUTTING ONE ANOTHER AND THE BINDINGS ORIENTED AROUND THE SIDES RATHER THAN ALONG THE TOPS AND BOTTOMS OF THE BALES (TO AVOID PREMATURE ROTTING OF THE BINDINGS).
- 3. ANCHOR EACH BALE WITH AT LEAST 2 STAKES, DRIVING THE FIRST STAKE IN EACH BALE TOWARD THE PREVIOUSLY Laid BALE TO FORCE THE BALES TOGETHER. STAKES MUST BE DRIVEN A MINIMUM OF 18 INCHES INTO THE GROUND, FILL ANY GAPS BETWEEN THE BALES WITH STRAW TO PREVENT WATER FROM ESCAPING BETWEEN THE BALES.
- 4. BACKFILL THE BALES WITH THE EXCAVATED TRENCH MATERIAL TO A MINIMUM DEPTH OF 4 INCHES ON THE UPHILL SIDE OF THE BALES. TAMP BY HAND OR MACHINE AND COMPACT THE SOIL LOOSE HAY/STRAW SCATTERED OVER THE DISTURBED AREA IMMEDIATELY UPHILL FROM THE HAY BALE BARRIER TENDS TO INCREASE BARRIER EFFICIENCY.

MAINTENANCE:

- 1. INSPECT THE HAY/STRAW BALE BARRIER AT LEAST ONCE A WEEK AND WITHIN 24 HOURS OF THE END OF A STORM WITH A RAINFALL AMOUNT OF 0.5 INCH OR GREATER TO DETERMINE MAINTENANCE NEEDS. FOR DEWATERING OPERATIONS, INSPECT FREQUENTLY BEFORE, DURING, AND AFTER PUMPING OPERATIONS. REMOVE THE SEDIMENT DEPOSITS WHEN SEDIMENT DEPOSITS REACH APPROXIMATELY ONE HALF THE HEIGHT OF THE BARRIER.
- 2. REPLACE OR REPAIR THE BARRIER WITHIN 24 HOURS OF OBSERVED FAILURE. FAILURE OF THE BARRIER HAS OCCURRED WHEN SEDIMENT FAILS TO BE RETAINED BY THE BARRIER BECAUSE:
  - (a) THE BARRIER HAS BEEN OVERTOPPED, UNDERCUT OR BYPASSED BY RUNOFF WATER,
  - (b) THE BARRIER HAS BEEN MOVED OUT OF POSITION, OR
  - (c) THE BALES HAVE DETERIORATED OR BEEN DAMAGED.
- 3. WHEN REPETITIVE FAILURES OCCUR AT THE SAME LOCATION, REVIEW CONDITIONS AND LIMITATIONS FOR USE AND DETERMINE IF ADDITIONAL CONTROLS ARE NEEDED TO REDUCE FAILURE RATE OR REPLACE HAY/STRAW BALE BARRIER.
- 4. MAINTAIN THE HAY/STRAW BALE BARRIER UNTIL THE CONTRIBUTING AREA IS STABILIZED, AFTER THE UPSLOPE AREAS HAVE BEEN PERMANENTLY STABILIZED, PULL THE STAKES OUT OF THE HAY BALES. REMOVE SEDIMENT.

DUST CONTROL:

DUST FROM THE SITE WILL BE CONTROLLED BY USING A MOBILE PRESSURE-TYPE DISTRIBUTOR TRUCK THAT WILL APPLY POTABLE WATER AT RATE OF 300 GALLONS PER ACRE AND MINIMIZED AS NEEDED TO AVOID PONDING.

INSTALLATION SCHEDULE: DUST CONTROL WILL BE IMPLEMENTED AS NEEDED ONCE SITE GRADING HAS BEEN INITIATED, AND DURING WINDY CONDITIONS EXCEEDING 20MPH, WHILE SITE GRADING IS OCCURRING. SPRAYING OF POTABLE WATER WILL BE PERFORMED ONCE PER DAY DURING THE MONTHS OF MARCH THROUGH MAY AND NO MORE THAN THREE TIMES PER DAY FROM JUNE TO SEPTEMBER OR WHENEVER DRYNESS OF SOIL WARRANTS IT.

MAINTENANCE SCHEDULE: AT LEAST ONE MOBILE UNIT WILL BE AVAILABLE AT ALL TIMES DURING CONSTRUCTION TO APPLY POTABLE WATER. EACH MOBILE UNIT SHALL BE EQUIPPED WITH A POSITIVE SHUTOFF VALVE TO PREVENT OVER WATERING OF DISTURBED AREAS.

RETAIN SEDIMENT ON-SITE AND CONTROL DEWATERING PRACTICES

SIZE AND CONSTRUCT THE TRAP IN ACCORDANCE WITH THE REQUIREMENTS OF THE "CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL, MAY 2002". MINIMUM CAPACITY SHALL BE 134 CUBIC YARDS PER ACRE OF CONTRIBUTING AREA.

SITE PREPARATION:

CLEAR GRUB AND STRIP TOPSOIL TO REMOVE TREES, VEGETATION, ROOTS, OR OTHER UNSUITABLE MATERIAL FROM AREAS UNDER THE EMBANKMENT OR ANY STRUCTURAL WORKS RELATED TO THE TRAP. CLEAR AND GRUB THE AREA OF MOST FREQUENT INUNDATION (MEASURED FROM THE TOP OF THE OUTLET CONTROL STRUCTURE) OF ALL BRUSH AND TREES TO FACILITATE CLEAN OUT AND RESTORATION.

INSTALL SEDIMENT CONTROLS FOR CONTRIBUTING AREAS. INSTALL SEDIMENT CONTROLS TO TRAP SEDIMENT BEFORE IT ENTERS THE TRAP. STABILIZE THE BASIN IN ACCORDANCE WITH THE TEMPORARY SEEDING SPECIFICATION, STABILIZE THE SPILL AND BORROW AREAS, AND OTHER DISTURBED AREAS IN ACCORDANCE WITH THE TEMPORARY SEEDING OR PERMANENT SEEDING, WHICHEVER IS APPLICABLE.

INSTALL SAFETY FEATURES AND DEVICES TO PROTECT HUMANS AND ANIMALS FROM SUCH ACCIDENTS AS FALLING OR DROWNING. TEMPORARY FENCING CAN BE USED UNTIL BARRIER PLANTINGS ARE ESTABLISHED. USE PROTECTIVE MEASURES SUCH AS GUARDRAILS AND FENCES ON SPILLWAYS AND IMPOUNDMENTS AS NEEDED.

MAINTENANCE:

INSPECT THE TEMPORARY SEDIMENT TRAP AT LEAST ONCE A WEEK AND WITHIN 24 HOURS OF THE END OF A STORM WITH A RAINFALL AMOUNT OF 0.5 INCH OR GREATER TO DETERMINE CONDITIONS IN THE BASIN. CLEAN THE SEDIMENT TRAP OF SEDIMENTS WHEN SEDIMENT ACCUMULATION EXCEEDS ONE HALF OF THE WET STORAGE CAPACITY OF THE BASIN OR WHEN THE DEPTH OF AVAILABLE POOL IS REDUCED TO 18 INCHES, WHICHEVER IS ACHIEVED FIRST. SEDIMENT LEVELS SHALL BE MARKED WITHIN THE SEDIMENT STORAGE AREA BY STAKES OR OTHER MEANS SHOWING THE THRESHOLD ELEVATION FOR SEDIMENT CLEANOUT. PRIOR TO THE REMOVAL OF SEDIMENTS, DEWATER THE BASIN THROUGH PUMPING OR OTHER MEANS TO EXPOSE PREVIOUSLY SUBMERGED SEDIMENTS. DO NOT ALLOW ACCUMULATED SEDIMENT TO FLUSH INTO THE DRAINAGEWAY. STOCKPILE THE SEDIMENT IN SUCH A MANNER THAT IT WILL NOT ERODE FROM THE SITE OR INTO A WETLAND, OR OTHER SENSITIVE AREA.

TEMPORARY SEDIMENT TRAP SHALL BE CLEANED THOROUGHLY PRIOR TO CONVERSION TO THE PERMANENT STORMWATER BASIN.

SOIL STABILIZATION:

TEMPORARY STABILIZATION:

BMP DESCRIPTION: HYDROMULCHING WILL BE USED ON SLOPES WHERE CONSTRUCTION WILL CEASE FOR MORE THAN 14 DAYS AND OVER THE WINTER MONTHS TO STABILIZE ERODIBLE MATERIALS. HAY/STRAW MULCH AND WOOD FIBER WILL BE MIXED WITH A TACKIFIER AND APPLIED UNIFORMLY BY MACHINE, WITH AN APPLICATION RATE OF 2 TONS (100-200 BALES) PER ACRE. THE CONTRACTOR WILL USE CRIMPING EQUIPMENT TO BIND THE MULCH TO THE SOIL IF THE TACKIFIER IS NOT EFFECTIVE. NETTING WILL BE USED ON SMALL AREAS WITH STEEP SLOPES. IN AREAS WHERE HYDROMULCHING IS INACCESSIBLE, HAY/STRAW MULCH WILL BE APPLIED BY HAND AT THE SAME APPLICATION RATE.

TEMPORARY SEEDING WILL BE USED ON ANY AREA WHERE CONSTRUCTION ACTIVITY IS SUSPENDED FOR MORE THAN TWENTY-ONE DAYS TO STABILIZE ERODIBLE MATERIALS. SEE BELOW FOR GUIDANCE ON SEEDING MIXTURES, RATES, AND ACCEPTABLE PLANTING DATES FOR TEMPORARY SEEDING.

INSTALLATION SCHEDULE: PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES WILL TEMPORARILY CEASE FOR MORE THAN 14 DAYS WILL BE STABILIZED WITH MULCH. WHERE CONSTRUCTION ACTIVITIES WILL TEMPORARILY CEASE FOR MORE THAN 21 DAYS IT WILL BE TEMPORARILY SEEDED. WINTER STABILIZATION WILL BE PROVIDED BETWEEN DECEMBER 25 AND MARCH 30.

MAINTENANCE AND INSPECTION: MULCHED AREAS WILL BE INSPECTED WEEKLY TO ENSURE THAT ADEQUATE COVERAGE IS PROVIDED. REPAIRS WILL BE CONDUCTED AS NEEDED.

SEED MIXTURE FOR TEMPORARY SEEDING

LBS./ACRE	LBS./1000 S.F.
ANNUAL RYEGRASS	40
PERENNIAL RYEGRASS	1.0

SEE FIGURE TS-2 IN THE 2002 GUIDELINES FOR ADDITIONAL TEMPORARY SEED MIXES.

FINAL STABILIZATION:

PERMANENT SEEDING SHOULD BE APPLIED IMMEDIATELY AFTER THE FINAL DESIGN GRADES ARE ACHIEVED AT THE SITE BUT NO LATER THAN 14 DAYS AFTER CONSTRUCTION ACTIVITIES HAVE PERMANENTLY CEASED. AFTER THE ENTIRE SITE IS STABILIZED, ANY SEDIMENT THAT HAS ACCUMULATED WILL BE REMOVED AND HAULED OFF SITE TO A LICENSED LANDFILL FACILITY. CONSTRUCTION DEBRIS, TRASH, AND ANY REMAINING BMP'S WILL ALSO BE REMOVED AND ANY AREAS DISTURBED DURING REMOVAL WILL BE SEEDED IMMEDIATELY.

SEEDBED PREPARATION:

- 1. SUBSOIL WILL BE SPREAD OVER FINAL GRADED AT A MINIMUM DEPTH OF SIX INCHES AND TOPSOIL WILL BE SPREAD OVER FINAL GRADED AREAS AT A MINIMUM DEPTH OF FIVE INCHES. TOPSOIL SHALL INCLUDESIVELY MEAN A SOIL MEETING ONE OF THE FOLLOWING A SOIL TEXTURAL CLASSES ESTABLISHED BY THE UNITED STATES DEPARTMENT OF AGRICULTURE CLASSIFICATION SYSTEM BASED UPON THE PROPORTION OF SAND, SILT, AND CLAY SIZE PARTICLES AFTER PASSING A 2 MILLIMETER (MM) SIEVE AND SUBJECTED

TO A PARTICLE SIZE ANALYSIS:

- 1.1. LOAMY SAND, INCLUDING COARSE, LOAMY FINE, AND LOAMY VERY FINE SAND, SANDY LOAM, INCLUDING COARSE, FINE AND VERY FINE SAND, LOAM, OR SILT LOAM WITH NOT MORE THAN 80% SILT;
- 1.2. CONTAINING NOT LESS THAN 6% AND NOT MORE THAN 20% ORGANIC MATTER AS DETERMINED BY LOSS-ON-IGNITION OF OVEN DRIED SAMPLES DRIED AT 105 DEGREES CENTIGRADE;
- 1.3. POSSESSING A PH RANGE OF 6.0-7.5, EXCEPT IF THE VEGETATIVE PRACTICE BEING USED SPECIFICALLY REQUIRES A LOWER PH, THEN PH MAY BE ADJUSTED ACCORDINGLY;
- 1.4. HAVING SOLUBLE SALTS NOT EXCEEDING 500 PPM;
- 1.5. AND THAT IS LOOSE AND FRAGILE AND FREE FROM REFUSE, STUMPS, ROOTS, BRUSH, WEEDS, FROZEN PARTICLES, ROCKS, AND STONES OVER 1.25 INCHES IN DIAMETER, AND ANY MATERIAL THAT WILL PREVENT THE FORMATION OF A SUITABLE SEEDBED OR PREVENT SEED GERMINATION AND PLANT GROWTH.
- 2. FERTILIZER WILL BE APPLIED TO THE SEEDBED AS NEEDED. FERTILIZERS WILL BE COMMERCIAL TYPE OF UNIFORM COMPOSITION, FREE-FLOWING AND CONFORMING TO THE APPLICABLE STATE AND FEDERAL LAWS. CHOOSE NATIVE SPECIES THAT ARE ADAPTED TO LOCAL WEATHER AND SOIL CONDITIONS WHEREVER POSSIBLE TO REDUCE WATER AND FERTILIZER INPUTS AND LOWER MAINTENANCE OVERALL.
- 3. TOPSOIL WILL BE LOOSEENED BY RAKING, TILLING OR OTHER SUITABLE METHODS.
- 4. SLOPES SHALL BE TRACKED WITH A BULLDOZER IMMEDIATELY FOLLOWING SEEDING AND MULCHING.

FINAL STABILIZATION SHOULD BE INSTALLED ON PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE PERMANENTLY CEASED BUT NO LATER THAN 14 DAYS AFTER CONSTRUCTION CEASES.

ALL SEEDING AREAS WILL BE INSPECTED WEEKLY DURING CONSTRUCTION ACTIVITIES FOR FAILURE UNTIL A DENSE COVER OF VEGETATION HAS BEEN ESTABLISHED. IF FAILURE IS NOTICED ON THE SEEDING AREA, THE AREA WILL BE RESEED, FERTILIZED AND MULCHED IMMEDIATELY. AFTER CONSTRUCTION IS COMPLETE AT THE SITE PERMANENT STABILIZATION MEASURES WILL BE MONITORED UNTIL FINAL STABILIZATION IS REACHED.

SEED MIXTURE FOR UPLAND AREAS

LBS./ACRE	LBS./1000 S.F.
KENTUCKY BLUEGRASS	20
CREeping RED FESCUE	20
PERENNIAL RYEGRASS	5
	0.10
	1.00

SEED MIXTURE FOR 3H:1V SLOPES

ROADSIDE RESTORATION MIX BY NEW ENGLAND WETLANDS PLANTS INC. OR EQUIVALENT CONTAINING SOME OF THE FOLLOWING:

GRASSES: VIRGINIA WILD RYE (ELYMUS VIRGINICUS), LITTLE BLUESTEM (SCHIZACHYRIUM SCOPARIUM), CREeping RED FESCUE (FESTUCA RUBRA), BIG BLUESTEM (ANDROPOGON GERARDII), INDIAN GRASS (SORGHASTRUM NUTANS), SWITCH GRASS (PANICUM VIRGATUM)

WILDOLOWERS: PARTRIDGE PEA (CHAMAECRISTA FASCICULATA), BUTTERFLY MILKWEED (ASCLEPIAS TUBEROSA), GOLDEN ALEXANDERS (ZIZIA AUREA), SMOOTH BLUE ASTER (ASTER LAEVIS), BUSH CLOVER (LESPEDEZA CAPITATA), PURPLE JOE PYE WEE (EUPATORIUM PURPUREUM), WILD BERGAMOT (MONARDA FISTULOSA), GREEN HEADED CONEFLOWER (RUDEBEDIA LACINATA), GRASS LEAVED GOLDENROD (EUTHAMA GRAMINIFOLIA), NEW ENGLAND ASTER (ASTER NOVAE-ANGLIAE), EARLY GOLDENROD (SOLIDAGO UNCEA)

SHRUBS: RED-OSIER DOGWOOD (CORNUS SERICEA), STAGHORN SUMAC (RHUS TYPHINA), WITCH HAZEL (HAMAMELIS VIRGINIANA), BLACK CHERRY (PRUNUS SEROTINA)

THE RECOMMENDED SEEDING DATES ARE: APRIL 1-JUNE 15 AND AUGUST 1-SEPTEMBER 15. SEE FIGURE PS-2 IN THE 2002 GUIDELINES FOR ADDITIONAL PERMANENT SEED MIXES.

SPILL PREVENTION AND CONTROL PLAN:

- 1. VEHICLE FUELING: REFUELING OF VEHICLES AND EQUIPMENT SHALL BE CONDUCTED ON THE DESIGNATED CONCRETE FUELING PAD. A SPILL CLEANUP KIT SHALL BE MAINTAINED AT THE FUELING LOCATION.
- 2. HAZARDOUS MATERIAL STORAGE: HAZARDOUS MATERIALS INCLUDING BUT NOT LIMITED TO FUEL, OIL AND PETROLEUM PRODUCTS AND SOLVENTS SHALL NOT BE STORED ON SITE.
- 3. SPILL KITS: SPILL KITS WILL BE STORED WITHIN THE MATERIAL STORAGE AREA, CONCRETE WASHOUT AREAS, AND DESIGNATED FUELING AREA.
- 4. SPILLS: ALL SPILLS WILL BE CLEANED UP IMMEDIATELY UPON DISCOVERY. SPENT ABSORBENT MATERIALS AND RAGS SHALL BE PLACED IN A SEALED DRUM AND WILL BE HAULED OFF-SITE IMMEDIATELY AFTER THE SPILL IS CLEANED UP FOR DISPOSAL AT THE APPROPRIATE LANDFILL. SPILLS OR RELEASES OF HAZARDOUS CHEMICALS OR PETROLEUM PRODUCTS SHALL BE PROMPTLY REPORTED TO CTDEP AT 1-800-424-3338 AND THE NATIONAL RESPONSE CENTER 1-800-424-8802.

IN ACCORDANCE WITH CONNECTICUT GENERAL STATUTES THE CONTRACTOR SHALL WITHIN 24 HOURS OF VERBAL NOTIFICATION COMPLETE A WRITTEN "REPORT OF PETROLEUM OR CHEMICAL PRODUCT DISCHARGE, SPILLAGE OR RELEASE" AND MAIL IT TO: CTDEP, BUREAU OF WASTE MANAGEMENT, 79 ELM STREET, HARTFORD, CT, 06106-5127.

INSTALLATION SCHEDULE: THE SPILL PREVENTION AND CONTROL PROCEDURES WILL BE IMPLEMENTED ONCE CONSTRUCTION BEGINS ON-SITE.

SPILL PREVENTION AND CONTROL  
BEST MANAGEMENT PRACTICES (BMP'S) DESCRIPTION:

1. MATERIAL HANDLING AND WASTE MANAGEMENT:

WASTE MATERIALS:

ALL WASTE MATERIALS WILL BE COLLECTED AND DISPOSED OF INTO METAL WASTE DUMPSTERS IN DESIGNATED AREAS. DUMPSTERS WILL HAVE A SECURE TIGHT LID, BE PLACED AWAY FROM STORM WATER DRAINS AND STRUCTURES, AND WILL MEET ALL FEDERAL, STATE, COUNTY, AND LOCAL REGULATIONS. ONLY TRASH AND CONSTRUCTION DEBRIS WILL BE PLACED IN THE DUMPSTERS. CONSTRUCTION MATERIALS WILL NOT BE BURIED ON SITE.

MAINTENANCE AND INSPECTION: THE DUMPSTERS WILL BE INSPECTED WEEKLY AND IMMEDIATELY AFTER STORM EVENTS. THE DUMPSTER WILL BE EMPTIED WEEKLY OR MORE FREQUENTLY IF NEEDED, AND TAKEN TO THE APPROPRIATE LANDFILL.

HAZARDOUS WASTE MATERIALS:

BMP DESCRIPTION: ALL HAZARDOUS WASTE MATERIALS INCLUDING OIL FILTERS, PETROLEUM PRODUCTS, PAINT, AND EQUIPMENT MAINTENANCE FLUIDS WILL BE STORED IN STRUCTURALLY SOUND AND SEALED SHIPPING CONTAINERS IN A DESIGNATED AREA. HAZARDOUS WASTE MATERIALS WILL BE STORED IN APPROPRIATE AND CLEARLY MARKED CONTAINERS AND SEGREGATED FROM OTHER NON-WASTE MATERIALS. SECONDARY CONTAINMENT WILL BE PROVIDED FOR ALL WASTE MATERIALS IN A DESIGNATED AREA AND WILL CONSIST OF COMMERCIALY AVAILABLE SPILL PALLETS. ADDITIONALLY, ALL HAZARDOUS WASTE MATERIALS WILL BE DISPOSED OF IN ACCORDANCE WITH FEDERAL, STATE, COUNTY, AND LOCAL REGULATIONS. HAZARDOUS WASTE MATERIALS WILL NOT BE DISPOSED OF INTO THE ON-SITE DUMPSTERS.

MAINTENANCE AND INSPECTION: THE HAZARDOUS WASTE MATERIALS AREA WILL BE INSPECTED WEEKLY AND AFTER STORM EVENTS. THE STORAGE AREA WILL BE KEPT CLEAN, WELL ORGANIZED AND EQUIPPED WITH AMPLE CLEANUP SUPPLIES AS APPROPRIATE FOR THE MATERIALS BEING STORED. MATERIAL SAFETY DATA SHEETS, MATERIAL INVENTORY, AND EMERGENCY CONTACT NUMBERS WILL BE MAINTAINED IN THE OFFICE TRAILER.

SANITARY WASTE:

BMP DESCRIPTION: PORTABLE TOILETS, LOCATED IN THE STAGING AREA, WILL BE PROVIDED AT THE SITE THROUGHOUT THE CONSTRUCTION PHASE. THE TOILETS WILL BE LOCATED AWAY FROM CONCENTRATED DRAINAGE FLOW PATHS AND WILL HAVE COLLECTION PANS UNDERNEATH AS SECONDARY CONTAINMENT. MAINTENANCE AND INSPECTION: SANITARY WASTE WILL BE COLLECTED A MINIMUM OF ONCE A WEEK AND SHALL BE INSPECTED WEEKLY FOR EVIDENCE OF LEAKING HOLDING TANKS.

RECYCLING:

BMP DESCRIPTION: WOOD PALLETS, CARDBOARD BOXES, AND OTHER RECYCLABLE CONSTRUCTION SCRAPS WILL BE DISPOSED OF IN A DESIGNATED DUMPSTER FOR RECYCLING. THE DUMPSTER WILL HAVE A SECURE WATERTIGHT LID, BE PLACED AWAY FROM STORMWATER CONVEYANCES AND DRAINS AND MEET ALL LOCAL AND STATE SOLID-WASTE MANAGEMENT REGULATIONS. ONLY SOLID RECYCLABLE CONSTRUCTION SCRAPS FROM THE SITE WILL BE DEPOSITED IN THE DUMPSTER.

MAINTENANCE AND INSPECTION: THE RECYCLING DUMPSTER WILL BE INSPECTED WEEKLY. THE RECYCLING DUMPSTER WILL BE EMPTIED WHEN FULL AND TAKEN TO AN APPROVED RECYCLING CENTER BY THE CONTRACTOR. IF RECYCLABLE CONSTRUCTION WASTES ARE EXCEEDING THE DUMPSTER'S CAPACITY, THE DUMPSTERS WILL BE EMPTIED MORE FREQUENTLY.

2. DESIGNATE WASHOUT AREAS:

CONCRETE WASHOUT

BMP DESCRIPTION: A DESIGNATED TEMPORARY, ABOVE-GRADE CONCRETE WASHOUT AREA WILL BE CONSTRUCTED FOR CONCRETE WASHOUT. THE WASHOUT AREA WILL BE LINED WITH PLASTIC SHEETING AT LEAST 10 MILS THICK AND FREE OF CRACKS OR TEARS. CONCRETE POURS WILL NOT BE CONDUCTED DURING OR BEFORE AN ANTICIPATED STORM EVENT. CONCRETE MIXER TRUCKS AND CHUTES WILL BE WASHED IN THE DESIGNATED WASHOUT AREA OR CONCRETE WASTES WILL BE PROPERLY DISPOSED OF OFF-SITE. WHEN THE TEMPORARY WASHOUT AREA IS NO LONGER NEEDED FOR THE CONSTRUCTION PROJECT, THE HARDENED CONCRETE AND MATERIALS USED TO CONSTRUCT THE AREA WILL BE REMOVED AND DISPOSED OF IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS, AND THE AREA WILL BE STABILIZED.

INSTALLATION SCHEDULE: THE WASHOUT AREA WILL BE CONSTRUCTED BEFORE CONCRETE POURS OCCUR AT THE SITE.

3. VEHICLE FUELING AND MAINTENANCE PRACTICES:

BMP DESCRIPTION: SEVERAL TYPES OF VEHICLES AND EQUIPMENT WILL BE USED ON-SITE THROUGHOUT THE PROJECT, INCLUDING EXCAVATORS, LOADERS, BULLDOZERS, AND TRUCKS. ALL EQUIPMENT/VEHICLE FUELING WILL BE PERFORMED ON THE CONCRETE FUELING PAD. ABSORBENT SPILL-CLEANUP MATERIALS AND SPILL KITS WILL BE AVAILABLE AT THE COMBINED STAGING AND MATERIALS STORAGE AREA. FUEL WILL BE DELIVERED TO THE SITE ON AN AS NEEDED BASIS BY A FUEL DELIVERY SERVICE. FUELING OF EQUIPMENT WILL ONLY OCCUR IN DESIGNATED FUELING AREAS. NON-EMERGENCY VEHICLE MAINTENANCE INCLUDING WASHING IS PROHIBITED ON SITE.

INSTALLATION SCHEDULE: BMPs IMPLEMENTED FOR FUELING ACTIVITIES WILL BEGIN AT THE START OF THE PROJECT.



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## **ATTACHMENT “C”**

### **CT DEEP SPILL REPORTING FORM**

**Connecticut Department of Energy and Environmental Protection**

**Oil and Chemical Spill Response Division**

**Report of Petroleum or Chemical Product Discharge, Spillage or Release**

1. When did the incident occur? Date\_\_\_\_\_/\_\_\_\_\_/\_\_\_\_\_ Time\_\_\_\_\_  
Month / day / year

2. Where did the accident occur?

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3. How did the incident occur? (describe the cause)

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4. Under whose control was the hazardous material at the time of the incident?

Name: \_\_\_\_\_

Mailing and street address:\_\_\_\_\_

Town:\_\_\_\_\_ State:\_\_\_\_\_ Zip:\_\_\_\_\_ Phone:\_\_\_\_\_

5. Who is the owner of the property onto which the spill occurred?

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If this is a corporate property or jointly owned property, who represents the owner?

Corporate Property

☐

Jointly-owned Property

☐

Name: \_\_\_\_\_

Mailing and street address:\_\_\_\_\_

Town:\_\_\_\_\_ State:\_\_\_\_\_ Zip:\_\_\_\_\_ Phone:\_\_\_\_\_

6. When was the incident verbally reported to the Department of Energy and Environmental Protection?

Date\_\_\_\_\_/\_\_\_\_\_/\_\_\_\_\_ Time\_\_\_\_\_  
Month / day / year

7. Who reported the incident and whom were they representing?

Name: \_\_\_\_\_

Mailing and street address: \_\_\_\_\_

Town: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_ Phone: \_\_\_\_\_

8. What were the chemicals or petroleum products, etc. released, spilled or discharged? Give an exact description of each of the materials involved in the incident, including chemical names, percent concentrations, trade names, etc.

If the chemicals are Extremely Hazardous substances or CERCLA hazardous substances they must be identified as such and include the reportable quantity (RQ). Please attach a Material Safety Data Sheet (MSDS) for each chemical involved.

What were the quantities of hazardous materials that were released, spilled or discharged to each environmental medium (air, surface, water, soil, and/or groundwater)? [NOTE: Connecticut General Statutes requires the reporting of any amount of any substance or material released to the environment].

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9. Did any of these hazardous materials travel beyond the property line? [NOTE: Materials that enter the groundwater are considered to have gone beyond the property line].

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10. What actions were taken to respond to and contain the release, spill or discharge?

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11. What actions are being taken to prevent reoccurrence of an incident of this type? (Attach additional sheets if necessary.)

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12. Were there any injuries as a result of the incident? If so, list the names of injured individuals, their addresses, phone numbers and describe their injuries. (Attach additional sheets if necessary.)

Name: \_\_\_\_\_

Mailing and street address: \_\_\_\_\_

Town: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_ Phone: \_\_\_\_\_

Name: \_\_\_\_\_

Mailing and street address: \_\_\_\_\_

Town: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_ Phone: \_\_\_\_\_

13. What is the appropriate advice regarding medical attention necessary for exposed individuals?

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14. Are there any known or anticipated health risks, acute or chronic, associated with the release of these hazardous materials or medical advice that should be communicated?

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15. Was the incident completely cleaned up by the time this report was submitted? If not, what are the anticipated remedial actions and their duration?

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16. CERTIFICATION: I hereby affirm that the foregoing statement is true to the best of my knowledge.

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Signature

Title

Date

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Print Name

Telephone Number

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Street Address/P.O. Box

City/Town

State & Zip Code

This form may be reproduced as long as it contains all of the information requested and is on an 8-1/2 x 11 sheet of white paper, black type format. For serious incidents, the questions may be answered in narrative format which must include the preparer's affidavit.

Mail To:

State of Connecticut  
Department of Energy and Environmental Protection  
Bureau of Waste Management  
Oil and Chemical Response Division  
79 Elm Street  
Hartford, CT 06106-5127

[www.deep.state.ct.us](http://www.deep.state.ct.us)

Phone: Routine calls: (860) 424-3024  
Emergency calls: (860) 424-3338

## **ATTACHMENT “D”**


### **NON-STORMWATER DISCHARGE CERTIFICATION**

## Non-Stormwater Discharge Certification

I certify that in my professional judgment, the stormwater discharge from the site consists only of stormwater, or of stormwater combined with wastewater authorized by an effective permit issued under Section 22a-430 or section 22a-430b of the Connecticut General Statutes, including the provisions of this general permit, or of stormwater combined with any of the following discharges provided they do not contribute to a violation of water quality standards:

- Landscape irrigation or lawn watering;
- Uncontaminated groundwater discharges such as pumped groundwater, foundation drains; discharges of uncontaminated air conditioner or refrigeration condensate; water sprayed for dust control or at a truck load wet-down station;
- Naturally occurring discharges such as rising groundwaters, uncontaminated groundwater infiltration (as defined at 40 CFR 35.2005 (20)), springs, and flows from riparian habitats and wetlands.

This certification is based on testing and/or evaluation of the stormwater discharge from the site. I further certify that all potential sources of non-stormwater at the site, a description of the results of any test and/or evaluation for the presence of non-stormwater discharges, the evaluation criteria or testing method used, the date of any testing and/or evaluation, and the on-site drainage points that were directly observed during the test have been described in detail in the Stormwater Pollution Prevention Plan prepared for the site. I further certify that no interior building floor drains exist unless such floor drain connection has been approved and permitted by the commissioner or otherwise authorized by a local authority for discharge as domestic sewage to sanitary sewer. I am aware that there may be significant penalties for false statements in this certification, including the possibility of fine and imprisonment for knowingly making false statements.

Name: David C. McKay, PE Title: Project Engineer  
Company: Boundaries LLC Phone: 860-376-2006  
Signature:  Date: 5/22/17

## **ATTACHMENT “E”**

### **MAINTENANCE AND INSPECTION LOGS**

## **Maintenance and Inspection**

A member of the PPT conducts weekly inspections of all areas covered by the Plan and all stormwater collection areas for erosion or and sedimentation. The site is inspected weekly for trash and surface debris. Sediment traps are cleaned of collected sediment on an as needed basis.

Date:\_\_\_\_\_Time:\_\_\_\_\_

Name and Signature of Inspectors with Titles:\_\_\_\_\_

Weather Conditions during inspection:\_\_\_\_\_

Areas Checked	Findings and Comments
Staging area	
Fueling Areas (loading and offloading)	
Materials Storage/Handling Area	
Excavation Areas	
Stockpiles	
Perimeter erosion controls	
Drainage Structures	Comments
Sediment traps	

**Description of Discharges Observed**

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**Description of Visual Quality of the Discharges Observed**

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**Status of Stormwater Control Measures**

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**Any Non-Compliance Incidents Observed**

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**Additional Control Measures or Actions Needed to Comply with Permit Requirements**

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**Schedule to Complete Additional Control Measures or Actions**

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**Any Required Revisions to the Pollution Prevention Plan**

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## **ATTACHMENT “F”**

### **SPILL CONTROL AND RESPONSE PLAN**

## **Spill Control and Response Plan**

- It is intended that no liquids will be stored on the site. If it is determined that small quantities are needed they shall be kept in containers of less than 100 gallon capacity, stored in a storage container with an impervious floor and roof, and be provided with secondary containment containing 110% of the volume of the largest container. Spill cleanup kits shall be kept with any stored liquids.
- Fuel shall be delivered by a fuel service on an as needed basis. All fueling shall occur on the concrete fueling pad. A spill cleanup kit shall be on hand for all fueling operations.
- Spill cleanup equipment includes absorbent pads, absorbent booms and speedi-dri. All facility personnel that work in these areas are trained in the use of and knowledgeable about the location of the spill cleanup equipment.
- The PPT leader or the spill coordinator will be advised immediately of all spills of hazardous or Connecticut regulated materials, regardless of quantity.
- The spill will be evaluated to determine the necessary response. If there is a health hazard or fire or explosion potential, 911 will be called. If the spill is large or threatens surface water systems (including stormwater structures) the **DEEP Oil and Chemical Spills Unit will be called at 860-424-3338**. Any questions on pollution potential will be directed to the DEEP Waste Management Bureau at 860-424-3372.
- The spill will be contained as close to the source as possible with a dike of absorbent materials from the spill cleanup equipment (such as socks, pads, pillows or "pigs"). Additional dikes will be constructed to protect swales or other stormwater conveyances or streams.
- All waste material will be disposed of properly, including used absorbent materials. The DEEP will be called for any questions about proper disposal of hazardous or regulated wastes.

### Spill Control and Response Plan (cont.)

Types of materials present on-site which could potentially spill and discharge to stormwater include:
1. Diesel fuel deliveries
2.
3.
4.
5.
6.

Areas where spills may potentially occur and discharge to stormwater include:
1. Fueling area
2. Staging area
3.
4.
5.
6.

Measures used to minimize the possibility of spills include:
1. Spill kits and absorbent materials
2. Compliance with SWPPP including employee training and inspections
3.
4.
5.
6.

## Spill Control and Response Plan (cont.)

- A history of spills and/or leaks for the last three(3) years is shown below. (Make additional copies of table if needed.)

[illegible]

**ATTACHMENT “G”**

**EMPLOYEE TRAINING**

## **Employee Training**

The employee training program below must be implemented at this facility and training sessions held at least once a year. Add to it or modify it as necessary for the facility. This program may be included in any other regular employee training sessions which the facility has.

The topics below are covered at employee training sessions. All employees whose activities may affect stormwater quality are trained annually. New hires will complete the training within one month (30 days) of starting.

PPT members meet together at least semi-annually for the purpose of discussing the Plan, the Maintenance and Inspection Program and preventive maintenance procedures.

### **Employee Training**

- The PPP:

What it is - The Plan is an outline of potential sources of stormwater pollution and methods of reducing or eliminating that pollution.

What it contains - The Plan emphasizes good housekeeping measures and location of potential pollution sources.

PPT - The team will be introduced, explaining that we are continually looking to avoid pollution to the storm system and appreciate input and assistance.

- Discussion of the location of storm drainage structures/discharge points and note the receiving water of the storm drainage system to emphasize the importance of keeping pollutants out of the storm drainage system.
- Review of spill control and response procedures.
- Review of good housekeeping practices.
- A sign-off sheet (below - duplicate as necessary) for each annual training signed by all attending employees and initialed by the supervising member of the PPT is kept with this Plan.

[illegible]

## **ATTACHMENT “H”**

### **VISUAL MONITORING FORM**



## **Visual Monitoring Form**

Date:\_\_\_\_\_ Time:\_\_\_\_\_

Name and Titles of individual(s) collecting the samples and performing

assessment:\_\_\_\_\_

Weather Conditions during inspection:\_\_\_\_\_

<b>Items Observed</b>	<b>Findings and Comments</b>
Sample collection date and time with visual assessment	
Nature of the discharge	
Sample location	
Results of observations	
Probable sources of any observed stormwater contamination	
Actions to eliminate sources of contamination	
Document reasons for inability to collect representative sample	

<b>Items Observed</b>	<b>Findings and Comments</b>
Sample collection date and time with visual assessment	
Nature of the discharge	
Sample location	
Results of observations	
Probable sources of any observed stormwater contamination	
Actions to eliminate sources of contamination	
Document reasons for inability to collect representative sample	

## **ATTACHMENT “I”**

### **ADDITIONAL REQUIREMENTS OF CERTIFIED LAB**

## ADDITIONAL LAB DATA

A copy of the Chain of Custody is attached.

Contact lab when bottles for sampling are needed and they will be delivered.

Account has to be created with lab.

Contact lab as soon as you think you'll be collecting.

The samples need to be brought to the lab ASAP.

The aquatic toxicity has a 36 hour hold. Lab needs to coordinate on how to get it to the sub lab so lab needs to get the samples by 8:00 AM on Fridays.

Call Nicole at lab if you have any questions.

Nicole M. (Rouillard) Audet

61 Louis Viens Drive

Dayville, CT 06239

1-800-334-0103

[nicolea@premierlaboratory.com](mailto:nicolea@premierlaboratory.com)





# CHAIN OF CUSTODY FORM

61 Louisa Viens Drive - Dayville, CT 06241  
Tel: (860)774-6814 - Fax: (860)774-2689

Microbac Laboratories, Inc.

## FOR LAB USE ONLY

Lab WO#

Project Manager

### Copy of Report To

CUSTOMER: **American Industries**  
ADDRESS: **630 Plainfield Road**  
**Jewett City, CT 06351**  
DELIVERY: **640 Plainfield Road, Jewett City, CT 06351**  
E-MAIL: [swalsh@americanind.net](mailto:swalsh@americanind.net)  
PHONE: 860-234-1234 FAX: 860-376-3909

### Billing Information

BILL TO: **American Industries**  
ADDRESS: **630 Plainfield Road**  
**Jewett City, CT 06351**  
PURCHASE ORDER #  
ATTENTION: **Steve Walsh**  
PHONE: 860-234-1234

### Project Information

PROJECT: **Sector B - Gravel**  
LOCATION: **5 Quinebaug Camp Road**  
**Steve Walsh**  
ANY QUESTIONS WHEN SAMPLES ARRIVE WE SHOULD CALL  
PHONE: 860-234-1234  
FAX: 860-376-3909

Sample Identification	Date Collected	Time Collected	Sample Type		Sample Matrix	Number of Bottles	Analysis											Preservatives				
			COMPOSITE	GRAB			Oil & Grease	Sample pH	COD	TSS	TP	TKN	NO <sub>3</sub> -N	Total Copper	Total Zinc	Total Lead	Aquatic Toxicity	NON-PRES	HS2O4	HCL	HNO3	OTHER
Sediment Trap				X			X	X	X	X	X	X	X	X	X	X	X					

CUSTODY TRANSFER	DATE	TIME
SAMPLER:		
RECEIVED:		
RELINQUISHED:		
RECEIVED:		
RELINQUISHED:		
RECEIVED:		

TURN AROUND (INDICATE IN CALENDAR DAYS):					
FAX	<input type="checkbox"/>	HARD COPY	<input type="checkbox"/>	E-MAIL	<input type="checkbox"/>
EXPIDATED SERVICE MAY BE SUBJECT TO SURCHARGE					
COMMENTS:					
CONDITIONS UPON RECEIPT (CHECK ONE):				COMPLIANT <input type="checkbox"/>	
COOLED	<input type="checkbox"/>	AMBIENT	<input type="checkbox"/>		

## **ATTACHMENT “B”**

### **SECTOR B STORMWATER MONITORING REPORT**



**General Permit for the Discharge of Stormwater Associated with  
Industrial Activity, effective 10/1/2011  
Stormwater Monitoring Report Form  
Sector B – Mines, Quarries & Stone Cutting**

**Facility Information**

Permittee Name: <u>American Industries, Inc.</u>	Site Name: <u>American Industries</u>
Mailing Address: <u>630 Plainfield Road, Jewett City, CT 06351</u>	
Contact Person: <u>Pasquale Camputaro, Jr.</u>	Title: <u>President</u>
Business Phone: <u>(860) 234-7142</u>	ext.: <u>    </u> Email: <u>pcamputaro@americanind.net</u>
Site Address: <u>5 Quinebaug Camp Road, Canterbury, CT 06331</u>	
Receiving Water (name/basin): <u>Quinebaug 3700-00-5+L4</u>	
Permit #: GSI <u>                    </u>	Primary SIC: <u>1442</u>
Discharges into an Impaired Waterbody: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (If yes, complete the table on page 3 of this form)	

**Sample Information**

Sample Location: <u>Sediment Trap</u>	Person Collecting Sample: <u>                    </u>
Date/Time Collected: <u>                    </u>	Date of Previous Storm Event: <u>                    </u>
This report is for samples required: Semi-annually <input type="checkbox"/> Annually <input type="checkbox"/> Other <input type="checkbox"/>	
Check here if the sample contains <b>snow or ice melt</b> : <input type="checkbox"/>	
Check here if a benchmark exceedance is solely due to background or off site sources <input type="checkbox"/> see note below	

**Monitoring Results**

Parameter	Required Frequency	Results (units)	Benchmark	Benchmark Exceedance (see pg 4)	Test Method	Laboratory Name
Oil & Grease	Semi-annual		5.0 mg/L	<input type="checkbox"/>		
Rainfall pH	Semi-annual		n/a			
Sample pH	Semi-annual		5-9 SU	<input type="checkbox"/>		
COD	Semi-annual		75 mg/L	<input type="checkbox"/>		
TSS	Semi-annual		90 mg/L	<input type="checkbox"/>		
TP	Semi-annual		0.40 mg/L	<input type="checkbox"/>		
TKN	Semi-annual		2.30 mg/L	<input type="checkbox"/>		
NO <sub>3</sub> -N	Semi-annual		1.10 mg/L	<input type="checkbox"/>		
Total Copper	Semi-annual		0.059 mg/L	<input type="checkbox"/>		
Total Zinc	Semi-annual		0.160 mg/L	<input type="checkbox"/>		
Total Lead	Semi-annual		0.076 mg/L	<input type="checkbox"/>		
24 Hr. LC <sub>50</sub>	Annual-Year 1&2		n/a			
48 Hr. LC <sub>50</sub>	Annual-Year 1&2		n/a			

**Exemptions**

List here any parameter(s) that will not be sampled for the remainder of the permit term: <small>see note below</small>

**NOTE:** Complete the "Data Tracking Table" (page 4 on this form) to show the parameter is eligible for the monitoring exemption in Section 5(e)(1)(B)(iii) of the general permit. If you are discontinuing monitoring for impaired water parameters (per Section 5(e)(1)(D)), or parameters that are present due to natural or background levels or off site run-on (per Section 5(e)(1)(B)(V)), attach additional supporting information to this form.

**STORMWATER ACUTE TOXICITY TEST DATA SHEET**  
(required annually only during Year 1 and Year 2 of the permit)

Site Name: American Industries	
Date/Time Begin:	Date/Time End:
Sample Hardness:	Sample Conductivity:
Test Species: <i>Daphnia pulex</i> < 24 hrs old	Dilution Water Hardness:

Effluent Dilution		Number of Organisms Surviving			Dissolved Oxygen (mg/L)			Temperature (°C)			pH (su)		
	Hour	00	24	48	00	24	48	00	24	48	00	24	48
CONTROL 1													
CONTROL 2													
CONTROL 3													
CONTROL 4													
6.25% A													
6.25% B													
6.25% C													
6.25% D													
12.5% A													
12.5% B													
12.5% C													
12.5% D													
25% A													
25% B													
25% C													
25% D													
50% A													
50% B													
50% C													
50% D													
100% A													
100% B													
100% C													
100% D													

**REFERENCE TOXICANT RESULTS**

Test Species	Date	Reference Toxicant	Source	LC <sub>50</sub>
<i>Daphnia pulex</i>				

**Additional Monitoring for Discharges to Impaired Waters (if applicable):**

Parameter	Frequency	Results (units)	Test Method	Laboratory Name
N/A - No TMDL, Impaired for Recreation only				

**Statement of Certification**

<p>"I have personally examined and am familiar with the information submitted in this document and all attachments thereto, and I certify that based on reasonable investigation, including my inquiry of the individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that a false statement in the submitted information may be punishable as a criminal offense, in accordance with section 22a-6 of the General Statutes, pursuant to section 53a-157b of the General Statutes, and in accordance with any other applicable statute."</p>	
Signature of Permittee	Date
Name of Permittee (print or type)	Title (if applicable)
Signature of Preparer (if different than above)	Date
Name of Preparer (print or type)	Title (if applicable)

Please send all completed forms to:

WATER TOXICS PROGRAM COORDINATOR  
BUREAU OF WATER PROTECTION AND LAND REUSE  
CT DEPARTMENT OF ENERGY & ENVIRONMENTAL PROTECTION  
79 ELM STREET  
HARTFORD, CT 06106-5127



**General Permit for the Discharge of Stormwater Associated with  
Industrial Activity, effective 10/1/2011**

**Data Tracking Sheet –**

**Sector B- Mines, Quarries, & Stone Cutting**

Permittee Name: <u>American Industries, Inc.</u>	Permit #: GSI _____
Site Name: <u>5 Quinebaug Camp Road</u>	
Site Address: <u>5 Quinebaug Camp Road, Canterbury, CT 06331</u>	
Sample Location: <u>Sediment Trap</u>	

Enter the sample dates and the data reported for the four (4) most recent semi-annual sample results at this discharge location in the chart below. To determine the average for the four samples add up each of the four results and then divide that number by 4. ***Only monitoring collected under the current permit (effective 10/1/11,) can be used to earn the monitoring exemption.***

$$\text{Average} = \frac{(\text{Sample 1} + \text{Sample 2} + \text{Sample 3} + \text{Sample 4})}{4}$$

Parameter	Sample Result				Average	Benchmark*	Qualify for exemption?
	1	2	3	4			
Sample Date							
O&G						5.0 mg/L	
Sample pH						5-9 S.U.	
COD						75 mg/L	
TSS						90 mg/L	
TP						0.40mg/L	
TKN						2.30 mg/L	
NO <sub>3</sub> -N						1.10 mg/L	
Cu						0.059 mg/L	
Zn						0.160 mg/L	
Pb						0.076 mg/L	

\*If the average of the four (4) most recent samples is less than the benchmark listed, your facility is no longer required to sample semi-annually for that parameter for the rest of the permit (current permit expires 9/30/2016). If your facility qualifies for an exemption from monitoring for sample pH, your facility is also exempt from monitoring rainfall pH for the remainder of the permit.

If the average of the four (4) most recent samples is equal to or greater than the benchmark listed, check the appropriate box on page 1. If so, you have exceeded the benchmark and must continue to sample this parameter semiannually until the average is below the benchmark. See Section 5(e)(1)(B) of the General permit for requirements when exceeding a benchmark.

If the sample result reported by the testing laboratory was below detection limit, for the purpose of averaging, use a value that is ½ the detection limit for that parameter in the formula above. For example, if the result for Oil & Grease was <2.0 mg/L, use a value of 1.0 mg/L for determining the average. Please refer to Section 5 e(1)B(iii) of the General Permit for a more detailed explanation.

## **ATTACHMENT “K”**

### **GENERAL PERMIT FOR THE DISCHARGE OF STORMWATER ASSOCIATED WITH INDUSTRIAL ACTIVITY**



# **General Permit for the Discharge of Stormwater Associated with Industrial Activity**

Effective Date: October 1, 2011  
Modification Date: December 3, 2013  
Expiration Date: September 30, 2016

# General Permit for the Discharge of Stormwater Associated with Industrial Activities

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**Appendix A: Industrial Stormwater General Permit SIC Code Definitions**  
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# General Permit for the Discharge of Stormwater Associated with Industrial Activity

## Section 1. Authority

This general permit is issued under the authority of section 22a-430b of the Connecticut General Statutes.

## Section 2. Definitions

The definitions of terms used in this general permit shall be the same as the definitions contained in sections 22a-423 and 22a-207 of the Connecticut General Statutes and section 22a-430-3(a) of the Regulations of State Agencies. As used in this general permit, the following definitions shall apply:

*“25-year, 24-hour rainfall event”* means the maximum 24-hour precipitation event with a probable recurrence interval of once in 25 years, as defined by the National Weather Service in Technical Paper Number 40, “Rainfall Frequency Atlas of the United States,” May 1961, and subsequent amendments, or equivalent regional or state rainfall probability information developed therefrom.

*“100-year, 24-hour rainfall event”* means the maximum 24-hour precipitation event with a probable recurrence interval of once in 100 years, as defined by the National Weather Service in Technical Paper Number 40, “Rainfall Frequency Atlas of the United States,” May 1961, and subsequent amendments, or equivalent regional or state rainfall probability information developed therefrom.

*“Agricultural wastes”* means organic materials normally associated with the production and processing of food and fiber on farms, feedlots and forests. Such wastes may include, but are not limited to, manures, bedding materials, spilled feed or feed waste, and crop residues.

*“Aquifer protection area”* means aquifer protection area as defined in section 22a-354h of the Connecticut General Statutes.

*“Authorized activity”* means any activity authorized under this general permit.

*“Benchmark”* means a standard by which stormwater discharge quality is measured as identified in section 5(e)(1)(B) of this permit.

*“Coastal area”* shall be the same as the definition contained in section 22a-94 of the Connecticut General Statutes.

*“Coastal waters”* shall be the same as the definition contained in section 22a-93(5) of the Connecticut General Statutes.

*“Commissioner”* means the commissioner as defined by section 22a-2(b) of the Connecticut General Statutes.

*“Compost”* means the product of composting.

*“Composting”* means the process of accelerated aerobic biodegradation and stabilization of organic material under controlled conditions that results in a finished product called compost.

*“Department”* means the Department of Energy and Environmental Protection.

*“Fresh-tidal wetland”* means a tidal wetland with an average salinity of less than 0.5 parts per thousand.

*“Grab sample”* means an individual sample collected in less than fifteen (15) minutes.

*“Guidelines”* means the 2002 Connecticut Guidelines for Soil Erosion and Sediment Control, as amended, or as may be amended, established pursuant to section 22a-328 of the Connecticut General Statutes.

*“High tide line”* shall be the same as that contained in section 22a-359(c) of the Connecticut General Statutes.

*“Impaired waters”* means those surface waters of the state designated by the commissioner as impaired pursuant to Section 303(d) of the Clean Water Act and as identified in the most recent State of Connecticut Integrated Water Quality Report.

*“Individual permit”* means a permit issued to a named permittee under section 22a-430 of the Connecticut General Statutes.

*“Industrial activity”* means any activity listed below with primary Standard Industrial Classification (SIC) codes as identified by “Standard Industrial Classification Manual, Executive Office of the President, Office of Management and Budget 1987” or a primary activity described in narrative form below:

- (1) An activity subject to stormwater effluent limitation guidelines, new source performance standards, or toxic pollutant effluent standards under 40 CFR Subchapter N as included in this general permit;
- (2) An activity classified as Standard Industrial Classification 24 (except 2434), 26 (except 265 and 267), 28 (except 283 and 285), 29, 311, 32 (except 323), 33, 3441 and 373;
- (3) An activity classified as Standard Industrial Classification 10 through 14 (mining industry) including active or inactive mining operations that are not stabilized; or oil and gas exploration, production, processing, or treatment operations; or transmission facilities that discharge stormwater that has come into contact with any overburden, raw material, intermediate products, finished products, by-products or waste products;
- (4) Hazardous waste treatment, storage, or disposal facilities, including those facilities operating under interim status or a permit pursuant to section 22a-449(c) or 22a-454 of the Connecticut General Statutes; or hazardous waste transportation activities conducted pursuant to these statutes;
- (5) Recycling centers, resource recovery facilities and all such facilities and centers as defined in section 22a-207 of the Connecticut General Statutes, including facilities classified as Standard Industrial Classification 4953; solid waste facilities (where waste and/or leachate are exposed or potentially exposed to rainfall); intermediate processing facilities; or facilities that are subject to regulation under Subtitle D of the Resource Conservation and Recovery Act, 42 U.S.C. sections 6901, *et seq*;
- (6) Facilities involved in the recycling (including assembling, breaking up, sorting and wholesale or retail distribution) of materials including metal scrap yards, battery reclaimers, salvage yards, and automobile junk yards, or those facilities classified as Standard Industrial Classification 5015 and 5093;
- (7) Steam electric power generating facilities classified as Standard Industrial Classification 4911, including coal-handling sites for these facilities;

- (8) Transportation facilities classified as Standard Industrial Classifications 40, 41, 42 (except 4221-25), 44, 45 or retail truck stops (within SIC 5541) that have maintenance or fueling operations. Also included in this definition are vehicle service and storage facilities (including, but not limited to, public works garages) operated by federal, state or municipal government which have vehicle maintenance or repair shops, equipment cleaning, fueling or maintenance operations, road salt storage, or airport deicing operations. Also included in this definition are yacht clubs (within SIC 7997) or boat dealers (SIC 5551) that have onsite engine service or repair, vehicle or equipment cleaning, painting operations, hull maintenance and repair (including, but not limited to, sanding, chemical stripping and painting) or fueling operations;
- (9) Treatment works with a design capacity of greater than one million gallons per day (1 MGD) treating domestic sewage (or any other sewage sludge or wastewater treatment device or system) used in the storage, treatment, recycling, and reclamation of municipal or domestic sewage, including land dedicated to the disposal of sewage sludge that is located within the confines of the facility. This definition does not include farm lands; domestic gardens or lands used for sludge management where sludge is beneficially reused and which are not physically located in the confines of the facility; or areas that are in compliance with 40 CFR 503;
- (10) An activity classified as Standard Industrial Classifications 20, 21, 22, 23, 2434, 25, 265, 267, 27, 283, 285, 30, 31 (except 311), 323, 34 (except 3441), 35, 36, 37 (except 373), 38, 39, 4221 - 25, (provided the activity is not otherwise included within categories (2) through (9), (11) or (12)), and has material handling equipment or activities, raw materials, intermediate products, final products, waste materials, by-products or industrial machinery exposed to stormwater;
- (11) Facilities classified as Standard Industrial Classification 5171 (Petroleum Bulk Stations and Terminals);
- (12) Road salt and deicing material storage facilities, including facilities storing pure salt or other deicing materials or deicing materials mixed with other materials;
- (13) Wood processing facilities not otherwise described under this subsection, including but not limited to, mulching, chipping, and mulch coloring for retail or wholesale;
- (14) Small-scale composting facilities (as defined in this section) where composting is the primary activity, business, or purpose of the facility..

*“Inland wetland”* means wetlands as that term is defined in section 22a-38 of the Connecticut General Statutes.

*“Intermediate processing facility”* means a facility where glass, metals, paper products, batteries, household hazardous waste, fertilizers and other items are removed from the waste stream for recycling or reuse.

*“Minimize”*, for purposes of implementing control measures in Section 5(b) of this general permit, means reduce and/or eliminate to the extent achievable using control measures that are technologically available and economically practicable and achievable in light of best industry practice.

*“Municipal separate storm sewer system” or “MS4”* means conveyances for stormwater (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels or storm drains) owned or operated by any municipality and discharging to surface waters of the state.

*“Municipality”* means a city, town or borough of the state.



*“Permittee”* means any person who or municipality which initiates, creates, originates or maintains a discharge in accordance with Section 3 of this general permit.

*“Person”* means person as defined by section 22a-2(c) of the Connecticut General Statutes.

*“Point Source”* means any discernible, confined and discrete conveyance (including but not limited to, any pipe, ditch, channel, tunnel, conduit, discrete fissure, container, rolling stock, concentrated animal feeding operation, landfill leachate collection system, vessel or other floating craft) from which pollutants are or may be discharged.

*“Qualified Person or Qualified Personnel”*, for purposes of inspections and training, means any person familiar with the content, requirements and objectives of this permit and the facility’s Stormwater Pollution Prevention Plan.

*“Recycling facility”* or *“recycling center”* means land and appurtenances thereon and structures where recycling is conducted, including but not limited to, an intermediate processing facility as defined above.

*“Registrant”* means a person who or municipality which files a registration pursuant to Section 4 of this general permit.

*“Registration”* means a registration form filed with the commissioner pursuant to Section 4 of this general permit.

*“Regulated Small Municipal Separate Storm Sewer System (MS4)”* means any municipally-owned or -operated municipal separate storm sewer (as defined above) system authorized by the General Permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems (MS4 general permit) including all those located partially or entirely within an Urbanized Area and those additional municipally-owned or municipally-operated Small MS4s located outside an Urbanized Area as may be designated by the commissioner.

*“Retain”* means to hold runoff on-site with no subsequent point source release to surface waters from a storm event defined in this general permit or as approved by the commissioner.

*“Sediment”* means solid material, either mineral or organic, that is in suspension in water, is transported, or has been moved from its site of origin by erosion.

*“Site”* means geographically contiguous land on which an authorized activity takes place or on which an activity for which authorization is sought under this general permit is proposed to take place. Non-contiguous land owned by the same person and connected by a right-of-way, which such person controls, and to which the public does not have access, shall be deemed the same site.

*“Small-scale composting facility”* means a facility conducting composting, excluding farms composting agricultural wastes integral to the farming operation, that is located on two acres or less, and that processes less than 5,000 cubic yards per year of one or more of the following source separated organic materials, including but not limited to: horse manure and bedding; food scraps from cafeterias and other food preparation establishments; grocery store organics; food processing residuals; spoiled produce; soiled paper; waxed corrugated cardboard; compostable packaging; and including carbon-based bulking agents such as sawdust, woodchips, and leaves.

*“Source separated organic material”* or *“SSOM”* means organic material that is intended to be recycled or composted and has been separated from other solid waste at the point of generation.

“*Stormwater*” means waters consisting of rainfall runoff, including snow or ice melt during a rain event but not including mine dewatering waters.

“*Stormwater discharge associated with industrial activity*” means the discharge from any conveyance which is used for collecting and conveying stormwater and which is directly related to manufacturing, processing or material storage areas at an industrial activity.

“*Stormwater Drainage System*” means any system that collects and conveys stormwater in a manner resulting in a point source.

“*Stormwater Quality Manual*” means the department’s 2004 Connecticut Stormwater Quality Manual published by the DEEP, as may be amended.

“*Tidal wetland*” means a wetland as that term is defined in section 22a-29(2) of the Connecticut General Statutes.

“*Total Maximum Daily Load*” (*TMDL*) means the maximum capacity of a surface water to assimilate a pollutant as established by the commissioner, including pollutants contributed by point and non-point sources and a margin of safety.

“*Vehicle*” means a motorized device for transporting persons or things and including without limitation, every type of aircraft, automobile, bus, golf cart, motorcycle, train and truck.

“*Water Quality Standards or Classifications*” means those water quality standards or classifications contained in the Connecticut Water Quality Standards published by the department, as may be amended.

### **Section 3. Authorization Under This General Permit**

#### ***(a) Eligible Activities***

The discharge of stormwater associated with industrial activity (as defined in Section 2) to surface water or to a storm sewer system is authorized by this general permit.

#### ***(b) Requirements for Authorization***

This general permit authorizes the activity listed in the “Eligible Activities” section (Section 3(a)) of this general permit provided:

- (1) The stormwater is discharged from a point source which is directly related to manufacturing, processing or material storage areas at an industrial activity, including but not limited to stormwater discharged from ground surfaces immediately adjacent to manufacturing areas; processing or material storage areas; immediate access roads and rail lines used or traveled by carriers of raw materials, manufactured products, waste materials, or by-products used or created by the facility; material handling sites; refuse sites; sites used for the application or disposal of process waste waters (as defined at 40 CFR 401); composting sites; sites used for the storage and maintenance of material handling equipment; sites used for residual treatment, storage, or disposal; shipping and receiving areas; manufacturing buildings; storage areas (including tank farms) for raw materials, and intermediate and finished products; and areas where industrial activity has taken place in the past and materials remain and are exposed to stormwater.

- (2) Coastal Management Act

Such activity must be consistent with all applicable goals and policies in section 22a-92 of the Connecticut General Statutes, and must not cause adverse impacts to coastal resources as defined in section 22a-93(15) of the Connecticut General Statutes.

(3) Aquifer Protection

Such activity, if it is located within an aquifer protection area as mapped under section 22a-354b of the Connecticut General Statutes, must comply with regulations adopted pursuant to section 22a-354i of the Connecticut General Statutes.

(4) Endangered and Threatened Species

Such activity must not threaten the continued existence of any species listed pursuant to section 26-306 of the Connecticut General Statutes as endangered or threatened and must not result in the destruction or adverse modification of habitat designated as essential to such species.

(5) The stormwater is *not* discharged to a Publicly Owned Treatment Works (POTW).

(6) The stormwater is *not* discharged entirely to groundwater, meaning that there will be no surface discharge up to a 100-year, 24-hour rainfall event.

(7) For discharges subject to stormwater effluent limitation guidelines under 40 CFR, Subchapter N, such effluent limitations are identified in Section 5(f) of this general permit. Discharges not included in that section are not authorized by this general permit.

(8) For a stormwater discharge(s) initiated, created or originated after October 1, 1997 discharging within 500 feet of a tidal wetland, which is not a fresh-tidal wetland, the volume of stormwater runoff generated by one inch of rainfall is retained unless the commissioner approves an alternate stormwater management system in accordance with the conditions of Section 5(a)(1) of this general permit.

(9) New Discharges to Impaired Waters

For industrial activities of sites constructed after the effective date of this general permit, the activity is not authorized to discharge to an impaired water unless the permittee:

- (A) prevents all exposure of stormwater to the pollutant(s) identified as an indicator of the impairment, and retains documentation of procedures taken to prevent exposure onsite with the Stormwater Pollution Prevention Plan (Plan); or
- (B) documents that the indicator pollutant(s) is not present at the site, and retains documentation of this finding with the Plan; or
- (C) in advance of submitting a registration, provides to the commissioner data to support a showing that the discharge is not expected to cause or contribute to an exceedance of a water quality standard, and retains such data onsite with the Plan. To do this, the permittee must provide data and other technical information to the commissioner sufficient to demonstrate:
  - (i) For discharges to waters without an established TMDL, that the discharge of the pollutant identified as an indicator of the impairment will meet in-stream water quality criteria at the point of discharge to the waterbody; or

- (ii) For discharges to waters with an established TMDL, that there are sufficient remaining Waste Load Allocations in the TMDL to allow the discharge and that existing dischargers to the waterbody are subject to compliance schedules designed to bring the waterbody into attainment with water quality standards.

To be eligible for authorization under this subsection, the permittee must receive an affirmative determination from the Commissioner that the discharge will not contribute to the existing impairment, in which case the permittee must maintain such determination onsite with the Plan.

If the permittee does not receive such affirmative determination pursuant to this subsection, or if an impairment exists for which an indicator or surrogate pollutant has not been designated but for which stormwater discharges are a potential cause, the industrial activity is not authorized by this general permit.

**(c) *Registration***

Pursuant to the registration requirements (Section 4) of this general permit, a completed registration with respect to the industrial activity shall be filed with the commissioner unless exempted by the “No-Exposure Certification” section (Section 3(d)) of this general permit.

**(d) *No Exposure Certification***

An industrial activity defined under category (10) of the definition of industrial activity in Section 2 may be exempted from the requirements of registration (Section 4), implementation of control measures (Section 5(b)), preparation of a Stormwater Pollution Prevention Plan (Section 5(c)), inspections (Section 5(d)), monitoring (Section 5(e)) and record keeping (Section 5(h)) only if the facility certifies that there are no materials, as defined in this category, exposed to stormwater. Such certification shall be filed on forms prescribed and provided by the commissioner and submitted with a \$250 processing fee. All previously filed No Exposure Certification forms must be renewed upon issuance of this general permit. If, at any time, the industrial activity is modified such that materials are exposed to stormwater, the facility must submit a registration and comply with all pertinent sections of this general permit.

**(e) *Geographic Area***

This general permit applies throughout the State of Connecticut.

**(f) *Effective Date and Expiration Date of this General Permit***

This general permit is effective on October 1, 2011 and expires on September 30, 2016.

**(g) *Effective Date of Authorization***

An activity is authorized by this general permit as follows:

- For all facilities that **do not** make an electronic Pollution Prevention Plan available pursuant to Section 4(c)(2)(H), ninety (90) days after the submission of the registration form required by Section 4(c) or on the date of the Commissioner’s affirmative determination pursuant to the conditions of Section 3(b)(9)) or on the date of the Commissioner’s approval pursuant to the conditions of Section 4(c)(3), **whichever is later**, or
- For all facilities that **do** make a Pollution Prevention Plan available pursuant to Section 4(c)(2)(H), sixty (60) days after the submission of the registration form required by

Section 4(c) or on the date of the Commissioner's affirmative determination pursuant to the conditions of Section 3(b)(9)) or on the date of the Commissioner's approval pursuant to the conditions of Section 4(c)(3), **whichever is later**.

**(h) *Revocation of an Individual Permit***

If an activity is eligible for authorization under this general permit and such activity is presently authorized by an individual permit, the existing individual permit may be revoked by the commissioner upon a written request by the permittee. If the commissioner revokes such individual permit in writing, such revocation shall take effect on the effective date of authorization of such activity under this general permit.

**(i) *Issuance of an Individual Permit***

If the commissioner issues an individual permit under section 22a-430 of the Connecticut General Statutes permitting an activity authorized by this general permit, authorization under this general permit shall cease beginning on the date such individual permit is issued.

**Section 4. Registration Requirements**

**(a) *Who Must File a Registration***

With the exception noted below, any person or municipality that initiates, creates, originates or maintains a discharge authorized by this general permit, and has not filed a No-Exposure Certification form, shall file a registration form which meets the registration requirements of this section of this general permit. Such form shall be submitted along with the applicable fee, pursuant to Section 4(c)(1), either:

- for any industrial activity initiated, created, originated or maintained on or before the effective date of this general permit that **does not** make an electronic Pollution Prevention Plan available pursuant to Section 4(c)(2)(H), on or before ninety (90) days prior to the effective date (as identified in Section 3(f)) of this general permit; or
- for any industrial activity initiated, created, originated or maintained on or before the effective date of this general permit that **does** make an electronic Pollution Prevention Plan available pursuant to Section 4(c)(2)(H), on or before sixty (60) days prior to the effective date (as identified in Section 3(f)) of this general permit; or
- for a discharge from a facility authorized under this general permit whose ownership is transferred to a new owner, on or before 30 days following the date of transfer; or
- for any other discharge, on or before 90 (ninety) days prior to the date the industrial activity is initiated for those facilities that **do not** make an electronic Pollution Prevention Plan available pursuant to Section 4(c)(2)(H) and on or before 60 (sixty) days prior to the date the industrial activity is initiated for those facilities that **do** make an electronic Pollution Prevention Plan available pursuant to Section 4(c)(2)(H).

If the facility or activity for which a registration is submitted under this permit is owned by one person or municipality but is leased or, in some other way, the legal responsibility of another person or municipality (the operator), the operator is responsible for submitting the registration required by this general permit. The registrant is responsible for compliance with all conditions of this general permit.

**(b) *Scope of Registration***

A registrant shall register on one registration form only those discharges that are generated by such registrant on one site. A registrant may not submit more than one registration per site under this general permit.

**(c) Contents of Registration**

**(1) Fees**

- (A) The registration fee shall be submitted with a registration form. A registration shall not be deemed complete unless the registration fee has been paid in full. The fee shall be as follows:
- (i) \$500 Registration Fee:
    - Companies that employ fewer than fifty (50) employees statewide (excluding seasonal employees employed no more than 120 days in a year) or have gross annual sales of less than five (5) million dollars;
    - Municipal, federal or state operated industrial activities; and
    - Small-scale composting facilities.
  - (ii) \$1,000 Registration Fee:
    - Companies that employ more than fifty (50) employees statewide (excluding seasonal employees employed no more than 120 days in a year) and have gross annual sales of greater than five (5) million dollars.

(Note that under CGS 22a-6, municipalities pay half the stated fee.)

- (B) The registration fee shall be paid by check or money order payable to the **Department of Energy and Environmental Protection**.
- (C) The registration fee is non-refundable.

**(2) Registration Form**

A registration shall be filed on forms prescribed and provided by the commissioner and shall include, but not be limited to, the following:

- (A) Legal name, address, and telephone number of the registrant. If the registrant is an entity transacting business in Connecticut, provide the exact name as registered with the Connecticut Secretary of the State.
- (B) Legal name, address, and telephone number of the owner of the property on which the industrial activity takes place or is to take place.
- (C) Legal name, address, and telephone number of any consultant(s) or engineer(s) retained by the registrant to prepare the registration or to design or construct the subject activity.
- (D) Location address of the site for which the registration is submitted.
- (E) Primary and secondary four-digit Standard Industrial Classification (SIC) codes for the industrial activity.

- (F) A brief description of the stormwater discharge including:
- (i) Number, type, material, and size of conveyances, outfalls or channelized flows that run off the site (e.g. 15" concrete pipe);
  - (ii) Size of the property and amount of impervious surface in square feet or acres, including parking areas, driveways, roads, walkways, other paved areas and roofs;
  - (iii) The name of the separate storm sewer system or immediate surface water body or wetland to which the stormwater conveyance, outfall and/or runoff discharges, and whether or not the site discharges within 500 feet of a tidal wetland; and
  - (iv) The name of the watershed and nearest waterbody to which the site discharges and its Water Quality Classification.
- (G) An 8 ½" by 11" copy of the relevant portion or a full-sized original of a United States Geological Survey (USGS) quadrangle map, with a scale of 1:24,000, showing the exact location of the site and the area within a one mile radius of the site. Identify the quadrangle name on such copy.
- (H) If available, provide an internet address (URL) where the Plan required by Section 5(c) is accessible for public review. If the registrant claims that certain elements of their Plan constitute a trade secret or are otherwise exempt from the disclosure requirements of the state Freedom of Information Act (section 1-210 et seq of the Connecticut General Statutes, also called FOIA) as specified in that Act, they shall follow the procedures provided in the registration form instructions for this general permit regarding information subject to FOIA requirements. The process of complying with the FOIA requirements does not exempt the registrant from the registration and Plan preparation deadlines in Sections 4(a) and 5(c)(3) of this general permit.
- (I) The signature of the registrant and of the individual or individuals responsible for actually preparing the registration, each of who shall certify in writing as follows:

"I have personally examined and am familiar with the information submitted in this document and all attachments thereto, and I certify that, based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that a false statement made in the submitted information may be punishable as a criminal offense, in accordance with section 22a-6 of the Connecticut General Statutes, pursuant to section 53a-157b of the Connecticut General Statutes, and in accordance with any other applicable statute.

I certify that this permit registration is on complete and accurate forms as prescribed by the commissioner without alteration of the text.

I also certify under penalty of law that I have read and understand all conditions of the General Permit for the Discharge of Stormwater Associated with Industrial Activity effective on October 1, 2011, that all conditions for eligibility for authorization under the general permit are met, all terms and conditions of the general permit are being met for all discharges which have been initiated and are the subject of this registration, and that a system is in place to ensure that all terms and

conditions of this general permit will continue to be met for all discharges authorized by this general permit at the site. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowingly making false statements.”

(3) Plan Submission for Certain Small-scale Composting Facilities

For small-scale composting facilities composting horse manure and bedding, the Plan shall be submitted to the commissioner for review and approval along with the completed registration form and fee specified in subsection (1) above. The activity is not authorized by this general permit until the commissioner approves the Plan and registration. All other small composting facilities are not required to submit their Plan with the registration.

*(d) Availability of Registration and Plan*

By the fifteenth (15<sup>th</sup>) day of each month, the Commissioner shall post on the DEEP website a list of registration and no-exposure certification forms submitted in the previous month. The registrant may allow electronic access to their Plan by providing on their registration form an internet address (URL) in accordance with Section 4(c)(2)(H).

(1) Registration or No-exposure Certification Availability

On or before fifteen (15) days from the date of posting by the Commissioner, members of the public may request a copy of a registrant’s registration form or the no-exposure certification form for review. In such cases, the Commissioner shall provide a copy of the registration form or no-exposure certification form to the requesting party within seven (7) days of such request.

(2) Plan Availability

(A) In such cases where the registrant has made their Plan available electronically in accordance with Section 4(c)(2)(H), members of the public may access the Plan directly. On or before forty-five (45) days from the date the registration is posted by the Commissioner, such party may submit written comments on the Registration and/or Plan to the Commissioner.

(B) In such cases where the registrant has **not** made their Plan available electronically in accordance with Section 4(c)(2)(H), on or before fifteen (15) days from the date of posting by the Commissioner, members of the public may submit a written request to the Commissioner to obtain a copy of such Plan. The Commissioner shall inform the registrant of the request and the name of the requesting party. The registrant shall submit a copy of their Plan to the Commissioner within seven (7) days of their receipt of such request. On or before thirty (30) days from the date a member of the public receives a copy of the requested Plan from the Commissioner, they may submit written comments on the Registration and/or Plan to the Commissioner.

(3) Confidential Business Information

If the registrant claims that certain elements of their Plan constitute a trade secret or are otherwise exempt from the disclosure requirements of the state Freedom of Information Act (section 1-210 et seq of the Connecticut General Statutes, also called FOIA) as specified in that Act, they shall follow the procedures provided in the registration form instructions for this general permit regarding information subject to FOIA requirements. The process of complying with the FOIA requirements does not exempt the registrant



from the registration and Plan preparation deadlines in Sections 4(a) and 5(c)(3) of this general permit.

**(e) *Where to File a Registration***

A registration shall be filed with the commissioner at the following address:

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

**(f) *Additional Information***

The commissioner may require a registrant to submit additional information, which the commissioner reasonably deems necessary to evaluate the consistency of the subject activity with the requirements for authorization under this general permit.

**(g) *Additional Notification***

For activities authorized under this permit that are discharged through a municipal separate storm sewer system, a copy of the registration shall also be submitted to the owner and operator of that system.

**(h) *Action by Commissioner***

- (1) The commissioner may reject without prejudice a registration if he or she determines that it does not satisfy the registration requirements (Section 4(c)) of this general permit. Any registration refiled after such a rejection shall be accompanied by the fee specified in the “Fees” section (Section 4(c)(1)) of this general permit.
- (2) The commissioner may disapprove a registration if he or she finds that the subject activity is inconsistent with the “Requirements for Authorization” section (Section 3) of this general permit, or for any other reason provided by law.
- (3) Disapproval of a registration under this subsection shall constitute notice to the registrant that the subject activity must be authorized by an individual permit.
- (4) Rejection or disapproval of a registration shall be in writing.

**Section 5. Conditions of This General Permit**

The permittee shall at all times continue to meet the requirements for authorization set forth in Section 3 of this general permit. In addition, a permittee shall assure that authorized activities are conducted in accordance with the following conditions:

**(a) *Conditions Applicable to Certain Discharges***

- (1) Any person who or municipality which initiates, creates, or originates a discharge of stormwater associated with industrial activity after October 1, 1997, which discharge is located less than 500 feet from a tidal wetlands which is not a fresh-tidal wetland, shall discharge such stormwater through a system designed to retain the volume of stormwater runoff generated by 1 inch of rainfall on the site. If there are site constraints that would prevent retention of this volume on-site (e.g., soil contamination, elevated ground-water, potential groundwater drinking supply area, etc.), documentation must be submitted, for

the commissioner's review and written approval, which explains the site limitations and offers an alternative retention volume and/or additional stormwater treatment. For sites unable to comply with this section, the commissioner, at the commissioner's sole discretion, may require the submission of an individual permit application in lieu of authorization under this general permit.

- (2) Any person who or municipality which discharges stormwater below the high tide line into coastal, tidal, or navigable waters for which a permit is required under the Structures and Dredging Act in accordance with section 22a-361(a) of the Connecticut General Statutes or into tidal wetlands for which a permit is required under the Tidal Wetlands Act in accordance with section 22a-32 of the Connecticut General Statutes, shall obtain such permit(s) from the commissioner.
- (3) There shall be no distinctly visible floating scum, oil or other matter contained in the stormwater discharge. Excluded from this are naturally occurring substances such as leaves and twigs provided no person has placed such substances in or near the discharge.
- (4) The stormwater discharge shall not result in pollution due to acute or chronic toxicity to aquatic and marine life, impair the biological integrity of aquatic or marine ecosystems, or result in an unacceptable risk to human health.
- (5) The stormwater discharge shall not cause or contribute to an exceedance of the applicable Water Quality Standards in the receiving water.
- (6) Any new stormwater discharge to high quality waters (as defined in the Water Quality Standards) shall be discharged in accordance with the Connecticut Anti-Degradation Implementation Policy in the Water Quality Standards manual.

**(b) Control Measures**

Control Measures are required Best Management Practices (BMP) that the permittee must implement to minimize the discharge of pollutants from the permitted facility. The term "minimize" means reduce and/or eliminate to the extent achievable using control measures that are technologically available and economically practicable and achievable in light of best industry practice.

**(1) Good Housekeeping**

The permittee must maintain a clean, orderly facility (e.g. sweeping at regular intervals, appropriate storage practices, proper garbage and waste management, dust control measures, etc.) in all areas that are exposed to rainfall and are potential sources of pollutants.

**(2) Vehicle or Equipment Washing**

The permittee must provide, at a minimum, that no washing or rinsing of equipment, buildings or vehicles shall be allowed at the site which would allow wash or rinse waters to enter any storm drainage system or surface waters of the State without a permit. Such discharges to groundwater are not authorized by this general permit.

**(3) Floor Drains**

The permittee must provide that all floor drains have been sealed, authorized by a local authority to discharge to sanitary sewer or allowed by DEEP in accordance with the "Non-Stormwater Discharges" section (Section 5(b)(11)) of this general permit.

(4) Roof Areas

The permittee must identify roof areas that may be subject to drippage, dust or particulates from exhausts or vents or other sources of pollution. The permittee must inspect such areas to determine if any potential sources of stormwater pollution are present. If so, the permittee must minimize such sources or potential sources of pollution.

(5) Minimize Exposure

The permittee must minimize exposure to stormwater of materials identified in the “Inventory of Exposed Materials” section (Section 5(c)(2)(D)(ii)) of this general permit. Facilities in categories 2 and 10 of the definition of industrial activity in Section 2 of this general permit constructed after July 15, 2003 shall be constructed to preclude exposure of materials (as defined in the category 10 definition) by means of a permanent roof or cover or provide stormwater treatment, as identified in the Stormwater Quality Manual, for such exposed areas. Where the permittee believes it is not feasible to construct a permanent roof or cover, they shall submit their Plan (and plan review fee specified in Section 5(c)(4)(B)) showing the area(s) in question and reasons in writing for the commissioner’s review and written approval.

(6) Sediment and Erosion Control

The permittee must identify areas that have a potential for soil erosion due to topography, activities, or other factors, and shall implement measures to limit erosion and stabilize such areas. All construction activities on site shall be conducted in accordance with the 2002 Connecticut Guidelines for Soil Erosion and Sediment Control (Guidelines) and the “Future Construction” section (Section 5(c)(2)(I)) of this general permit.

(7) Management of Runoff

The permittee shall investigate the need for stormwater management or treatment practices that shall be used to divert, infiltrate, reuse, or treat stormwater runoff in a manner that minimizes pollutants in stormwater discharges from the site. Any evaluation, construction or modification of the design of a stormwater drainage system requires certification by a professional engineer licensed to practice in the State of Connecticut. The permittee shall implement and maintain stormwater management or treatment measures determined to be reasonable and appropriate to minimize the discharge of pollutants from the site.

In implementing infiltration practices, care must be taken to avoid ground water contamination in accordance with Appendix C. Any stormwater infiltration measures implemented by the permittee and located within an aquifer protection area as mapped under section 22a-354b of the Connecticut General Statutes shall be conducted pursuant to sections 8(c) and 9(b) of the Aquifer Protection Regulations (section 22a-354i(1)-(10) of the Regulations of Connecticut State Agencies). The permittee must assure that stormwater run-off generated from the regulated activity is managed in a manner so as to prevent pollution of groundwater, and shall comply with all the requirements of this permit.

The permittee shall consider the potential of various sources at the facility to contribute pollutants to stormwater discharges associated with industrial activity when determining reasonable and appropriate measures. Where feasible, the permittee shall divert uncontaminated run-on to avoid areas that may contribute pollutants. Other appropriate stormwater management or treatment measures may include but are not limited to: vegetative swales or buffer strips, reuse of collected stormwater (such as for process water,

cooling water or as an irrigation source), treatment technologies (e.g. swirl concentrators, sand filters, etc.), snow management activities, bioretention cells, green roofs, pervious pavement and wet detention/retention basins. The permittee shall ensure that such measures are properly designed, implemented and maintained in accordance with the Stormwater Quality Manual.

(8) Preventive Maintenance

The permittee must implement a preventive maintenance program, which shall include but not be limited to: the inspection and maintenance of stormwater management devices (e.g. cleaning stormwater treatment devices, catch basins); the visual inspection and/or testing of on-site equipment and systems to identify conditions that could cause breakdowns or failures resulting in discharges of pollutants to surface waters; and the appropriate maintenance of such equipment and systems. These areas shall be included in the Routine Inspections conducted under Section 5(d)(2) of this general permit. If the permittee maintains an existing preventive maintenance program that addresses the requirements of this control measure, they may use that program to meet this requirement. The existence of such a program and the location of its maintenance records shall be referenced in the Plan.

(9) Spill Prevention and Response Procedures

The permittee must minimize the potential for leaks and spills. This shall include clearly identifying areas where potential spills can occur and their accompanying drainage points. The permittee must plainly label containers (e.g., “Used Oil,” “Spent Solvents,” “Fertilizers and Pesticides,” etc.) that could be susceptible to spillage or leakage in areas that could contribute pollutants to stormwater runoff. The permittee shall identify procedures for containing, reporting and cleaning up spills. These procedures must be provided to the appropriate personnel through Employee Training (subsection 10, below) along with the necessary equipment to implement a cleanup.

## A) Containment

To prevent unauthorized discharges of liquid chemicals or wastewater from commingling with or polluting a facility's stormwater discharges, or otherwise causing pollution to the waters of the state, the permittee shall comply with the following requirements, as applicable:

### (i) Stationary Storage or Storage Areas

For the purposes of Section 5(b)(9)(A) of this general permit only, **storage area** means an exterior area, which is or has the potential to be exposed to stormwater, that contains one or more tanks or containers utilized for the storage of liquid chemicals or for the collection, storage or treatment of wastewater. Any stationary above-ground tank, container or storage area used: (1) for the storage of liquid chemicals as identified in the "Spills and Leaks" section (Section 5(c)(2)(D)(iv)) of this general permit; or (2) for the collection, storage or treatment of wastewater shall, at a minimum, comply with one of the following types of secondary containment requirements:

- 1) A double-walled above-ground tank or container; or
- 2) For any storage area, tank or container installed prior to the date of authorization of this general permit, an impermeable secondary containment area which will hold at least 100% of the volume of the largest tank or container or 10% of the total volume of all tanks and containers in the area, whichever is larger, without overflow from such secondary containment area; or
- 3) For any storage area, tank or container installed after the date of authorization of this general permit, an impermeable secondary containment area which will hold at least 110% of the volume of the largest tank or container or 10% of the total volume of all tanks and containers in the area, whichever is larger, without overflow from such secondary containment area.

### (ii) Mobile or Portable Storage

Any mobile or portable above-ground tank or container used for the collection or storage of wastewater shall comply with the secondary containment requirements of Section 5(b)(9)(A)(i) above, unless the following minimum requirements are met:

- 1) Such mobile or portable tank or container and related appurtenances (i.e., piping, fittings, valves, gauges, alarms, switches, etc.) are designed, operated and maintained in a manner to prevent releases of wastewater resulting from factors including, but not limited to, physical or chemical damage, tampering or vandalism, freezing and thawing; and
- 2) In addition to the requirements of Section 5(b)(9)(A)(ii)(1) above, for any mobile or portable tank or container and related appurtenances that are affixed to a trailer, such trailer shall be a registered motor vehicle designed, operated and maintained to be capable of on-road transport of wastewater at all times.

(iii) Containment exemption for certain stationary above-ground storage tanks, containers, and areas

- 1) The secondary containment requirements of Section 5(b)(9)(A)(i) above do not apply to stationary above-ground storage and treatment tanks and containers, and storage areas if such tanks, containers, and storage areas are associated with a discharge(s) authorized by a permit issued pursuant to Section 22a-430 or 22a-430b of the Connecticut General Statutes.

(iv) Additional requirements

For industrial activities initiated after October 1, 1992, if an impermeable secondary containment area is required by 5(b)(9)(A)(i) or (ii) above, such containment area shall be roofed in a manner which minimizes stormwater entry to the containment area, except for a containment area which stores tanks or containers of 100 gallon capacity or more, in which case a roof is not required.

Stormwater that may accumulate in a containment area may be discharged only after the permittee conducts testing to confirm that it contains none of the relevant pollutants stored therein. For petroleum storage containment areas, visual inspection for sheen fulfills this requirement. If testing is not conducted or if it indicates the presence of a relevant pollutant, this containment water must be treated and/or disposed of according to DEEP and federal regulations.

B) Dumpsters

The permittee must ensure that all dumpsters, trash compactors, and “roll-off” containers used to store waste or recyclable materials are in sound watertight condition and have covers and drain plugs intact, or are in roofed areas that will prevent exposure to rainfall and will not allow dumpster leakage to enter any stormwater drainage system. All covers on dumpsters not under a roof must be closed when dumpsters are not being loaded or unloaded.

C) Loading Docks

The permittee shall provide that for all industrial activities initiated after July 15, 2003, loading docks (excluding those that allow a vehicle to enter the building) shall be protected with a permanent roof or other structure that protects the loading dock from direct rainfall. Stormwater collection and drainage facilities adjacent to the loading dock shall be designed and maintained in a way that prevents any materials spilled or released at the loading dock from discharging to the storm sewer system.

(10) Employee Training

The permittee shall ensure that all employees whose activities may affect stormwater quality receive training within ninety (90) days of employment and at least once a year thereafter to make them familiar with the components and goals of these control measures and the Plan. Training shall address topics such as emergency equipment location, spill response management, control measures, inspection requirements, good housekeeping and materials management practices. Training shall be conducted or supervised by a member of the Pollution Prevention Team or other qualified person and a written record shall be maintained in the Plan, including the date(s), employee name, employee responsibility and training agenda.

(11) Non-Stormwater Discharges

The Permittee must eliminate non-stormwater discharges except as provided in “Non-Stormwater Discharge Certification” (Section 5(c)(2)(F)) or as authorized by an individual permit issued pursuant to section 22a-430 or a general permit issued pursuant to 22a-430b of the Connecticut General Statutes, including the provisions of this general permit.

(12) Solid De-icing Material Storage

**With the exception of the bulk solid de-icing material storage facilities identified in the Addendum (issued 12/03/2013),** the permittee must ensure that storage piles of de-icing materials (including pure salt, salt alternatives or either of these mixed with other materials) used for deicing or other commercial or industrial purposes that are in place for more than 180 days shall be enclosed or covered by a rigid or flexible roof or other structural means. Such structure shall not allow for the migration or release of material outside of the structure through its sidewalls. As a temporary measure (not to exceed two years from the effective date of this general permit), a waterproof cover may be used to prevent exposure to precipitation (except for exposure necessary to add or remove materials from the pile) until a structure can be provided. For temporary storage piles of de-icing materials in place for less than 180 days per year, a waterproof cover may be used to prevent exposure to precipitation (except for exposure necessary to add or remove materials from the pile). In areas with a groundwater classification of GA or GAA, an impervious liner shall be utilized under any de-icing material pile to prevent infiltration to groundwater.

In addition, no new road salt or de-icing materials storage facilities shall be located within a 100-year floodplain as defined and mapped for each municipality under 44 CFR 59 et seq. or within 250 feet of a well utilized for potable drinking water supply or within a Level A aquifer protection area as defined by mapping pursuant to section 22a-354c of the Connecticut General Statutes.

(13) Sector-Based Control Measures

Section 5(f) contains additional control measures for certain industrial activities (“sectors”). These are specific control measures that apply only to the industries in a given sector and are to be implemented in addition to the control measures in this section.

**(c) Stormwater Pollution Prevention Plan (Plan)**

(1) Development of Plan

- (A) The permittee shall develop a Stormwater Pollution Prevention Plan ("Plan") for each site. The permittee shall perform all actions required by the Plan in accordance with the schedule set forth in “Deadlines for Plan Preparation and Compliance” (Section 5(c)(3)) of this general permit and including implementation of the Control Measures in Section 5(b), inspections in Section 5(d), monitoring in Section 5(e) and any sector-specific requirements in Section 5(f). The Plan shall include records and documentation of compliance with these elements and shall be kept on-site at all times along with a copy of this general permit. The permittee shall maintain compliance with the Plan thereafter.
- (B) For any stormwater discharges that were permitted under the General Permit for the Discharge of Stormwater Associated with Industrial Activity issued October 1, 2002 (modified July 15, 2003), the permittee must update the existing Plan in accordance with the “Contents of the Plan” (Section 5(c)(2)), “Control Measures” (Section 5(b)),

“Additional Requirements for Certain Sectors” (Section 5(f)) and “Monitoring” (Section 5(e)) sections of this general permit. The Plan shall be recertified by a professional engineer licensed to practice in the State of Connecticut or a Certified Hazardous Materials Manager in accordance with the “Plan Certification” (Section 5(c)(7)) and “Non-Stormwater Discharge Certification” (Section 5(c)(2)(F)) sections of this general permit at the time of registration for this general permit. The permittee shall maintain compliance with such Plan thereafter.

(2) Contents of Plan

The Plan shall be representative of current site conditions and shall address, at a minimum, all the elements below. If an element is not applicable to the facility, the Plan shall identify it and provide an explanation as to why the element does not apply.

(A) Facility Description

Provide a description of the nature of the industrial activities at the facility.

(B) General location map

Provide a general location map (e.g., U.S. Geological Survey (USGS) quadrangle map) with enough detail to identify the location of the facility and all receiving waters to which stormwater discharges.

(C) Pollution Prevention Team

The permittee shall identify a specific individual or individuals for the site who shall serve as members of a Stormwater Pollution Prevention Team ("team"). The team shall be responsible for implementing the Plan and assisting in the implementation, maintenance, and development of revisions to the Plan as well as maintaining control measures and taking corrective actions where required. At least one team member shall be present at the facility or on call during all operational shifts. The Plan shall clearly identify the responsibilities of each team member. The activities and responsibilities of the team shall address all aspects of the Plan. Each member of the stormwater pollution prevention team must have ready access to either an electronic or paper copy of applicable portions of this permit and the Plan.

(D) Potential Pollutant Sources

The Plan shall map and describe the potential sources of pollutants that may reasonably be expected to affect stormwater quality at the site or that may result in the discharge of pollutants during dry weather from the site. The Plan shall identify all activities and materials that may be a source of stormwater pollution at the site. Accordingly, the Plan shall include, but not be limited to the following:

(i) Site Map

A site map (at a defined or approximate scale) shall be developed showing:

- 1) a north arrow and surveyed or approximate property lines including the total site acreage;
- 2) location of existing buildings and structures;



- 3) the overall site size and amount of impervious coverage as well as an outline of the drainage area, including the extent of impervious surface, for each stormwater outfall and direction of flow within the drainage area;
- 4) existing structural control measures installed to reduce pollutants in stormwater runoff;
- 5) locations of all stormwater conveyances including catchbasins, ditches, pipes, and swales as well as the location of any non-stormwater discharges;
- 6) the areal extent of any wetlands to which stormwater discharges;
- 7) the receiving surface water body or bodies to which the site discharges including the identification of any impaired waters and whether or not a TMDL has been established for them;
- 8) location where major spills or leaks (identified under Section 5(c)(2)(D)(iv) below) have occurred;
- 9) locations of all stormwater monitoring points including latitude and longitude, where available;
- 10) locations of discharges to a municipal storm sewer system;
- 11) locations of discharges to groundwater through an infiltration system;
- 12) locations where any drainage run-on enters the site; and
- 13) each location of the following activities and associated types of pollutants where such activities are exposed to precipitation:
  - fueling stations;
  - vehicle and equipment maintenance and/or cleaning areas;
  - loading/unloading areas;
  - locations used for the treatment, storage or disposal of wastes;
  - liquid storage tanks;
  - de-icing material storage areas;
  - processing areas;
  - storage areas;
  - areas with the potential for erosion that may impact surface waters or wetlands or may have off-site impacts; and
  - any other potential pollutant sources.

(ii) Inventory of Exposed Materials

A tabular inventory of non-gaseous materials at the site, including a description of potential pollutants associated with those materials that may be exposed to stormwater between the time of three years prior to the date of certification of the Plan and the present for the following areas:

- 1) loading and unloading operations;
- 2) roof areas;
- 3) outdoor storage activities;

- 4) outdoor manufacturing or processing activities;
- 5) dust or particulate generating processes; and
- 6) on-site waste disposal practices.

(iii) Summary of Potential Pollutant Sources

A narrative summary of each area of the site specified in "Inventory of Exposed Materials" (Section 5(c)(2)(D)(ii), above) of this general permit and each associated potential source of pollution. Such summary shall include:

- 1) method and location of on-site storage or disposal;
- 2) materials management practices employed to minimize contact of materials with stormwater runoff between the time of three years prior to the effective date of this permit and the present;
- 3) the location and a description of existing structural and non-structural control measures to reduce pollutants in stormwater runoff; and
- 4) a description of any treatment the stormwater receives.

(iv) Spills and Leaks

A list of spills and leaks of five gallons or more of petroleum products, or of toxic or hazardous substances which could affect stormwater, as listed in section 22a-430-4 (Appendix B Tables II, III and V, and Appendix D) of the Regulations of Connecticut State Agencies, and 40 CFR 116.4, that occurred at the facility after the date of three years prior to the date of certification of the Plan.

(E) Control Measures

The permittee must document the location and type of control measures installed and implemented at the site in accordance with "Control Measures" (Section 5(b)). The permittee shall discuss the appropriateness and priorities of control measures in the Plan and how they address identified potential sources of pollutants at the site. The Plan shall include a schedule for implementing such controls measures if not already implemented. In addition, the permittee must implement those additional control measures that may be required in "Additional Control Measures for Certain Sectors" (Section 5(f)).

(F) Non-Stormwater Discharge Certification

The Plan shall include the following certification, signed by a professional engineer licensed to practice in the State of Connecticut or a Certified Hazardous Materials Manager:

“I certify that in my professional judgment, the stormwater discharge from the site consists only of stormwater, or of stormwater combined with wastewater authorized by an effective permit issued under section 22a-430 or section 22a-430b of the Connecticut General Statutes, including the provisions of this general permit, or of stormwater combined with any of the following discharges provided they do not contribute to a violation of water quality standards:

- landscape irrigation or lawn watering;
- uncontaminated groundwater discharges such as pumped groundwater, foundation drains, water from crawl space pumps and footing drains;
- discharges of uncontaminated air conditioner or refrigeration condensate;
- water sprayed for dust control or at a truck load wet-down station;
- naturally occurring discharges such as rising groundwaters, uncontaminated groundwater infiltration (as defined at 40 CFR 35.2005(20)), springs, and flows from riparian habitats and wetlands.

This certification is based on testing and/or evaluation of the stormwater discharge from the site. I further certify that all potential sources of non-stormwater at the site, a description of the results of any test and/or evaluation for the presence of non-stormwater discharges, the evaluation criteria or testing method used, the date of any testing and/or evaluation, and the on-site drainage points that were directly observed during the test have been described in detail in the Stormwater Pollution Prevention Plan prepared for the site. I further certify that no interior building floor drains exist unless such floor drain connection has been approved and permitted by the commissioner or otherwise authorized by a local authority for discharge as domestic sewage to sanitary sewer. I am aware that there may be significant penalties for false statements in this certification, including the possibility of fine and imprisonment for knowingly making false statements.”

(G) Additional requirements for stormwater discharges associated with industrial activity through municipal separate storm sewer systems as may be required by the municipality.

In addition to the applicable requirements of this general permit, the Plan must show that sites authorized by this permit shall comply with applicable requirements in an MS4 permit for the municipal separate storm sewer system that receives the industrial facility's discharge, provided such discharger has been notified of such conditions.

(H) Consistency with Other Plans and Permits

The Plan may reference requirements contained in a Spill Prevention Control and Countermeasure (SPCC) plan or a plan prepared or approved under the Resource Conservation and Recovery Act (RCRA) and other plans required by state, federal or local law. A copy of the pertinent sections of any referenced plan must be kept with the Plan. The Plan shall identify all general and individual permits issued by the DEEP for which the facility is authorized.

(I) Future Construction

Note that any construction activity that disturbs greater than one acre must be conducted in accordance with the General Permit for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities (as amended). All construction activities, regardless of size, shall comply with the 2002 Connecticut Guidelines for Soil Erosion and Sediment Control during construction and the 2004 Connecticut Stormwater Quality Manual for the design and implementation of post-construction stormwater management measures. In addition, the permittee shall avoid, wherever possible, the use of copper or galvanized roofing or building materials for any new building construction where these materials will be exposed to stormwater.

(J) Monitoring Program

A description of the monitoring program and sampling data for stormwater discharges at the site, in accordance with the “Monitoring” section (Section 5(e)) of this general permit. Additional monitoring requirements may be required under Sections 5(f) and 5(g).

(K) Schedules and Procedures

The permittee shall document in the Plan the schedules and procedures for implementation of control measures, monitoring and inspections. These include but are not limited to: sweeping, waste management practices and other good housekeeping measures; regular inspections, testing, maintenance, and repair of all industrial equipment and systems potentially exposed to stormwater; procedures for preventing and responding to spills and leaks; employee training; routine, semiannual and any other inspections; visual monitoring; and any quarterly, semiannual, effluent limitation and/or impaired waters monitoring.

(3) Deadlines for Plan Preparation and Compliance

For any stormwater discharges associated with industrial activity initiated after the effective date of this general permit, the Plan shall be prepared at the time of registration. The permittee shall perform all actions required by such Plan upon obtaining permit coverage, and shall maintain compliance with such Plan thereafter.

(4) Signature and Plan Review

(A) The Plan shall be signed as follows:

- (i) for a corporation, by a responsible corporate officer or a duly authorized representative thereof, as those terms are defined in section 22a-430-3(b)(2) of the Regulations of Connecticut State Agencies;
- (ii) for a municipality, state, federal, or other public agency, by either a principal executive officer or a ranking elected official, as those terms are defined in section 22a-430-3(b)(2) of the Regulations of Connecticut State Agencies;
- (iii) for a partnership or a sole proprietorship, by a general partner or the proprietor, respectively.

When a Plan is signed by a duly authorized representative, a statement of authorization shall be included in the Plan. The Plan shall also be certified, in accordance with “Plan Certification” (Section 5(c)(7)) of this general permit, by a

professional engineer licensed in the State of Connecticut or a Certified Hazardous Materials Manager.

The Plan shall be retained on site at the facility that generates the stormwater discharge.

- (B) The permittee shall make a copy of the Plan available to the following immediately upon request:
- (i) the commissioner at his/her own request or as the result of a request from a member of the public pursuant to “Availability of Registration and Plan” (Section 4(d));
  - (ii) in the case of a stormwater discharge associated with industrial activity which discharges through a municipal separate storm sewer system, to the operator of the municipal system;
  - (iii) in the case of a stormwater discharge associated with industrial activity which discharges to a water supply watershed, to the public water supply company.

For all sites submitting a Plan to the Commissioner at the Commissioner’s sole request (not a request from the public), a **plan review fee of \$500** established by section 22a-430-6 of the Regulations of Connecticut State Agencies shall be submitted with the Plan. **The plan review fee for municipalities shall be half (\$250).**

- (C) The Commissioner may notify the permittee at any time that the Plan does not meet one or more of the requirements of this section. Within 120 days of such notification unless otherwise specified by the commissioner in writing, the permittee shall revise the Plan, perform all actions required by the revised Plan, and shall inform the commissioner in writing that the requested changes have been made and implemented, and such other information as the commissioner requires.

(5) Keeping Plan Current

The permittee shall amend the Plan whenever;

- (A) there is a change at the site which has an effect on the potential to cause pollution of the surface waters of the state;
- (B) the actions required by the Plan fail to ensure or adequately protect against pollution of the surface waters of the state; or
- (C) the Commissioner requests modification of the Plan;
- (D) the permittee is notified that they are subject to requirements because the receiving water to which the industrial activity discharges has been designated as impaired under Section 303(d) of the Clean Water Act and as identified in the most recent State of Connecticut Integrated Water Quality Report;
- (E) the permittee is notified that a TMDL to which the permittee is subject has been established for the stormwater receiving water;
- (F) necessary to address any significant sources or potential sources of pollution identified as a result of any inspection or visual monitoring;

- (G) required as a result of monitoring benchmarks or effluent limitations in “Monitoring” (Section 5(e)) or “Additional Requirements for Certain Sectors” (Section 5(f)).

The Plan shall be amended and all actions required by the Plan shall be completed within one hundred twenty (120) days (or within another interval as may be specified in this general permit or as may be approved in writing by the Commissioner) of the date the permittee becomes aware or should have become aware that any of the conditions listed above has occurred.

If significant changes are made to the site or to the Plan in accordance with paragraphs 5(A)-(G) above, the Plan shall be recertified in accordance with the “Non-Stormwater Discharges” (Section 5(b)(11)) and “Plan Certification” (Section 5(c)(7)) sections of this general permit, by a professional engineer licensed to practice in the State of Connecticut or a Certified Hazardous Materials Manager. The permittee shall maintain compliance with such Plan thereafter.

(6) Failure to Prepare or Amend Plan

In no event shall failure to complete or update a Plan in accordance with the “Development of Plan” (Section 5(c)(1)) and “Keeping Plan Current” (Section 5(c)(5)) sections of this general permit relieve a permittee of responsibility to implement actions required to protect the surface waters of the state, complete any actions that would have been required by such Plan, and to comply with all conditions of the permit.

(7) Plan Certification

The Plan shall contain the following certification, signed by a professional engineer licensed to practice in the State of Connecticut or a Certified Hazardous Materials Manager:

“I certify that I have thoroughly and completely reviewed the Stormwater Pollution Prevention Plan prepared for this site. I further certify, based on such review and site visit by myself or my agent, and on my professional judgment, that the Stormwater Pollution Prevention Plan meets the criteria set forth in the General Permit for the Discharge of Stormwater Associated with Industrial Activity effective on October 1, 2011. I am aware that there are significant penalties for false statements in this certification, including the possibility of fine and imprisonment for knowingly making false statements.”

**(d) Inspections**

(1) Semi-Annual Inspections

The permittee must provide that qualified personnel shall conduct comprehensive site inspections at appropriate intervals specified in the Plan, but in no event less frequently than twice a year. Such evaluations shall, at a minimum, include:

- (A) Visual inspection of material handling areas and other potential sources of pollution identified in the Plan for evidence of, or the potential for, pollutants entering the stormwater drainage system. Structural stormwater management measures, erosion control measures, control measures and other structural pollution prevention measures identified in the Plan shall be observed to ensure that they are implemented and maintained properly. A visual inspection of equipment needed to implement the plan, such as spill response equipment, shall be made. Inspections should be made during rainfall events if possible.

- (B) Preparation of a report summarizing the scope of the inspection, personnel making the inspection, the date(s) of the inspection, major observations relating to the Plan, actions taken, and updates made to the Plan shall be made and retained as part of the Stormwater Pollution Prevention Plan for at least five years. The report shall be signed by the permittee.

(2) Routine Inspections

In addition to the Semi-Annual Inspections required above, the permittee shall identify in the Plan qualified personnel to visually inspect designated equipment and specific sensitive areas of the site at least monthly. A written set of tracking or follow-up procedures shall be used to ensure that appropriate actions are taken in response to the inspections. Records of routine inspections shall be maintained in the Plan kept on-site.

(e) ***Monitoring Requirements***

(1) Outfall Monitoring

All permittees must conduct stormwater outfall monitoring under this general permit. There are different monitoring procedures, frequencies and parameters required of certain permittees dependent upon the nature of their industrial activity, the levels of pollutants in their stormwater discharge and the nature of the receiving waters to which they discharge. In addition, the permittee may be required to modify their Plan and control measures based on their monitoring results. **For guidance on outfall monitoring, see Appendix B.**

(A) Standard Monitoring Parameters

All permittees are required to monitor for the standard parameters as specified in this subsection. Additional monitoring parameters may be included in “Additional Requirements for Certain Sectors” (Section 5(f)) and/or in “Discharges to Impaired Waters” (Section 5(g)).

(i) Visual Monitoring

Once each quarter for the entire permit term, the permittee must collect a stormwater sample from each outfall (or a representative outfall pursuant to Section 5(e)(2)(B)) and conduct a visual assessment of each of these samples. These samples should be collected in such a manner that the samples are representative of the stormwater discharge. For monitoring purposes, quarters will begin on January 1, April 1, July 1 and October 1.

The visual assessment must be made of a sample in a clean, clear glass, or plastic container, and examined in a well-lit area. The permittee must visually inspect the sample for the presence of the following water quality characteristics:

- Color;
- Odor;
- Clarity;
- Floating solids;
- Settled solids;
- Suspended solids;
- Foam;

- Oil sheen; and
- Other obvious indicators of stormwater pollution.

If, based on the above indicators, the visual assessment indicates the control measures for the facility are inadequate or are not being properly operated and maintained, the permittee must review and revise the selection, design, installation and implementation of the control measures to ensure that the condition is eliminated and will not be repeated in the future. The permittee shall maintain documentation of these procedures in the Plan.

(ii) General Monitoring Requirements

For all industrial activities, as defined in Section 2 of this general permit, stormwater monitoring shall be conducted semiannually (or at an alternate frequency as may be specified in “Additional Requirements for Certain Sectors” (Section 5(f)) commencing upon the effective date of this general permit or upon the date of authorization under Section 3(g) of this permit. One monitoring event shall be conducted between October 1 and March 31. The other monitoring event shall be conducted between April 1 and September 30. Monitoring events shall be separated by at least 30 days. Monitoring shall be conducted for the parameters listed below:

Chemical Oxygen Demand (mg/l)  
 Total Oil and Grease (mg/l)  
 pH (S.U.)  
 Total Suspended Solids (mg/l)  
 Total Phosphorus (mg/l)  
 Total Kjeldahl Nitrogen (mg/l)  
 Nitrate as Nitrogen (mg/l)  
 Total Copper (mg/l)  
 Total Lead (mg/l)  
 Total Zinc (mg/l)

Annual monitoring shall also be conducted for Aquatic Toxicity pursuant to subsection (C) below.

- (iii) In addition to the list of parameters in Section 5(e)(1)(A) of this general permit, uncontaminated rainfall pH shall be measured for the same rain event during which the runoff sample is taken.



## (B) Standard Monitoring Benchmarks

All permittees are required to comply with the benchmarks for the standard parameters as specified in this subsection **unless** otherwise specified in “Additional Requirements for Certain Sectors” (Section 5(f)). Additional monitoring benchmarks may also be included in Section 5(f).

### (i) Schedule

Benchmark monitoring must be conducted semiannually, as specified in Section 5(e)(1)(A) upon the effective date of this general permit or upon the date of authorization under Section 3(g) of this permit. Benchmark monitoring may be conducted in conjunction with the quarterly “Visual Monitoring” in Section 5(e)(1)(A)(i), above. Also, see “Toxicity Monitoring” in subsection C below.

### (ii) Benchmarks

These benchmarks apply to all permittees. Additional benchmarks may apply to industries in specific sectors as identified in Section 5(f).

Chemical Oxygen Demand (mg/l)	75
Total Oil and Grease (mg/l)	5
Sample pH	5-9
Total Suspended Solids (mg/l)	90
Total Phosphorus (mg/l)	0.40
Total Kjeldahl Nitrogen (mg/l)	2.30
Nitrate as Nitrogen (mg/l)	1.10
Total Copper (mg/l)	0.059
Total Lead (mg/l)	0.076
Total Zinc (mg/l)	0.160

The benchmarks for the parameters above (except metals) are based upon 80th percentiles of the cumulative relative frequency graphs developed from stormwater results reported under the General Permit for the Discharge of Stormwater Associated with Industrial Activity for the sampling years 2003 to 2007. Note that the benchmarks for copper, lead and zinc are based upon state Water Quality Standards and have been determined to be protective of water quality at typical dilution rates. However, regardless of the benchmarks, discharge monitoring data or other site specific information may demonstrate that a discharge is not protective of water quality. In such a case, the Department may require additional measures to reduce the discharge of pollutants for any discharge specifically found to be causing or contributing to an exceedance of Water Quality Standards in the receiving water. Provided the permittee complies with all requirements of this Standard Monitoring Benchmarks subsection, exceedance of the benchmarks is not, in itself, a violation of this general permit.

### (iii) Data not exceeding benchmarks

After collection of 4 semiannual samples, if the average of the 4 monitoring values for any parameter does not exceed the benchmark, the monitoring requirements for that parameter have been fulfilled for the permit term. For averaging purposes for any individual sample parameter analyzed using procedures consistent with “Test Procedures” (Section 5(e)(2)(D)), which is determined to be less than the method detection limit, use a value of half the

method detection limit reported by the analyzing laboratory. For sample values that fall between the method detection level and the reporting level (i.e., a confirmed detection but below the level that can be reliably quantified), use a value of half the reporting level reported by the analyzing laboratory. Once the benchmark for sample pH has been met and monitoring for pH has been fulfilled, the measurement of rainfall pH is no longer required.

(iv) Data exceeding benchmarks

Within 120 days of receiving the results of the fourth semiannual sample, if the average of the 4 semiannual monitoring values for any parameter exceeds the benchmark, the permittee must, in accordance with the “Keeping Plan Current” (Section 5(c)(5)) section, review the selection, design, installation and implementation of the control measures to determine if modifications are necessary to meet the benchmarks in this permit, and either:

- Make the necessary modifications to the control measures and Plan and continue semiannual monitoring until the permittee has completed 4 consecutive semiannual monitoring events for which the average does not exceed the benchmark; or
- Make a determination that no further pollutant reductions are technologically available and economically practicable and achievable in light of best industry practice to implement additional control measures or meet the benchmarks, in which case the permittee must continue monitoring once per year. The permittee must also document the rationale for concluding that no further pollutant reductions are achievable and submit this documentation to the commissioner for written approval. The permittee must retain all records related to this documentation with the Plan.

If an exceedance of the 4 event average is mathematically certain, the permittee must review the control measures and perform any required corrective action immediately (or document why no corrective action is required), without waiting for the full 4 monitoring events, in accordance with the “Keeping Plan Current” (Section 5(c)(5)) section. If after modifying the control measures and conducting additional semiannual monitoring, the average of the most recent 4 monitoring events still exceeds the benchmark (or if an exceedance of the benchmark by the 4 event average is mathematically certain for the most recent 4 monitoring events), the permittee must again review the control measures and take one of the two actions above.

(v) Off-site and natural background pollutant levels

Following the first 4 semiannual samples of benchmark monitoring (or sooner if the exceedance is triggered by less than 4 monitoring events), if the average concentration of a pollutant exceeds a benchmark value, and the permittee determines that exceedance of the benchmark is attributable solely to the presence of that pollutant in the natural background or in “run-on” entering from off-site, the permittee is not required to perform corrective action or additional benchmark monitoring provided all of the following conditions are met:

- The average concentration of the benchmark monitoring results is less than or equal to the concentration of that pollutant in the natural background or off-site run-on;

- The permittee documents and maintains with the Plan the supporting rationale for concluding that benchmark exceedances are in fact attributable solely to natural background or off-site pollutant levels. The permittee must include in the supporting rationale any data previously collected by them or others that describe the levels of natural background pollutants in the stormwater discharge;
- The permittee demonstrates that the diversion of off-site run-on containing these pollutant levels is not feasible or practicable;
- The permittee notifies the commissioner on the final semiannual benchmark monitoring report that the benchmark exceedances are attributable solely to natural background or off-site pollutant levels; and
- The commissioner issues a written approval of the permittee's documentation demonstrating that the benchmark exceedances are attributable solely to natural background or off-site pollutant levels.

Natural background pollutants include those substances that are naturally occurring in rainfall, soils or groundwater. Natural background pollutants do not include legacy pollutants from earlier activity on the site.

#### (C) Toxicity Monitoring

The permittee shall monitor annually for aquatic toxicity during the first two years following the date of authorization under Section 3(g) of this permit. This parameter shall be included in a regularly scheduled semiannual sample.

#### (D) Monitoring of Discharges to Impaired Waters

Industrial activities that discharge to impaired waters, as identified in Section 5(g) below, must conduct additional monitoring of discharges in addition to the requirements of subsections (A) through (C) above.

##### (i) Discharges to Impaired Waters Without an Established Total Maximum Daily Load (TMDL)

If an industrial activity discharges to an impaired water without a TMDL, the permittee must monitor annually for any indicator pollutants identified as contributing to the impairment and for which a standard analytical method exists. No monitoring is required when a waterbody's biological communities are impaired but no pollutant, including indicator or surrogate pollutants, is identified as an indicator of the impairment, or when a waterbody's impairment is related to hydrologic modifications, impaired hydrology, or temperature.

This monitoring requirement does not apply after the first year of monitoring if the indicator pollutant is not detected above natural background levels, as determined by the Commissioner, in the stormwater discharge or is the result of run-on entering from offsite and the permittee has documented that diversion of this off-site run-on is not feasible or practicable in accordance with "Off-site and natural background pollutant levels" (Section 5(e)(1)(B)(v)). In either case, the permittee must provide such documentation to the Commissioner.

(ii) Discharges to Impaired Waters With an Established Total Maximum Daily Load (TMDL)

For stormwater discharges to waters for which there is an established TMDL, the permittee is not required to monitor for any indicator pollutant identified in the TMDL unless informed in writing by the DEEP, upon examination of the applicable TMDL and/or Waste Load Allocation (WLA), that the permittee is subject to such a requirement consistent with the assumptions of the applicable TMDL and/or WLA. DEEP's notice will include specifications on which indicator pollutant to monitor and the required monitoring frequency during the first year of permit coverage. Following the first year of monitoring:

- If the indicator pollutant is not detected in any of the first year samples, the permittee may discontinue further sampling, unless the TMDL has specific instructions to the contrary, in which case the permittee must follow those instructions. The permittee must keep records of this finding onsite with the Plan.
- If the permittee detects the presence of the indicator pollutant in the stormwater discharge for any of the samples collected in the first year, the permittee must continue monitoring annually throughout the term of this permit, unless the TMDL specifies more frequent monitoring, in which case the TMDL requirements must be followed.

(E) Sector-Specific Benchmarks

For those permittees conducting sector-specific additional monitoring on a quarterly or semiannual basis in accordance with a sector in "Additional Requirements for Certain Sectors" (Section 5(f)), the provisions for meeting or exceeding any sector-specific benchmarks shall follow the requirements of "Data not exceeding benchmarks" and "Data exceeding benchmarks" (Sections 5(e)(1)(B)(iii) and (iv), respectively), applying to the most recent 4 monitoring events, whether quarterly or semiannually.

(F) Effluent Limitations Monitoring

Certain industrial facilities are required to comply with numeric effluent limits determined by EPA as specified in "Additional Requirements for Certain Sectors" (Section 5(f)). Exceedance of any effluent limit is a violation of the general permit. Where a benchmark and an effluent limit both apply to a given parameter, the requirements to address the effluent limit exceedance supersede those of the benchmark exceedance. If the permittee exceeds an effluent limit, they must comply with the following measures:

(i) Exceedance of an Effluent Limit

If a stormwater discharge exceeds an effluent limit to which a facility is subject, the permittee must review the selection, design, installation and implementation of the control measures and make the modifications to the control measures and Plan necessary to meet the effluent limit. The permittee must then conduct follow-up monitoring during the next qualifying rain event for any parameter which exceeded an effluent limit.

(ii) Exceedance Report

In addition to any reporting required after an initial effluent limit exceedance as required by Section 22a-430-3(j)(11)(D) of the Regulations of CT State Agencies, the permittee must submit an Exceedance Report to DEEP on or before 30 days from the date the permittee receives the lab results if follow-up monitoring pursuant to subparagraph (i) above exceeds a numeric effluent limit. The report must include the following:

- DEEP permit number;
- Facility name, physical address and location;
- Name of receiving water;
- Monitoring data from this and the preceding monitoring event(s);
- An explanation of the measures taken and to be taken to correct the violation; and
- An appropriate contact name and phone number.

(2) Stormwater Monitoring Procedures

- (A) All samples shall be collected from discharges resulting from a storm event that occurs at least 72 hours after any previous storm event generating a stormwater discharge. Any sample containing snow or ice melt must be identified on the Stormwater Monitoring Report form.

For sites that discharge through a detention basin or other stormwater management structure, the sample shall be taken at the discharge from the basin or structure. If no discharge occurs during a monitoring period, a Stormwater Monitoring Report (SMR) form shall still be submitted in accordance with the “Reporting Requirements” section (Section 5(h)(3)) of this general permit. In such a case, a notation of “no discharge” shall be made on the SMR form.

Grab samples shall be used for all monitoring and shall not be combined. Collection of grab samples shall begin during the first thirty (30) minutes of a storm event discharge (flow at sampling location) and shall be completed as soon as possible. Samples shall be taken at the outfall or nearest feasible location representative of the discharge. The uncontaminated rainfall pH measurement shall also be taken, when required, at this time. All discharge samples at a facility must be taken during the same storm event, if feasible.

(B) Representative Discharge

When a facility has two or more outfalls that, based on a consideration of features (e.g. grass vs. pavement, slopes, catch basins vs. swales) and activities within the area drained by the outfall, the permittee reasonably believes discharge substantially identical effluents, the permittee may test the effluent of one such outfall and report that the quantitative data is representative of the substantially identical outfalls.

The Plan shall include a narrative of the rationale for designating outfalls as representative discharges, and, for each outfall that the permittee believes is representative, an estimate of the size of the drainage area (in square feet), an estimate of the runoff coefficient of the drainage area and a description of the substantially identical activities contributing to the discharge shall be provided in the Plan. In no case shall one outfall test be substituted for more than five (5) outfalls.

(C) Storm Event Information

The following information shall be collected for the storm events monitored:

- (i) The date, discharge temperature, time of the start of the discharge, time of sampling, and magnitude (in inches) of the storm event sampled;
- (ii) The pH of the uncontaminated rainfall (before it contacts the ground); and
- (iii) The duration between the storm event sampled and the end of the most recent storm event that produced a discharge.

(D) Test Procedures

- (i) Unless otherwise specified in this permit, all pollutant parameters shall be tested according to methods prescribed in Title 40, Code of Federal Regulations (CFR), Part 136. Laboratory analyses must be consistent with Connecticut Reasonable Confidence Protocols.
- (ii) Acute toxicity biomonitoring tests shall be conducted according to the procedures specified in Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms, 5th edition (EPA 821-R-02-012). The following specific conditions apply:
  - Tests shall employ neonatal (less than 24-hour-old) *Daphnia pulex* as test organisms;
  - Tests shall be conducted at 20 +/- 1 degrees Centigrade;
  - Tests shall be forty-eight (48) hours in duration;
  - Synthetic freshwater prepared as described in EPA 821-R-02-012 and adjusted to a hardness of 50 +/-5 mg/l as CaCO<sub>3</sub> shall be used as dilution water in all tests;
  - The sample shall not be hardness or pH adjusted or altered in any way;
  - The following test dilution series shall be utilized, expressed as percent stormwater sample: 100%, 50%, 25%, 12.5%, 6.25% and 0%;
  - A minimum of twenty test organisms shall be exposed to each stormwater concentration, with each test concentration containing a minimum of four (4) test chambers. Each test chamber shall contain a minimum of five (5) test organisms;
  - Test organisms shall not be fed during the test period;
  - Test results shall be reported as the LC50 value determined using the procedure specified in EPA 821-R-02-012;
  - Hardness in the stormwater sample and in the dilution control water shall be reported as mg/L as CaCO<sub>3</sub>;
  - Toxicity tests shall be initiated within thirty-six (36) hours of stormwater sample collection; and

- Any test in which the survival of test organisms is less than 90% in the combined control test vessels or failure to achieve test conditions as specified, such as maintenance of environmental controls, shall constitute an invalid test and will require stormwater resampling and retesting as soon as practicable.

(E) Inability to Collect a Sample

If a permittee is unable to collect a sample pursuant to “Visual Monitoring” (Section 5(e)(1)(A)(i)) or “Additional Requirements for Certain Sectors” (Section 5(f)) due to the inability to meet the conditions in subsection (A) above, the permittee shall, for visual monitoring, document such inability in their Plan or, for all other monitoring, submit the Stormwater Monitoring Report form in accordance with the “Reporting Requirements” section (Section 5(h)(3)) with a notation of “no discharge” and an explanation of the limitations restricting the collection of an appropriate sample. Reasons may include the absence of a 72-hour period of dry weather, the absence of a rain event that produces a stormwater discharge, the absence of a discharge from a detention or retention basin in accordance with subsection (A) above, or safety considerations preventing access to a stormwater discharge location. Timing of a rain event is not an acceptable reason to fail to sample unless it precludes the analysis of a parameter within the acceptable hold time specified by a laboratory.

**(f) *Additional Requirements for Certain Sectors***

(1) Sector A – Asphalt Plants

This sector applies to those facilities categorized as SIC Codes 2911 and 2951 that manufacture asphalt paving mixtures and other bituminous road materials. The permittee must comply with these sector-specific requirements in those areas of the facility where these sector-specific activities occur. These sector-specific requirements are in addition to any requirements specified elsewhere in this permit.

(A) Additional Monitoring Requirements

In addition to the semiannual monitoring required in “Monitoring” (Section 5(e)), the permittee must sample this parameter semiannually under the same conditions as those required in Section 5(e):

Semivolatile Hydrocarbons

Analysis of this parameter shall be conducted using EPA Method 625.

(B) Sector-specific Benchmarks

Facilities monitoring under the requirements of this sector shall not be subject to a Benchmark requirement for Semivolatile Hydrocarbons. These facilities must monitor semiannually for this parameter for the entire term of the permit.

(C) Effluent Limitations

The following effluent limits apply only to asphalt emulsion facilities (within SIC code 2911). These parameters must be monitored once a year for the term of the permit. Monitoring for these parameters may be conducted concurrently with any other monitoring required in this general permit. Exceedance of any effluent limit is a violation of the general permit.

<u>Parameter</u>	<u>Effluent Limitation</u>
Oil & Grease (mg/l)	15
Sample pH	6-9
Total Suspended Solids (mg/l)	23

(2) Sector B – Non-metallic Mines and Quarries (SIC Code 14) and Stone Cutting (SIC Code 3281)

This sector applies to those facilities categorized as SIC Major Group 14 that mine sand, gravel, stone, clay and other non-metallic minerals as well as those facilities that cut and shape stone products classified as SIC Code 3281. The permittee must comply with these sector-specific requirements in those areas of the facility where these sector-specific activities occur. These sector-specific requirements are in addition to any requirements specified elsewhere in this permit.

(A) Additional Requirements for Authorization

Mine dewatering discharges are not authorized by this general permit.

(B) Additional Control Measures

In addition to the control measures specified in “Control Measures” (Section 5(b)), the permittee must implement the following additional control measures:

(i) Additional Sediment and Erosion Control

The permittee must implement erosion and sediment control measures for any areas with the potential to impact surface waters or wetlands or the potential for off-site impacts by following the Guidelines and the Stormwater Quality Manual.

(ii) Dust Suppression

The permittee must ensure that off-site vehicle tracking of sediments and the generation of dust shall be minimized. Dust suppression measures shall be utilized on any activity that causes airborne particles, in accordance with section 22a-174-18(c) of the Regulations of Connecticut State Agencies. The volume of water sprayed to control dust shall be minimized to prevent runoff to the surface waters of the State.

(iii) Run-on Diversion



The permittee shall, where feasible, divert uncontaminated stormwater run-on away from potential pollutant sources by means of interceptor or diversion controls (e.g., dikes, swales, curbs, or berms); pipe slope drains; subsurface drains; conveyance systems (e.g., channels or gutters, open-top box culverts, and waterbars; rolling dips and road sloping; roadway surface water deflector and culverts); or their equivalents.

(C) Additional Plan Requirements

In addition to the Plan requirements specified in “Stormwater Pollution Prevention Plan” (Section 5(d)), the permittee must include the following additional elements in their Plan:

(i) Nature of Industrial Activities

The permittee must document in the Plan the mining and associated activities that can potentially affect the stormwater discharges covered by this permit, including a general description of the location of the site relative to major transportation routes and communities.

(ii) Site Map

The permittee must document in the Plan the locations of the following (as appropriate): mining or milling site boundaries; access and haul roads; outline of the drainage areas of each stormwater outfall within the facility with information on the types of discharges from the drainage areas; location(s) of all permitted discharges covered under an NPDES permit, outdoor equipment storage, fueling, and maintenance areas; materials handling areas; outdoor manufacturing, outdoor storage, and material disposal areas; outdoor chemicals and explosives storage areas; overburden, materials, soils, or waste storage areas; location of all stormwater discharges; location of mine drainage dewatering or other process water; off-site points of discharge for mine dewatering and process water; surface waters; and location(s) of reclaimed areas.

(iii) Potential Pollutant Sources

For each area of the mine or mill site where stormwater discharges associated with industrial activities occur, the permittee must document in the Plan the types of pollutants (e.g., heavy metals, sediment) likely to be present. Consider these factors: the mineralogy of the waste rock (e.g., acid forming); toxicity and quantity of chemicals used, produced, or discharged; the use of blasting materials; the likelihood of contact with stormwater; vegetation of site (if any); and history of significant leaks or spills of toxic or hazardous pollutants. Also include a summary of any existing waste rock or overburden characterization data and test results for potential generation of acid rock drainage.

(iv) Stormwater Controls

The permittee shall document any of the control measures in subsection (B), above, in the Plan pursuant to Section 5(c)(2)(E). If control measures are implemented or planned but are not listed in subsection (B) (e.g., substituting a less toxic chemical for a more toxic one), the permittee shall include descriptions of them in the Plan.

(3) Sector C – Refuse Systems (SIC Code 4953)

This sector applies to those facilities categorized as SIC Code 4953 and are included in Category 5 of the definition of Industrial Activity in Section 2 of this general permit. The permittee must comply with these sector-specific requirements in those areas of the facility where these sector-specific activities occur and where waste and/or leachate are exposed or potentially exposed to rainfall. These sector-specific requirements are in addition to any requirements specified elsewhere in this permit.

(A) Additional Requirements for Authorization

The following discharges are not authorized by this permit: landfill leachate; gas collection condensate; drained free liquids; contaminated ground water; laboratory wastewater; and rinse- or wash-water from washing trucks, railcar exteriors, equipment, paved areas or building surfaces.

(B) Additional Control Measures

In addition to the control measures specified in “Control Measures” (Section 5(b)), the permittee must implement the following additional control measures:

(i) Preventive Maintenance Program

As part of the preventive maintenance program in Section 5(b)(8), the permittee must maintain all elements of leachate collection and treatment systems to prevent commingling of leachate with stormwater and the integrity and effectiveness of any intermediate or final cover (including repairing the cover as necessary) to minimize the effects of settlement, sinking, and erosion. For transfer stations, the permittee must maintain the integrity and effectiveness of all collection containers, collection systems for white goods and other waste material storage areas, and systems to contain pollutants and minimize exposure to rainfall and runoff.

(ii) Erosion and Sedimentation Control

The permittee must provide temporary stabilization (e.g., temporary seeding, mulching, and placing geotextiles on the inactive portions of stockpiles) for the following: materials stockpiled for daily, intermediate, and final landfill cover; inactive areas of a landfill or open dump; landfills or open dump areas that have received final cover but where vegetation has yet to establish itself; and land application sites where waste application has been completed but final vegetation has not yet been established.

### (C) Additional Plan Requirements

In addition to the Plan requirements specified in “Stormwater Pollution Prevention Plan” (Section 5(d)), the permittee must include the following additional elements in their Plan:

#### (i) Drainage Area Site Map

The permittee must document in the Plan where any of the following may be exposed to precipitation or surface runoff: active and closed landfill cells or trenches; active and closed land application areas; locations where open dumping is occurring or has occurred; locations of any known leachate springs or other areas where uncontrolled leachate may commingle with runoff; leachate collection and handling systems; and transfer station waste storage areas, hoppers, and waste loading or transfer areas.

#### (ii) Summary of Potential Pollutant Sources

The permittee must document in the Plan the following sources and activities, as well as any others, that have the potential to contribute pollutants to stormwater runoff: fertilizer, herbicide, and pesticide application; earth and soil moving; waste hauling and loading or unloading; outdoor storage of materials, including daily, interim, and final cover material stockpiles as well as temporary waste storage areas; exposure of active and inactive landfill and land application areas; uncontrolled leachate flows; and failure or leaks from leachate collection and treatment systems.

### (D) Additional Inspection Requirements

In addition to the requirements of “Inspections” (Section 5(d)), the permittee shall comply with these additional inspection requirements:

#### (i) Inspections of Active Landfills

The permittee must inspect operating landfills, open dumps, and land application sites at least once every 7 days. A qualified inspector shall focus on areas of landfills that have not yet been finally stabilized; active land application areas, areas used for storage of material and wastes that are exposed to precipitation, stabilization, and structural control measures; leachate collection and treatment systems; and locations where equipment and waste trucks enter and exit the site. Ensure that sediment and erosion control measures are operating properly. For stabilized sites and areas where land application has been completed and vegetation established, conduct inspections at least once every month.

#### (ii) Inspections of Inactive Landfills

The permittee must inspect inactive landfills, open dumps, and land application sites at least quarterly. Qualified personnel must inspect landfill (or open dump) stabilization and structural erosion control measures, leachate collection and treatment systems, and all closed land application areas.

(iii) Inspections of Transfer Stations and Recycling Facilities

The permittee must inspect transfer stations at least once every 7 days. A qualified inspector shall focus on areas of used for storage of material and wastes that are exposed to precipitation, locations where equipment and waste trucks enter and exit the site, and areas where waste and materials are loaded and unloaded. Additionally, the permittee shall conduct a daily site “walk-through” for litter focusing on the site perimeter, cover of waste containers, and areas the public has access for waste disposal or recycling drop-off.

(E) Additional Monitoring Requirements

In addition to the semiannual monitoring required in “Monitoring” (Section 5(e)), for municipal and regional landfills and all other solid waste disposal areas, the permittee must sample this parameter quarterly under the same conditions as those required in Section 5(e):

Total Iron (mg/l)

(F) Sector-specific Benchmarks

In addition to the Benchmarks specified in “Monitoring” (Section 5(e)), for municipal and regional landfills and all other solid waste disposal areas, the following Benchmark shall apply to the monitoring parameter required in subparagraph E, above, and be subject to the requirements in “Benchmarks” (Section 5(e)(1)(B)(ii)):

<u>Parameter</u>	<u>Benchmark</u>
Total Iron (mg/l)	1.0

(G) Effluent Limitations

For municipal and regional landfills and all other solid waste disposal areas, compliance with the following effluent limits is required for this general permit. These parameters must be monitored once a year for the term of the permit. Monitoring for these parameters may be conducted concurrently with any other monitoring required in this general permit. Exceedance of any effluent limit is a violation of the general permit.

<u>Parameter</u>	<u>Effluent Limit</u>
Biochemical Oxygen Demand (mg/)	140
Total Suspended Solids (mg/l)	88
Ammonia (mg/l)	10
Alpha Terpineol (mg/l)	0.033
Benzoic Acid (mg/l)	0.12
p-Cresol (mg/l)	0.025
Phenol (mg/l)	0.026
Total Zinc (mg/l)	0.200
pH	6-9

#### (H) Additional Reporting and Recordkeeping Requirements

In addition to the requirements of “Reporting and Recordkeeping” (Section 5(*h*)), the permittee must keep records with the Plan of the types of wastes disposed of in each cell or trench of a landfill or open dump. For land application sites, track the types and quantities of wastes applied in specific areas.

#### (4) Sector D – Auto Salvage Yards (SIC Code 5015)

This sector applies to those facilities categorized as SIC Code 5015 and are included in Category 6 of the definition of Industrial Activity in Section 2 of this general permit. The permittee must comply with these sector-specific requirements in those areas of the facility where these sector-specific activities occur. These sector-specific requirements are in addition to any requirements specified elsewhere in this permit.

##### (A) Additional Control Measures

In addition to the control measures specified in “Control Measures” (Section 5(*b*)), the permittee must implement the following additional control measures:

##### (i) Spill and Leak Prevention Procedures

The permittee must drain vehicles and mechanical equipment intended to be dismantled of all fluids upon arrival at the site (or as soon thereafter as feasible), or employ some other equivalent means to prevent spills and leaks. The permittee must conduct dismantling activities on a covered impermeable surface and employ impermeable containment measures for any uncovered outdoor storage of oily parts, engine blocks, and above-ground liquid storage. Disposal of stormwater collected within the containment areas shall be conducted in accordance with the “Spill Prevention and Response Procedures” section (Section 5(*b*)(9)(A)) of this general permit.

##### (ii) Employee Training

The permittee shall address, if applicable, the following areas (at a minimum) in the employee training program: proper handling (collection, storage, and disposal) of oil, gasoline, diesel fuel, used mineral spirits, anti-freeze, mercury switches, solvents and any other automotive fluids.

##### (iii) Management of Runoff

The permittee shall consider the following management practices: berms or drainage ditches on the property line (to help prevent run-on from neighboring properties); installation of detention ponds; and installation of filtering devices and oil and water separators.

##### (B) Additional Plan Requirements

In addition to the Plan requirements specified in “Stormwater Pollution Prevention Plan” (Section 5(*d*)), the permittee must include the following additional elements in their Plan:

(i) Drainage Area Site Map

The permittee shall identify locations used for dismantling, storage, and maintenance of used motor vehicle parts. Also identify where any of the following may be exposed to precipitation or surface runoff: dismantling areas, parts (e.g., engine blocks, tires, hub caps, batteries, hoods, mufflers) storage areas, and liquid storage tanks and drums for fuel and other fluids.

(ii) Potential Pollutant Sources

The permittee must assess the potential for the following to contribute pollutants to stormwater discharges: vehicle storage areas, dismantling areas, parts storage areas (e.g., engine blocks, tires, hub caps, batteries, hoods, mufflers), areas where vehicle fluids are drained, and fueling stations.

(C) Additional Inspection Requirements

The permittee must immediately (or as soon thereafter as feasible) inspect vehicles arriving at the site for leaks. Inspect at least quarterly for signs of leakage all equipment containing oily parts, hydraulic fluids, any other types of fluids, or mercury switches. Also, inspect at least quarterly for signs of leakage all vessels and areas where hazardous materials and general automotive fluids are stored, including, but not limited to, mercury switches, brake fluid, transmission fluid, radiator water, and antifreeze.

(D) Additional Monitoring Requirements

(i) Quarterly Monitoring

In addition to the semiannual monitoring required in “Monitoring” (Section 5(e)), the permittee must sample these parameters quarterly under the same conditions as those required in Section 5(e):

Total Iron (mg/l)  
Total Mercury (mg/l)  
Total Aluminum (mg/l)

(ii) Semiannual Monitoring

In addition to the semiannual monitoring required in “Monitoring” (Section 5(e)) and the quarterly sampling in subparagraph (i), above, the permittee must sample these parameters semiannually under the same conditions as those required in Section 5(e):

Semivolatile Hydrocarbons

Analysis of this parameter shall be conducted using EPA Method 625.

(E) Sector-specific Benchmarks

(i) Quarterly Monitoring

In addition to the Benchmarks specified in “Monitoring” (Section 5(e)), the following Benchmarks shall apply to the monitoring parameters required in subparagraph A, above, and be subject to the requirements in “Benchmarks” (Section 5(e)(1)(B)(ii)):

<u>Parameter</u>	<u>Benchmark</u>
Total Iron (mg/l)	1.0
Total Mercury (mg/l)	0.0014
Total Aluminum (mg/l)	0.75

(ii) Semiannual Monitoring

Facilities monitoring under the requirements of this sector shall not be subject to a Benchmark requirement for Semivolatile Hydrocarbons. These facilities must monitor semiannually for this parameter for the entire term of the permit.

(5) Sector E – Scrap Recycling Facilities (SIC Code 5093)

This sector applies to those facilities categorized as SIC Code 5093 and are included in Category 6 of the definition of Industrial Activity in Section 2 of this general permit. The permittee must comply with these sector-specific requirements in those areas of the facility where these sector-specific activities occur. These sector-specific requirements are in addition to any requirements specified elsewhere in this permit.

(A) Additional Requirements for Authorization

Non-stormwater discharges from turnings or other containment areas are not authorized by this general permit. Disposal of stormwater collected within the containment areas shall be conducted in accordance with the “Spill Prevention and Response Procedures” section (Section 5(b)(9)(A)) of this general permit.

(B) Additional Control Measures

In addition to the control measures specified in “Control Measures” (Section 5(b)), the permittee must implement the following additional control measures:

(i) Inbound Recyclable and Waste Material Control Program

The permittee must minimize the acceptance of materials that could be sources of pollutants by conducting inspections of inbound recyclables and waste materials. The following are some possible control measure options: (a) provide information and education to suppliers of scrap and recyclable waste materials on draining and properly disposing of residual fluids (e.g., from vehicles and equipment engines, radiators and transmissions, oil filled transformers, and individual containers or drums) and removal of mercury switches from vehicles before delivery to the facility; (b) establish procedures to minimize the potential of any residual fluids from coming into contact with precipitation or runoff; (c) establish procedures for accepting scrap lead-acid batteries (additional requirements for the handling, storage, and disposal or recycling of batteries are contained in the scrap lead-acid battery program provisions in subparagraph (vi) below; (d) provide training for those personnel engaged in the inspection and

acceptance of inbound recyclable materials; and (e) establish procedures to ensure that liquid wastes, including used oil, are stored in materially compatible and non-leaking containers and are disposed of or recycled in accordance with the Resource Conservation and Recovery Act (RCRA).

(ii) Outdoor Scrap and Waste Material Stockpiles and Storage

The permittee must minimize contact of stormwater runoff with stockpiled materials, processed materials, and nonrecyclable wastes. The following are some possible control measure options: (a) permanent or semi-permanent covers; (b) sediment traps, vegetated swales and strips, catch basin filters, and sand filters to facilitate settling or filtering of pollutants; (c) dikes, berms, containment trenches, culverts, and surface grading to divert runoff from storage areas; (d) silt fencing to prevent sediment transport; (e) any treatment or other measures necessary to minimize the discharge of water-soluble pollutants such as coolants or oils; and (f) oil and water separators, sumps, and dry absorbents for areas where potential sources of residual fluids are stockpiled (e.g., automobile engine storage areas).

(iii) Outdoor Stockpiling of Turnings Exposed to Cutting Fluids

The permittee must minimize contact of surface runoff with residual cutting fluids by: (a) storing all turnings exposed to cutting fluids under some form of permanent or semi-permanent cover, and/or (b) establishing dedicated containment areas for all turnings that have been exposed to cutting fluids. Any containment areas must be constructed of concrete, asphalt, or other equivalent types of impermeable material and include a barrier (e.g., berms, curbing, elevated pads) to prevent contact with stormwater run-on. Stormwater runoff from these areas can be discharged, provided that the cutting fluids are not water soluble and that any runoff is first collected and treated by an oil and water separator or its equivalent. The permittee must regularly maintain the oil and water separator (or its equivalent) and properly dispose of or recycle collected residual fluids. Stormwater containing water soluble cutting fluids may not be discharged and must be collected and disposed of appropriately.

(iv) Covered Scrap and Waste Material Stockpiles and Storage

The permittee must minimize contact of residual liquids and particulate matter from materials stored indoors or under cover with surface runoff. The permittee shall implement the following control measures: (a) good housekeeping measures, including the use of dry absorbents or wet vacuuming to contain, dispose of, or recycle residual liquids originating from recyclable containers, or mercury spill kits for spills from storage of mercury switches; (b) not allowing washwater from tipping floors or other processing areas to discharge to the storm sewer system; and (c) disconnecting or sealing off all floor drains connected to the storm sewer system.

(v) Scrap and Recyclable Waste Processing Areas

The permittee must minimize surface runoff from coming in contact with scrap processing equipment. Particular attention shall be paid to operations that generate visible amounts of particulate residue (e.g., shredding) to minimize the contact of accumulated particulate matter and residual fluids with runoff (i.e., through good housekeeping, preventive maintenance, etc.). Following are some required control measures: (a) regularly inspect equipment for spills or leaks and



malfunctioning, worn, or corroded parts or equipment; (b) establish a preventive maintenance program for processing equipment; (c) use dry absorbents or other cleanup practices to collect and dispose of or recycle spilled or leaking fluids or use mercury spill kits for spills from storage of mercury switches; (d) on unattended hydraulic fluid reservoirs over 150 gallons in capacity, install protection devices such as low-level alarms or equivalent devices, and provide secondary containment in compliance with Section 5(b)(9)(A); (e) containment or diversion structures such as dikes, berms, culverts, trenches, elevated concrete pads, and grading to minimize contact of stormwater runoff with outdoor processing equipment or stored materials; (f) oil and water separators or sumps; (g) permanent or semi-permanent covers in processing areas where there are residual fluids and grease; (h) retention or detention ponds or basins; sediment traps, and vegetated swales or strips (for pollutant settling and filtration); (i) catch basin filters or sand filters.

(vi) Scrap Lead-Acid Battery Program

The permittee must properly handle, store, and dispose of scrap lead-acid batteries. The permittee shall implement the following control measures (a) segregate scrap lead-acid batteries from other scrap materials; (b) properly handle, store, and dispose of cracked or broken batteries; (c) collect and dispose of leaking lead-acid battery fluid; (d) minimize or eliminate (if possible) exposure of scrap lead-acid batteries to precipitation or runoff; and (e) provide employee training for the management of scrap batteries.

(vii) Spill Prevention and Response Procedures

The permittee shall install alarms and/or pump shutoff systems on outdoor equipment with hydraulic fluid reservoirs exceeding 150 gallons in the event of a line break. Compliance with the containment provisions in Section 5(b)(9)(A) shall also be maintained. Use a mercury spill kit for any release of mercury from switches, anti-lock brake systems, and switch storage areas.

(viii) Supplier Notification Program

As appropriate, the permittee shall notify major suppliers which scrap materials will not be accepted at the facility or will be accepted only under certain conditions. Any such restrictions shall be identified in the Plan.

(C) Additional Plan Requirements

In addition to the Plan requirements specified in “Stormwater Pollution Prevention Plan” (Section 5(d)), the permittee must include the following additional elements in their Plan:

(i) Drainage Area Site Map

The permittee shall document in the Plan the locations of any of the following activities or sources that may be exposed to precipitation or surface runoff: scrap and waste material storage, outdoor scrap and waste processing areas or equipment; and containment areas for turnings exposed to cutting fluids.

(ii) Maintenance Schedules/Procedures for Collection, Handling, and Disposal or Recycling of Residual Fluids at Scrap and Waste Recycling Facilities

If the permittee has outdoor stockpiles with cutting fluids subject to Section 5(f)(5)(B)(iii) above, the Plan must identify any applicable maintenance schedule and the procedures to collect, handle, and dispose of or recycle residual fluids.

(D) Additional Monitoring Requirements

(i) Quarterly Monitoring

In addition to the semiannual monitoring required in “Monitoring” (Section 5(e)), the permittee must sample these parameters quarterly under the same conditions as those required in Section 5(e):

Total Iron (mg/l)  
Total Mercury (mg/l)  
Total Aluminum (mg/l)

(ii) Semiannual Monitoring

In addition to the semiannual monitoring required in “Monitoring” (Section 5(e)) and the quarterly sampling in subparagraph (i), above, the permittee must sample these parameters semiannually under the same conditions as those required in Section 5(e):

Semivolatile Hydrocarbons  
Polychlorinated Biphenyls (PCBs)

Analysis of semivolatile hydrocarbons shall be conducted using EPA Method 625.

(E) Sector-specific Benchmarks

(i) Quarterly Monitoring

In addition to the Benchmarks specified in “Monitoring” (Section 5(e)), the following Benchmarks shall apply to the monitoring parameters required in subparagraph A, above, and be subject to the requirements in “Benchmarks” (Section 5(e)(1)(B)(ii)):

<u>Parameter</u>	<u>Benchmark</u>
Total Iron (mg/l)	1.0
Total Mercury (mg/l)	0.0014
Total Aluminum (mg/l)	0.75

(ii) Semiannual Monitoring

Facilities monitoring under the requirements of this sector shall not be subject to Benchmark requirements for Semivolatile Hydrocarbons or PCBs. These facilities must monitor semiannually for these parameters for the entire term of the permit.

(6) Sector F – Steam Electric Power Generation (SIC Code 4911)

This sector applies to those facilities that are categorized as SIC Code 4911 and are included in Category 7 of the definition of Industrial Activity in Section 2 of this general permit. The permittee must comply with these sector-specific requirements in those areas of the facility where these sector-specific activities occur. These sector-specific requirements are in addition to any requirements specified elsewhere in this permit.

(A) Additional Control Measures

In addition to the control measures specified in “Control Measures” (Section 5(b)), the permittee must implement the following additional control measures:

(i) Fugitive Dust Emissions

The permittee shall minimize fugitive dust emissions from coal handling and storage areas. To minimize the tracking of coal dust offsite, the following are possible control measures: installing specially designed tires or washing vehicles in a designated area before they leave the site and controlling the wash water; locating coal handling areas, whether accessed by rail or road access, within a building or under a roof and provide measures to minimize tracking from these areas; maintaining a removable or permanent cover over coal storage areas.

(ii) Water-based Coal Unloading Areas

The permittee shall minimize contamination of precipitation or surface runoff in vessel, pier and shoreside coal unloading areas as well as spillage and airborne dust from coal transfer operations resulting in direct discharge to adjacent watercourses. The following are possible control measures: using containment curbs in these areas; having personnel familiar with spill prevention and response procedures present during deliveries to ensure that any spillage is immediately contained and cleaned up; and using spill and overflow protection devices (e.g., conveyor pans and covers).

(iii) Land-based Fuel Oil Unloading Areas

The permittee shall minimize contamination of precipitation or surface runoff from fuel oil unloading areas. The following are possible control measures: using containment curbs in unloading areas; having personnel familiar with spill prevention and response procedures present during deliveries to ensure that any leaks or spills are immediately contained and cleaned up; and using spill and overflow protection devices (e.g., drip pans, drip diapers, absorbent pads, or other containment devices placed beneath fuel oil connectors to contain potential spillage during deliveries or from leaks at the connectors).

(iv) Water-based Fuel Oil Unloading Areas

The permittee shall minimize contamination of precipitation or surface runoff from vessel, pier and shoreside fuel oil unloading areas. The following are possible control measures: using containment curbs in unloading areas; having personnel familiar with spill prevention and response procedures present during deliveries to ensure that any leaks or spills are immediately contained and cleaned up; and using spill and overflow protection devices (e.g., drip pans, drip diapers, absorbent pads, containment booms or other containment devices placed beneath fuel oil connectors to contain potential spillage during transfer.

(v) Large Bulk Fuel Storage Tanks

The permittee shall minimize contamination of surface runoff from large bulk fuel storage tanks by using containment berms (or their equivalent), where feasible. The permittee must also comply with the containment requirements of Section 5(b)(9)(A) as well as applicable State and Federal laws, including Spill Prevention, Control and Countermeasure (SPCC) Plan requirements.

(vi) Oil-Bearing Equipment in Switchyards

The permittee shall minimize contamination of surface runoff from oil-bearing equipment in switchyard areas. The following are possible control measures: using level grades and gravel surfaces to retard flows and limit the spread of spills; or collecting runoff in perimeter ditches.

(vii) Residue-Hauling Vehicles

The permittee must inspect all residue-hauling vehicles for proper covering over the load, adequate gate sealing, and overall integrity of the container body. The permittee must repair vehicles without load covering or adequate gate sealing, or with leaking containers or beds.

(viii) Ash Loading or Storage Areas

The permittee shall reduce or control the tracking of ash and residue from ash loading or storage areas. The permittee must clear the ash building floor and immediately adjacent roadways of spillage, debris, and excess water before departure of each loaded vehicle.

(B) Additional Plan Requirements

The permittee shall document in the Plan the locations of any of the following activities or sources that may be exposed to precipitation or surface runoff: storage tanks, scrap yards, and general refuse areas; short- and long-term storage of general materials (including but not limited to supplies, construction materials, paint equipment, oils, fuels, used and unused solvents, cleaning materials, paint, water treatment chemicals, fertilizer, and pesticides); landfills and construction sites; and stock pile areas (e.g., coal or limestone piles).

(C) Additional Inspection Requirements

The permittee must inspect the following areas monthly: coal handling areas, loading or unloading areas, switchyards, fueling areas, bulk storage areas, ash handling areas, areas adjacent to disposal ponds and landfills, maintenance areas, liquid storage tanks, and long term and short term material storage areas.

(D) Additional Monitoring Requirements

In addition to the semiannual monitoring required in “Monitoring” (Section 5(e)), the permittee must sample this parameter quarterly under the same conditions as those required in Section 5(e):

Total Iron (mg/l)

(E) Sector-specific Benchmarks

In addition to the Benchmarks specified in “Monitoring” (Section 5(e)), the following Benchmark shall apply to the monitoring parameter required in subparagraph A, above, and be subject to the requirements in “Benchmarks” (Section 5(e)(1)(B)(ii)):

<u>Parameter</u>	<u>Benchmark</u>
Total Iron (mg/l)	1.0

(F) Effluent Limitations

The following effluent limits apply only to steam electric power generation facilities with coal pile runoff. These parameters must be monitored once a year for the term of the permit. Monitoring for these parameters may be conducted concurrently with any other monitoring required in this general permit. Exceedance of any effluent limit is a violation of the general permit.

<u>Parameter</u>	<u>Effluent Limitation</u>
pH	6-9
Total Suspended Solids (mg/l)	50

(7) Sector G – Transportation and Public Works Facilities

This sector applies to those facilities categorized as SIC Codes 40, 41, 42, 43, 44 (except 4493) and 45 as well as those facilities described as public works garages, all included in Category 8 of the definition of Industrial Activity in Section 2 of this general permit. The permittee must comply with these sector-specific requirements in those areas of the facility where these sector-specific activities occur. These sector-specific requirements are in addition to any requirements specified elsewhere in this permit.

(A) Additional Control Measures

In addition to the control measures specified in “Control Measures” (Section 5(b)), the permittee must implement the following additional control measures:

(i) Vehicle and Equipment Storage

The permittee shall minimize the potential for stormwater exposure to leaky or leak-prone vehicles/equipment awaiting maintenance. The following are possible control measures: use of drip pans under vehicles/equipment; indoor storage of vehicles and equipment; installation of berms or dikes; use of absorbents; roofing or covering storage areas; and cleaning pavement surfaces to remove oil and grease (with proper washwater disposal).

(ii) Fueling Areas

The permittee shall minimize contamination of stormwater runoff from fueling areas. The following are possible control measures: covering the fueling area; using spill/overflow protection and cleanup equipment; minimizing stormwater run-on/runoff to the fueling area; using dry cleanup methods; providing spill kits and catch basin covers nearby; and treating and/or recycling collected stormwater runoff.

(iii) Vehicle and Equipment Cleaning

The permittee must minimize contamination of stormwater runoff from all areas used for vehicle/equipment cleaning. The permittee must implement the following (or other equivalent measures): performing all cleaning operations indoors, where feasible; covering the cleaning operation, ensuring that all washwater drains to a proper collection system (i.e., not the stormwater drainage system); treating and/or recycling collected washwater, or discharging to sanitary sewer.

(iv) Vehicle and Equipment Maintenance

The permittee must minimize contamination of stormwater runoff from all areas used for vehicle/equipment maintenance. The permittee must implement the following (or other equivalent measures): performing maintenance activities indoors, where feasible; using drip pans; keeping an organized inventory of materials used in the shop; draining all parts of fluid prior to disposal; prohibiting wet clean up practices if these practices would result in the discharge of pollutants to stormwater drainage systems; using dry cleanup methods; treating and/or recycling collected stormwater runoff, minimizing run on/runoff of stormwater to and from maintenance areas.

(v) Employee Training

The permittee shall train personnel within 90 days of employment and at least once a year in accordance with “Control Measures” (Section 5(b)) and address the following activities, as applicable: used oil and spent solvent management; fueling procedures; general good housekeeping practices; proper painting procedures; and used battery management.

(vi) Liquid De-Icing Material Storage

The permittee shall provide that containers for liquid de-icing materials constructed or modified after the effective date of this general permit must be constructed with impermeable secondary containment which will hold at least 110% of the volume of the container without overflow from the containment area.

For storage containers for liquid de-icing materials installed prior to the effective date of this general permit, the permittee shall identify containment control measures as part of the storm water pollution prevention plan (Plan) on or before one (1) year from the effective date of this permit. Containment control measure options may include but are not limited to: regularly inspect equipment for spills or leaks and malfunctioning, worn or corroded parts of equipment; establish a preventative maintenance program; use dry absorbents or other cleanup practices to collect spills or leaks; install protection devices such as low level alarms or equivalent devices; implement containment or diversion structures to prevent spills or leaks from entering a storm drainage system; use

drainage control and other diversionary structures (dikes, impermeable berms, curbing, pits).

Additionally, on or before one (1) year from the effective date of this general permit, permittees with liquid de-icing storage containers lacking the containment volume required in this subsection that were installed prior to the effective date of this general permit shall submit to the commissioner a plan and implementation schedule for the installation of secondary containment measures on those containers. Such plan shall provide information on the costs associated with providing secondary containment measures at each site and a site priority list for the installation of these measures.

(vii) Aircraft De-Icing Operations

Where aircraft de-icing is conducted, the permittee shall determine the seasonal timeframe during which deicing activities typically occur at the facility. Implementation of control measures, facility inspections and monitoring must be conducted with particular emphasis throughout the defined deicing season. If the permittee meets the deicing chemical usage thresholds of 100,000 gallons glycol and/or 100 tons of urea, the permittee must conduct at least one of the required benchmark monitoring events (pursuant to Section 5(e)) during the deicing season and include the deicing-related parameters identified in subsection D, below (i.e., BOD, COD, and ammonia).

Where deicing operations occur, the permittee must implement a program to control or manage contaminated runoff to minimize the amount of pollutants discharged. The permittee shall implement these control measure options (or their equivalents), as appropriate: a dedicated deicing facility with a runoff collection/ recovery system; using vacuum/collection trucks; storing contaminated stormwater/deicing fluids in tanks and releasing controlled amounts to a publicly owned treatment works; and directing runoff into vegetative swales or other infiltration measures. The permittee must also recover deicing materials when these materials are applied during non-precipitation events (e.g., covering storm sewer inlets, using booms, installing absorptive interceptors in the drains, etc.) to prevent these materials from later becoming a source of stormwater contamination. Used deicing fluid should be recycled whenever possible.

(B) Additional Plan Requirements

(i) Drainage Area Site Map

The permittee must identify in the Plan the following areas of the facility and indicate whether activities occurring there may be exposed to precipitation/surface runoff:

- Fueling stations;
- vehicle/equipment maintenance or cleaning areas;
- storage areas for vehicle/equipment with actual or potential fluid leaks;
- loading/unloading areas;
- areas where treatment, storage or disposal of wastes occur;
- aircraft de-icing areas;
- liquid storage tanks (including liquid de-icing and anti-icing materials);
- processing areas; and
- storage areas.

(ii) Potential Pollutant Sources

The permittee shall assess the potential for the following activities and facility areas to contribute pollutants to stormwater discharges: Onsite waste storage or disposal; dirt/gravel parking areas for vehicles awaiting maintenance; illicit plumbing connections between interior floor drains and the stormwater conveyance system(s); aircraft de-icing material storage and application areas; and fueling areas. Describe these activities in the Plan.

(iii) Description of Good Housekeeping Measures

The permittee must document in the Plan the good housekeeping measures implemented consistent with “Additional Control Measures” (Section 5(f)(7)(A)), above.

(iv) Vehicle and Equipment Washwater Requirements

If applicable, the permittee shall attach to or reference in the Plan, a copy of the NPDES permit issued for vehicle washwater or, if an NPDES permit has not been issued, a copy of the pending application. If an industrial user permit is issued under a local pretreatment program, the permittee shall attach a copy to the Plan. In any case, implement all non-stormwater discharge permit conditions or pretreatment conditions in the Plan. If washwater is handled in another manner (e.g., hauled offsite), describe the disposal method and attach all pertinent documentation/information (e.g., frequency, volume, destination, etc.) in the Plan.

(C) Additional Inspection Requirements

The permittee shall inspect all the following areas/activities: storage areas for vehicles/equipment awaiting maintenance, fueling areas, indoor and outdoor vehicle/equipment maintenance areas, material storage areas, vehicle/equipment cleaning areas; aircraft de-icing areas; and loading/unloading areas.

(D) Additional Monitoring Requirements

In addition to the parameters required in “Monitoring” (Section 5(e)), the permittee must sample any additional parameters required in this subsection under the same conditions as those required in Section 5(e), unless otherwise specified in this subsection:

(i) Additional Parameters for Aircraft De-Icing

(a) Large Airports

Air transportation facilities (SIC Code 45) conducting aircraft de-icing utilizing more than 100,000 gallons glycol and/or 100 tons of urea shall monitor their stormwater discharges twice during the deicing season (as defined in Section 5(f)(7)(A)(vii) above) for the following parameters, if in use:



BOD (mg/l)  
Urea (mg/l)  
Propylene Glycol (mg/l)  
Ethylene Glycol (mg/l)

At least one of the two required sampling events shall be conducted concurrently with one of the semiannual sampling events conducted pursuant to “Monitoring Requirements” (Section 5(e)). For air transportation facilities with stormwater discharges from areas where aircraft deicing operations occur (including departure gates, dedicated aircraft deicing stations and any other areas where aircraft deicing occurs), monitoring shall be performed, where practicable, during or immediately following deicing operations when there is a discharge and samples shall be collected in such a manner that they are representative of stormwater quality resulting from deicing operations.

(b) Small Airports

Air transportation facilities (SIC Code 45) conducting aircraft de-icing utilizing less than 100,000 gallons glycol and/or 100 tons of urea shall monitor their stormwater discharges for the parameters required by “Monitoring” (Section 5(e)) once per year during the deicing season (as defined in Section 5(f)(7)(A)(vii) above). Additionally, stormwater discharges must be monitored for the following parameters, if in use, once a year for the first two years of the permit term, regardless of the amounts used:

BOD (mg/l)  
Urea (mg/l)  
Propylene Glycol (mg/l)  
Ethylene Glycol (mg/l)

For air transportation facilities with stormwater discharges from areas where aircraft deicing operations occur (including DEEParture gates, dedicated aircraft deicing stations and any other areas where aircraft deicing occurs), monitoring shall be performed, where practicable, during or immediately following deicing operations when there is a discharge and samples shall be collected in such a manner that they are representative of stormwater quality resulting from deicing operations.

(ii) Additional Parameters for Federal, State, or Municipal Facilities with Incidental Solid De-Icing Material Storage and bulk de-icing material storage facilities (see Addendum issued 12/03/2013)

In addition to the general monitoring requirements specified in Section 5(e)(1)(A)(ii) and subject, as applicable, to the conditions for DOT facilities in subparagraph (iv) below, for facilities in this sector that have solid de-icing material storage on-site in conjunction with other activities, a sample shall be taken of a discharge that is representative of the quality of runoff from the deicing storage activity. Such sample shall also include the following parameters:

Chloride (mg/l)  
Cyanide (mg/l)

If the discharge location for this sample is already included in the facility's general monitoring program, these additional parameters may be included in that sample. Such facilities shall continue to monitor these additional parameters for the first two years of the permit term (four samples) and shall conduct visual monitoring pursuant to the requirements of "Visual Monitoring" (Section 5(e)(1)(A)(i)) for the entire term of the permit.

(iii) Monitoring Requirements for Federal, State, or Municipal Facilities Consisting Solely of Solid De-Icing Material Storage

Industrial activities in this sector that consist solely of solid de-icing material storage with no other industrial activities on-site shall not be required to monitor for the parameters or conditions in subsections 5(e)(1)(A) - (C) of the "Monitoring Requirements" section.

(iv) Department of Transportation Repair and Maintenance Facilities

The Department of Transportation shall sample all of its repair facilities and maintenance facilities (those facilities that conduct repair and/or maintenance on DOT vehicles) for the parameters in "General Monitoring Requirements" (Section 5(e)(1)(A)(ii)) and, as applicable, those parameters included in subparagraph (ii) above at least once during the term of this general permit. These facilities are otherwise exempt from the additional semiannual monitoring requirements of that section. Such facilities shall continue to conduct visual monitoring pursuant to the requirements of "Visual Monitoring" (Section 5(e)(1)(A)(i)).

(E) Sector-specific Benchmarks

In addition to the Benchmarks specified in "Monitoring" (Section 5(e)), the following Benchmarks shall apply to the additional monitoring parameters required in subparagraph D, above, and be subject to the requirements in "Benchmarks" (Section 5(e)(1)(B)(ii)):

(i) Additional Benchmarks for Aircraft De-Icing

(a) Large Airports

Facilities monitoring under the requirements of subparagraph (D)(i)(a) above shall not be subject to Benchmark requirements for BOD, Urea, Propylene Glycol or Ethylene Glycol. These facilities must monitor under the conditions of that subparagraph for these parameters for the entire term of the permit.

(b) Small Airports

Facilities monitoring under the requirements of subparagraph (D)(i)(b) above shall not be subject to Benchmark requirements for BOD, Urea, Propylene Glycol or Ethylene Glycol. Such facilities must monitor for these parameters under the conditions specified in that subparagraph for the first two years of the permit. For their monitoring under "General Monitoring Requirements" (Section 5(e)(1)(A)(ii)), as modified by subparagraph (D)(i)(b) above, these facilities shall be subject to the Benchmarks of Section 5(e)(1)(B)(ii) after each annual monitoring event rather than an average of four semiannual events.

(ii) Additional Benchmarks for Federal, State, or Municipal Facilities with Incidental Solid De-Icing Material Storage

Facilities monitoring under the requirements of subparagraph (D)(ii) above shall not be subject to Benchmark requirements for Chloride or Cyanide.

(iii) Additional Benchmarks for Federal, State, or Municipal Facilities Consisting Solely of Solid De-Icing Material Storage

Facilities monitoring under the requirements of this sector are not required to sample and shall not be subject to Benchmark requirements.

(iv) Department of Transportation Repair and Maintenance Facilities

Department of Transportation repair and maintenance facilities shall not be subject to the requirements of the “Standard Monitoring Benchmarks” subsection (Section 5(e)(1)(B)) to conduct additional sampling based on Benchmarks. However, for those facilities that exceed one or more benchmarks for their sampling event, the permittee shall review the selection, design, installation and implementation of the control measures to determine if modifications are necessary to meet the benchmark(s) and make the necessary modifications to the control measures and Plan for all such facilities. Such facilities shall also continue to conduct visual monitoring pursuant to the requirements of “Visual Monitoring” (Section 5(e)(1)(A)(i)).

(8) Sector H – Marinas, Yacht Clubs and Boat Dealers (SIC Codes 4493, certain 7997 and 5551)

This sector applies to those facilities categorized as SIC Code 4493 and are included in Category 8 of the definition of Industrial Activity in Section 2 of this general permit. This sector also includes yacht clubs (within SIC Code 7997) and boat dealers (SIC Code 5551). The permittee must comply with these sector-specific requirements in those areas of the facility where these sector-specific activities occur. These sector-specific requirements are in addition to any requirements specified elsewhere in this permit.

(A) Additional Requirements for Authorization

Non-stormwater discharges from sanitary wastes and pressure wash water originating from vessels are not authorized by this permit. Discharges from non-pressure washing, bilge water, ballast water and cooling water originating from recreational vessels up to eighty (80) feet in length may be discharged as they are considered to be incidental to the normal operation of a recreational vessel.

(B) Additional Control Measures

In addition to the control measures specified in “Control Measures” (Section 5(b)), the permittee must implement the following additional control measures:

(i) Pressure Washing Discharges

If pressure washing (or other means of washing) is used to remove marine growth from vessels, the permittee must follow the pressure washing guidance in the Connecticut Clean Marina Guidebook, as amended. The discharge of these washwaters is not authorized by this general permit. The discharge of these waters is deemed under the Clean Water Act to be a process wastewater and must be collected and discharged to sanitary sewer under a separate permit or pumped and hauled by a licensed waste hauler.

(ii) Non-Pressure Washing Discharges

The conditions in subparagraph (i), above, do not apply to non-pressure washing discharges incidental to the normal operation of a recreational vessel.

(iii) Blasting and Paint Spraying

If abrasive blasting of vessels or equipment is conducted on-site, the permittee must follow the abrasive blasting guidance in the Connecticut Clean Marina Guidebook, as amended. The permittee shall minimize the potential for spent abrasives, paint chips, and overspray to discharge into receiving waters or the storm sewer systems. The permittee shall contain all blasting and paint spraying activities to minimize the discharge of contaminants either by hanging plastic barriers or tarpaulins during blasting or painting operations to contain debris or by conducted such operations inside with appropriate containment measures. Stormwater conveyances within the drainage area of these operations shall be inspected at the end of each day of blasting and cleaned of deposits of abrasive blasting debris and paint chips if necessary. When feasible, blasting media should be recycled.

(iv) Material Storage

The permittee shall store and plainly label all containerized materials (e.g., fuels, paints, solvents, waste oil, antifreeze, batteries) in a protected, secure location away from drains. The permittee shall minimize the contamination of precipitation or surface runoff from the storage areas. The permittee shall specify where materials are stored and provide containment as specified in "Containment" (Section 5(b)(9)(A)). If abrasive blasting is performed, the Plan shall discuss the storage and disposal of spent abrasive materials generated at the facility.

(v) Engine Maintenance and Repair

The permittee shall implement the following (or their equivalents), as appropriate: performing engine maintenance and repair activities indoors, when feasible; maintaining an organized inventory of materials used in the shop; draining all parts of fluid prior to disposal; prohibiting the practice of hosing down the shop floor; using dry cleanup methods; and treating and/or recycling stormwater runoff collected from the maintenance area. No engine fluids, cleaning solvents, paint, scale, rust, oil and grease, or other contaminants resulting from maintenance or repair activities may be discharged to ground, storm sewer or receiving water. Such materials shall be collected and properly disposed.

(vi) Material Handling

The permittee shall minimize the contamination of precipitation or surface runoff from material handling operations and areas (e.g., fueling, paint and solvent mixing, disposal of process wastewater streams from vessels). The permittee shall consider the following (or their equivalents): covering fueling areas, using spill and overflow protection, mixing paints and solvents in a designated area (preferably indoors or under a shed), and minimizing runoff of stormwater to material handling areas.

(vii) Employee Training

As part of the employee training program, the permittee shall address, at a minimum, the following activities (as applicable): used oil management, spent solvent management, disposal of spent abrasives, disposal of vessel wastewaters, spill prevention and control, fueling procedures, general good housekeeping practices, painting and blasting procedures, pressure washing procedures, engine maintenance and repair procedures, zinc anode disposal and used battery and management.

(C) Additional Plan Requirements

(i) Drainage Area Site Map

The permittee shall document in the Plan where any of the following may be exposed to precipitation or surface runoff: fueling; engine maintenance and repair; vessel maintenance and repair; pressure washing; painting; sanding; blasting; welding; metal fabrication; loading and unloading areas; locations used for the treatment, storage, or disposal of wastes; liquid storage tanks; liquid storage areas (e.g., paint, solvents, resins); and material storage areas (e.g., blasting media, aluminum, steel, scrap iron).

(ii) Summary of Potential Pollutant Sources

The permittee shall document in the Plan the following additional sources and activities that have potential pollutants associated with them: outdoor manufacturing or processing activities (e.g., welding, metal fabricating) and significant dust or particulate generating processes (e.g., abrasive blasting, sanding, and painting.)

(D) Additional Inspection Requirements

The permittee shall also inspect the following areas of the site monthly: pressure washing area; blasting, sanding, and painting areas; material storage areas; engine maintenance and repair areas; material handling areas; drydock area; and general yard area. At least quarterly and as necessary, the permittee shall perform inspection of stormwater management devices (e.g., oil and water separators, sediment traps or chambers, pressure wash collection systems), as well as inspecting and/or testing facility equipment and systems to uncover conditions that could cause breakdowns or failures resulting in discharges of pollutants to surface waters.

(E) Additional Monitoring Requirements

In addition to the semiannual monitoring required in “Monitoring” (Section 5(e)), the permittee must sample these parameters semiannually under the same conditions as those required in Section 5(e):

Total Iron (mg/l)  
Total Aluminum (mg/l)

(F) Sector-specific Benchmarks

In addition to the Benchmarks specified in “Monitoring Requirements” (Section 5(e)), the following Benchmarks shall apply to the additional monitoring parameters required in subparagraph E, above, and be subject to the requirements in “Benchmarks” (Section 5(e)(1)(B)(ii)):

<u>Parameter</u>	<u>Benchmark</u>
Total Iron (mg/l)	1.0
Total Aluminum (mg/l)	0.75

Facilities monitoring under the requirements of this sector shall not be subject to the Benchmark requirements for Total Copper specified in Sections 5(e)(1)(B)(ii), (iii) and (iv). These facilities must monitor semiannually for Total Copper for the entire term of the permit.

(9) Sector I – Ship and Boat Building and Repair (SIC Code 373)

This sector applies to those facilities categorized as SIC Industry Group 373 and included in Category 2 of the definition of Industrial Activity in Section 2 of this general permit. The permittee must comply with these sector-specific requirements in those areas of the facility where these sector-specific activities occur. These sector-specific requirements are in addition to any requirements specified elsewhere in this permit.

(A) Additional Requirements for Authorization

Non-stormwater discharges from sanitary wastes and pressure wash water originating from vessels are not authorized by this permit. Discharges from bilge water, ballast water and cooling water originating from recreational vessels up to eighty (80) feet in length may be discharged as they are considered to be incidental to the normal operation of a recreational vessel..

(B) Additional Control Measures

In addition to the control measures specified in “Control Measures” (Section 5(b)), the permittee must implement the following additional control measures:

(i) Pressure Washing

If pressure washing (or other means of washing) is used to remove marine growth from vessels, the permittee must follow, where practicable, the pressure washing guidance in the Connecticut Clean Marina Guidebook, as amended. Where, for reasons of vessel size, location or configuration, these measures are not practicable, suitable alternative control measures shall be implemented. The discharge of these washwaters is not authorized by this general permit. The discharge of these waters is deemed under the Clean Water Act to be a process

wastewater and must be collected and discharged to sanitary sewer under a separate permit or pumped and hauled by a licensed waste hauler.

(ii) Non-Pressure Washing Discharges

The conditions in subparagraph (i), above, do not apply to non-pressure washing discharges incidental to the normal operation of a recreational vessel.

(iii) Blasting and Paint Spraying

If abrasive blasting of vessels or equipment is conducted on-site, the permittee must follow, where practicable, the abrasive blasting guidance in the Connecticut Clean Marina Guidebook, as amended. The permittee shall minimize the potential for spent abrasives, paint chips, and overspray to discharge into receiving waters or the storm sewer systems. The permittee shall contain, where practicable, all blasting and paint spraying activities to minimize the discharge of contaminants either by hanging plastic barriers or tarpaulins during blasting or painting operations to contain debris or by conducted such operations inside with appropriate containment measures. Where, for reasons of vessel size, location or configuration, these measures are not practicable, suitable alternative control measures shall be implemented. Stormwater conveyances within the drainage area of these operations shall be inspected at the end of each day of blasting and cleaned of deposits of abrasive blasting debris and paint chips if necessary. Spent blasting media shall be collected and disposed in an appropriate manner dependent upon its composition. When feasible, blasting media should be recycled.

(iv) Material Storage

The permittee shall store and plainly label all containerized materials (e.g., fuels, paints, solvents, waste oil, antifreeze, batteries) in a protected, secure location away from drains. The permittee shall minimize the contamination of precipitation or surface runoff from the storage areas. The permittee shall specify where materials are stored, and provide containment as specified in "Containment" (Section 5(b)(9)(A)). If abrasive blasting is performed, the Plan shall discuss the storage and disposal of spent abrasive materials generated at the facility.

(v) Engine Maintenance and Repair

The permittee shall implement the following (or their equivalents), as appropriate: performing engine maintenance and repair activities indoors, when feasible; maintaining an organized inventory of materials used in the shop; draining all parts of fluid prior to disposal; prohibiting the practice of hosing down the shop floor; using dry cleanup methods; and treating and/or recycling stormwater runoff collected from the maintenance area. No engine fluids, cleaning solvents, paint, scale, rust, oil and grease, or other contaminants resulting from maintenance or repair activities may be discharged to ground, storm sewer or receiving water. Such materials shall be collected and properly disposed.

(vi) Material Handling

The permittee shall minimize the contamination of precipitation or surface runoff from material handling operations and areas (e.g., fueling, paint and solvent mixing, disposal of process wastewater streams from vessels). The permittee shall consider the following (or their equivalents): covering fueling areas, using spill and overflow protection, mixing paints and solvents in a

designated area (preferably indoors or under a shed), and minimizing runoff of stormwater to material handling areas.

(vii) Drydock Activities

The permittee must routinely maintain and clean the drydock to minimize pollutants in stormwater runoff. The permittee must clean accessible areas of the drydock prior to flooding. Upon flooding, removal of the vessel and raising the dock, the permittee shall conduct a final cleanup. Procedures shall be documented in the Plan and shall include training materials for cleaning up oil, grease, and fuel spills occurring on the drydock. Debris and spent blasting material should be swept rather than hosed off accessible areas of the drydock prior to flooding. If rinsing or washing is employed for cleanup, this material must be collected and disposed of in accordance with DEEP regulations and may not be discharged to the receiving water. During active drydock operations, absorbent materials and oil containment booms shall be readily available to clean up or contain any spills.

(viii) Employee Training

As part of the employee training program, the permittee shall address, at a minimum, the following activities (as applicable): used oil management, spent solvent management, disposal of spent abrasives, disposal of vessel wastewaters, spill prevention and control, fueling procedures, general good housekeeping practices, painting and blasting procedures, pressure washing procedures, engine maintenance and repair procedures, zinc anode disposal and used battery and management.

(C) Additional Plan Requirements

(i) Drainage Area Site Map

The permittee shall document in the Plan where any of the following may be exposed to precipitation or surface runoff: fueling; engine maintenance and repair; vessel maintenance and repair; pressure washing; painting; sanding; blasting; welding; metal fabrication; loading and unloading areas; locations used for the treatment, storage, or disposal of wastes; liquid storage tanks; liquid storage areas (e.g., paint, solvents, resins); and material storage areas (e.g., blasting media, aluminum, steel, scrap iron).

(ii) Summary of Potential Pollutant Sources

The permittee shall document in the Plan the following additional sources and activities that have potential pollutants associated with them: outdoor manufacturing or processing activities (e.g., welding, metal fabricating) and significant dust or particulate generating processes (e.g., abrasive blasting, sanding, and painting.)

(iii) Blasting and Painting Areas

The permittee shall document in the plan any standard operating practices relating to blasting and painting (e.g., prohibiting uncontained blasting and painting over open water or prohibiting blasting and painting during windy conditions, which can render containment ineffective).

(iv) Storage Areas



The permittee shall specify in the Plan which materials are stored indoors which are stored outdoors, and how containment is provided in accordance with Section 5(b)(9)(A).

(D) Additional Inspection Requirements

The permittee shall also inspect the following areas of the site monthly: pressure washing area; blasting, sanding, and painting areas; material storage areas; engine maintenance and repair areas; material handling areas; drydock area; and general yard area. At least quarterly and as necessary, the permittee shall perform inspection of stormwater management devices (e.g., oil and water separators, sediment traps or chambers, pressure wash collection systems), as well as inspecting and/or testing facility equipment and systems to uncover conditions that could cause breakdowns or failures resulting in discharges of pollutants to surface waters.

(E) Sector-specific Benchmarks

Facilities in this sector shall not be subject to the Benchmark requirements for Total Copper specified in Sections 5(e)(1)(B)(ii), (iii) and (iv). These facilities must monitor semiannually for Total Copper for the entire term of the permit.

(10) Sector J – Small-Scale Composting Facilities

This sector applies to those facilities included in Category 14 of the definition of Industrial Activity in Section 2 of this general permit. The permittee must comply with these sector-specific requirements in those areas of the facility where these sector-specific activities occur. These sector-specific requirements are in addition to any requirements specified elsewhere in this permit.

(A) Additional Control Measures

In addition to the control measures specified in “Control Measures” (Section 5(b)), the permittee must implement the following additional control measures:

(i) Management of Runoff

Where composting operations are exposed to rainfall or runoff, the permittee must retain the runoff from the 25-year, 24-hour rainfall event.

(ii) Plan Submittal

For small-scale composting facilities composting horse manure and bedding, the Plan shall be submitted to the commissioner for review and approval with the completed registration in accordance with the “Contents of Registration” section (Section 4(c)).

(B) Additional Plan Requirements

(i) Site Map

The permittee shall indicate on the site map areas of the site where loading, unloading, mixing, hauling or placing of composting materials takes place.

(ii) Inventory of Exposed Materials

The permittee shall include in the Plan, a tabular inventory of the types and nature of materials composted or used in the composting operations that may be exposed to stormwater.

(iii) Composting Operations

The permittee shall document how the following criteria have been included in the design of the small-scale composting operations:

- Quantities of source materials to be composted;
- Origin of source materials to be composted;
- Target carbon-nitrogen ratio;
- Target moisture content;
- Mix ratios of source materials;
- Method for mixing materials;
- Equipment used in all phases of composting;
- Turning schedule;
- Temperature monitoring;
- Composting and curing times;
- Odor control;
- Area requirements; and
- End market for compost product.

(C) Alternate Monitoring Requirements

Small-scale composting facilities shall not be subject to the General Monitoring Requirements of Section 5(e)(1)(A)(ii) and shall instead conduct annual sampling of the parameters listed below, when and if there is a discharge from the retention system, commencing upon the effective date of this general permit, and annually thereafter as conditions allow.

COD (mg/l)

Total Phosphorus (mg/l)

Total Kjeldahl Nitrogen (mg/l)

Nitrate as Nitrogen (mg/l)

Total Suspended Solids (mg/l)

(D) Sector-specific Benchmarks

The following Benchmarks shall apply to the monitoring parameters required in subparagraph C, above, and be subject to the requirements for data exceeding and not exceeding Benchmarks in the “Benchmarks” section (Section 5(e)(1)(B)(iii) and (iv)):

Parameter

Benchmark

COD (mg/l)	75
Total Phosphorus (mg/l)	0.40
Total Kjeldahl Nitrogen (mg/l)	2.30
Nitrate as Nitrogen (mg/l)	1.10
Total Suspended Solids (mg/l)	90

**(g) *Discharges to Impaired Waters***

The DEEP has established an EPA-approved list of “impaired waters” pursuant to Section 303(d) of the Clean Water Act and as identified in the most recent State of Connecticut Integrated Water Quality Report. These are waters that have been assessed as not meeting Water Quality Standards (WQS) for a given designated use and may identify a pollutant or pollutants (e.g. bacteria, heavy metals, nutrients, etc) as indicators of that impairment. The DEEP is required by the EPA to establish a Total Maximum Daily Load (TMDL) for each impaired water to reflect the pollutant load that the water body can assimilate without exceeding the WQS. Industrial activities that discharge to impaired waters are required to meet certain criteria identified in this section.

**(1) Existing Discharge to Impaired Water without an Established TMDL**

If the permittee discharges to an impaired water without an established TMDL, they are required to comply with Section 5(c)(5) and the annual monitoring requirement of Section 5(e)(1)(D). Note that this provision also applies to situations where the DEEP determines that the discharge is not controlled as necessary to meet water quality standards in a downstream water segment, even if the discharge is to a receiving water that is not specifically identified as an impaired water on a Section 303(d) list.

**(2) Existing Discharge to an Impaired Water with an Established TMDL**

If the permittee discharges to an impaired water with an established TMDL, the DEEP will inform them if any additional controls are necessary for the discharge to be consistent with the available Waste Load Allocation in the TMDL, or if coverage under an individual permit is necessary in accordance with “Issuance of an Individual Permit” (Section 3(i)). The permittee must also conduct the appropriate monitoring in accordance with “Monitoring of Discharges to Impaired Waters” (Section 5(e)(1)(D)).

**(3) New Discharge to an Impaired Water**

If a new discharge to an impaired water is authorized pursuant to the conditions of Section 3(b)(9), the permittee must implement and maintain any control measures or conditions on the site that enabled such authorization, and modify such measures or conditions as necessary to maintain such authorization. The permittee must also maintain compliance with this subsection and Section 5(e)(1)(D).

**(h) *Reporting & Record Keeping Requirements***

**(1) Recording of Results**

For each measurement or sample taken pursuant to the requirements of this general permit, the discharger shall maintain records of the following information:

- (A) the place, date, and time of sampling and the time the discharge started;
- (B) the person(s) collecting samples;

- (C) the dates and times the analyses were initiated;
- (D) the person(s) or laboratory that performed the analyses;
- (E) the analytical techniques or methods used; and
- (F) the results of all analyses.

(2) Records Retention

All records and information resulting from the monitoring activities required by this general permit including all records of analyses performed and calibration and maintenance of instrumentation shall be retained for a minimum of five (5) years following the date of expiration of this general permit, or longer if requested by the commissioner.

(3) Reporting Requirements

- (A) All results of monitoring conducted pursuant to this general permit shall be submitted on the Stormwater Monitoring Report (SMR) form provided in Appendix B, including all supporting chemical/physical measurements performed in association with the toxicity tests as well as dose-response data. A separate SMR form shall be used for each discharge monitored. All SMR forms shall be submitted within ninety (90) days of the date of sampling to:

WATER TOXICS PROGRAM COORDINATOR  
BUREAU OF WATER PROTECTION AND LAND REUSE  
DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION  
79 ELM STREET  
HARTFORD, CT 06106-5127

In the case of stormwater discharges through a municipal separate storm sewer system, these results shall also be made available to the operator of that system upon request.

- (B) Additional Monitoring by Permittee

If the permittee monitors any pollutant at the discharge location(s) designated herein more frequently than required by this general permit or monitors for additional parameters not included in the “Monitoring” section (Section 5(e)) or “Additional Requirements for Certain Sectors” (Section 5(f)) of this general permit, using approved analytical methods as specified above, the results of such monitoring shall meet the reporting requirements of Section 5(h)(3)(A).

(i) ***Regulations of Connecticut State Agencies Incorporated into this General Permit***

The permittee shall comply with the following Regulations of Connecticut State Agencies which are hereby incorporated into this general permit, as if fully set forth herein:

(1) Section 22a-430-3:

Subsection (b) General - subparagraph (1)(D) and subdivisions (2),(3),(4) and (5)  
Subsection (c) Inspection and Entry  
Subsection (d) Effect of a Permit - subdivisions (1) and (4)  
Subsection (e) Duty to Comply  
Subsection (f) Proper Operation and Maintenance  
Subsection (g) Sludge Disposal  
Subsection (h) Duty to Mitigate  
Subsection (i) Facility Modifications, Notification - subdivisions (1) and (4)  
Subsection (j) Monitoring, Records and Report Requirements - subdivisions (1), (6), (7), (8), (9) and (11) (except subparagraphs (9) (A) (2) and (9) (c))  
Subsection (k) Bypass  
Subsection (m) Effluent Limitation Violations  
Subsection (n) Enforcement  
Subsection (p) Spill Prevention and Control  
Subsection (q) Instrumentation, Alarms, Flow Recorders  
Subsection (r) Equalization

(2) Section 22a-430-4

Subsection (t) Prohibitions  
Subsection (p) Revocation, Denial, Modification  
Appendices

## **Section 6. General Conditions**

***(a) Reliance on Registration***

When evaluating a registration, the commissioner relies on information provided by the registrant. If such information proves to be false or incomplete, the authorization issued under this general permit may be suspended or revoked in accordance with law, and the commissioner may take any other legal action provided by law.

***(b) Duty to Correct and Report Violations***

Upon learning of a violation of a condition of this general permit, a permittee shall immediately take all reasonable action to determine the cause of such violation, correct such violation and mitigate its results, prevent further such violation, and report in writing such violation and such corrective action to the commissioner within five (5) days of the permittee's learning of such violation. Such report shall be certified in accordance with Section 6(d) of this general permit.

***(c) Duty to Provide Information***

If the commissioner requests any information pertinent to the authorized activity or to determine compliance with this general permit, the permittee shall provide such information in writing within thirty (30) days of such request. Such information shall be certified in accordance with Section 6(d) of this general permit.

***(d) Certification of Documents***

Any document, including but not limited to any notice, which is submitted to the commissioner under this general permit shall be signed by, as applicable, the registrant or the permittee in accordance with section 22a-430-3(b)(2) of the Regulations of Connecticut State Agencies, and

by the individual or individuals responsible for actually preparing such document, each of whom shall certify in writing as follows:

“I have personally examined and am familiar with the information submitted in this document and all attachments thereto, and I certify that, based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that a false statement made in the submitted information may be punishable as a criminal offense, in accordance with section 22a-6 of the General Statutes, pursuant to section 53a-157b of the General Statutes, and in accordance with any other applicable statute.”

***(e) Date of Filing***

For purposes of this general permit, the date of filing with the commissioner of any document is the date such document is received by the commissioner. The word “day” as used in this general permit means the calendar day; if any date specified in the general permit falls on a Saturday, Sunday, or legal holiday, such deadline shall be the next business day thereafter.

***(f) False Statements***

Any false statement in any information submitted pursuant to this general permit may be punishable as a criminal offense, in accordance with section 22a-6 of the General Statutes, pursuant to section 53a-157b of the General Statutes, and in accordance with any other applicable statute.

***(g) Correction of Inaccuracies***

Within fifteen (15) days after the date a permittee becomes aware of a change in any of the information submitted pursuant to this general permit, becomes aware that any such information is inaccurate or misleading, or that any relevant information has been omitted, such permittee shall correct the inaccurate or misleading information or supply the omitted information in writing to the commissioner. Such information shall be certified in accordance with Section 6(d) of this general permit. The provisions of this subsection shall apply both while a request for registration is pending and after the commissioner has approved such request.

***(h) Transfer of Authorization***

An authorization under this general permit is not transferable.

***(i) Other Applicable Law***

Nothing in this general permit shall relieve the permittee of the obligation to comply with any other applicable federal, state and local law, including but not limited to the obligation to obtain any other authorizations required by such law.

***(j) Other Rights***

This general permit is subject to and does not derogate any present or future rights or powers of the State of Connecticut and conveys no rights in real or personal property nor any exclusive privileges, and is subject to all public and private rights and to any federal, state, and local laws pertinent to the property or activity affected by such general permit. In conducting any activity authorized hereunder, the permittee may not cause pollution, impairment, or destruction of the air, water, or other natural resources of this state. The issuance of this general permit shall not create any presumption that this general permit should or will be renewed.

## **Section 7. Commissioner's Powers**

### ***(a) Abatement of Violations***

The commissioner may take any action provided by law to abate a violation of this general permit, including the commencement of proceedings to collect penalties for such violation. The commissioner may, by summary proceedings or otherwise and for any reason provided by law, including violation of this general permit, revoke a permittee's authorization hereunder in accordance with sections 22a-3a-2 through 22a-3a-6, inclusive, of the Regulations of Connecticut State Agencies. Nothing herein shall be construed to affect any remedy available to the commissioner by law.

### ***(b) General Permit Revocation, Suspension, or Modification***

The commissioner may, for any reason provided by law, by summary proceedings or otherwise, revoke or suspend this general permit or modify it to establish any appropriate conditions, schedules of compliance, or other provisions which may be necessary to protect human health or the environment.

### ***(c) Filing of an Individual Application***

If the commissioner notifies a permittee in writing that such permittee must obtain an individual permit to continue lawfully conducting the activity authorized by this general permit, the permittee may continue conducting such activity only if the permittee files an application for an individual permit within sixty (60) days of receiving the commissioner's notice. While such application is pending before the commissioner, the permittee shall comply with the terms and conditions of this general permit. Nothing herein shall affect the commissioner's power to revoke a permittee's authorization under this general permit at any time.

Issued Date: 12/03/2013

MACKY MCCLEARY  
Deputy Commissioner

This is a true and accurate copy of the general permit modified on December 3, 2013 by the Department of Energy and Environmental Protection.

**ADDENDUM, ISSUED DECEMBER 3, 2013**  
TO SECTIONS 5(b)(12) and 5(f)(7)(D)(ii) and APPENDIX B OF THE  
GENERAL PERMIT FOR THE DISCHARGE OF STORMWATER ASSOCIATED WITH  
INDUSTRIAL ACTIVITY

**Section 5(b)(12) Solid De-Icing Material Storage**

- A) Bulk solid de-icing material storage facilities with the capacity to store, at any one time, 30,000 tons or more of solid de-icing materials, are exempt from the requirement in Section 5(b)(12) of this general permit to cover the solid de-icing material pile (“stockpile”) by structural means (including a rigid or flexible roof) provided the following minimum best management practices are implemented and documented in the site Stormwater Pollution Prevention Plan (Plan):
- i. The bulk solid de-icing material storage facility shall be located on a well-maintained paved surface, adequate in size to accommodate the stockpile(s) and all operations associated with delivery, stockpiling, and distribution of de-icing material.
  - ii. The stockpile shall be covered with an impermeable cover except when receiving de-icing material, building the stockpile, or loading material out to customers. Field-sewn seams shall be double-stitched.
  - iii. The impermeable cover shall meet the following **minimum** specifications:
    - Material

Type:	Polyethylene
Weight:	6 oz/sq yard
Thickness:	12 mil
    - Tensile Strength

Warp:	200 lbs
Weft:	175 lbs
    - Tear Strength

Warp:	60 lbs
Weft:	50 lbs
    - Mullen burst

	420 psi
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  - iv. The impermeable cover shall be weighted down and the perimeter of the impermeable cover shall be secured to the pavement with ballast.
  - v. During receipt/delivery of de-icing materials to the site, the stockpile shall be covered in sections or stages as de-icing material is delivered to create or augment a stockpile. Best efforts shall be made to cover each section or stage within 72 hours following completion of delivery.
  - vi. When distributing/removing material from the site, the cover at the working face of the stockpile shall be removed only enough to load out the day’s shipment. Upon completion of the removal of material, the open face of the stockpile shall be re-covered to the maximum extent possible.
  - vii. The site shall be swept, as needed, to prevent the discharge of de-icing material to waters of the state.



**Section 5(f)(7)(D)(ii) Additional Parameters for Bulk Solid De-icing Material Storage Facilities**

- (a) Additional monitoring parameters for bulk solid de-icing material storage facilities that are capable of storing, at any one time, 30,000 tons or more of solid de-icing materials.

In addition to the general monitoring requirements specified in Section 5(e)(1)(A)(ii), a sample shall be taken of a discharge that is representative of the quality of runoff from the bulk solid de-icing material storage activity. Such sample shall also include the following parameters:

Chloride (mg/l)

Cyanide (mg/l)

If the discharge location for this sample is already included in the facility's general monitoring program, these additional parameters may be included in that sample. Bulk solid de-icing material storage facilities shall monitor these additional parameters on a semiannual basis between the periods October 1- March 31 and April 1- September 30, beginning upon issuance of this addendum and ending on the expiration date of this permit.

## Appendix A: Industrial Stormwater General Permit SIC Code Definitions

### Definition 2

SIC	Except	Classification
24		Lumber & Wood Products, Except Furniture
	2434	Wood Kitchen Cabinets
26		Paper & Allied Products
	265	Paperboard Containers & Boxes
	267	Converted Paper & Paperboard Products, Except Containers & Boxes
28		Chemicals & Allied Products
	283	Drugs
	285	Paints, Varnishes, Lacquers, Enamels, & Allied Products
29		Petroleum Refining & Related Industries
311		Leather Tanning & Finishing
32		Stone, Clay, Glass & Concrete Products
	323	Glass Products, Made of Purchased Glass
33		Primary Metal Products
3441		Fabricated Structural Metal
373		Ship & Boat Building & Repairing

### Definition 5

SIC	Except	Classification
4953		Refuse Systems (Includes Dumps, Landfills, Rubbish Collection & Disposal)

### Definition 6

SIC	Except	Classification
5015		Motor Vehicle Parts, Used
5093		Scrap & Waste Materials

### Definition 7

SIC	Except	Classification
4911		Electric Services (electric power generation, transmission or distribution)

### Definition 8

SIC	Except	Classification
40		Railroad Transportation
41		Local & Suburban Transit & Interurban Highway Passenger
42		Motor Freight Transportation & Warehousing
	4221	Farm Product Warehousing & Storage
	4222	Refrigerated Warehousing & Storage
	4225	General Warehousing & Storage
44		Water Transportation
45		Transportation by Air
5541		Retail Truck Stops
5551		Boat Dealers
7997		Yacht Clubs
9199		Public Works Garages

**Definition 10**

SIC	Except	Classification
20		Food & Kindred Products
21		Tobacco Products
22		Textile Mill Products
23		Apparel & Other Products Made from Fabrics & Similar Materials
2434		Wood Kitchen Cabinets
25		Furniture & Fixtures
265		Paperboard Containers & Boxes
267		Converted Paper & Paperboard Products, Except Containers & Boxes
27		Printing, Publishing & Allied Industries
283		Drugs
285		Paints, Varnishes, Lacquers, Enamels, & Allied Products
30		Rubber & Misc. Plastics Products
31		Leather & Leather Products
	311	Leather Tanning & Finishing
323		Glass Products, Made of Purchased Glass
34		Fabricated Metal Products, Except Machinery & Transportation Equipment
	3441	Fabricated Structural Metal
35		Industrial & Commercial Machinery & Equipment
36		Electronic & Other Electrical Equipment & Components Except Computer Equipment
37		Transportation Equipment
	373	Ship & Boat Building & Repairing
38		Measuring, Analyzing & Controlling Instruments; Photographic, Medical & Optical Goods; Watches & Clocks
39		Misc. Manufacturing Industries
4221		Farm Product Warehousing & Storage
4222		Refrigerated Warehousing & Storage
4225		General Warehousing & Storage

**Definition 11**

SIC	Except	Classification
5171		Petroleum Bulk Stations & Terminals

# APPENDIX B – INDUSTRIAL STORMWATER MONITORING GUIDANCE

## SUMMARY OF GENERAL AND SECTOR SPECIFIC MONITORING REQUIREMENTS

Type	Quarterly	Semi-Annual	Benchmarks	Effluent Limits	Annual
General	Visual	Rainfall pH, sample pH, O&G, COD, TSS, P, TKN, NO3, Cu, Pb, Zn	Sample pH, O&G, COD, TSS, P, TKN, NO3, Cu, Pb, Zn	None	Aquatic Toxicity (Years 1 &2) AND Impaired Water parameters (if applicable) AND TMDL Parameter(s) (if dictated by DEEP)
SECTOR A ASPHALT PLANTS	Visual	Same as general AND Semivolatiles	Same as general	Asphalt emulsion facilities ONLY: O&G, Sample pH, TSS	Aquatic Toxicity (Years 1 &2) AND Sample pH, O&G, TSS (Asphalt emulsion only) AND Impaired Water parameters (if applicable) AND TMDL Parameter(s) (if dictated by DEEP)
SECTOR B MINES&QUARRIES	Visual	Same as general	Same as general	None	Aquatic Toxicity (Years 1 &2) AND Impaired Water parameters (if applicable) AND TMDL Parameter(s) (if dictated by DEEP)
SECTOR C REFUSE SYSTEMS	Visual AND Fe (for landfills and solid waste disposal areas)	Same as general	Same as general AND Fe (for landfills and solid waste disposal areas)	Landfills and solid waste disposal areas ONLY: BOD, TSS, Ammonia, Sample pH, Zinc, Alpha Terpineol, Benzoic Acid, p-Cresol, Phenol	Aquatic Toxicity (Years 1 &2), AND (for landfills and solid waste disposal areas only) BOD, TSS, Ammonia, Sample pH, Zinc, Alpha Terpineol, Benzoic Acid, p-Cresol, Phenol AND Impaired Water parameters (if applicable) AND TMDL Parameter(s) (if dictated by DEEP)
SECTOR D AUTO SALVAGE	Visual AND Fe, Hg, Al	Same as general AND Semivolatiles	Same as general AND Fe, Hg, Al	None	Aquatic Toxicity (Years 1 &2) AND Impaired Water parameters (if applicable) AND TMDL Parameter(s) (if dictated by DEEP)

Type	Quarterly	Semi-Annual	Benchmarks	Effluent Limits	Annual
SECTOR E SCRAP RECYCLING	Visual AND Fe, Hg, Al	Same as general AND Semivolatiles, PCB	Same as general AND Fe, Hg, Al	None	Aquatic Toxicity (Years 1 &2) AND Impaired Water parameters (if applicable) AND TMDL Parameter(s) (if dictated by DEEP)
SECTOR F STEAM ELECTRIC GENERATION	Visual AND Fe	Same as general	Same as general AND Fe	Coal pile runoff ONLY: pH, TSS	Aquatic Toxicity (Years 1 &2), and pH and TSS (for sites with coal pile runoff) AND Impaired Water parameters (if applicable) AND TMDL Parameter(s) (if dictated by DEEP)
SECTOR G TRANSPORTATION AND PUBLIC WORKS	Visual	Same as general	Same as general	None	Aquatic Toxicity (Years 1 &2) AND Impaired Water parameters (if applicable) AND TMDL Parameter(s) if dictated by DEEP
Aircraft Deicing Sites Large Airports	Visual	Same as general AND Urea, Glycols, BOD (during deicing season, if used)	Same as general	None	Same as above
Small Airports	Visual	None	Same as general but on an annual basis	None	Same as above AND Same as General Monitoring Requirements in Section 5(e)(1)(A)(ii) (during deicing season) AND Urea, Glycols, BOD (during deicing season, if used)
Maintenance/ Repair/ Federal, State, or Municipal with Incidental Salt Storage	Visual	Same as general AND Cl, CN (for first two years only)	Same as general	None	Same as above
<i>Bulk solid de-icing material storage</i>	<i>Visual</i>	<i>Same as general and Cl, CN (semiannual starting 12/03/2013)</i>	<i>Same as general</i>	<i>None</i>	<i>Same as above</i>

Type	Quarterly	Semi-Annual	Benchmarks	Effluent Limits	Annual
Salt Storage only	None	None	None	None	Impaired Water parameters (if applicable) AND TMDL Parameter(s) (if dictated by DEEP)
SECTOR G (cont) DOT Maintenance & Repair Facilities	Visual	Same as general but only once in permit term	None	None	Same as above
SECTOR H MARINAS, YACHT CLUBS AND BOAT DEALERS	Visual	Same as general AND Fe, Al	Same as general (but no Cu Benchmark) AND Fe, Al	None	Aquatic Toxicity (Years 1 & 2) AND Impaired Water parameters (if applicable) AND TMDL Parameter(s) (if dictated by DEEP)
SECTOR I SHIP AND BOAT BUILDING AND REPAIR	Visual	Same as general	Same as general (but no Cu Benchmark)	None	Aquatic Toxicity (Years 1 & 2) AND Impaired Water parameters (if applicable) AND TMDL Parameter(s) (if dictated by DEEP)
SECTOR J SMALL-SCALE COMPOSTING FACILITIES	Visual (if site discharges )	None	COD, TSS, P, NO3, TKN (if site discharges)	None	Aquatic Toxicity (Years 1 & 2) AND COD, TSS, P, NO3, TKN (if site discharges) AND Impaired Water parameters (if applicable) AND TMDL Parameter(s) (if dictated by DEEP)

## APPENDIX C – AQUIFER PROTECTION AREAS AND OTHER GROUNDWATER DRINKING SUPPLY AREAS GUIDANCE

In considering the use of stormwater infiltration, the Plan should consider measures to reduce or mitigate potential impacts to both ground water (aquifers) and surface waters, taking into consideration both quantity and quality of the runoff. The emphasis should be to minimize, to the extent possible, changes between pre-development and post-development runoff rates and volumes.

The basic stormwater principals for Aquifer Protection Areas (and other groundwater drinking supply areas) are to prevent inadvertent pollution discharges/releases to the ground, while encouraging recharge of stormwater where it does not endanger groundwater quality. Measures include:

- prevent illicit discharges to storm water, including fuel/chemical pollution releases to the ground.
- minimize impervious coverage and disconnect large impervious areas with natural or landscape areas
- direct paved surface runoff to aboveground type land treatment structures – sheet flow, surface swales, depressed grass islands, detention/retention and infiltration basins, and wet basins. These provide an opportunity for volatilization of volatile organic compounds to the extent possible before the stormwater can infiltrate into the ground.
- provide necessary impervious pavement in high potential pollutant release areas. These “stormwater hot spots” include certain lands use types or storage and loading areas, fueling areas, intensive parking areas and roadways (see table below).
- only use subsurface recharge structures such as dry wells, galleries, or leaching trenches, to directly infiltrate clean runoff such as rooftops, or other clean surfaces. These structures do not adequately allow for attenuation of salts, solvents, fuels or other soluble compounds in groundwater that may be contained in runoff.
- restrict pavement deicing chemicals, or use an environmentally suitable substitute such as sand only, or alternative de-icing agents such as calcium chloride or calcium magnesium.

**Infiltration** of stormwater should be **restricted** under the following site conditions:

- ***Land Uses or Activities with Potential for Higher Pollutant Loads:*** Infiltration of stormwater from these land uses or activities (refer to Table 7-5 below), also referred to as stormwater “hotspots,” can contaminate public and private groundwater supplies. Infiltration of stormwater from these land uses or activities may be allowed by the review authority with appropriate pretreatment. Pretreatment could consist of one or a combination of the primary or secondary treatment practices described in the Stormwater Quality Manual provided that the treatment practice is designed to remove the stormwater contaminants of concern.
- ***Subsurface Contamination:*** Infiltration of stormwater in areas with soil or groundwater contamination such as brownfield sites and urban redevelopment areas can mobilize contaminants.
- ***Groundwater Supply and Wellhead Areas:*** Infiltration of stormwater can potentially contaminate groundwater drinking water supplies in immediate public drinking water wellhead areas.

## Land Uses or Activities with Potential for Higher Pollutant Loads

Table 7-5 of the 2004 Stormwater Quality Manual

Land Use/Activities	
<ul style="list-style-type: none"><li>• Industrial facilities subject to the DEEP Industrial Stormwater General Permit</li><li>• Vehicle salvage yards and recycling facilities</li><li>• Vehicle fueling facilities (gas stations and other facilities with on-site vehicle fueling)</li><li>• Vehicle service, maintenance, and equipment cleaning facilities</li><li>• Fleet storage areas (cars, buses, trucks, public works)</li><li>• Commercial parking lots with high intensity use (shopping malls, fast food restaurants, convenience stores, supermarkets, etc.)</li><li>• Public works storage areas</li></ul>	<ul style="list-style-type: none"><li>• Road salt storage facilities (if exposed to rainfall)</li><li>• Commercial nurseries</li><li>• Flat metal rooftops of industrial facilities</li><li>• Facilities with outdoor storage and loading/unloading of hazardous substances or materials, regardless of the primary land use of the facility or development</li><li>• Facilities subject to chemical inventory reporting under Section 312 of the Superfund Amendments and Reauthorization Act of 1986 (SARA), if materials or containers are exposed to rainfall</li><li>• Marinas and shipbuilding facilities (service and maintenance)</li><li>• Other land uses and activities as designated by the review authority</li></ul>

For further information regarding the design of stormwater collection systems in Aquifer Protection Areas, contact the Aquifer Protection Area Program at (860) 424-3020.



## **ATTACHMENT “L”**

### **GENERAL PERMIT REGISTRATION FORM**

**See CT DEEP ezFile for Registration**