BLEDSOE COUNTY CORRECTIONAL COMPLEX

Storm Water Pollution Prevention Plan

WASTEWATER TREATMENT PLANT EXPANSION

SBC PROJECT No. 142/013-01-2013-016

Pikeville, Bledsoe County, Tennessee

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Storm Water Pollution Prevention Plan (SWPPP)

For Construction Activities In:

Pikeville, Bledsoe County, Tennessee

SWPPP Prepared For:

State of Tennessee Department of General Services (STREAM)
on behalf of
Department of Correction (TDOC)

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SWPPP Date:

December, 2018

Estimated Project Dates:

Project Start Date: June, 2019
Project Completion Date: December, 2020

CTI Project N16003

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SECTION 1: CONTACT INFORMATION/RESPONSIBLE PARTIES

1.1 Storm Water Team

Operator(s): To be completed once contract is awarded

Contractor Name:
Contractor Contact:
Contractor Address:Line1
Contractor Address:Line2
Telephone:
Fax/Email:

Site Supervisor: To be completed once contract is awarded

Contractor Name:
Contractor Contact:
Contractor Address:Line1
Contractor Address:Line2
Telephone:
Fax/Email:

SWPPP Contact(s): To be completed once contract is awarded

SWPPP Contact(s):

Contractor Name:
Contractor Contact:
Contractor Address:Line1
Contractor Address:Line2
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Contractor Name:
Contractor Contact:
Telephone:

SECTION 2: SITE EVALUATION, ASSESSMENT, AND PLANNING

2.1 General Information

This Storm Water Pollution Prevention Plan (SWPPP) has been developed in accordance with the State of Tennessee General NPDES Permit for Discharges of Storm Water Associated with Construction Activity (Permit No. TNR100000) and with sound engineering practices. CTI Engineers, Inc. (CTI) personnel involved with the development of this plan have completed the "Design Principles for Erosion Prevention and Sediment Control for Construction Sites" course available from the State of Tennessee.

The SWPPP covers the construction activities required in conjunction with the Bledsoe County Correctional Complex (BCCX) Wastewater Treatment Plant (WWTP) Expansion, as indicated on drawings prepared by CTI.

The complete application should be submitted at least 30 days prior to commencement of construction activities. The permittee is authorized to discharge storm water associated with construction activity as of the effective date listed on the Notice of Coverage (NOC). The land disturbing activities shall not start until a NOC is prepared and written approval by the division staff is obtained.

Current versions of this SWPPP, the Notice of Intent (NOI; Appendix A), tracking number assigned by the Environmental Field Office (EFO), and the name and telephone number of a contact person for the project shall be kept on the site for the duration of the project. These items shall be available for the use of all operators and site personnel involved with erosion prevention and sediment controls, and shall be made available to TDEC personnel visiting the site.

Any new contractor on the project that has any responsibility to install, inspect, or maintain erosion prevention or sediment control measures shall sign the contractor's certification on a copy of the NOI and shall submit it to the local EFO. Any correspondence with TDEC or any EFO shall reference the tracking number assigned by TDEC to the project. The Owner and Contractor shall submit a Notice of Termination (NOT; Appendix B) after the complete installation and successful establishment of the final stabilization activities at the site.

It is the intention and goal of the Tennessee Construction General Permit (TNCGP) and this SWPPP that any discharge from the property described in this document have no objectionable color contrast to the water body that receives it. The construction activity shall be carried out in such a manner as will prevent any discharge that would cause a condition in which visible solids, bottom deposits, or turbidity will impair the usefulness of the waters on the property or downstream of the property for fish and aquatic life, livestock watering and wildlife, recreation, irrigation, or industrial or domestic water supply.

2.2 Project/Site Information

The Tennessee Department of Correction constructed a new penal facility adjacent to the existing Southeast Regional Correctional Facility and re-named the entire development the Bledsoe County Correctional Complex (BCCX). BCCX includes the newer, more recently constructed facility (BBCX-1), the original facilities (BCCX-2), and the former Taft Youth Center (BCCX-3) which is currently vacant. The wastewater treatment plant (WWTP) which served the original facility was removed from service and demolished. A new WWTP was designed and constructed to serve all of the expanded prison facilities The Department of Correction plans to construct additions to the current prison facilities and also to activate BCCX-3 (Taft) as a populated facility.

The existing WWTP design capacity of 0.315 million gallons per day (mgd) is less than desirable at the current flows with an average influent of 0.355 mgd. When the planned additions, the activation of BCCX-3, infiltration and inflow, and the natural variations in sewage flow are considered, it becomes apparent that a significant increase in capacity is necessary. The current WWTP design lends itself to design increments of 50%. However, an increase in capacity of 50% to 0.473 mgd is not sufficient for the projected flows. It is therefore recommended that the design capacity be doubled to 0.630 mgd. The allowable peak flow will increase from 0.425 mgd to 0.850 mgd. This capcity should be adequate to allow the facility to operate within its design capacity and to provide the opportunity to meet the stringent nutrient limits that have been established. Another significant addition to the WWTP should be an aerated influent flow equalization basin to buffer the daily flow variations and to allow the treatment process to operate in a steady state to further enhance the level of treatment obtained. In addition to the influent equalization basin, the post equalization basin is too small. The proposed expansion will incorporate an oversized post equalization basin to provide sufficient total volume to allow the filters to operate with a steady throughput, which will improve nutrient removal.

It is recommended to treat up to 315,000 gpd using the existing WWTP. In order to fulfill this objective, several improvements are recommended as briefly mentioned previously. The remaining one-half of the proposed capacity or 315,000 gpd will require both treatment and disposal and the options available for disposal from this facility are quite limited. No suitable stream is available within a reasonable distance for disposal. No municipal system is available with a reasonable distance for treatment and disposal. The remaining one-half of the proposed capacity should be land-applied by spray irrigation following treatment. Spray irrigation is preferable to the other available alternative of drip dispersal. Both the initial (capital) cost and the operation and maintenance costs are less for spray irrigation than for drip dispersal. Wastewater to be land-applied will receive the same treatment as wastewater to be discharged to Mill Creek. Piping connections between the treatment trains will allow units to be removed from service and the discharge directed as needed.

City: Pikeville	State: TN	ZIP Code: 37367
County or Similar Subdivision: Bledsoe County		

The Site Location Map in Appendix C (Figure 1) shows the project's general location.

Project Area Latitudes/Longitudes

Latitude:	Longitude:
35.7358° N	85.2605° W

Method for determining latitude/longitude:
☒ USGS topographic map (specify scale: 1:24,000) ☐ EPA Web site ☐ GPS
☐ Other (please specify): _____

2.3 Discharge Information

Does your project/site discharge storm water into a Municipal Separate Storm Sewer System (MS4)?

☐ Yes ☒ No

Are there any surface waters that are located within 50 feet of your construction disturbances?

☐ Yes ☒ No

Table 1 – Names of Receiving Waters

1. Mill Creek

Table 2 – Impaired Waters / TMDLs (Answer the following for each surface water listed in Table 1 above)

	Is this surface water listed as "impaired"?	If you answered yes, then answer the following:		
		What pollutant(s) are causing the impairment?	Has a TMDL been completed?	Description
1.	☒ YES ☐ NO	Alteration in stream-side or littoral vegetative cover. Dissolved Oxygen.	☐ YES ☒ NO	Grazing in Riparian or Shoreline Zones

Table 3 – Exceptional Tennessee Waters (Answer the following for each surface water listed in Table 1 above)

	Is this surface water designated as an Exceptional Tennessee Waters
1.	☐ YES ☒ NO

The Year 2018 303(d) LIST was used to determine if the project area discharges to an impaired water. The website tdec.tn.gov:8080/pls/enf_reports/f?p=9034:34304:4364479562473527 (link to Exceptional Tennessee Waters and Outstanding National Resource Waters) was used to determine if the surface water designation is an Exceptional Tennessee Water.

2.4 Nature of the Construction Activity

The existing wastewater treatment plant (WWTP) will be expanded by the addition of the following major structures:

Influent Equalization Basin	Aerobic Digester Basin
SBR Pump Station	Effluent Filters
Splitter Box	Effluent Pump Station
Two (2) Sequencing Batch Reactor (SBR) Basins	Effluent Storage Tank
Post Equalization Basin	Spray Irrigation Pump Station

These structures will have interconnecting piping installed between them as well as electrical conduit and communication cables. Other major work at the WWTP site will include driveways, exterior lighting, perimeter fencing, and an access road to the land application spray fields.

The land application area will be connected to the Spray Irrigation Pump Station by underground piping. The land application area is divided into 12 zones. Each zone contains piping of various sizes and a gridded network of sprayer heads to land apply the WWTP effluent. Work included in the land application area will include clearing and trenching for pipe installation. Clearing and soil disturbance will be minimized to the extent practical to limit disturbance to the spray field soils.

Type of the construction activity

☐ Residential ☐ Commercial ☐ Industrial ☐ Road Construction ☐ Linear Utility

☒ Other (please specify): Wastewater Treatment Plant with Land Application of Effluent by Spray Irrigation

Estimated Project Start Date: June, 2019

Estimated Project Completion Date: December, 2020

Size of Construction Project

The sizes of the disturbed areas are shown in the following table.

Disturbed Area	
Area	**Acres**
1 (WWTP)	6.99
2 (Access Road)	2.50
3 (North Spray Fields)	3.75
4 (South Spray Fields)	7.06
Total	**20.30**

Perimeter controls are to be established 1 within ten (10) feet outside the disturbed area for the site. Disturbance in the Spray fields will be limited to five (5) feet each side of the spray field piping. The limits of disturbance are displayed on erosion control plans in Appendix D for initial, interim, and final conditions. The total disturbed area for the project is estimated to be 20.30 acres.

2.5 Soils Erosion Factor

Erosion factor K indicates the susceptibility of a soil to sheet and rill erosion. Factor K is one of six factors used in the Universal Soil Loss Equation (USLE) and the Revised Universal Soil Loss Equation (RUSLE) to predict the average annual rate of soil loss by sheet and rill erosion in tons per acre per year. On this site, values of K range from 0.24 to 0.43. These are average values which do not require extraordinary erosion control measures. Refer to Appendix E, NRCS Soil Survey Maps for more information.

2.6 *Sequence and Estimated Dates of Construction Activities*

Construction Activity	**06/19**	**07/19**	**08/19**	**09/19**	**10/19**	**11/19**	**12/19**
Mobilization and Erosion BMP Set-Up	**X**	**X**					
Clearing and Grubbing	**X**	**X**					
Earthwork Activity and Site Preparation		**X**	**X**	**X**	**X**	**X**	**X**
Permanent Surface Restoration							
Maintenance of Erosion BMPs	**X**	**X**	**X**	**X**	**X**	**X**	
Final Clean-Up							

Construction Activity	**01/20**	**02/20**	**03/20**	**04/20**	**05/20**	**06/20**	**07/20**
Mobilization and Erosion BMP Set-Up							
Clearing and Grubbing					**X**	**X**	**X**
Earthwork Activity and Site Preparation	**X**	**X**	**X**	**X**	**X**	**X**	**X**
Permanent Surface Restoration							
Maintenance of Erosion BMPs						**X**	**X**
Final Clean-Up							

Construction Activity	**08/20**	**09/20**	**10/20**	**11/20**	**12/20**
Mobilization and Erosion BMP Set-Up					
Clearing and Grubbing					
Earthwork Activity and Site Preparation	**X**	**X**	**X**	**X**	
Permanent Surface Restoration				**X**	**X**
Maintenance of Erosion BMPs	**X**	**X**	**X**	**X**	**X**
Final Clean-Up				**X**	**X**

Areas disturbed for linear utility construction are to be covered with mulch or straw/seeding before the crew departs the site each day. Preconstruction vegetative groundcover shall not be destroyed, removed, or disturbed more than 15 days prior to grading or earth moving unless the area is seeded and/or mulched or other temporary cover is installed. Stabilization of disturbed areas must, at a minimum, be initiated immediately whenever any clearing, grading, excavating, or other earth-disturbing activities have temporarily or permanently ceased on any portion of the site and will not resume for a period exceeding 14 calendar days.

2.7 Allowable Non-Storm Water Discharges

Type of Allowable Non-Storm Water Discharge	**Likely to be Present at Your Site?**
Discharges from emergency fire-fighting activities	☐ YES ☒ NO
Fire hydrant flushings	☐ YES ☒ NO
Landscape irrigation	☐ YES ☒ NO
Waters used to wash vehicles and equipment	☒ YES ☐ NO
Water used to control dust	☒ YES ☐ NO
Potable water including uncontaminated water line flushings	☒ YES ☐ NO
Routine external building washdown	☒ YES ☐ NO
Pavement washwaters	☒ YES ☐ NO
Uncontaminated air conditioning or compressor condensate	☒ YES ☐ NO
Uncontaminated, non-turbid discharges of groundwater or spring water	☐ YES ☒ NO
Foundation or footing drains	☐ YES ☒ NO
Construction dewatering water (filtering or chemical treatment may be necessary prior to discharge)	☐ YES ☒ NO

If removal of construction dewatering water (i.e., standing muddy water) is required, dewatering will be accomplished with a pump/filter bag combination or will be diverted into other sediment control devices.

2.8 Erosion Control Plans

A phased plan with initial, interim, and final conditions is depicted in Appendix D. BMPs assigned in the erosion control plans are taken from the Tennessee Erosion and Sediment Control Handbook, latest edition.

SECTION 3: EROSION AND SEDIMENT CONTROLS

3.1 Perimeter Controls

Prior to excavation activities at the construction site, erosion prevention and sediment control devices shall be installed at areas of concern to prevent storm water from transporting sediment to nearby streams, branches, and wetlands. Sediment control devices and practices shall be in strict accordance with the *Tennessee Erosion and Sediment Control Handbook*, latest edition. Sediment control devices shall be inspected prior to anticipated rainfall events and repaired as necessary during and following the event.

Fugitive sediment that escapes the control devices shall be removed immediately upon discovery if the sediment has not reached a stream. If sediment is inadvertently discharged, the contractor shall notify the local TDEC EFO to discuss remediation/restoration plans. These plans shall not be implemented without TDEC approval. Off-site accumulations deposited on private property shall be removed by methods agreed upon by the contractor and the adjacent landowner(s). During prolonged rainfall, daily inspections and repairs shall be performed. After use, control devices shall be removed or otherwise prevented from becoming a pollutant source for storm water discharge.

3.1.1 Perimeter Control Description #1 – Tubes and Wattles

Tubes and wattles will consist of flexible mesh tubes, filled with straw, compost, wood chips, or other suitable media.

Tubes and wattles are to be placed on the downhill side of excavated trenches or at intervals along a slope (see chart below) to capture and treat storm water that runs off as sheet flow. Tubes and wattles are flexible and can be filled in place or filled and moved into position. They can also be used on pavement as inlet protection for storm drains and to slow water flow in small ditches. Tubes and wattles used for erosion control will be a minimum of 8 inches in diameter. The smaller, 8-inch-diameter tubes and wattles are commonly used as storm water inlet protection.

Slope	Wattle and Tube Diameter				
	8”	12”	18”	20”	24”
2%	70’	100’	N/A	N/A	N/A
5%	30’	60’	100’	100’	100’
10%	20’	30’	70’	85’	100’
6:1	N/A	20’	40’	50’	50’
4:1	N/A	20’	30’	30’	30’
3:1	N/A	N/A	20’	20’	20’
2:1	N/A	N/A	20’	20’	20

3.1.2 Perimeter Control Description #2 – Silt Fence

A temporary silt fence may be used in lieu of tubes and wattles where appropriate.

Silt fences will be temporary measures utilizing woven wire or other approved material attached to posts. Filter cloth composed of burlap, plastic filter fabric, etc., will be attached to the upstream side of the fence to retain the suspended silt particles in the runoff. Silt fence will be added to areas that will only have sheet flow coming off the site, or where needed to capture unwanted flow volumes/rates.

3.2 Sediment Track-Out

The contractor will be required to clean the tires/wheels of trucks that are used to deliver fill material and/or haul away excavated materials/debris as necessary before leaving the project site to prevent tracking of soil onto local streets. Sediment-laden washwater will not be allowed to run off site.

3.3 Stockpiled Sediment or Soil

Materials transported to the site in connection with construction activities will at times need to be temporarily staged / stockpiled on site. The size and location of the stockpiles will be determined by soil trucking needs, soil availability, and final grade placement needs. Stockpiles will be located in designated areas outside the traveled way.

Tubes and wattles or silt fence will be placed around stockpile areas to capture and treat flows from stockpiled soil. Mulch or temporary seeding is to be applied to the stockpiled areas if they are to remain in place for more than 14 days.

3.4 Minimize Dust

Where appropriate, mulch, erosion control blankets, vegetative cover, and/or watering will be used to minimize dust associated with exposed soil surfaces. A water truck may be used to manage dust and assure soils are placed with minimal dust issues.

Straw, hay, wood chips, or other suitable mulch material may be applied at a depth of approximately 2 to 4 inches, providing complete soil coverage. Sediment-laden water associated with dust control activities will not be allowed to run off site.

3.5 Minimize the Disturbance of Steep Slopes

Temporary erosion control blankets will be used to minimize erosion on steep slopes.

All erosion control blankets and matting will be inspected periodically following installation, particularly after rainstorms to check for erosion and undermining. Any dislocation or failure will be repaired as soon as practicable

3.6 Temporary and Permanent Seeding

Seeding requirements for the project are included in Specification Section 32 92 19 (Appendix F).

3.7 Site Stabilization Measures (SSM)

- Hay, straw, mulch, plant residues, or other SSM, produced on the site if possible, will be applied to the soil surface.
- SSMs should be applied on the same day the disturbance occurs.
- SSMs are used to reduce runoff and erosion, conserve moisture, protect seed from birds, and promote germination.

- SSMs are used where seed may not have a suitable growing season to produce an erosion-retardant cover, but can be stabilized with a mulch cover. SSMs shall be applied at the appropriate depth, anchored, and have a continuous 95 percent cover or greater of the soil surface.
- Inspection of the mulch application should be performed along with other regularly scheduled erosion and sediment control inspections. Areas that have been disturbed should be retreated. Maintenance needs identified in inspections or by other means shall be accomplished before the next storm event if possible, but in no case more than 7 days after the need is identified.

3.8 Storm Drain Inlets

Storm drain inlet protection should be installed at or around all storm drain drop inlets that receive runoff from disturbed areas. Storm drain inlet protection devices should adhere to the methods described in the *Tennessee Erosion & Sediment Control Handbook*.

Block and Gravel

Block and gravel inlet protection is applicable where heavy flows are expected and where an overflow capacity is necessary to prevent excessive ponding around the structure.

Tubes and Wattles

Tubes and wattles may be used as inlet protection where heavy flows are not anticipated.

Silt Fence

Silt fence may be used where the inlet drains a relatively flat area (slope no greater than 5 percent) and should not apply to inlets receiving concentrated flows, such as in street or highway medians.

Approved alternatives to the options listed above may be utilized upon the engineer's review and approval.

3.9 Dewatering Treatment Practices

Dewatering treatment practices are temporary sediment control structures that combine riprap and geotextile fabric to settle and/or filter sediment-laden water which has been pumped from an excavated work area. Water that is pumped from a construction site usually contains a large amount of sediment. A dewatering structure is typically needed to remove the sediment before water is released off-site. One of several types of dewatering structures may be constructed depending upon site conditions and type of operation. Dewatering structures should not be placed within a jurisdictional wetland, stream buffer, or within 20 feet of a stabilized outlet, stream, or other natural water resource.

3.9.1 Basin

A dewatering structure must be sized (and operated) to allow pumped water to flow through the filtering device without overtopping the structure. An excavated basin may be lined with geotextile to help reduce scour and to prevent the inclusion of soil from within the structure. Where the structure is to be placed in a sloping area, the available storage capacity will be reduced. It may be necessary to increase the size of the structure to compensate for this.

3.9.2 Sediment Filter Bag

A temporary sediment filter bag may be used when sediment-laden water is removed from an area by means of pumping and where there is insufficient room to use a temporary dewatering structure. A temporary sediment filter bag should not be placed within a jurisdictional wetland, a stream buffer, or within 20 feet of a stabilized outlet, stream, or ditch line. A filled sediment bag can weigh as much as 7 tons.

The filter bag should be constructed of non-woven geotextile material that will provide adequate filtering ability to capture the larger soil particles from the pumped water. The bag should be constructed so that there is an inlet neck that may be clamped around the dewatering pump discharge hose so that all of the pumped water passes through the bag.

When the filter bag has accumulated a 6-inch depth of sediment, it should be removed and replaced with a new filter bag.

3.10 Erosion and Sediment Control Maintenance Requirements

All perimeter control measures shall be checked twice weekly and repaired as necessary in dry periods and within 24 hours after any rainfall of 0.5 inch within a 24-hour period. During prolonged rainfall, daily checks and repairs are necessary. The contractor shall maintain records of checks and repairs. Removal of sediment before it has accumulated to one-half the aboveground height of any perimeter control is required.

Where sediment has been tracked-out from the site onto the surface of off-site streets, other paved areas, and sidewalks, it must be removed by the end of the same work day in which the track-out occurs or by the end of the next work day if track-out occurs on a non-work day. Track-out will be removed by sweeping, shoveling, vacuuming, or other similarly effective means.

Maintenance shall be required to maintain appropriate depth and coverage of mulch or seeding. Temporary vegetation may be employed instead of mulch if the stockpile will remain undisturbed for less than 6 months. If a stockpile will remain undisturbed for more than 6 months, permanent vegetative techniques shall be employed.

All erosion control blankets and matting will be inspected periodically following installation, particularly after rainstorms, to check for erosion and undermining. Any dislocation or failure will be repaired as soon as practicable.

SECTION 4: POLLUTION PREVENTION STANDARDS

4.1 Potential Sources of Pollution

Pollutant-Generating Activity	**Pollutants or Pollutant Constituents** (that could be discharged if exposed to storm water)
Surface grading and exposure of soils	Solids, turbidity, and oil and grease
Hauling of borrow materials	Solids
Stockpiling of borrow materials	Solids, turbidity, and oil and Grease
Heavy equipment operation and maintenance	Solids, turbidity, and oil and Grease
Equipment fueling	Oil and grease
Closure activities including soil placement, grading, seeding, nutrient addition, and stabilization	Solids, turbidity, oil and grease, nitrite, nitrates, and phosphates

4.2 Spill Prevention and Response

All fueling of equipment and vehicles will be conducted at least 100 feet from drainage ditches which discharge into creeks or branches. Any spillage will be removed at the end of the day, except where immediate cleanup is needed to prevent spills from spreading and causing further soil contamination. Contaminated soils will be placed on heavy plastic and covered or placed in approved containers to prevent contact with storm water. All fuel tanks that are not mobile will be provided with secondary containment. Oils, other vehicle fluids, paints, and solvents will be stored under cover. Any spill in excess of 2 gallons will be reported to a representative of the contractor.

If a release containing a hazardous substance in an amount equal to or in excess of a reporting quantity (see Appendix G) established under either 40 CFR 117 or 40 CFR 302 occurs during a 24-hour period, the contractor will immediately notify the permittee, who shall then notify the National Response Center (NRC) (800-424-8802) and the Tennessee Emergency Management Agency (TEMA) (emergencies: 800-262-3300; non-emergencies: 800-262-3400) as well as the local EFO (423-634-5745). Also, this document will be revised to identify measures to prevent the recurrence of such releases.

4.3 Fueling and Maintenance of Equipment or Vehicles

When maintenance of equipment or vehicles is performed at the site, an effective means of eliminating the discharge of spilled or leaked chemicals must be provided.

- Inspect construction vehicles daily, and repair any leaks immediately.
- Designate special paved areas for vehicle repair.

- Clean up spills and dispose of cleanup materials immediately. Inspect equipment and storage containers regularly to identify leaks or signs of deterioration.

- Locate fueling and maintenance of equipment and vehicles away from surface waters and storm water inlets or conveyances.

- Provide secondary containment (e.g., spill berms, decks, spill containment pallets). Ensure adequate supplies are available at all times to handle spills, leaks, and disposal of used liquids. Use drip pans and absorbents under or around leaky vehicles

- Dispose of all used oil, antifreeze, solvents in accordance with federal, state, or local requirements, and other automotive-related chemicals according to manufacturer instructions, and these wastes require special handling and disposal. Used oil, antifreeze, and some solvents can be recycled at designated facilities, but other chemicals must be disposed of at a hazardous waste disposal site.

- Clean up spills or contaminated surfaces immediately, using dry clean-up measures where possible, and eliminate the source of the spill to prevent a discharge or a furtherance of an ongoing discharge.

- Do not clean surfaces by hosing the area down.

- Cover where appropriate, and/or have spill kits readily available.

4.4 Washing of Equipment and Vehicles

- BMPs will be used during vehicle washing to prevent contamination of surface or groundwater.

- To direct washwater to sanitary sewer systems or other treatment facilities, ensure that vehicle washing areas are impervious and bermed. Use blowers or vacuums instead of water to remove dry materials from vehicles if possible. Because water alone can remove most dirt adequately, use high-pressure water spray without detergents at vehicle washing areas. If detergents are necessary, avoid phosphate- or organic-based cleansers to reduce nutrient enrichment and biological oxygen demand in wastewater. Use only biodegradable products that are free of halogenated solvents.

- Clearly mark all washing areas, and inform workers that all washing must occur in this area. Do not perform other activities, such as vehicle repairs, in the wash area.

4.5 Storage, Handling, and Disposal of Construction Materials and Wastes

Building materials and other construction site wastes must be properly managed and disposed of to reduce the risk of pollution from materials such as surplus or refuse building materials or hazardous wastes. Practices such as trash disposal, recycling, proper material handling, and spill prevention and cleanup measures can reduce the potential for storm water runoff to mobilize construction site wastes and contaminate surface or groundwater.

Exposed litter, debris, chemicals, etc., shall be properly stored or disposed of prior to anticipated storm events. Litter, construction debris, and construction chemicals exposed to storm water shall be picked up prior to anticipated storm events or before being carried off site by wind (e.g., forecast by local weather reports), or otherwise prevented from becoming a pollutant source for storm water discharges (e.g., screening outfalls, daily pick-up, etc.). After use, materials used for erosion prevention and sediment control (such as silt fence) should be removed or otherwise prevented from becoming a pollutant source for storm water discharges.

4.5.1 Pesticides, Herbicides, Insecticides, Fertilizers, and Landscape Materials

- Follow all federal, state, and local regulations that apply to the use, handling, or disposal of pesticides and fertilizers.
- Do not handle the materials more than necessary.
- Store pesticides and fertilizers in a dry, covered area.
- Construct berms or dikes to contain stored pesticides and fertilizers in case of spillage.
- Follow the recommended application rates and methods.
- Have equipment and absorbent materials available in storage and application areas to contain and clean up any spills that occur.

4.5.2 Diesel Fuel, Oil, Hydraulic Fluids, Other Petroleum Products, and Other Chemicals

- Store new and used petroleum products for vehicles in covered areas with berms or dikes in place to contain any spills.
- Immediately contain and clean up any spills with absorbent materials.
- Have equipment available in fuel storage areas and in vehicles to contain and clean up any spills that occur.

4.5.3 Hazardous or Toxic Waste

- Consult with local waste management authorities about the requirements for disposing of hazardous materials. To prevent leaks, empty and clean hazardous waste containers before disposing of them.
- Never remove the original product label from the container because it contains important safety information. Follow the manufacturer's recommended method of disposal, which should be printed on the label.
- Never mix excess products when disposing of them, unless specifically recommended by the manufacturer.

- To ensure the proper disposal of contaminated soils that have been exposed to and still contain hazardous substances, consult with state or local solid waste regulatory agencies or private firms. Some landfills might accept contaminated soils, but they require laboratory tests first.

4.5.4 Construction and Domestic Waste

- Designate a waste collection area on the site that does not receive a substantial amount of runoff from upland areas and does not drain directly to a water body.

- Ensure that containers have lids so they can be covered before periods of rain, and keep containers in a covered area whenever possible.

- Schedule waste collection to prevent the containers from overfilling.

- Clean up spills immediately. For hazardous materials, follow cleanup instructions on the package. Use an absorbent material such as sawdust or kitty litter to contain the spill.

- During the demolition phase of construction, provide extra containers and schedule more frequent pickups. Collect, remove, and dispose of all construction site wastes at authorized disposal areas.

- Contractor shall police the project area daily to ensure that all trash is properly disposed of and thus minimize or eliminate the likelihood of trash being washed off site.

4.6 Washing of Applicators and Containers used for Concrete

The concrete subcontractor is responsible for the proper disposal of excess concrete and the associated washout waters. BMP objectives for concrete washout are to:

- Collect and retain all the concrete washout water and solids in leak-proof containers, so that this caustic material does not reach the soil surface and then migrate to surface waters or into the groundwater.

- Recycle 100 percent of the collected concrete washout water and solids.

- Support the diversion of recyclable materials from landfills.

4.6.1 Washwater Treatment and Disposal

Washout water should be pumped out of the washout container and treated off site to remove metals and reduce pH, so it can be delivered to a publicly owned treatment works.

Washwater can also be retained in the washout container and allowed to evaporate, leaving only the hardened cementitious solids to be recycled.

4.6.2 Washout Containers

Different types of washout containers are available for collecting, retaining, and recycling the wash water and solids from washing down mixed truck chutes and pump truck hoppers at construction sites. Following is a list of methods available to the contractor.

- Chute washout box
- Chute washout bucket and pump
- Hay bale and plastic washout pit
- Vinyl washout container
- Metal washout container
- Heavy-duty, 350# water-treated Kraft fiberboard

4.6.3 Installation

Concrete washout facilities, such as washout pits and vinyl or metal washout containers, should be placed in locations that provide convenient access to concrete trucks, preferably near the area where concrete is being poured. However, they should not be placed within 50 feet of storm drains, open ditches, or water bodies. Appropriate gravel or rock should cover approaches to concrete washout facilities when they are located on undeveloped property. On large sites with extensive concrete work, washouts should be placed at multiple locations for ease of use by ready mixed truck drivers. If the washout facility is not within view of the pour location, signage will be needed to direct the truck drivers.

4.6.4 Maintenance Requirements

Concrete washout facilities should be inspected daily and after heavy rains to check for leaks, identify any plastic linings and sidewalls damaged by construction activities, and determine whether they have been filled to over 50 percent capacity. When the washout container is filled to over 50 percent of its capacity, the washwater should be vacuumed off or allowed to evaporate to avoid overflows. When the remaining cementitious solids have hardened, they should be removed and recycled. Damage to the container should be repaired promptly. Before heavy rains, the washout container's liquid level should be lowered or the container should be covered to avoid an overflow during the rain storm.

4.7 Fertilizers

In order to minimize discharges of fertilizers containing nitrogen or phosphorus:

- Apply fertilizers at a rate and in amounts consistent with manufacturer's specifications, or document departures from the manufacturer specifications where appropriate.

- Apply at the appropriate time of year, and preferably time to coincide as closely as possible to the period of maximum vegetation uptake and growth.

- Avoid applying before heavy rains that could cause excess nutrients to be discharged. Never apply to frozen ground.

- Never apply to storm water conveyance channels with flowing water. Follow all other federal, state, and local requirements regarding fertilizer application.

SECTION 5: INSPECTION AND CORRECTIVE ACTION

5.1 Inspection Personnel and Procedures

5.1.1 Personnel Responsible for Inspections (To Be Completed Once Contract is Awarded)

Role or Responsibility: Storm Water Management Pollution Prevention Plan Inspections
Position: Certified Level I Inspector
Name:
Telephone Number:
Email:

Each person conducting inspections must be considered a "qualified person," which is an inspector who has completed the "Fundamentals of Erosion Prevention and Sediment Control, Level I," and has an active certification.

5.1.2 Inspection Schedule

Inspections will be performed at least twice every calendar week and at least 72 hours apart. Where sites or portion(s) of construction sites have been temporarily stabilized or runoff is unlikely due to winter conditions (e.g., site covered with snow or ice) or due to extreme drought, such inspection has to be conducted only once per month until thawing or precipitation results in runoff or construction activity resumes.

A rain gauge will be centrally located within the project area.

5.1.3 Areas to be Inspected

- All areas that have been cleared, graded, or excavated and that have not yet completed stabilization.
- All storm water controls (including pollution prevention measures) installed at the site.
- Material, waste, borrow, or equipment storage and maintenance areas.
- All areas where storm water typically flows within the site, including drainageways designed to divert, convey, and/or treat storm water.
- All points of discharge from the site.
- All locations where stabilization measures have been implemented.

Areas that are considered unsafe at the time of the inspection need not be inspected.

5.1.4 Inspection Report Form

Appendix H contains the Twice-Weekly Inspection Report Form.

5.2 Corrective Action

Personnel Responsible for Corrective Actions (To Be Completed Once Contract is Awarded)

Role or Responsibility: Erosion Control Inspections
Position: Level I Inspector
Name:
Telephone Number:

If erosion and sediment controls are not functioning correctly, corrective actions will be performed as described on the Twice-Weekly Inspection Form (Appendix H).

SECTION 6: CERTIFICATION AND NOTIFICATION

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: John M. Hull

Title: Deputy Commissioner, State of Tennessee
Real Estate Asset Management Division

Signature: _____ Date: _____

SWPPP APPENDICES

Appendix A – Notice of Intent (NOI)

Appendix B – Notice of Termination (NOT)

Appendix C – Location Map

Appendix D – Erosion Control Plans

Appendix E – NRCS Soil Survey Maps

Appendix F – Seeding Specification

Appendix G – Hazardous Substance Reporting Quantities

Appendix H – Storm Water Inspection Certification (Twice-Weekly Inspections)

Appendix A

Notice of Intent (NOI)

TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION

Division of Water Resources
William R. Snodgrass Tennessee Tower, 312 Rosa L. Parks Avenue, 11th Floor, Nashville, Tennessee 37243
1-888-891-8332 (TDEC)

Notice of Intent (NOI) for General NPDES Permit for Stormwater Discharges from Construction Activities (TNR100000)

Site or Project Name: Bledsoe County Correctional Complex Wastewater Treatment Plant Expansion			***NPDES Tracking Number: TNR***
Street Address or Location: 1045 Horsehead Road, Pikeville, TN 37367			Construction Start Date: June, 2019
			Estimated End Date: December, 2020
Site Description: Construct WWTP Expansion to double its capacity and install spray fields for land application of effluent			Latitude (dd.dddd): 35.7358° N
			Longitude (-dd.dddd): 85.2605° W
County(ies): Bledsoe	MS4 (if applicable):		Acres Disturbed: 20.30
Check box if a SWPPP is attached : ☑	Check box if a site location map is attached: ☑		Total Acres:
Check the appropriate box(s) if there are streams and/or wetlands on or adjacent to the construction site:			Streams ☐ Wetlands ☐
Has a jurisdictional determination been made by the USACE or EPA identifying waters of the United States?: Yes ☐ No ☑			
Note: if yes, attach the jurisdictional determination			
If an Aquatic Resource Alteration Permit (ARAP) has been obtained for this site, what is the permit number? NR(S)			
Receiving waters: Mill Creek			

Site Owner/Developer (Primary Permittee): (Provide person, company, or entity that has operational or design control over construction plans and specifications): STREAM on behalf of the Tennessee Department of Correction

For corporate entities only, provide correct Tennessee Secretary of State (SOS) Control Number:
(an incorrect SOS control number may delay NOI processing)

Site Owner or Developer Contact Name: (signs the certification below) John M. Hull		Title or Position: Deputy Commissioner, State of TN Real Estate Asset Management	
Mailing Address: 312 Rosa L. Parks Avenue		City: Nashville	State: TN Zip: 37243
Phone: (615) 741-2226	Fax: ( )	E-mail: John.Hull@tn.gov	

Optional Contact: Bruce Fields		Title or Position: Facility Manager	
Mailing Address: 1045 Horsehead Road		City: Pikeville	State: TN Zip: 37367
Phone: (423) 881-6223	Fax: ( )	E-mail: bruce.fields@tn.gov	

Owner/Developer(s) Certification: (must be signed by president, vice-president or equivalent, or ranking elected official) (Primary Permittee)

I certify under penalty of law that this document and all attachments were prepared by me, or under my direction or supervision. The submitted information 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. As specified in Tennessee Code Annotated Section 39-16-702(a)(4), this declaration is made under penalty of perjury.

Owner/Developer Name (print/type): John M. Hull	Signature:	Date:
Owner/Developer Name (print/type):	Signature:	Date:

Contractor Certification: (must be signed by president, vice-president or equivalent, or ranking elected official) (Secondary Permittee)

I certify under penalty of law that I have reviewed this document, any attachments, and the SWPPP referenced above. Based on my inquiry of the construction site owner/developer identified above and/or my inquiry of the person directly responsible for assembling this NOI and SWPPP, I believe the information submitted is accurate. I am aware that this NOI, if approved, makes the above-described construction activity subject to NPDES permit number TNR100000, and that certain of my activities on-site are thereby regulated. I am aware that there are significant penalties, including the possibility of fine and imprisonment for knowing violations, and for failure to comply with these permit requirements. As specified in Tennessee Code Annotated Section 39-16- 702(a)(4), this declaration is made under penalty of perjury.

Contractor name, address, and SOS control number (if applicable):	Signature:	Date:

OFFICIAL STATE USE ONLY

Received Date:	Reviewer:	Field Office:	Permit Tracking Number: TNR	Exceptional TN Water:
Fee(s):	T & E Aquatic Flora/Fauna:	SOS Corporate Status:	Waters with Unavailable Parameters:	Notice of Coverage Date:

CONSTRUCTION GENERAL PERMIT - NOTICE OF INTENT (NOI) - INSTRUCTIONS

A completed NOI must be submitted to obtain coverage under the CGP. **Requesting coverage under this permit means that an applicant has obtained and examined a copy of this permit, and thereby acknowledges applicant's claim of ability to be in compliance with permit terms and conditions.** CGP coverage is required for stormwater (SW) discharge(s) from construction activities including clearing, grading, filling and excavating (including borrow pits) of one or more acres of land. This form should be submitted at least 30 days prior to the commencement of land disturbing activities, or no later than 48 hours prior to when a new operator assumes operational control over site specifications or commences work at the site.

The application fee must accompany the NOI and is based on total acreage to be disturbed by an entire project, including any associated construction support activities (e.g., equipment staging yards, material storage areas, excavated material disposal areas, borrow or waste sites, etc.). A separate annual maintenance fee is also required for activities that exceed 1 year under CGP coverage. See TN Rules, Chapter 0400-40-11-.02(b)(12).

Acres Disturbed	= or > 150 acres	= or > 50 < 150 acres	= or > 20 < 50 acres	= or > 5 < 20 acres	= or > 1 < 5 acres	Subsequent coverage
Fee	$10,000	$6,000	$3,000	$1,000	$250	$100

Who must submit the NOI form? All site operators must submit an NOI form. "Operator" for the purpose of this permit and in the context of SW associated with construction activity means any person associated with a construction project who meets either or both of the following two criteria: (1) The person has operational or design control over construction plans and specifications, including the ability to make modifications to those plans and specifications. This person is typically the owner or developer of the project or a portion of the project (e.g., subsequent builder), or the person that is the current land owner of the construction site, and is considered the primary permittee; or (2) The person has day-to-day operational control of those activities at a project which are necessary to ensure compliance with a SWPPP for the site or other permit conditions. This person is typically a contractor or a commercial builder who is hired by the primary permittee, and is considered a secondary permittee.

Owners, developers and all contractors that meet the definition of the operator in subsection 2.2 of the permit shall apply for permit coverage on the same NOI, insofar as possible. After permit coverage has been granted to the initial site-wide primary permittee, any subsequent NOI submittals must include the site's previously assigned permit tracking number and the project name. The comprehensive site-specific SWPPP shall be prepared in accordance with the requirements of part 3 of the permit and must be submitted with the NOI unless the NOI being submitted is to add a subsequent permittee to an existing coverage. **Artificial entities (e.g., corporations or partnerships) must submit the correct Tennessee Secretary of State, Division of Business Services, control number. General partnerships. For general partnerships, the NOI must be signed by each general partner in the general partnership.**

The NOI will be considered incomplete without a correct control number, and the division reserves the right to deny coverage to artificial entities that are not properly registered and in good standing with the Tennessee Secretary of State (i.e., listed with an entity status of "active"). The division further reserves the right to issue permit coverage in the correct legal name of the individual or entity seeking coverage and to name each general partner of a general partnership in addition to the general partnership.

Complete the form: Type or print clearly. Answer each item or enter "NA," for not applicable. If you need additional space, attach a separate piece of paper to the NOI form. **The NOI will be considered incomplete without a permit fee and comprehensive site-specific SWPPP (if applicable).**

Describe and locate the project: Use the legal or official name of the construction site. If a construction site lacks street name or route number, give the most accurate information available to describe the location (reference to adjacent highways, roads and structures; eg., intersection of state highways 70 and 100). Latitude and longitude (in decimal degrees) can be found at numerous other web sites. Attach a copy of a map, showing location of site, with boundaries at least one mile outside the site boundaries. Provide estimated starting date of clearing activities and completion date of the project, and an estimate of the number of acres of the site on which soil will be disturbed, including borrow areas, fill areas, stockpiles and the total acres. For linear projects, give location at each end of the construction area.

Name of the receiving waters: Trace the route of stormwater runoff from the site and determine the name of the water course(s) into which the runoff drains. Note that the water course may or may not be located on the construction site. If the first water body receiving construction site runoff is unnamed ("unnamed tributary"), determine the name of the waterbody that the unnamed tributary enters.

An ARAP may be required: **If your work will disturb or cause alterations of a stream or wetland, you must obtain an appropriate Aquatic Resource Alteration Permit (ARAP).** If wetlands are located on-site and may be impacted, attach the wetland delineation report. If you have a question about the ARAP program, contact your local Field Office (EFO).

Submitting the form and obtaining more information: Note that this form must be signed by the company President, Vice-President, or a ranking elected official in the case of a municipality, for details see subpart 2.5. For more information, contact your local EFO at the toll-free number 1-888-891-8332 (TDEC). Submit the completed NOI form (keep a copy for your records) to the appropriate EFO for the county(ies) where the construction activity is located, addressed to **Attention: Stormwater NOI Processing**.

Notice of Coverage: The division will review NOIs for completeness and accuracy and issue an NOC to site-wide primary operators, authorizing SW discharge from the construction site as of the effective date of the NOC. New subsequent operators will not receive an NOC, but are considered covered under the permit when their permit record is published on TDEC's dataviewer as "active" and with an effective date. TDEC Permit Dataviewer can be found at: http://environment-online.tn.gov:8080/pls/enf_reports/f?p=9034:34001:0

EFO	Street Address	Zip Code	EFO	Street Address	Zip Code
Memphis	8383 Wolf Lake Drive, Bartlett	38133-4119	Cookeville	1221 South Willow Ave.	38506
Jackson	1625 Hollywood Drive	38305-4316	Chattanooga	1301 Riverfront Pkwy, Suite 206	37402
Nashville	711 R S Gass Boulevard	37243	Knoxville	3711 Middlebrook Pike	37921
Columbia	1421 Hampshire Pike	38401	Johnson City	2305 Silverdale Road	37601

Appendix B

Notice of Termination (NOT)

TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION (TDEC)
Division of Water Resources
William R. Snodgrass Tennessee Tower, 312 Rosa L. Parks Avenue, 11th Floor, Nashville, Tennessee 37243
1-888-891-TDEC (8332)

Notice of Termination (NOT) for General NPDES Permit for Stormwater Discharges from Construction Activities (CGP)

This form is required to be submitted when requesting termination of coverage from the CGP. The purpose of this form is to notify the TDEC that either all stormwater discharges associated with construction activity from the portion of the identified facility where you, as an operator, have ceased or have been eliminated; or you are no longer an operator at the construction site. Submission of this form shall in no way relieve the permittee of permit obligations required prior to submission of this form. Please submit this form to the local DWR Environmental Field Office (EFO) address (see table below). For more information, contact your local EFO at the toll-free number 1-888-891-8332 (TDEC).

Type or print clearly, using ink.

Site or Project Name: Bledsoe County Correctional Complex Wastewater Treatment Plant Expansion	**NPDES Tracking Number: TNR**
Street Address or Location: 1045 Horsehead Road, Pikeville, TN 37367	County(ies): Bledsoe

Name of Permittee Requesting Termination of Coverage: STREAM on behalf of the Tennessee Department of Correction			
Permittee Contact Name: John M. Hull	Title or Position: Deputy Commissioner, State of TN Real Estate Asset Management Division		
Mailing Address: 312 Rosa L. Parks Avenue	City: Nashville	State: TN	Zip: 37243
Phone: (615) 741-2226	E-mail: John.Hull@TN.gov		

Check the reason(s) for termination of permit coverage:

☐	Stormwater discharge associated with construction activity is no longer occurring and the permitted area has a uniform 70% permanent vegetative cover OR has equivalent measures such as rip rap or geotextiles, in areas not covered with impervious surfaces.
☐	You are no longer the operator at the construction site (i.e., termination of site-wide, primary or secondary permittee coverage).

Certification and Signature: (must be signed by president, vice-president or equivalent ranking elected official)

I certify under penalty of law that either: (a) all stormwater discharges associated with construction activity from the portion of the identified facility where I was an operator have ceased or have been eliminated or (b) I am no longer an operator at the construction site. I understand that by submitting this notice of termination, I am no longer authorized to discharge stormwater associated with construction activity under this general permit, and that discharging pollutants in stormwater associated with construction activity to waters of the United States is unlawful under the Clean Water Act where the discharge is not authorized by a NPDES permit. I also understand that the submittal of this notice of termination does not release an operator from liability for any violations of this permit or the Clean Water Act.

For the purposes of this certification, elimination of stormwater discharges associated with construction activity means that all stormwater discharges associated with construction activities from the identified site that are authorized by a NPDES general permit have been eliminated from the portion of the construction site where the operator had control. Specifically, this means that all disturbed soils at the portion of the construction site where the operator had control have been finally stabilized, the temporary erosion and sediment control measures have been removed, and/or subsequent operators have obtained permit coverage for the site or portions of the site where the operator had control.

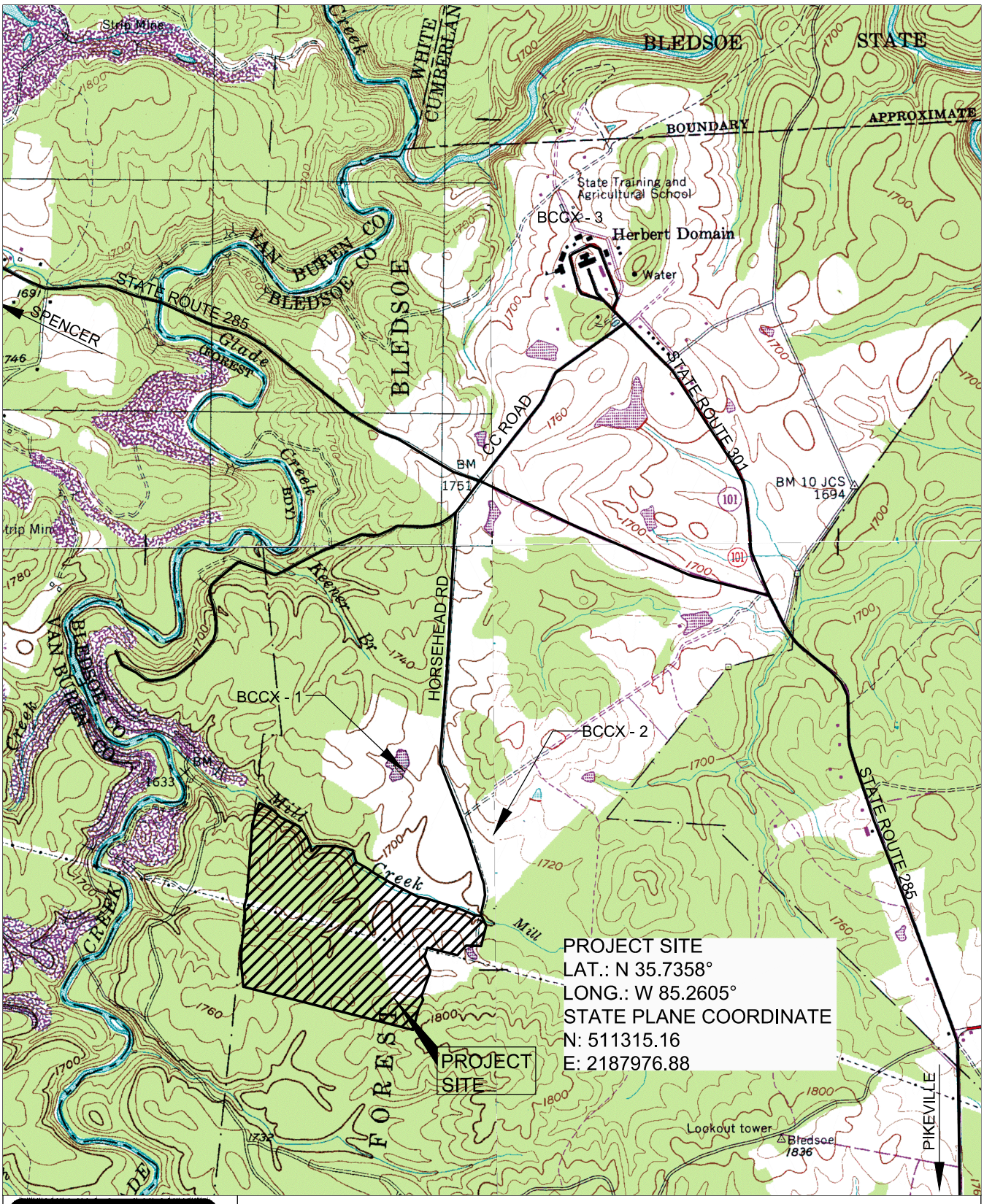
I certify under penalty of law that this document and all attachments were prepared by me, or under my direction or supervision. The submitted information is to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. As specified in Tennessee Code Annotated Section 39-16-702(a)(4), this declaration is made under penalty of perjury.

Permittee name (print or type): Steven Westerman	Signature:	Date:

EFO	Street Address	Zip Code	EFO	Street Address	Zip Code
Memphis	8383 Wolf Lake Drive, Bartlett, TN	38133	Cookeville	1221 South Willow Ave.	38506
Jackson	1625 Hollywood Drive	38305	Chattanooga	1301 Riverfront Parkway, Ste. 206	37402
Nashville	711 R S Gass Boulevard	37243	Knoxville	3711 Middlebrook Pike	37921
Columbia	1421 Hampshire Pike	38401	Johnson City	2305 Silverdale Road	37601

Appendix C

Location Map



ENGINEERS, INC.
3354 PERIMETER HILL DRIVE,
SUITE 140
NASHVILLE, TN 37211
615-834-8300

LOCATION MAP

SCALE: 1" = 2,000'

QUAD MAP SOURCE: LONEWOOD
HERBERT DOMAIN
SAMSON
BILLINGSLEY GAP

Appendix D

Erosion Control Plans

THIS DRAWING IS AN INSTRUMENT OF SERVICE OWNED BY CONSOLIDATED TECHNOLOGIES, INC. (CTI), WHICH SHALL BE DEEMED THE AUTHOR AND WHICH SHALL RETAIN ALL STATUTORY AND COMMON LAW RIGHTS, INCLUDING COPYRIGHTS. THIS DRAWING SHALL NOT BE SCANNED, COPIED, OR DISTRIBUTED TO OTHERS IN ANY FORM OR USED FOR ANY OTHER PURPOSE OR PROJECT WITHOUT PRIOR WRITTEN CONSENT OF CTI. CTI IS NOT RESPONSIBLE FOR CONSEQUENCES RELATED TO UNAUTHORIZED USE OR REUSE OF THIS DRAWING OR PORTIONS THEREOF.

REVISIONS

NO.	DESCRIPTIONS	DATE	BY	APP'D

DESIGN	DRAWN	CHECKED	APPROVED
NH	JRH	NH	NH

WASTEWATER TREATMENT PLANT EXPANSION
BLEDSOE COUNTY CORRECTIONAL COMPLEX
PIKEVILLE, BLEDSOE COUNTY, TENNESSEE SBC PROJECT 142/013-01-2013-06

EROSION PREVENTION AND SEDIMENT CONTROL (INITIAL PHASE)
SHEET A

CTI ENGINEERS, INC.
3354 PERIMETER HILL DRIVE, SUITE 140
NASHVILLE, TN 37211

JAMES NEAL HALL — REGISTERED ENGINEER — STATE OF TENNESSEE

JOB NO.
N16003

ISSUE DATE
November 30, 2018

SCALE
1" = 50' - 0"

DRAWING NO.
C-026

CTI PROJECT: N16003-01 (TN Dept. General Services TDEC) Bledsoe County Correctional Complex, DRAWING: CTI - C-027 - EROSION PREVENTION AND SEDIMENT CONTROL SHEET B (INITIAL) (672132x5\1/7/19 9:28AM), LAYOUT: C-027

DATE OF PRINT: 1/7/2019 1:59 PM

SHEET A

SHEET C

TUBES AND WATTLES

PLAN NORTH

0 50 100 150

SCALE: 1" = 50' - 0"

EROSION CONTROL PLAN LEGEND

- CHECK DAM
- SILT FENCE
- TUBES AND WATTLES
- DISTURBANCE LIMIT
- CONSTRUCTION EXIT
- SEDIMENT TRAP WITH ENHANCED ROCK CHECK DAM
- CONCRETE WASHOUT — CONCRETE WASHOUT
- STABILIZATION WITH STRAW MULCH
- STABILIZATION WITH PERMANENT VEGETATION
- DEWATERING TREATMENT PRACTICES
- CATCH BASIN PROTECTION (TYPE D)

SHEET D | SHEET A

SHEET C | SHEET B

REVISIONS

NO.	DESCRIPTIONS	DATE	BY	APP'D

DESIGN	DRAWN	CHECKED	APPROVED
NH	JRH	NH	NH

WASTEWATER TREATMENT PLANT EXPANSION
BLEDSOE COUNTY CORRECTIONAL COMPLEX
PIKEVILLE, BLEDSOE COUNTY, TENNESSEE SBC PROJECT 142/2013-01-2013-06

EROSION PREVENTION AND SEDIMENT CONTROL (INITIAL PHASE)
SHEET B

CTI ENGINEERS, INC.
334 PERIMETER HILL DRIVE, SUITE 140
NASHVILLE, TN 37211
615-834-8300

JAMES NEAL HALL — REGISTERED ENGINEER — STATE OF TENNESSEE — 115848

James Neal Hall 1/7/2019

JOB NO.	N16003
ISSUE DATE	November 30, 2018
SCALE	1" = 50' - 0"
DRAWING NO.	C-027

CTI PROJECT: N16003-01 (TN Dept. General Services TDEC) Bledsoe County Correctional Complex, DRAWING: CTI - C-028 - EROSION PREVENTION AND SEDIMENT CONTROL SHEET C (INTIAL) (572133v7/17/19 2:03PM), LAYOUT: C-028

DATE OF PRINT: 1/7/2019 2:04 PM

REVISIONS

NO.	DESCRIPTIONS	DATE	BY	APP'D

DESIGN NH | DRAWN JRH | CHECKED NH | APPROVED NH

WASTEWATER TREATMENT PLANT EXPANSION BLEDSOE COUNTY CORRECTIONAL COMPLEX

PIKEVILLE, BLEDSOE COUNTY, TENNESSEE SBC PROJECT 142/013-01-2013-06

EROSION PREVENTION AND SEDIMENT CONTROL (INITIAL PHASE) SHEET C

CTI ENGINEERS, INC.
3354 PERIMETER HILL DRIVE, SUITE 140
NASHVILLE, TN 37211
615-834-8300

JAMES NEAL HALL — STATE OF TENNESSEE — REGISTERED ENGINEER — AGRICULTURE — COMMERCE — No. 15895

11/30/18

JOB NO. N16003

ISSUE DATE November 30, 2018

SCALE 1" = 50' - 0"

DRAWING NO. C-028

CTI PROJECT: N16003-01 (TN Dept. General Services TDEC) Bledsoe County Correctional Complex, DRAWING: CTI - C-029 - EROSION PREVENTION AND SEDIMENT CONTROL SHEET D (INITIAL) (5721314/17/19 9:32AM), LAYOUT: C-029

DATE OF PRINT: 1/7/2019 2:10 PM

EROSION CONTROL PLAN LEGEND

- CHECK DAM
- SILT FENCE (SF)
- TUBES AND WATTLES
- DISTURBANCE LIMIT
- CONSTRUCTION EXIT
- SEDIMENT TRAP WITH ENHANCED ROCK CHECK DAM
- CONCRETE WASHOUT — CONCRETE WASHOUT
- STABILIZATION WITH STRAW MULCH
- STABILIZATION WITH PERMANENT VEGETATION
- DEWATERING TREATMENT PRACTICES
- CATCH BASIN PROTECTION (TYPE D)

PLAN NORTH

0 50 100

SCALE: 1" = 50' - 0"

SHEET A | SHEET B | SHEET C | SHEET D

SHEET 6

SHEET 3

TUBES AND WATTLES

CHECK DAM

CHECK DAM

SEDIMENT TRAP

OHP

REVISIONS			
NO.	DESCRIPTIONS	DATE	BY	APP'D

DESIGN NH | DRAWN JRH | CHECKED NH | APPROVED NH

WASTEWATER TREATMENT PLANT EXPANSION
BLEDSOE COUNTY CORRECTIONAL COMPLEX
PIKEVILLE, BLEDSOE COUNTY, TENNESSEE SBC PROJECT 142/2013-01-2013-06

EROSION PREVENTION AND SEDIMENT CONTROL (INITIAL PHASE)
SHEET D

CTI ENGINEERS, INC.
3364 PERIMETER HILL DRIVE, SUITE 140
NASHVILLE, TN 37211
615-834-8300

JAMES NEAL HAMM
REGISTERED ENGINEER
No. 115923
STATE OF TENNESSEE
1/8/18

JOB NO. N16003

ISSUE DATE November 30, 2018

SCALE 1" = 50' - 0"

DRAWING NO. C-029

CTI PROJECT: N16003-01 (TN Dept. General Services TDEC) Bledsoe County Correctional Complex, DRAWING: CTI - C-030 - EROSION PREVENTION AND SEDIMENT CONTROL SHEET A (INTERIM) (571349x23/1/7/19 2:17PM), LAYOUT: C-030

DATE OF PRINT: 1/7/2019 3:31 PM

EROSION CONTROL PLAN LEGEND

- CHECK DAM
- SILT FENCE (SF)
- TUBES AND WATTLES
- DISTURBANCE LIMIT
- CONSTRUCTION EXIT
- SEDIMENT TRAP WITH ENHANCED ROCK CHECK DAM
- CONCRETE WASHOUT
- STABILIZATION WITH STRAW MULCH
- STABILIZATION WITH PERMANENT VEGETATION
- DEWATERING TREATMENT PRACTICES
- CATCH BASIN PROTECTION (TYPE D)

PLAN NORTH

0 50 100 150

SCALE: 1" = 50' - 0"

SHEET D | SHEET A

SHEET C | SHEET B

DEWATERING TREATMENT PRACTICES (SEDIMENT FILTER BAG)

EXISTING DETENTION BASIN HIGH WATER ELEVATION 1713.00

CONSTRUCTION EXIT

CONCRETE WASHOUT

CBP

MU (STABILIZATION WITH STRAW MULCH)

SEDIMENT TRAP

CHECK DAM

OHP

SHEET B

NO.	DESCRIPTIONS REVISIONS	DATE	BY	APP'D

DESIGN	DRAWN	CHECKED	APPROVED
NH	JRH	NH	NH

WASTEWATER TREATMENT PLANT EXPANSION
BLEDSOE COUNTY CORRECTIONAL COMPLEX
PIKEVILLE, BLEDSOE COUNTY, TENNESSEE SBC PROJECT 142/2013-01-2013-06

EROSION PREVENTION AND SEDIMENT CONTROL (INTERIM PHASE)
SHEET A

CTI ENGINEERS, INC.
3344 PERIMETER HILL DRIVE, SUITE 140
NASHVILLE, TN 37211
615-834-8300

JAMES NEAL HALL — REGISTERED ENGINEER — STATE OF TENNESSEE — 115845 — 1/7/19

JOB NO.	ISSUE DATE	SCALE	DRAWING NO.
N16003	November 30, 2018	1" = 50' - 0"	C-030

SHEET A

SHEET C

MU (STABILIZATION WITH STRAW MULCH)

TUBES AND WATTLES

MU (STABILIZATION WITH STRAW MULCH)

MU (STABILIZATION WITH STRAW MULCH)

PLAN NORTH

0 50 100 150

SCALE: 1" = 50' - 0"

EROSION CONTROL PLAN LEGEND

- CHECK DAM
- SILT FENCE
- TUBES AND WATTLES
- DISTURBANCE LIMIT
- CONSTRUCTION EXIT
- SEDIMENT TRAP WITH ENHANCED ROCK CHECK DAM
- CONCRETE WASHOUT
- STABILIZATION WITH STRAW MULCH
- STABILIZATION WITH PERMANENT VEGETATION
- DEWATERING TREATMENT PRACTICES
- CATCH BASIN PROTECTION (TYPE D)

SHEET D | SHEET A

SHEET C | SHEET B

REVISIONS

NO.	DESCRIPTIONS	DATE	BY	APP'D

DESIGN	DRAWN	CHECKED	APPROVED
NH	JRH	NH	NH

WASTEWATER TREATMENT PLANT EXPANSION
BLEDSOE COUNTY CORRECTIONAL COMPLEX
PIKEVILLE, BLEDSOE COUNTY, TENNESSEE SBC PROJECT 142/2013-01-2013-06

EROSION PREVENTION AND SEDIMENT CONTROL (INTERIM PHASE)
SHEET B

CTI ENGINEERS, INC.
3364 PERIMETER HILL DRIVE, SUITE 140
NASHVILLE, TN 37211
615-834-8300

JAMES NEAL HARRIS
REGISTERED ENGINEER
No. 115825
STATE OF TENNESSEE

JOB NO. N16003

ISSUE DATE November 30, 2018

SCALE 1" = 50' - 0"

DRAWING NO. C-031

CTI PROJECT: N16003-01 (TN Dept. General Services TDEC) Bledsoe County Correctional Complex, DRAWING: CTI - C-031 - EROSION PREVENTION AND SEDIMENT CONTROL SHEET B (INTERIM) (571403v16\17\19 9:44AM), LAYOUT: C-031

DATE OF PRINT: 1/7/2019 2:19 PM

CTI PROJECT: N16003-01 (TN Dept. General Services TDEC) Bledsoe County Correctional Complex, DRAWING: CTI - C-032 - EROSION PREVENTION AND SEDIMENT CONTROL SHEET C (INTERIM) (571404v14/17/19 9:45AM), LAYOUT: C-032
DATE OF PRINT: 1/7/2019 2:24 PM

REVISIONS			
NO.	DESCRIPTIONS	DATE	BY	APP'D

DESIGN	DRAWN	CHECKED	APPROVED
NH	JRH	NH	NH

WASTEWATER TREATMENT PLANT EXPANSION BLEDSOE COUNTY CORRECTIONAL COMPLEX

PIKEVILLE, BLEDSOE COUNTY, TENNESSEE SBC PROJECT 142/013-01-2013-06

EROSION PREVENTION AND SEDIMENT CONTROL (INTERIM PHASE) SHEET C

CTI ENGINEERS, INC.
3354 PERIMETER HILL DRIVE, SUITE 140
NASHVILLE, TN 37211
615-834-8300

JAMES NEAL HALL
REGISTERED ENGINEER
AGRICULTURE COMMERCE
No. 15895
STATE OF TENNESSEE
11/30/18

JOB NO.
N16003
ISSUE DATE
November 30, 2018
SCALE
1" = 50' - 0"
DRAWING NO.
C-032

EROSION CONTROL PLAN LEGEND

- CHECK DAM
- SILT FENCE (SF)
- TUBES AND WATTLES
- DISTURBANCE LIMIT
- CONSTRUCTION EXIT
- SEDIMENT TRAP WITH ENHANCED ROCK CHECK DAM
- CONCRETE WASHOUT — CONCRETE WASHOUT
- STABILIZATION WITH STRAW MULCH
- STABILIZATION WITH PERMANENT VEGETATION
- DEWATERING TREATMENT PRACTICES
- CATCH BASIN PROTECTION (TYPE D)

PLAN NORTH

SCALE: 1" = 50' - 0"

SHEET A | SHEET B | SHEET C | SHEET D

MU (STABILIZATION WITH STRAW MULCH)

TUBES AND WATTLES

CHECK DAM

SEDIMENT TRAP

REVISIONS

NO.	DESCRIPTIONS	DATE	BY	APP'D

DESIGN	DRAWN	CHECKED	APPROVED
NH	JRH	NH	NH

WASTEWATER TREATMENT PLANT EXPANSION
BLEDSOE COUNTY CORRECTIONAL COMPLEX

PIKEVILLE, BLEDSOE COUNTY, TENNESSEE SBC PROJECT 142/2013-01-2013-06

EROSION PREVENTION AND SEDIMENT CONTROL (INTERIM PHASE)
SHEET D

ENGINEERS, INC.
3364 PERIMETER HILL DRIVE, SUITE 140
NASHVILLE, TN 37211
615-834-8300

JAMES NEAL HALL
REGISTERED ENGINEER
No. 115823
STATE OF TENNESSEE
1/7/2019

JOB NO.
N16003
ISSUE DATE
November 30, 2018
SCALE
1" = 50' - 0"
DRAWING NO.
C-033

SHEET C

PLAN NORTH

0 50 100 150

SCALE: 1" = 50' - 0"

EROSION CONTROL PLAN LEGEND

- CHECK DAM
- SILT FENCE [SF]
- TUBES AND WATTLES
- DISTURBANCE LIMIT
- CONSTRUCTION EXIT
- SEDIMENT TRAP WITH ENHANCED ROCK CHECK DAM
- CONCRETE WASHOUT — CONCRETE WASHOUT
- STABILIZATION WITH STRAW MULCH
- STABILIZATION WITH PERMANENT VEGETATION
- DEWATERING TREATMENT PRACTICES
- CATCH BASIN PROTECTION (TYPE D)

SHEET D | SHEET A | SHEET C | SHEET B

PERMANENT STABILIZATION WITH PERMANENT VEGETATION

REMOVE ALL ACCUMULATED SILT AND RESTORE TO FULL STORAGE VOLUME

OHP

CBP

NOTES:

1. REMOVE ALL EROSION PREVENTION AND SEDIMENT CONTROL MEASURES ONLY AFTER PERMANENT STABILIZATION MEASURES HAVE BEEN SUCCESSFUL.

SHEET B

REVISIONS				
NO.	DESCRIPTIONS	DATE	BY	APP'D

DESIGN	DRAWN	CHECKED	APPROVED
NH	JRH	NH	NH

WASTEWATER TREATMENT PLANT EXPANSION
BLEDSOE COUNTY CORRECTIONAL COMPLEX
PIKEVILLE, BLEDSOE COUNTY, TENNESSEE SBC PROJECT 142/2013-01-2013-06

EROSION PREVENTION AND SEDIMENT CONTROL (FINAL PHASE)
SHEET A

CTI ENGINEERS, INC.
2364 PERIMETER HILL DRIVE, SUITE 140
NASHVILLE, TN 37211
615-834-8300

JAMES NEAL HALL — REGISTERED ENGINEER — 115925 — STATE OF TENNESSEE — 1/7/2019

JOB NO.	ISSUE DATE	SCALE	DRAWING NO.
N16003	November 30, 2018	1" = 50' - 0"	C-034

SHEET A

EROSION CONTROL PLAN LEGEND

- CHECK DAM
- SILT FENCE
- TUBES AND WATTLES
- DISTURBANCE LIMIT
- CONSTRUCTION EXIT
- SEDIMENT TRAP WITH ENHANCED ROCK CHECK DAM
- CONCRETE WASHOUT
- STABILIZATION WITH STRAW MULCH
- STABILIZATION WITH PERMANENT VEGETATION
- DEWATERING TREATMENT PRACTICES
- CATCH BASIN PROTECTION (TYPE D)

NOTES:

1. REMOVE ALL EROSION PREVENTION AND SEDIMENT CONTROL MEASURES ONLY AFTER PERMANENT STABILIZATION MEASURES HAVE BEEN SUCCESSFUL.

SHEET D | SHEET A
SHEET C | SHEET B

REVISIONS

NO.	DESCRIPTIONS	DATE	BY	APP'D

DESIGN NH | DRAWN JRH | CHECKED NH | APPROVED NH

WASTEWATER TREATMENT PLANT EXPANSION
BLEDSOE COUNTY CORRECTIONAL COMPLEX
PIKEVILLE, BLEDSOE COUNTY, TENNESSEE SBC PROJECT 142/013-01-2013-06

EROSION PREVENTION AND SEDIMENT CONTROL (FINAL PHASE)
SHEET B

CTI ENGINEERS, INC.
3354 PERIMETER HILL DRIVE, SUITE 140
NASHVILLE, TN 37211

JAMES NEAL HA... STATE OF TENNESSEE REGISTERED ENGINEER

JOB NO.
N16003

ISSUE DATE
November 30, 2018

SCALE
1" = 50' - 0"

DRAWING NO.
C-035

PERMANENT VEGETATION

SHEET D

PERMANENT STABILIZATION WITH PERMANENT VEGETATION

PERMANENT STABILIZATION WITH PERMANENT VEGETATION

PERMANENT STABILIZATION WITH PERMANENT VEGETATION

PERMANENT STABILIZATION WITH PERMANENT VEGETATION

SHEET B

PLAN NORTH

0 50 100 150

SCALE: 1" = 50' - 0"

EROSION CONTROL PLAN LEGEND

- CHECK DAM
- SILT FENCE
- TUBES AND WATTLES
- DISTURBANCE LIMIT
- CONSTRUCTION EXIT
- SEDIMENT TRAP WITH ENHANCED ROCK CHECK DAM
- CONCRETE WASHOUT — CONCRETE WASHOUT
- STABILIZATION WITH STRAW MULCH
- STABILIZATION WITH PERMANENT VEGETATION
- DEWATERING TREATMENT PRACTICES
- CATCH BASIN PROTECTION (TYPE D)

SHEET D | SHEET A | SHEET C | SHEET B

NOTES:

1. REMOVE ALL EROSION PREVENTION AND SEDIMENT CONTROL MEASURES ONLY AFTER PERMANENT STABILIZATION MEASURES HAVE BEEN SUCCESSFUL.

REVISIONS				
NO.	DESCRIPTIONS	DATE	BY	APP'D

DESIGN	DRAWN	CHECKED	APPROVED
NH	JRH	NH	NH

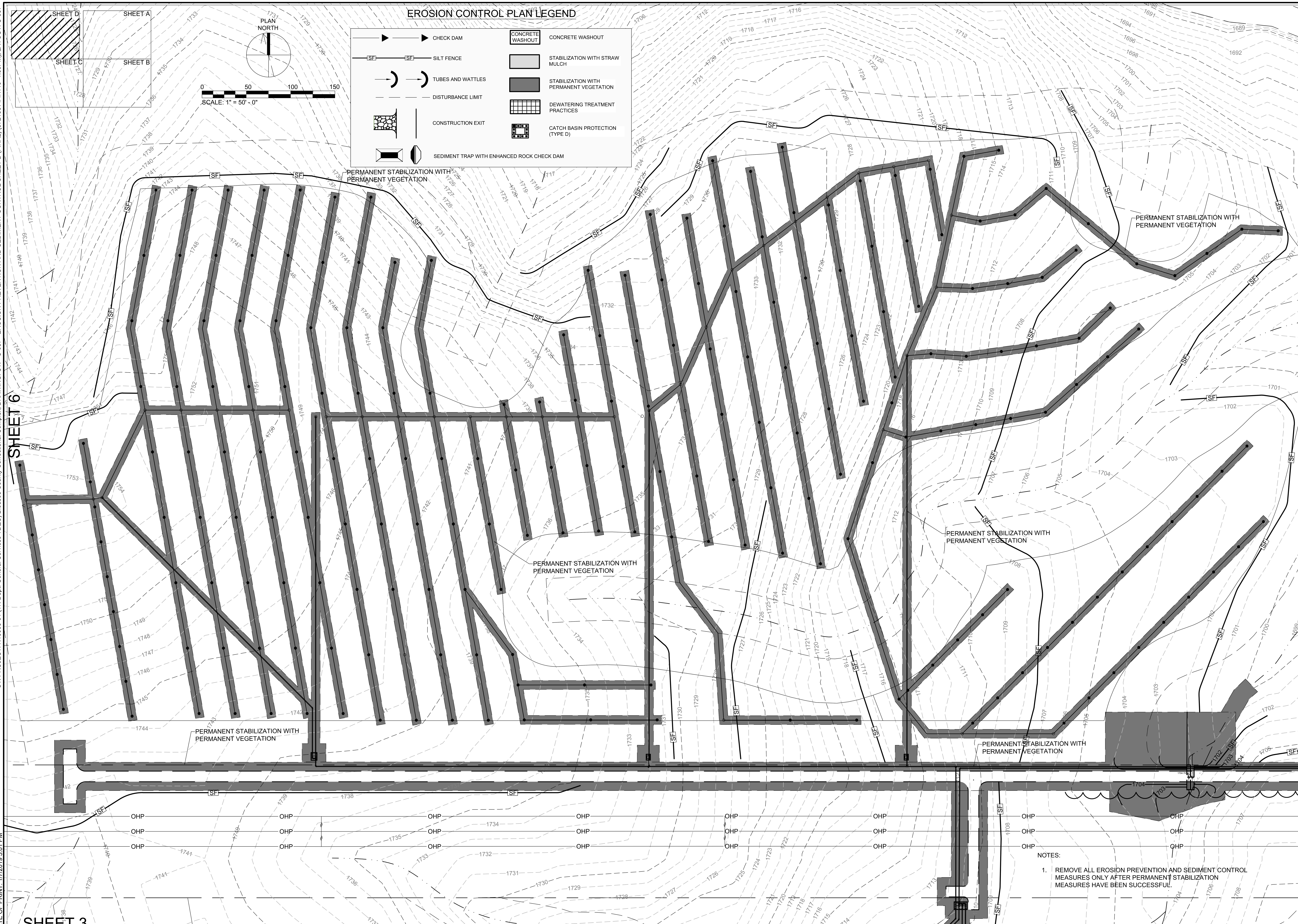
WASTEWATER TREATMENT PLANT EXPANSION
BLEDSOE COUNTY CORRECTIONAL COMPLEX
PIKEVILLE, BLEDSOE COUNTY, TENNESSEE SBC PROJECT 142/2013-01-2013-06

EROSION PREVENTION AND SEDIMENT CONTROL (FINAL PHASE)
SHEET C

CTI ENGINEERS, INC.
3154 PERIMETER HILL DRIVE, SUITE 140
NASHVILLE, TN 37211
615-834-8300

JAMES NEAL HALL
REGISTERED ENGINEER
No. 115833
STATE OF TENNESSEE

JOB NO. N16003
ISSUE DATE November 30, 2018
SCALE 1" = 50' - 0"
DRAWING NO. C-036



EROSION CONTROL PLAN LEGEND
CHECK DAM
SILT FENCE
TUBES AND WATTLES
DISTURBANCE LIMIT
CONSTRUCTION EXIT
SEDIMENT TRAP WITH ENHANCED ROCK CHECK DAM
CONCRETE WASHOUT
CONCRETE WASHOUT
STABILIZATION WITH STRAW MULCH
STABILIZATION WITH PERMANENT VEGETATION
DEWATERING TREATMENT PRACTICES
CATCH BASIN PROTECTION (TYPE D)
PLAN NORTH
SCALE: 1" = 50' - 0"
SHEET D
SHEET A
SHEET C
SHEET B
SHEET 6
SHEET 3
PERMANENT STABILIZATION WITH PERMANENT VEGETATION
OHP
SF
NOTES:
1. REMOVE ALL EROSION PREVENTION AND SEDIMENT CONTROL MEASURES ONLY AFTER PERMANENT STABILIZATION MEASURES HAVE BEEN SUCCESSFUL.

REVISIONS

NO.	DESCRIPTIONS	DATE	BY	APP'D

DESIGN	DRAWN	CHECKED	APPROVED
NH	JRH	NH	NH

WASTEWATER TREATMENT PLANT EXPANSION BLEDSOE COUNTY CORRECTIONAL COMPLEX

PIKEVILLE, BLEDSOE COUNTY, TENNESSEE SBC PROJECT 142/013-01-2013-06

EROSION PREVENTION AND SEDIMENT CONTROL (FINAL PHASE) SHEET D

CTI ENGINEERS, INC.
3354 PERIMETER HILL DRIVE, SUITE 140
NASHVILLE, TN 37211
615-834-8300

JAMES NEAL HALL
REGISTERED ENGINEER
AGRICULTURE COMMERCE
No. 15895
STATE OF TENNESSEE
11/30/18

JOB NO.
N16003

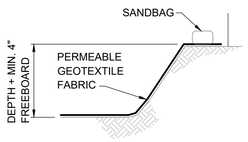
ISSUE DATE
November 30, 2018

SCALE
1" = 50' - 0"

DRAWING NO.
C-037

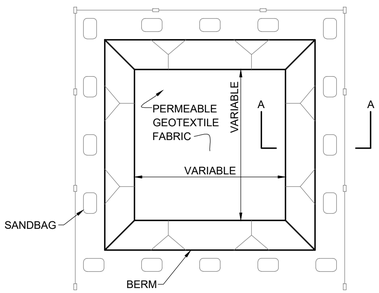
CTI PROJECT: N16003-01 (TN Dept. General Services TDEC) Bledsoe County Correctional Complex, DRAWING: CTI - C-037 - EROSION PREVENTION AND SEDIMENT CONTROL SHEET D (FINAL) (572156v4/1/7/19 1:39PM), LAYOUT: C-037
DATE OF PRINT: 1/7/2019 3:01 PM

STABILIZATION WITH PERMANENT VEGETATION (PS)			
ZONE	BEST	MARGINAL	PREFERRED RATE/MIX (LB/AC PLS)
>2500 FT ELEVATION; STEEP SLOPES	MAR 20 - APR 30	AUG 15 -AUG 30 MAR 1 - MAR 20 APR 20 - JUNE 15	15 BROWN TOP MILLET* (NURSE CROP) 5 PURPLETOP 10 LITTLE BLUESTEM 10 INDIAN GRASS 2 BLACK-EYED SUSAN 0.5 MONARDA (BERGAMOT) 4 MARYLAND SENNA
<2500 FT ELEVATION; STEEP SLOPES	AUG 15 - SEPT 1 MAR 1 - APR 1	SEPT 1 - SEPT 15 APR 1 - JUNE 10	
>2500 FT ELEVATION; SHALLOW SOILS	MAR 20 - APR 20	AUG 15 -AUG 30 MAR 5 - MAR 20 APR 20 - JUNE 15	15 BROWN TOP MILLET* (NURSE CROP) 4 PURPLETOP 10 LITTLE BLUESTEM 10 BROOMSEDGE 2 PARTRIDGE PEA 2 BLACK-EYED SUSAN 0.5 MONARDA (BERGAMOT)
<2500 FT ELEVATION; SHALLOW SOILS	AUG 15 - SEPT 1 MAR 1 - APR 1	SEPT 1 - SEPT 15 APR 1 - JUNE 10	
>2500 FT ELEVATION; MODERATE SLOPES	MAR 20 - APR 20	AUG 15 -AUG 30 MAR 5 - MAR 20 APR 20 - JUNE 15	15 BROWN TOP MILLET* (NURSE CROP) 4 PURPLETOP 10 LITTLE BLUESTEM 10 INDIAN GRASS 2 BLACK-EYED SUSAN 2 PARTRIDGE PEA 0.5 MONARDA (BERGAMOT) 4 MARYLAND SENAA
<2500 FT ELEVATION; MODERATE SLOPES	AUG 15 SEPT -1 MAR 1 - APR 1	SEPT 1 - SEPT 15 APR 1 - JUNE 10	
>2500 FT ELEVATION; HIGH MAINTENANCE	MAR 20 - APR 20	AUG 15 -AUG 30 MAR 5 - MAR 20 APR 20 - JUNE 15	15 BROWN TOP MILLET* (NURSE CROP) 45 RED FESCUE* 45 HARD FESCUE* 25 CHEWING FESCUE*
<2500 FT ELEVATION; HIGH MAINTENANCE	AUG 15 - SEPT 1 MAR 1 - APR 1	SEPT 1 - SEPT 15 APR 1 - JUNE 10	
THE BOLD DATES ARE THE PREFERRED DATES FOR SEEDING. ALSO, HIGH MAINTENANCE AREAS INCLUDE LAWNS AND OTHER GRASSED AREAS THAT WILL BE MAINTAINED FOR AESTHETICS. * NON NATIVE BUT DO NOT SPREAD			



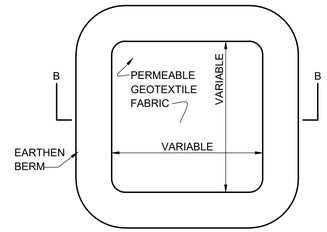
SECTION A-A
NOT TO SCALE

SECTION B-B
NOT TO SCALE



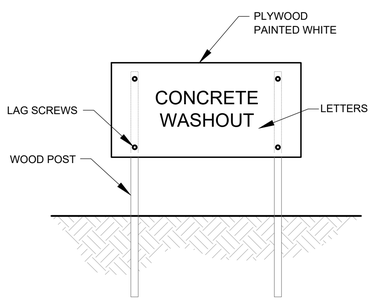
PLAN VIEW
NOT TO SCALE

TYPE "BELOW GRADE"



PLAN VIEW
NOT TO SCALE

TYPE "ABOVE GRADE" WITH EARTHEN BERMS



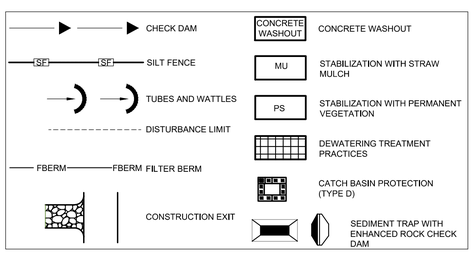
CONCRETE WASHOUT SIGN (OR EQUIVALENT)
NOT TO SCALE

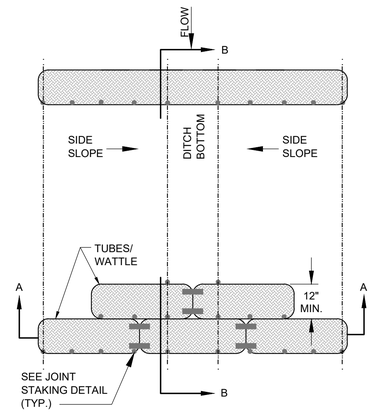
NOTES:

1. ACTUAL LAYOUT DETERMINED IN THE FIELD.

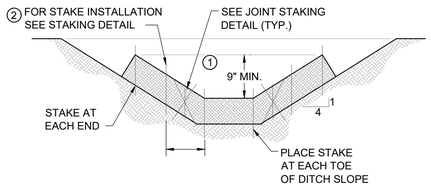
2. SIGNAGE IDENTIFYING THE CONCRETE WASHOUT AREA SHALL BE INSTALLED WITHIN 5 FT.OF THE WASHOUT FACILITY.

EROSION CONTROL PLAN LEGEND

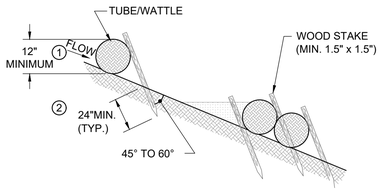




PLAN VIEW FOR DITCH APPLICATION
NOT TO SCALE



SECTION A-A
NOT TO SCALE

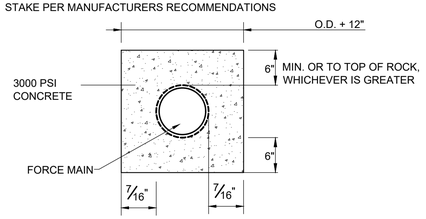


SECTION B-B
NOT TO SCALE

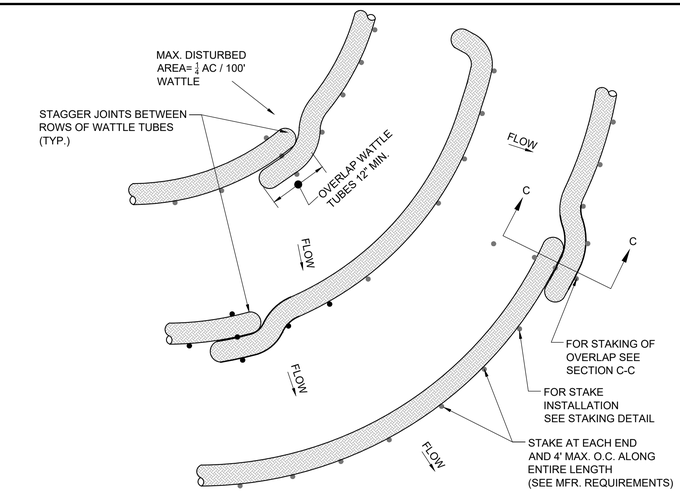
NOTES:

THE DEPTH AND WIDTH OF THE WEIR SECTION OF THE WATTLE SHALL BE DESIGNED TO PASS THE 2yr/24hr OR 5yr/24hr STORM EVENT WITHOUT OVERTOPPING THE CHANNEL.

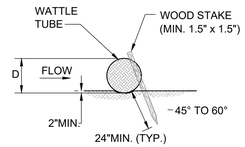
STAKE PER MANUFACTURERS RECOMMENDATIONS



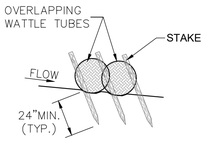
SECTION
NTS



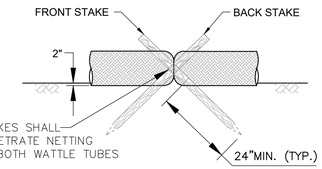
PLAN VIEW FOR SLOPE APPLICATION
NOT TO SCALE



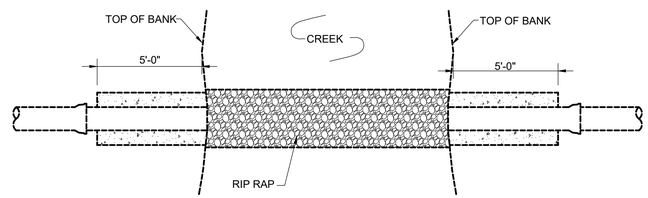
STAKING DETAIL
NOT TO SCALE



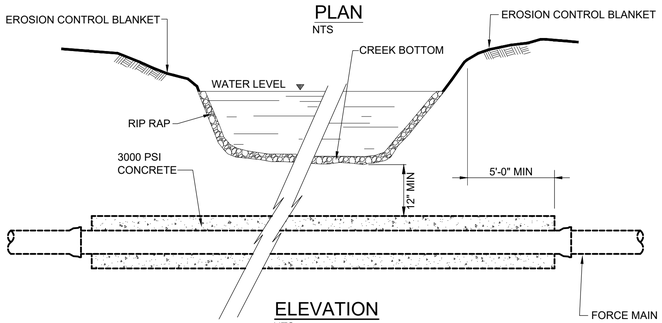
SECTION C-C
NOT TO SCALE



JOINT STAKING DETAIL
NOT TO SCALE



PLAN
NTS



ELEVATION
NTS

CREEK OR DITCH CROSSING
NTS

REVISIONS				
NO.	DESCRIPTIONS	DATE	BY	APP'D

DESIGN	DRAWN	CHECKED	APPROVED
NH	JRH	NH	NH

WASTEWATER TREATMENT PLANT EXPANSION
BLEDSOE COUNTY CORRECTIONAL COMPLEX
PIKEVILLE, BLEDSOE COUNTY, TENNESSEE SBC PROJECT 142/013-01-2013-06

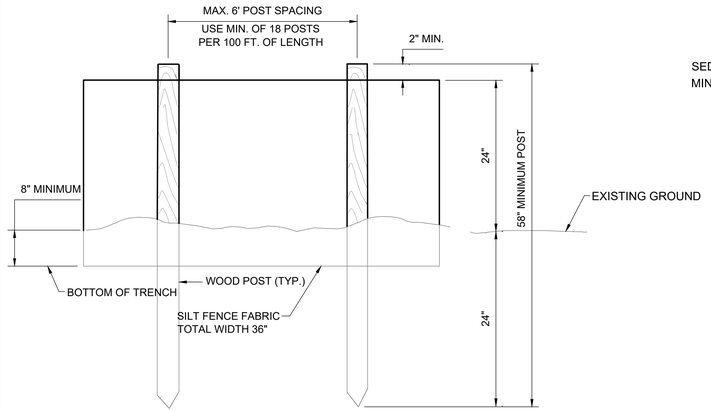
EROSION PREVENTION AND SEDIMENT CONTROL DETAILS (1 OF 3)

C.T.I. ENGINEERS, INC.
3154 PERIMETER HILL DRIVE, SUITE 140
NASHVILLE, TN 37211
615-834-8300

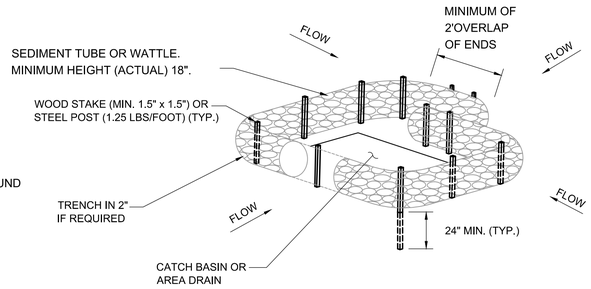
JAMES NEAL HALE
REGISTERED ENGINEER
No. 115833
STATE OF TENNESSEE

JOB NO.
N16003
ISSUE DATE
November 30, 2018
SCALE
NTS
DRAWING NO.
C-038

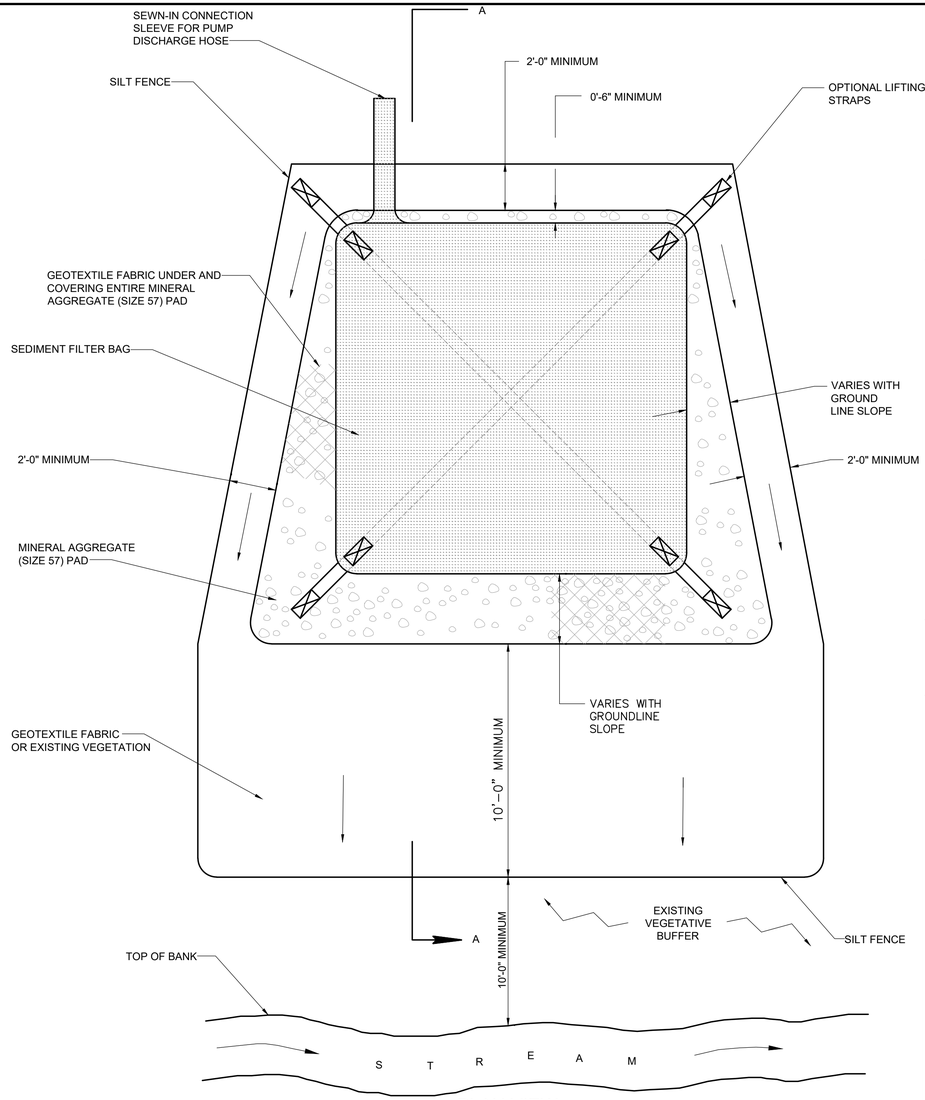
CTI PROJECT: N16003-01 (TN Dept. General Services TDEC) Bledsoe County Correctional Complex, DRAWING: CTI - C-038 - EROSION DETAILS 1 OF 3 (5727104/1/4/19, 3:24PM), LAYOUT: C-038
DATE OF PRINT: 1/8/2019 7:25 AM



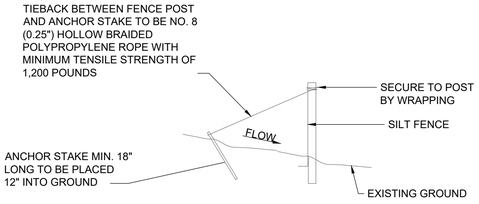
ELEVATION VIEW
NOT TO SCALE



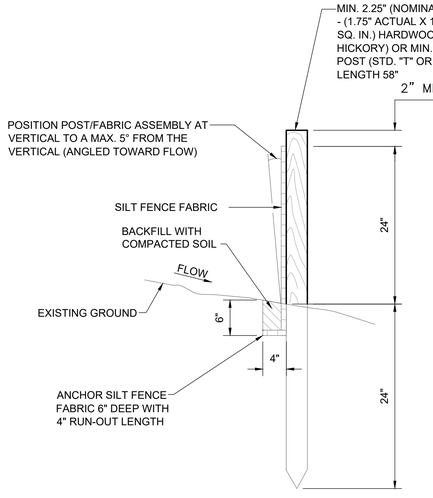
CATCH BASIN PROTECTION (TYPE D)
NOT TO SCALE



PLAN VIEW



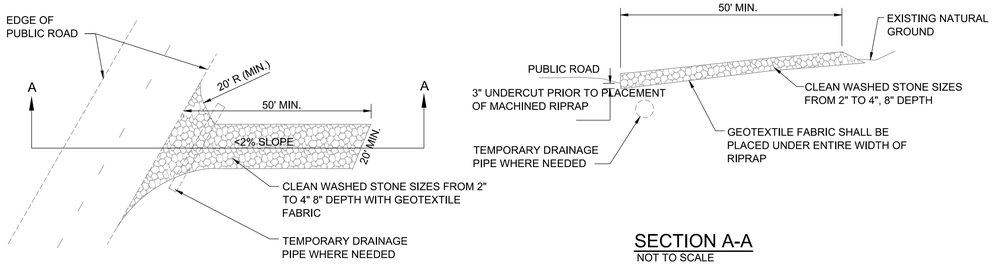
SILT FENCE TIEBACK
FOR STEEL POSTS OR WOOD POSTS
NOT TO SCALE
(WHEN REQUIRED BY THE ENGINEER OR NOTED IN THE PLANS.)



SECTIONAL VIEW
NOT TO SCALE

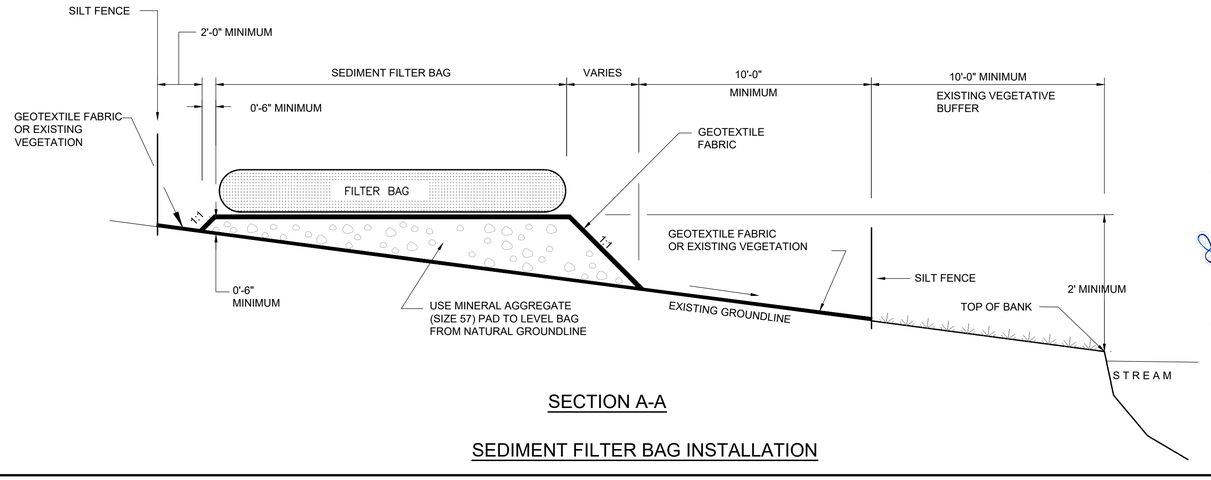
EROSION CONTROL PLAN LEGEND

▶ ▶	CHECK DAM	CONCRETE WASHOUT	CONCRETE WASHOUT
SF SF	SILT FENCE	MU	STABILIZATION WITH STRAW MULCH
) (	TUBES AND WATTLES	PS	STABILIZATION WITH PERMANENT VEGETATION
	DISTURBANCE LIMIT		DEWATERING TREATMENT PRACTICES
FBERM FBERM	FILTER BERM		CATCH BASIN PROTECTION (TYPE D)
	CONSTRUCTION EXIT		SEDIMENT TRAP WITH ENHANCED ROCK CHECK DAM



PLAN VIEW OF TEMPORARY CONSTRUCTION ROAD
NOT TO SCALE

SECTION A-A
NOT TO SCALE



SECTION A-A

SEDIMENT FILTER BAG INSTALLATION

NO.	DESCRIPTIONS	DATE	BY	APP'D
	REVISIONS			

DESIGN	NH
DRAWN	JRH
CHECKED	NH
APPROVED	NH

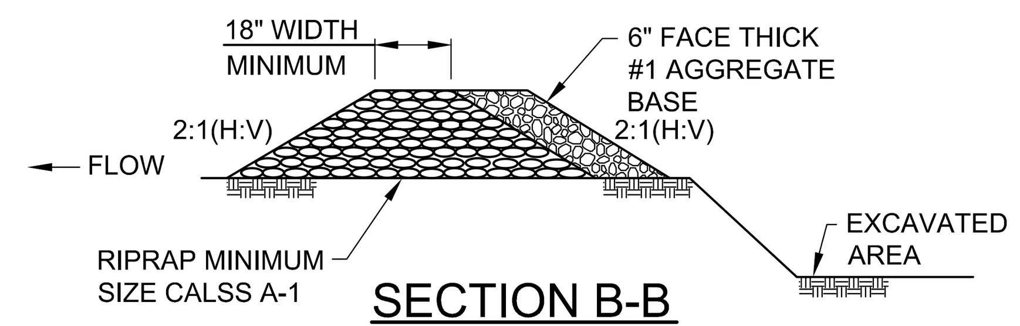
WASTEWATER TREATMENT PLANT EXPANSION
BLEDSOE COUNTY CORRECTIONAL COMPLEX
PIKEVILLE, BLEDSOE COUNTY, TENNESSEE SBC PROJECT 142/2013-01-2013-06

EROSION PREVENTION AND
SEDIMENT CONTROL DETAILS
(2 OF 3)

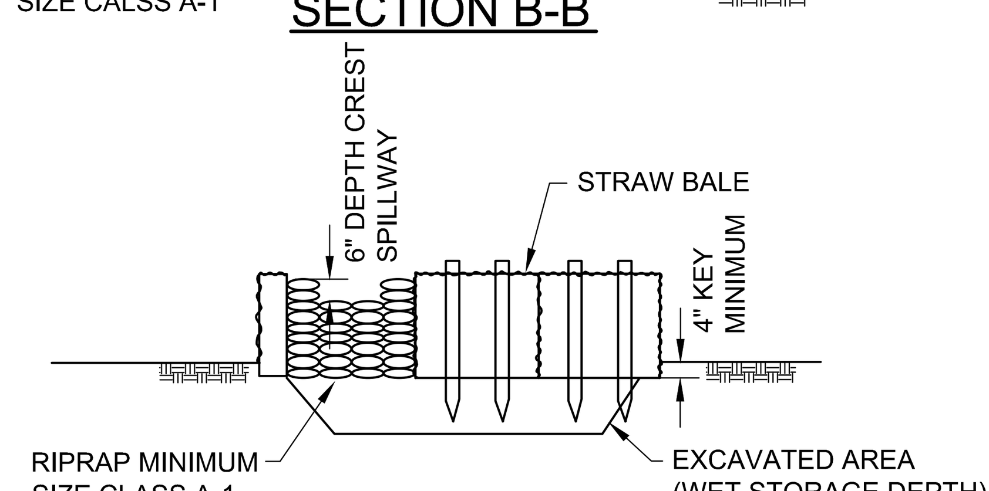
CTI ENGINEERS, INC.
3364 PERIMETER HILL DRIVE, SUITE 140
NASHVILLE, TN 37211
615-834-8300

JAMES NEAL HAMMONDS
REGISTERED ENGINEER
No. 115825
STATE OF TENNESSEE

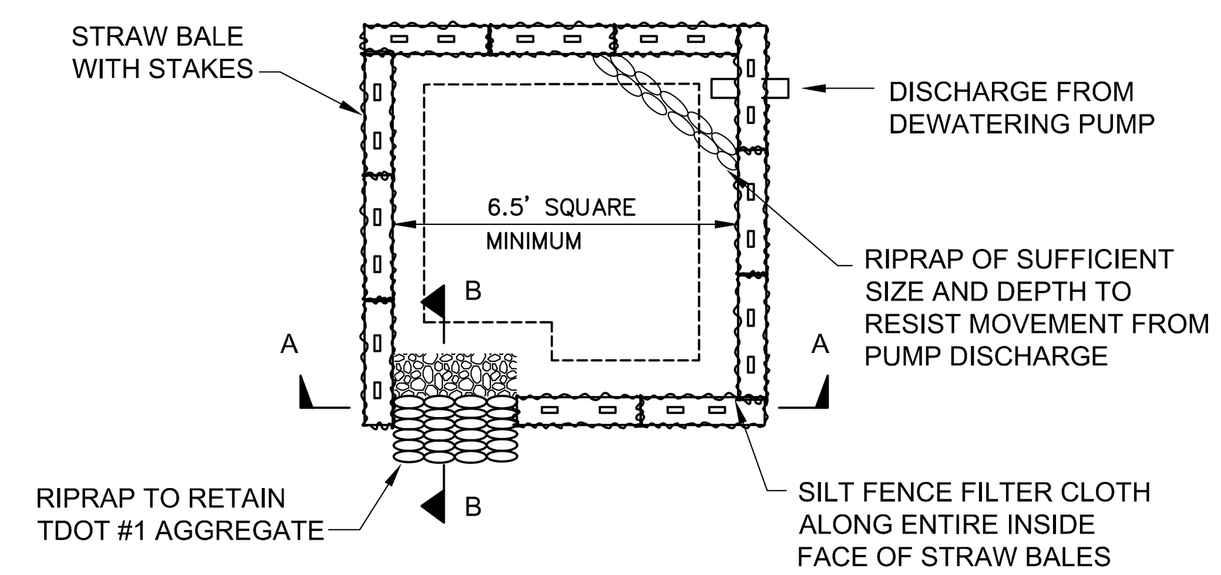
JOB NO.	N16003
ISSUE DATE	November 30, 2018
SCALE	NTS
DRAWING NO.	C-039



SECTION B-B

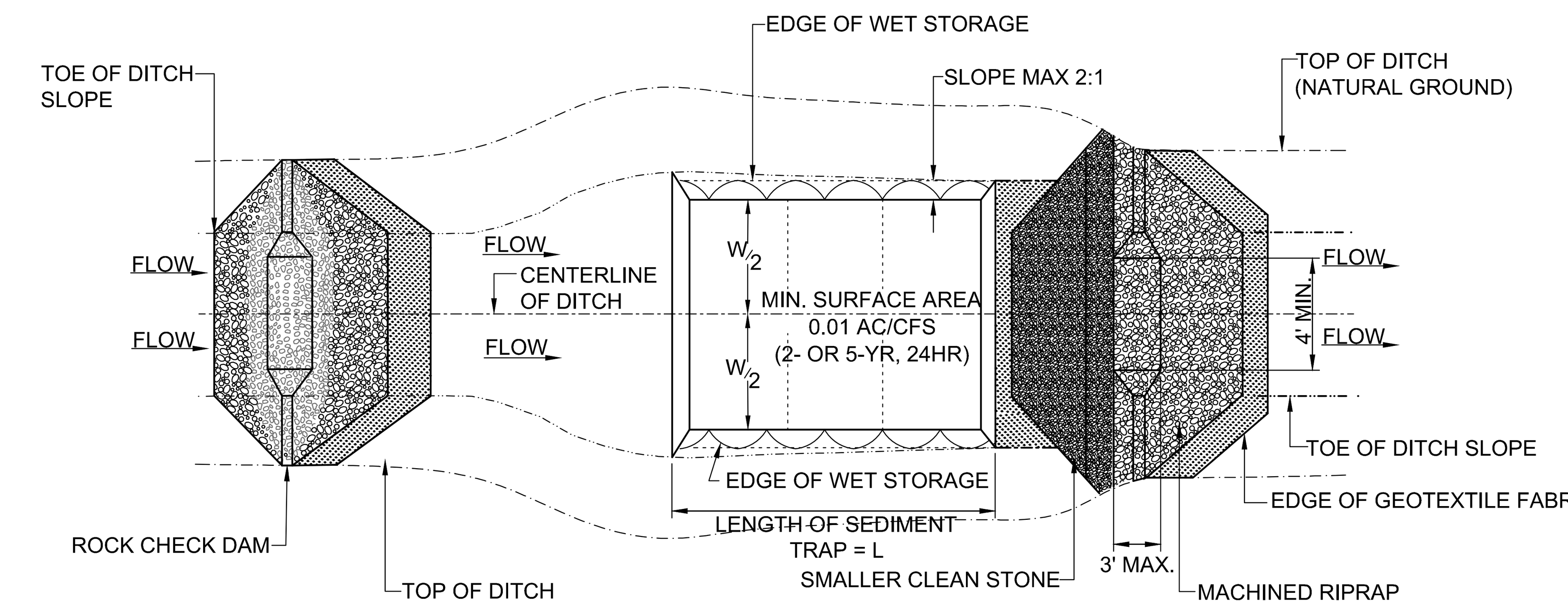


SECTION A-A

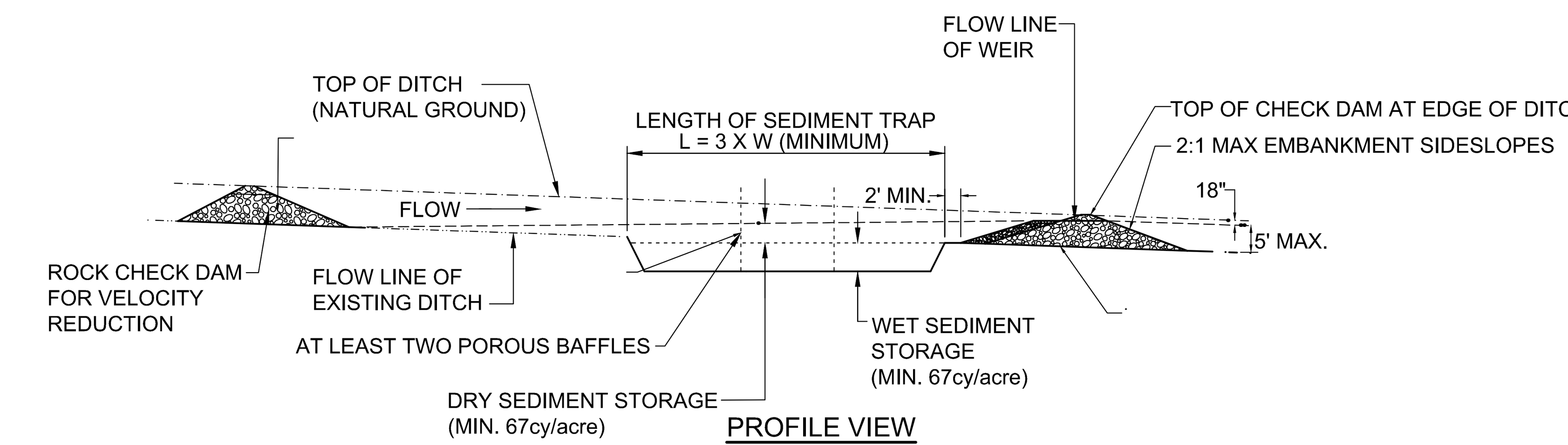


STRAW BALE/SILT FENCE PIT

NOT TO SCALE



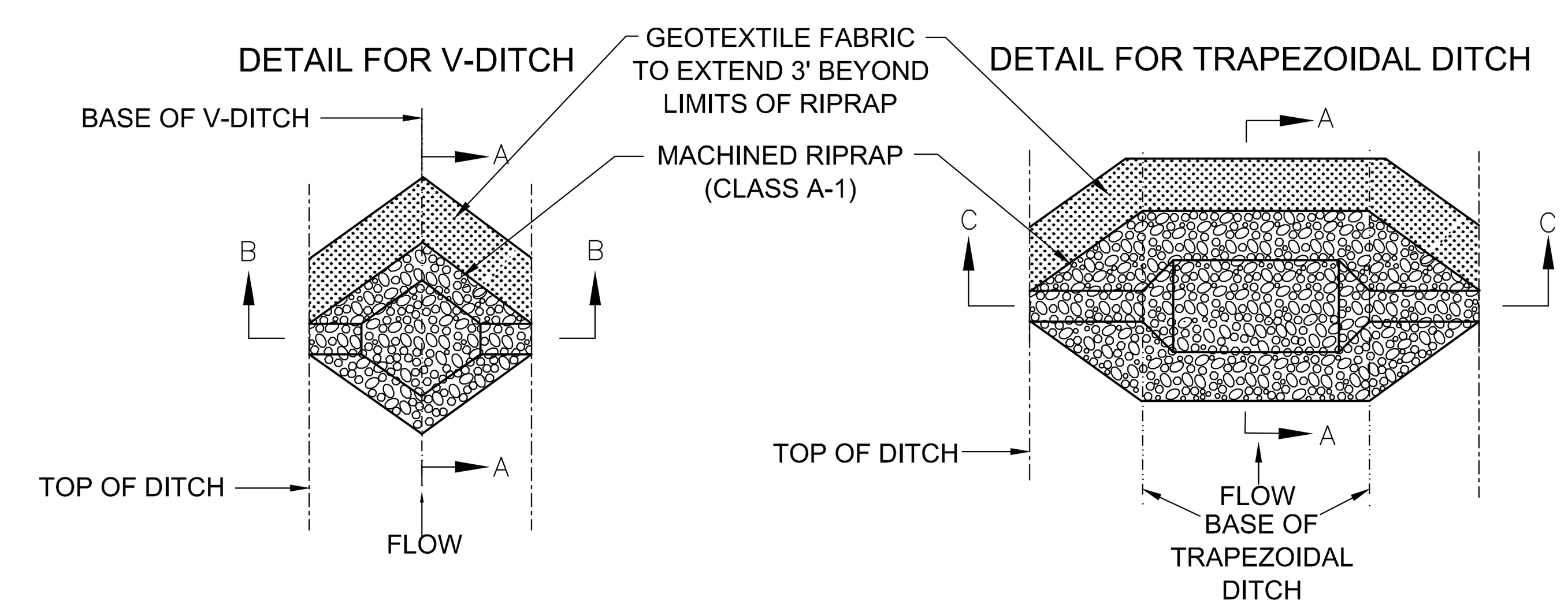
PLAN VIEW



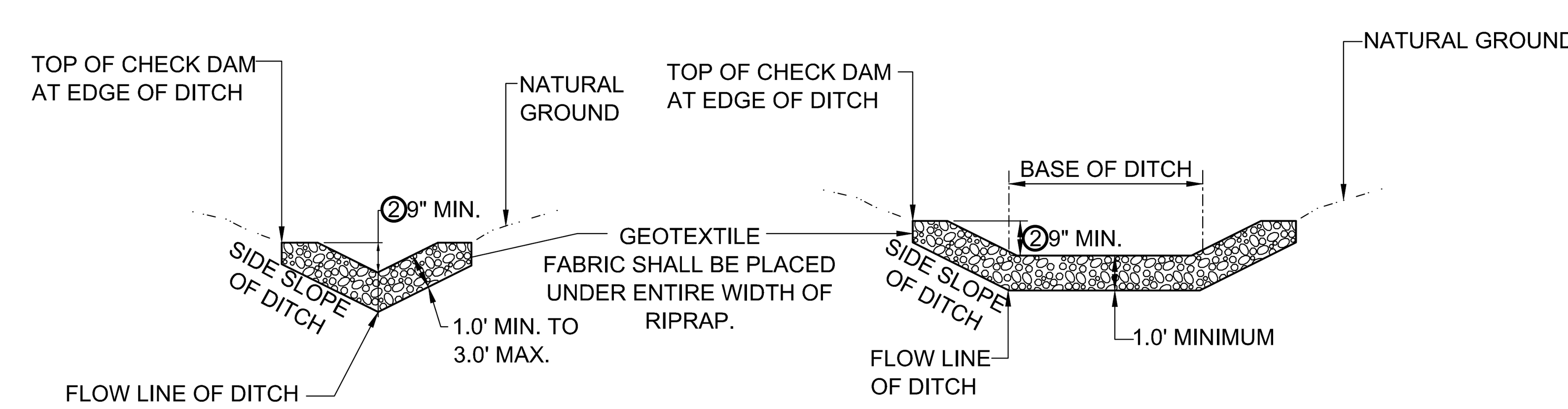
PROFILE VIEW

SEDIMENT TRAP

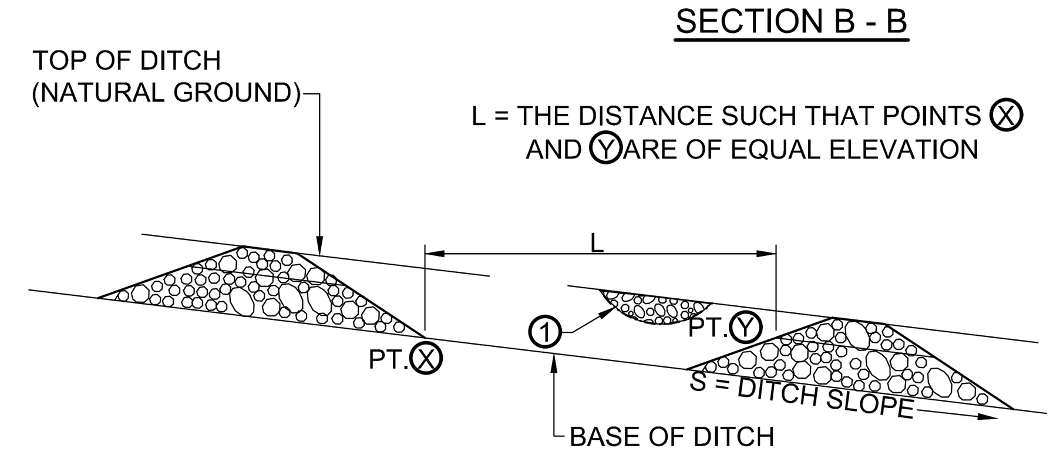
NOT TO SCALE



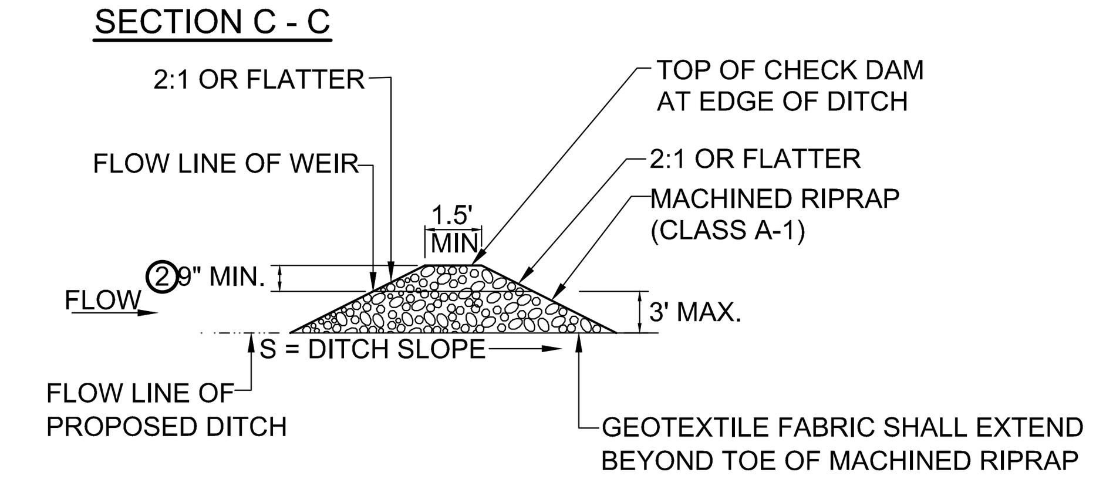
PLAN VIEW   PLAN VIEW



SECTION B - B   SECTION C - C



DETAIL FOR SPACING BETWEEN CHECK DAMS



SECTION A - A

NOTES:

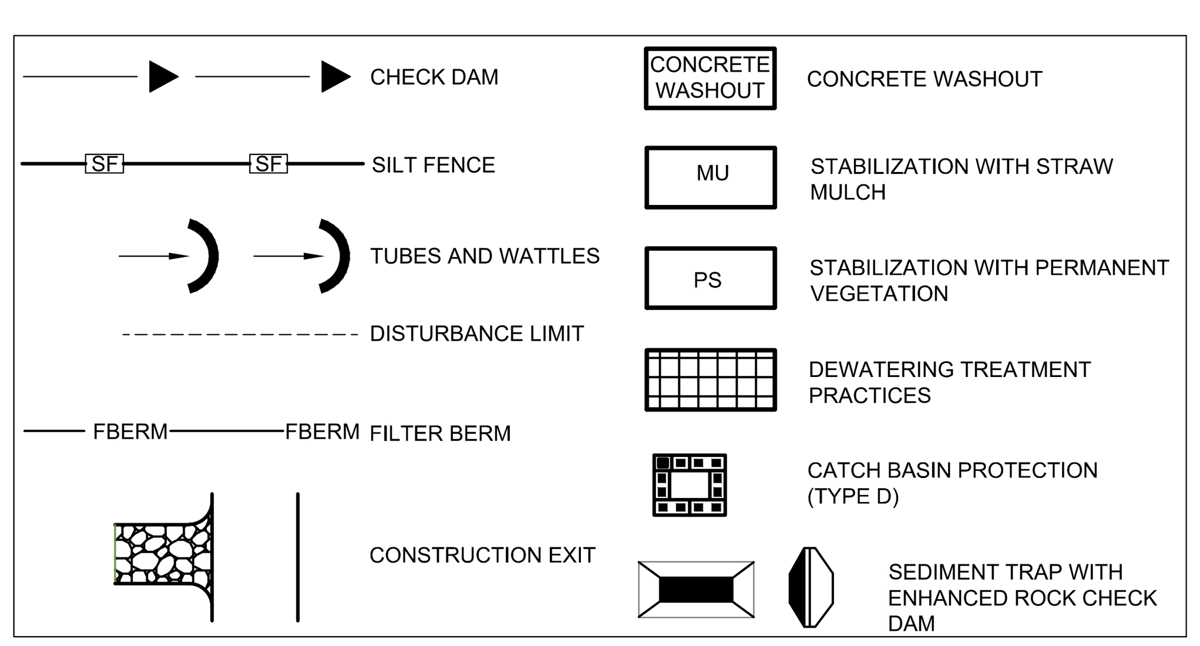
① FILL LOW AREAS ALONG TOP OF BANK T0 PREVENT BACKWATER FROM EXITING DITCH.

② WEIR FLOW DEPTH BASED UPON 2yr/24hr STORM EVENT OR 5yr/24hr STORM EVENT.

CHECK DAM

NOT TO SCALE

EROSION CONTROL PLAN LEGEND



REVISIONS

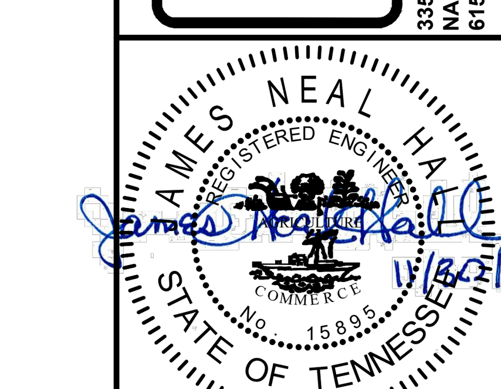
NO.	DESCRIPTIONS	DATE	BY	APP'D

DESIGN	DRAWN	CHECKED	APPROVED
NH	JRH	NH	NH

WASTEWATER TREATMENT PLANT EXPANSION
BLEDSOE COUNTY CORRECTIONAL COMPLEX
PIKEVILLE, BLEDSOE COUNTY, TENNESSEE SBC PROJECT 142/013-01-2013-06

EROSION PREVENTION AND SEDIMENT CONTROL DETAILS (3 OF 3)

ENGINEERS, INC.
3354 PERIMETER HILL DRIVE, SUITE 140
NASHVILLE, TN 37211
615-434-8300



JOB NO.
N16003

ISSUE DATE
November 30, 2018

SCALE
NTS

DRAWING NO.
C-040

Appendix E

NRCS Soil Survey Maps

K Factor, Whole Soil—Bledsoe County, Tennessee
(BCCX)

Map Scale: 1:7,180 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 100 200 400 600

Feet
0 300 600 1200 1800

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 16N WGS84

MAP LEGEND

Area of Interest (AOI)

Area of Interest (AOI)

Soils

Soil Rating Polygons

.02
.05
.10
.15
.17
.20
.24
.28
.32
.37
.43
.49
.55
.64
Not rated or not available

Soil Rating Lines

.02
.05
.10
.15
.17
.20
.24
.28
.32
.37
.43
.49
.55
.64
Not rated or not available

Soil Rating Points

.02
.05
.10
.15
.17
.20
.24
.28
.32
.37
.43
.49
.55
.64
Not rated or not available

Water Features

Streams and Canals

Transportation

Rails
Interstate Highways
US Routes
Major Roads
Local Roads

Background

Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

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

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

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

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

Soil Survey Area: Bledsoe County, Tennessee
Survey Area Data: Version 14, Sep 16, 2018

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

Date(s) aerial images were photographed: Oct 23, 2011—Oct 18, 2017

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

K Factor, Whole Soil

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
GpD	Gilpin shaly silt loam, 12 to 20 percent slopes	.28	15.8	13.2%
GpE	Gilpin shaly silt loam, 20 to 45 percent slopes	.28	17.7	14.8%
LyB	Lily loam, 2 to 6 percent slopes	.24	12.9	10.8%
LyC	Lily loam, 6 to 12 percent slopes	.24	68.0	56.8%
Mo	Morehead rarely flooded-Bonair occasionally flooded complex	.43	2.7	2.3%
RrE	Ramsey-Rock outcrop complex, 15 to 35 percent slopes	.24	2.7	2.2%
Totals for Area of Interest			**119.7**	**100.0%**

Description

Erosion factor K indicates the susceptibility of a soil to sheet and rill erosion by water. Factor K is one of six factors used in the Universal Soil Loss Equation (USLE) and the Revised Universal Soil Loss Equation (RUSLE) to predict the average annual rate of soil loss by sheet and rill erosion in tons per acre per year. The estimates are based primarily on percentage of silt, sand, and organic matter and on soil structure and saturated hydraulic conductivity (Ksat). Values of K range from 0.02 to 0.69. Other factors being equal, the higher the value, the more susceptible the soil is to sheet and rill erosion by water.

"Erosion factor Kw (whole soil)" indicates the erodibility of the whole soil. The estimates are modified by the presence of rock fragments.

Rating Options

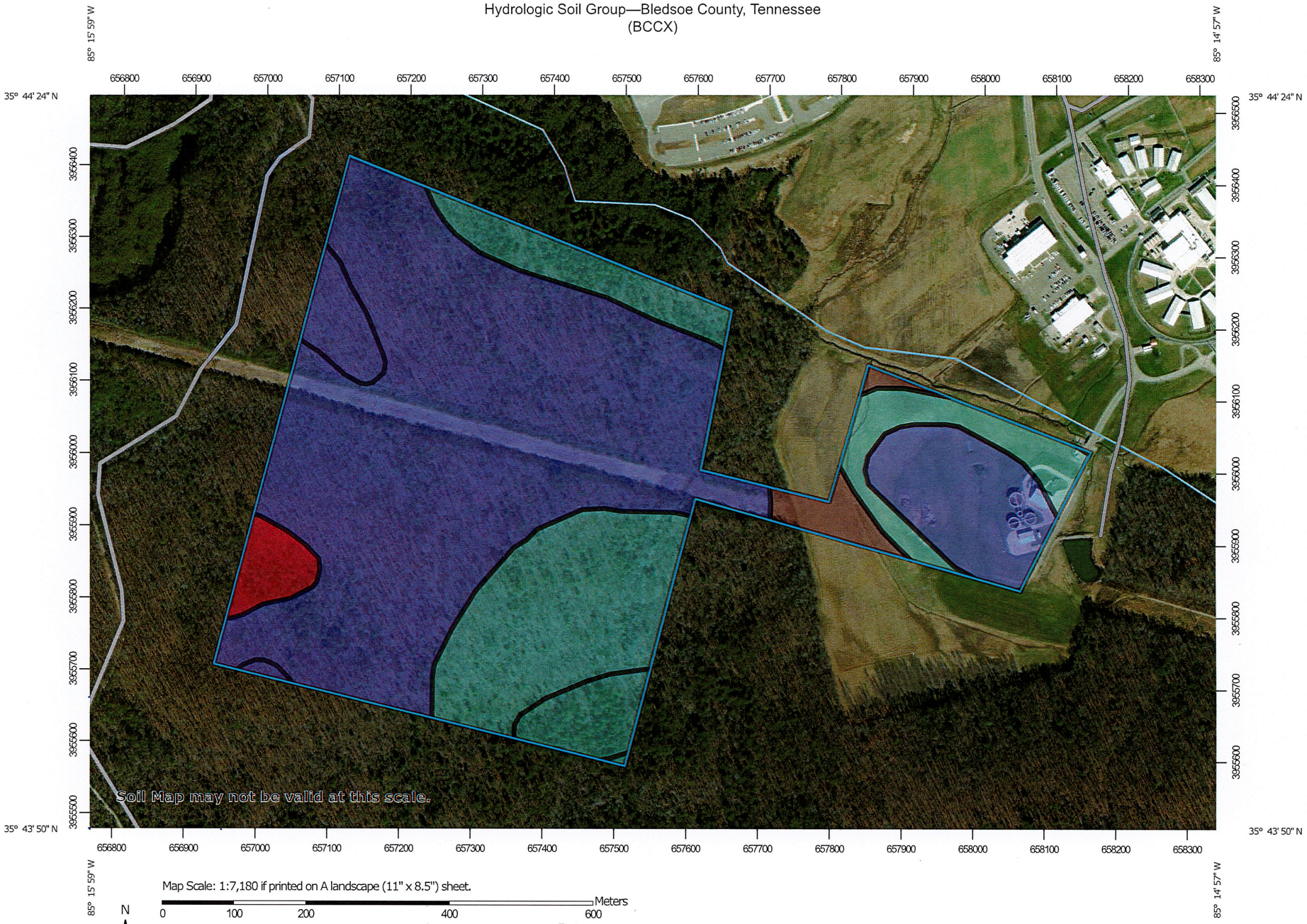
Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

Layer Options (Horizon Aggregation Method): Surface Layer (Not applicable)

Hydrologic Soil Group—Bledsoe County, Tennessee
(BCCX)



Map Scale: 1:7,180 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 100 200 400 600

Feet
0 300 600 1200 1800

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 16N WGS84

MAP LEGEND

Area of Interest (AOI)

Area of Interest (AOI)

Soils

Soil Rating Polygons

A

A/D

B

B/D

C

C/D

D

Not rated or not available

Soil Rating Lines

A

A/D

B

B/D

C

C/D

D

Not rated or not available

Soil Rating Points

A

A/D

B

B/D

C

C/D

D

Not rated or not available

Water Features

Streams and Canals

Transportation

Rails

Interstate Highways

US Routes

Major Roads

Local Roads

Background

Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

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Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

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Date(s) aerial images were photographed: Oct 23, 2011—Oct 18, 2017

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Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
GpD	Gilpin shaly silt loam, 12 to 20 percent slopes	C	15.8	13.2%
GpE	Gilpin shaly silt loam, 20 to 45 percent slopes	C	17.7	14.8%
LyB	Lily loam, 2 to 6 percent slopes	B	12.9	10.8%
LyC	Lily loam, 6 to 12 percent slopes	B	68.0	56.8%
Mo	Morehead rarely flooded-Bonair occasionally flooded complex	B/D	2.7	2.3%
RrE	Ramsey-Rock outcrop complex, 15 to 35 percent slopes	D	2.7	2.2%
Totals for Area of Interest			**119.7**	**100.0%**

Description

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

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

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

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

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

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

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

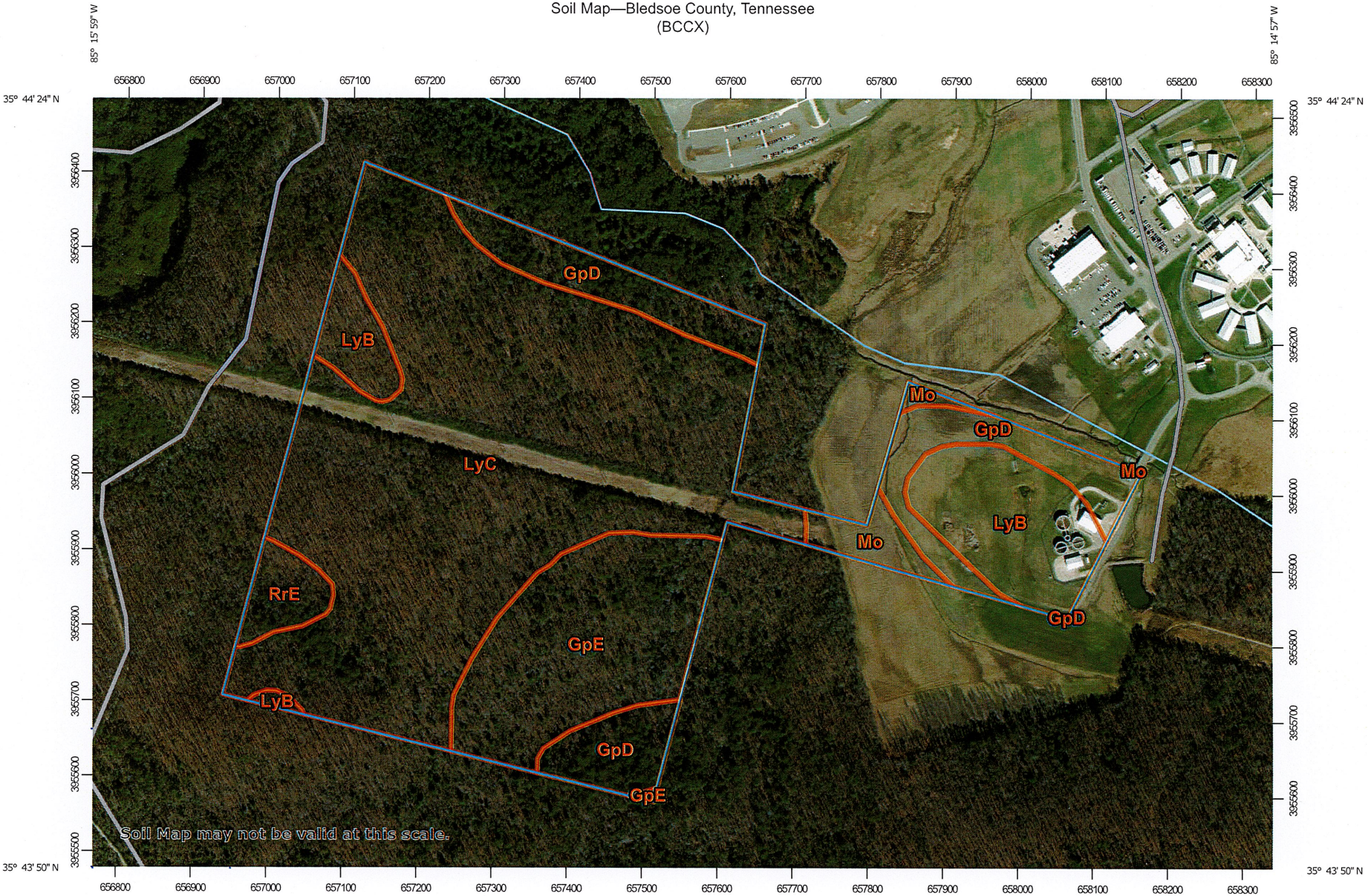
Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

Soil Map—Bledsoe County, Tennessee
(BCCX)



Map Scale: 1:7,180 if printed on A landscape (11" x 8.5") sheet.

N

Meters: 0 100 200 400 600

Feet: 0 300 600 1200 1800

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 16N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

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

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Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

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Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
GpD	Gilpin shaly silt loam, 12 to 20 percent slopes	15.8	13.2%
GpE	Gilpin shaly silt loam, 20 to 45 percent slopes	17.7	14.8%
LyB	Lily loam, 2 to 6 percent slopes	12.9	10.8%
LyC	Lily loam, 6 to 12 percent slopes	68.0	56.8%
Mo	Morehead rarely flooded-Bonair occasionally flooded complex	2.7	2.3%
RrE	Ramsey-Rock outcrop complex, 15 to 35 percent slopes	2.7	2.2%
Totals for Area of Interest		**119.7**	**100.0%**

Appendix F

Seeding Specification

SECTION 32 92 19
SEEDING

PART 1 - GENERAL

1.1 SUMMARY

A. The work covered by this section consists of furnishing all labor, equipment, and material required to place topsoil, seed, commercial fertilizer, agricultural limestone, and mulch material, including seedbed preparation, harrowing, compacting, and other placement operations on graded earthen areas as described herein and/or shown on the Drawings. In general, seeding operations shall be conducted on all newly graded earthen areas not covered by structures, pavement, or sidewalks; all cleared or grubbed areas which are to remain as finish grade surfaces; and on all existing turf areas which are disturbed by construction operations and which are to remain as finish grade surfaces. Areas disturbed by borrow activities shall also be seeded according to these Specifications.

B. Temporary Seeding and Erosion Control

1. This practice is applicable on areas subject to erosion for up to 12 months or until establishment of finished grade or permanent vegetative cover. Temporary vegetative measures shall be coordinated with permanent measures to assure economical and effective stabilization.

2. Temporary seeding shall be applied to denuded areas that will not be brought to final grade for a period of more than 14 days. Such areas include denuded areas, soil stockpiles, dikes, dams, sides of sediment basins, temporary roadbanks, backfilled and rough graded utility line trenches, and disturbed areas along utility lines, etc.

3. Temporary seeding shall be in accordance with the temporary seeding schedule and shall meet the same requirements for seedbed preparation and mulching with the exception that lime and fertilizer need not be applied unless the soil is very low fertility and low pH.

1.2 QUALITY ASSURANCE

A. Prior to seeding operations, furnish to the Designer labels or certified laboratory reports from an accredited commercial seed laboratory or a state seed laboratory showing the analysis and germination of the seed to be furnished. Acceptance of the seed test reports shall not relieve the Contractor of any responsibility or liability for furnishing seed meeting the requirements of this section.

B. Prior to topsoil operations, obtain representative samples and furnish soil test certificates including textural, pH, and organic ignition analysis from the State University Agricultural Extension Services or other certified testing laboratory.

PART 2 - PRODUCTS

2.1 TOPSOIL

A. Place a minimum of 4 inches of topsoil over all graded earthen areas and over any other areas to be seeded. Sources of topsoil shall be approved by the Designer prior to disturbance.

B. Topsoil shall be a friable loam containing a large amount of humus and shall be original surface soil of good, rich, uniform quality, free from any material such as hard clods, stiff clay, hardpan, partially disintegrated stone, pebbles larger than ½ inch in diameter, lime, cement, bricks, ashes, cinders, slag, concrete, bitumen or its residue, boards, sticks, chips, or other undesirable material harmful or unnecessary to plant growth. Topsoil shall be reasonably free from perennial weeds and perennial weed seeds, and shall not contain objectionable plant material, toxic amounts of either acid or alkaline elements, or vegetable debris undesirable or harmful to plant life.

C. Topsoil shall be natural topsoil without admixture of subsoil material, and shall be classifiable as loam, silt loam, clay loam, sandy loam, or a combination thereof. The pH shall range from 5.5 to 7.0. Topsoil shall contain not less than 5 percent nor more than 20 percent, by weight, of organic matter as determined by loss on ignition of samples oven-dried to 65°C.

D. The topsoil shall contain no stones greater than ½-inch in any direction. All stones and roots shall be removed from lawn areas.

2.2 SEED

A. Deliver seed in new bag or bags that are sound and labeled in accordance with the U.S. Department of Agriculture Federal Seed Act.

B. All seed shall be from the last crop available at time of purchase and shall not be moldy, wet, or otherwise damaged in transit or storage.

C. Seed shall bear the grower's analysis testing to 98 percent for purity and minimum 85 percent for germination. At the discretion of the Designer, samples of seed may be taken for check against the grower's analysis.

D. Species, rate of seeding, fertilization, and other requirements are shown in the Seeding Requirements Table.

2.3 FERTILIZER AND LIMING MATERIALS

A. Fertilizer and liming materials shall comply with applicable state, local, and federal laws concerned with their production and use.

TEMPORARY SEEDING RECOMMENDATION FOR FALL

Species	**Rate (lb/acre)**
Oats	30
Winter wheat	30

Seeding dates
East ..... Aug. 15 – Dec. 15
Middle …..... Aug. 15 – Dec. 30
West ..... Aug. 15 – Dec. 30

Soil amendments
Follow recommendations of soil tests or apply 2,000 lb/acre ground agricultural limestone and 750 lb/acre 10-10-10 fertilizer.

Mulch
Apply 4,000 lb/acre straw. Anchor straw by tacking with asphalt, netting, or a mulch anchoring tool. A disk with blades set nearly straight can be used as a mulch anchoring tool.

Maintenance
Refertilize if growth is not fully adequate. Reseed, refertilize and mulch immediately following erosion or other damage. If necessary to extend temporary cover beyond June 15, overseed with 50 lb/ac crimson clover in late February or early March.

TEMPORARY SEEDING RECOMMENDATION FOR LATE WINTER AND EARLY SPRING

Species	**Rate (lb/acre)**
Rye	120

Seeding dates
East .....……Above 2500 feet: Feb. 15 - May 15
Below 2500 feet: Feb. 1 - May 1
Middle .... Jan. 1 - May 1
West ..... Dec. 1 - April 15

Soil amendments
Follow recommendations of soil tests or apply 2,000 lb/acre ground agricultural limestone and 750 lb/acre 10-10-10 fertilizer.

Mulch
Apply 4,000 lb/acre straw. Anchor straw by tacking with asphalt, netting, or a mulch anchoring tool. A disk with blades set nearly straight can be used as a mulch anchoring tool.

Maintenance
Refertilize if growth is not fully adequate. Reseed, refertilize and mulch immediately following erosion or other damage.

TEMPORARY SEEDING RECOMMENDATION FOR SUMMER

Species	**Rate (lb/acre)**
Oats	60
Brown top millet	30

Seeding dates
East ..... May 15 - Aug. 15
Middle …..... May 1 - Aug. 15
West .....April 15 - Aug. 15

Soil amendments
Follow recommendations of soil tests or apply 2,000 lb/acre ground agricultural limestone and 750 lb/acre 10-10-10 fertilizer.

Mulch
Apply 4,000 lb/acre straw. Anchor straw by tacking with asphalt, netting, or a mulch anchoring tool. A disk with blades set nearly straight can be used as a mulch anchoring tool.

Maintenance
Refertilize if growth is not fully adequate. Reseed, refertilize and mulch immediately following erosion or other damage.

PREFERRED SEED MIXES USING NATIVES OR NATURALIZED PLANTS AND PLANTING DATES

ZONE		**BEST**	**MARGINAL**	**PREFERRED RATE/MIX (lb/ac PLS)**
Region I	Poorly drained soils	Feb. 1 – Mar. 20 Sept.1 – Sept. 30	Mar. 20 – April 30 Sept .30 – Oct. 31	15 Browntop millet* (nurse crop) 2 switch grass 4 little bluestem 4 Virginia wild rye 4 purpletop 2 partridge pea 2 black-eyed susan
	Well drained soils	April 1 – July 15		15 Browntop millet* (nurse crop) 4 little bluestem 4 purpletop 2 sideoats gramma 2 partridge pea 2 black-eyed susan
	High maintenance	April 1 – July 15		15 Browntop millet* (nurse crop) 2 partridge pea 45 Red fescue* 45 hard fescue* 25 chewing fescue*
Region II	Low maintenance; Slopes and Poor, shallow soils	Aug. 25 – Sept.15 **Feb. 15 – May 30**	Sept. 15 – Oct. 25 Mar. 21 – May 30	15 Browntop millet* (nurse crop) 5 little bluestem 2 switch grass 2 tall dropseed 5 sideoats gramma 2 black-eyed susan 2 partridge pea 1 greyheaded coneflower

PREFERRED SEED MIXES USING NATIVES OR NATURALIZED PLANTS AND PLANTING DATES				
ZONE		**BEST**	**MARGINAL**	**PREFERRED RATE/MIX (lb/ac PLS)**
	Low maintenance; Moderate slopes; soil >6 in. depth	Aug. 25 – Sept.15 **Feb. 15 – May 30**	Sept. 15 – Oct. 25 Mar. 21 – April 15	15 Browntop millet* (nurse crop) 5 purpletop 5 little bluestem 5 Virginia wild rye 2 black-eyed susan 2 partridge pea 1 greyheaded coneflower
	High maintenance	Aug. 30 – Oct. 15	Feb. 15. – April 15	15 Browntop millet* (nurse crop) 2 partridge pea 45 Red fescue* 45 hard fescue* 25 chewing fescue*
Region III	>2500 ft elevation; steep slopes	Mar. 20 – April 30	Aug. 15 – Aug. 30 Mar. 1 – Mar. 20 April 20 – June 15	15 Browntop millet* (nurse crop) 5 purpletop 10 little bluestem 10 Indian grass 2 black-eyed susan 0.5 monarda (bergamot) 4 Maryland senna
	<2500 ft elevation; steep slopes	Aug. 15 – Sept 1 **Mar. 1 – April 1**	Sept. 1 – Sept. 15 April 1 – June 10	
	>2500 ft elev.; Shallow soils	Mar. 20 – April 20	Aug. 15 – Aug. 30 Mar. 5 – Mar. 20 April 20 – June 15	15 Browntop millet* (nurse crop) 4 purpletop 10 little bluestem 10 broomsedge 2 partridge pea 2 black-eyed susan 0.5 monarda (bergamot)
	<2500 ft elev.; Shallow soils	Aug. 15 – Sept.1 **Mar. 1 – April 1**	Sept. 1 – Sept. 15 April 1 – June 10	
	>2500 ft. elev.; Moderate slopes	Mar. 20 – April 20	Aug. 15 – Aug. 30 Mar. 5 – Mar. 20 April 20 – June 15	15 Browntop millet* (nurse crop) 4 purpletop 10 little bluestem 10 Indian grass 2 black-eyed susan 0.5 monarda (bergamot) 4 Maryland senna
	<2500 ft. elev.; Moderate slopes	Aug. 15 – Sept. 1 **Mar. 1 – April 1**	Sept. 1 – Sept. 15 April 1 – June 10	
	>2500 ft. elev.; High maintenance	**Mar. 20 – April 20**	Aug. 15 – Aug. 30 Mar. 5 – Mar. 20 April 20 – June 15	15 Browntop millet* (nurse crop) 45 Red fescue* 45 hard fescue* 25 chewing fescue*
	<2500 ft. elev.; High maintenance	Aug. 15 – Sept. 1 **Mar. 1 – April 1**	Sept. 1 – Sept. 15 April 1 – June 10	
The bold dates are the preferred dates for seeding. Also, high maintenance areas include lawns and other grassed areas that will be maintained for aesthetics. *non-native but do not spread.				

ALLOWABLE SEED MIXES AND PLANTING DATES				
ZONE		**BEST**	**MARGINAL**	**RATE/MIX (lb/ac PLS)**
Region I	Poorly drained soils	Feb. 1 – Mar. 20 Sept. 1 – Sept. 30	Mar. 20 – April 30 Sept. 30 – Oct. 31	80 Pensacola bahiagrass 30 Bermudagrass (hulled) 20 Korean lespedeza** 10 Kobe lespedeza**
	Well drained soils	April 1 – July 15		50 Pensacola bahiagrass 15 Bermudagrass (hulled) 30 Korean lespedeza** 15 Foxtail millet**
	High maintenance	April 1 – July 15		40 Bermudagrass (hulled)
Region II	Low maintenance; Slopes and Poor, shallow soils	Aug. 25 – Sept. 15 **Feb. 15 – Mar. 21**	Sept. 15 – Oct. 25 Mar. 21 – Apr. 15	100 Pensacola bahiagrass 40 Bermudagrass (hulled) 20 Korean lespedeza** 10 Kobe lespedeza**
	Low maintenance; Moderate slopes; soil >6 in. depth	Aug. 25 – Sept. 15 **Feb. 15 – Mar. 21**	Sept. 15 – Oct. 25 Mar. 21 – Apr. 15	80 Pensacola bahiagrass 30 Bermudagrass (hulled) 20 Korean lespedeza** 10 Kobe lespedeza**
	High maintenance	Aug. 30 – Oct. 15	Feb. 15 – April 15	200 KY 31 fescue**
Region III	>2500 ft elevation; steep slopes	July 25 – Aug. 15 **Mar. 20 – April 20**	July 15 – July 25 Aug. 15 – Aug. 30 Mar. 1 – Mar. 20 April 20 – June 15	100 KY 31 fescue** 20 Kobe lespedeza** 10 Korean lespedeza** 5 Redtop
	<2500 ft elevation; steep slopes	Aug. 15 – Sept. 1 **Mar. 1 – April 1**	July 25 – Aug. 15 Sept. 1 – Sept. 15 April 1 – May 10	
	>2500 ft elev.; Shallow soils	July 25 – Aug 15 **Mar 20 – Apr 20**	July 25 – Aug. 15 Aug. 15 – Aug. 30 Mar. 5 – Mar. 20 April 20 – June 15	40 KY 31 fescue** 10 Korean lespedeza** 10 Redtop 10 Crown vetch**
	<2500 ft elev.; Shallow soils	Aug. 15 – Sept. 1 **Mar. 1 – April 1**	July 25 – Aug. 15 Sept. 1 – Sept. 15 April 1 – May 10	
	>2500 ft. elev.; Moderate slopes	July 25 – Aug. 15 **Mar. 20 – April 20**	July 15 – July 25 Aug. 15 – Aug. 30 Mar. 5 – Mar. 20 April 20 – May 15	60 KY 31 fescue** 15 Korean lespedeza** 15 Kobe lespedeza**
	<2500 ft. elev.; Moderate slopes	Aug. 15 – Sept. 1 **Mar. 1 – April 1**	July 25 – Aug. 15 Sept. 1 – Sept.15 April 1 – May 10	
	>2500 ft. elev.; High maintenance	July 25 – Aug. 15 **Mar. 20 – April 20**	July 15 – July 25 Aug. 15 – Aug. 30 Mar. 5 – Mar. 20 April 20 – May 15	200 KY 31 fescue**
	<2500 ft. elev.; High maintenance	Aug. 15 – Sept. 1 **Mar. 1 – Apr. 1**	July 25 – Aug. 15 Sept. 1 – Sept. 15 April1 – May 10	
The bold dates are the preferred dates for seeding. Also, high maintenance areas include lawns and other grassed areas that will be maintained for aesthetics. **non-native but do not spread.				

B. Commercial fertilizer shall be a ready-mixed material and shall be equivalent to the grade or grades specified in the Seeding Requirements Table. Container bags shall be labeled with the name and address of the manufacturer, brand name, net weight, and chemical composition.

C. Agricultural limestone shall be a pulverized limestone with a calcium carbonate content not less than 85 percent by weight. Agricultural limestone shall be crushed so that at least 85 percent of the material will pass a No. 10 mesh screen and 50 percent will pass a No. 40 mesh screen.

2.4 MULCH MATERIAL

A. All mulch materials shall be air-dried and reasonably free of noxious weeds and weed seeds or other materials detrimental to plant growth.

B. Mulch shall be composed of wood fiber, straw, or stalks, as specified herein. Mulch shall be suitable for spreading with standard mulch-blowing equipment.

C. Wood fiber mulch shall be as manufactured by Conwed Corporation, or equal.

D. Straw mulch shall be partially decomposed stalks of wheat, rye, oats, or other approved grain crops.

E. Stalks shall be the partially decomposed, shredded residue of corn, cane, sorghum, or other approved standing field crops.

2.5 MULCH BINDER

A. Mulch on slopes exceeding a 3 to 1 ratio shall be held in place by the use of an approved erosion control fabric, such as Curlex I as manufactured by American Excelsior Company, or approved equal. Fabric shall consist of strips of biodegradable paper interwoven with yarn that is subject to degradation by ultraviolet light.

2.6 INOCULANTS FOR LEGUMES

A. All leguminous seed shall be inoculated prior to seeding with a standard culture of nitrogen-fixing bacteria that is adapted to the particular seed involved.

2.7 WATER

A. Water shall be clean, clear, and free from any objectionable or harmful chemical qualities or organisms and shall be furnished by the Contractor.

B. During times of drought, water shall be applied at a rate not causing runoff and erosion. The soil shall be thoroughly wetted to a depth that will ensure germination of the seed. Subsequent applications should be made as needed. Newly seeded areas require more water than more mature plants.

PART 3 - EXECUTION

3.1 SECURING AND PLACING TOPSOIL

A. Topsoil shall be secured from areas where topsoil has not been previously removed, either by erosion or mechanical methods. Topsoil shall not be removed to a depth in excess of the depth approved by the Designer.

B. The area or areas from which topsoil is secured shall possess such uniformity of soil depth, color, texture, drainage, and other characteristics as to offer assurance that when removed the product will be homogeneous in nature and will conform to the requirements of these Specifications.

C. All areas from which topsoil is to be secured shall be cleaned of all sticks, boards, stones, lime, cement, ashes, cinders, slag, concrete, bitumen or its residue, and any other refuse which will hinder or prevent growth.

D. When securing topsoil from a designated pit or elsewhere, should strata or seams of material occur which do not come under the requirements for topsoil, such material shall be removed from the topsoil or if required by the Designer, the pit shall be abandoned.

E. Before placing or depositing topsoil upon any area, all improvements within the area shall be completed, unless otherwise approved by the Designer.

F. The areas in which topsoil is to be placed or incorporated shall be prepared before securing topsoil for use.

3.2 SEEDBED PREPARATION

A. Before fertilizing and seeding, the topsoil surfaces shall be trimmed and worked to true line free from unsightly variations, bumps, ridges, and depressions, and all detrimental material, roots, and stones larger than 3 inches in any dimension shall be removed from the soil.

B. Not earlier than 24 hours before the seed is to be sown, the soil surface to be seeded shall be thoroughly cultivated to a depth of not less than 2 inches with a weighted disc, tiller, pulvimixer, or other equipment, until the surface is smooth and in a condition acceptable to the Designer.

C. If the prepared surface becomes eroded as a result of rain or for any other reason, or becomes crusted before the seed is sown, the surface shall again be placed in a condition suitable for seeding.

D. Ground preparation operations shall be performed only when the ground is in a tillable and workable condition, as determined by the Designer.

3.3 FERTILIZATION AND LIMING

A. Following seedbed preparation, fertilizer shall be applied to all areas to be seeded so as to achieve the application rates shown in the Seeding Requirements Table.

B. Fertilizer shall be spread evenly over the seedbed and shall be lightly harrowed, raked, or otherwise incorporated into the soil for a depth of 1/2 inch.

C. Fertilizer need not be incorporated in the soil as specified above when mixed with seed in water and applied with power sprayer equipment. The seed shall not remain in water containing fertilizer for more than 30 minutes when a hydraulic seeder is used.

D. Agricultural limestone shall be thoroughly mixed into the soil according to the rates in the Seeding Requirements Table. The specified rate of application of limestone may be reduced by the Designer if pH tests indicate this to be desirable. It is the responsibility of the Contractor to obtain such tests and submit the results to the Designer for adjustment in rates.

3.4 SEEDING

A. Seed of the specified group shall be sown as soon as preparation of the seedbed has been completed. No seed shall be sown during high winds, nor until the surface is suitable for working and is in a proper condition. Seeding shall be performed during the dates shown in the Seeding Requirements Table unless otherwise approved by the Designer. Seed mixtures may be sown together, provided they are kept in a thoroughly mixed condition during the seeding operation.

B. Seeds shall be uniformly sown by any approved mechanical method to suit the slope and size of the areas to be seeded, preferably with a broadcast type seeder, windmill hand seeder, or approved mechanical power-drawn seed drills. Hydroseeding and hydromulching may be used on steep embankments, provided full coverage is obtained. Care shall be taken to adjust the seeder to the proper rate before seeding operations are started and to maintain the adjustment during seeding. Seed in hoppers shall be agitated to prevent segregation of the various seeds in a seeding mixture.

C. Immediately after sowing, the seeds shall be covered and compacted to a depth of 1/8 to 3/8 inch by a cultipacker or suitable roller.

D. Leguminous seeds shall be inoculated prior to seeding with an approved and compatible nitrogen-fixing inoculant in accordance with the manufacturer's mixing instructions.

3.5 MULCHING

A. All seeded areas shall be uniformly mulched in a continuous blanket immediately after seeding. The mulch shall be applied so as to permit some sunlight to penetrate and air to circulate, and at the same time shade the ground, reduce erosion, and conserve soil moisture. Approximately 25 percent of the ground shall be visible through the mulch blanket.

B. One of the following mulches shall be spread evenly over the seeded areas at the following application rates:

1.	Wood Fiber	1,400 lbs/acre
2.	Straw	4,000 lbs/acre
3.	Stalks	4,000 lbs/acre

4. These rates may be adjusted at the discretion of the Designer at no additional cost to the Owner, depending on the texture and condition of the mulch material and the characteristics of the seeded area.

C. Mulch on slopes greater than a 3 to 1 ratio shall be held in place by the use of an approved erosion control fabric. Fabric shall be installed immediately after seeding and fertilizing area (mulch shall not be used under fabric).

D. Erosion control fabric shall be installed and applied in accordance with the manufacturer's recommendations. Any fabric which becomes torn, broken loose from securing staples, or undermined shall be immediately and satisfactorily repaired. Areas where seed is washed out before germination shall be fertilized, reseeded, and restored. Any required restoration work shall be performed without additional compensation.

3.6 WATERING

A. Maintain the proper moisture content of the soil to ensure adequate plant growth until a satisfactory stand is obtained. If necessary, watering shall be performed to maintain an adequate water content in the soil.

B. Watering shall be accomplished by hoses, tank truck, or sprinklers in such a way to prevent erosion, excessive runoff, and overwatered spots.

3.7 MAINTENANCE

A. Upon completion of seeding operations, the Contractor shall clear the area of all equipment, debris, and excess material, and the premises shall be left in a neat and orderly condition.

B. Maintain all seeded areas without additional payment until final acceptance of the work by the Owner. Regrading, refertilizing, reliming, reseeding, or remulching shall be done at Contractor's expense. Seeding work shall be repeated on defective areas until a satisfactory uniform stand is achieved. Damage resulting from erosion, gullies, washouts, or other causes shall be repaired by filling with topsoil, compacting, and repeating the seeding work.

C. Any areas of lawn that do not exhibit suitable grass growth at the time of substantial completion shall be sodded at no additional cost to the Owner.

END OF SECTION

Appendix G

Hazardous Substance Reporting Quantities

Hazardous Substance Reporting Quantities

The first number under the column headed “RQ” is the reportable quantity in pounds. The number in parentheses is the metric equivalent in kilograms. For convenience, the table contains a column headed “Category” which lists the code letters “X”, “A”, “B”, “C”, and “D” associated with reportable quantities of 1, 10, 100, 1000, and 5000 pounds, respectively.

I. Table 117.3_Reportable Quantities of Hazardous Substances Designated Pursuant to Section 311 of the Clean Water Act

Material	Category	RQ in pounds (kilograms)
Acetaldehyde	C	1,000 (454)
Acetic acid	D	5,000 (2,270)
Acetic anhydride	D	5,000 (2,270)
Acetone cyanohydrin	A	10 (4.54)
Acetyl bromide	D	5,000 (2,270)
Acetyl chloride	D	5,000 (2,270)
Acrolein	X	1 (0.454)
Acrylonitrile	B	100 (45.4)
Adipic acid	D	5,000 (2,270)
Aldrin	X	1 (0.454)
Allyl alcohol	B	100 (45.4)
Allyl chloride	C	1,000 (454)
Aluminum sulfate	D	5,000 (2,270)
Ammonia	B	100 (45.4)
Ammonium acetate	D	5,000 (2,270)
Ammonium benzoate	D	5,000 (2,270)
Ammonium bicarbonate	D	5,000 (2,270)
Ammonium bichromate	A	10 (4.54)
Ammonium bifluoride	B	100 (45.4)
Ammonium bisulfite	D	5,000 (2,270)
Ammonium carbamate	D	5,000 (2,270)
Ammonium carbonate	D	5,000 (2,270)
Ammonium chloride	D	5,000 (2,270)
Ammonium chromate	A	10 (4.54)
Ammonium citrate dibasic	D	5,000 (2,270)
Ammonium fluoborate	D	5,000 (2,270)
Ammonium fluoride	B	100 (45.4)
Ammonium hydroxide	C	1,000 (454)
Ammonium oxalate	D	5,000 (2,270)
Ammonium silicofluoride	C	1,000 (454)
Ammonium sulfamate	D	5,000 (2,270)
Ammonium sulfide	B	100 (45.4)
Ammonium sulfite	D	5,000 (2,270)
Ammonium tartrate	D	5,000 (2,270)
Ammonium thiocyanate	D	5,000 (2,270)
Amyl acetate	D	5,000 (2,270)
Aniline	D	5,000 (2,270)
Antimony pentachloride	C	1,000 (454)
Antimony potassium tartrate	B	100 (45.4)
Antimony tribromide	C	1,000 (454)
Antimony trichloride	C	1,000 (454)
Antimony trifluoride	C	1,000 (454)
Antimony trioxide	C	1,000 (454)
Arsenic disulfide	X	1 (0.454)

Arsenic pentoxide	X	1 (0.454)
Arsenic trichloride	X	1 (0.454)
Arsenic trioxide	X	1 (0.454)
Arsenic trisulfide	X	1 (0.454)
Barium cyanide	A	10 (4.54)
Benzene	A	10 (4.54)
Benzoic acid	D	5,000 (2,270)
Benzonitrile	D	5,000 (2,270)
Benzoyl chloride	C	1,000 (454)
Benzyl chloride	B	100 (45.4)
Beryllium chloride	X	1 (0.454)
Beryllium fluoride	X	1 (0.454)
Beryllium nitrate	X	1 (0.454)
Butyl acetate	D	5,000 (2,270)
Butylamine	C	1,000 (454)
n-Butyl phthalate	A	10 (4.54)
Butyric acid	D	5,000 (2,270)
Cadmium acetate	A	10 (4.54)
Cadmium bromide	A	10 (4.54)
Cadmium chloride	A	10 (4.54)
Calcium arsenate	X	1 (0.454)
Calcium arsenite	X	1 (0.454)
Calcium carbide	A	10 (4.54)
Calcium chromate	A	10 (4.54)
Calcium cyanide	A	10 (4.54)
Calcium dodecylbenzenesulfonate	C	1,000 (454)
Calcium hypochlorite	A	10 (4.54)
Captan	A	10 (4.54)
Carbaryl	B	100 (45.4)
Carbofuran	A	10 (4.54)
Carbon disulfide	B	100 (45.4)
Carbon tetrachloride	A	10 (4.54)
Chlordane	X	1 (0.454)
Chlorine	A	10 (4.54)
Chlorobenzene	B	100 (45.4)
Chloroform	A	10 (4.54)
Chlorosulfonic acid	C	1,000 (454)
Chlorpyrifos	X	1 (0.454)
Chromic acetate	C	1,000 (454)
Chromic acid	A	10 (4.54)
Chromic sulfate	C	1,000 (454)
Chromous chloride	C	1,000 (454)
Cobaltous bromide	C	1,000 (454)
Cobaltous formate	C	1,000 (454)
Cobaltous sulfamate	C	1,000 (454)
Coumaphos	A	10 (4.54)
Cresol	B	100 (45.4)
Crotonaldehyde	B	100 (45.4)
Cupric acetate	B	100 (45.4)
Cupric acetoarsenite	X	1 (0.454)
Cupric chloride	A	10 (4.54)
Cupric nitrate	B	100 (45.4)
Cupric oxalate	B	100 (45.4)
Cupric sulfate	A	10 (4.54)
Cupric sulfate, ammoniated	B	100 (45.4)
Cupric tartrate	B	100 (45.4)

Cyanogen chloride	A	10 (4.54)
Cyclohexane	C	1,000 (454)
2,4-D Acid	B	100 (45.4)
2,4-D Esters	B	100 (45.4)
DDT	X	1 (0.454)
Diazinon	X	1 (0.454)
Dicamba	C	1,000 (454)
Dichlobenil	B	100 (45.4)
Dichlone	X	1 (0.454)
Dichlorobenzene	B	100 (45.4)
Dichloropropane	C	1,000 (454)
Dichloropropene	B	100 (45.4)
Dichloropropene-Dichloropropane (mixture).	B	100 (45.4)
2,2-Dichloropropionic acid	D	5,000 (2,270)
Dichlorvos	A	10 (4.54)
Dicofol	A	10 (4.54)
Dieldrin	X	1 (0.454)
Diethylamine	B	100 (45.4)
Dimethylamine	C	1,000 (454)
Dinitrobenzene (mixed)	B	100 (45.4)
Dinitrophenol	A	10 (45.4)
Dinitrotoluene	A	10 (4.54)
Diquat	C	1,000 (454)
Disulfoton	X	1 (0.454)
Diuron	B	100 (45.4)
Dodecylbenzenesulfonic acid	C	1,000 (454)
Endosulfan	X	1 (0.454)
Endrin	X	1 (0.454)
Epichlorohydrin	B	100 (45.4)
Ethion	A	10 (4.54)
Ethylbenzene	C	1,000 (454)
Ethylenediamine	D	5,000 (2,270)
Ethylenediamine-tetraacetic acid (EDTA).	D	5,000 (2,270)
Ethylene dibromide	X	1 (0.454)
Ethylene dichloride	B	100 (45.4)
Ferric ammonium citrate	C	1,000 (454)
Ferric ammonium oxalate	C	1,000 (454)
Ferric chloride	C	1,000 (454)
Ferric fluoride	B	100 (45.4)
Ferric nitrate	C	1,000 (454)
Ferric sulfate	C	1,000 (454)
Ferrous ammonium sulfate	C	1,000 (454)
Ferrous chloride	B	100 (45.4)
Ferrous sulfate	C	1,000 (454)
Formaldehyde	B	100 (45.4)
Formic acid	D	5,000 (2,270)
Fumaric acid	D	5,000 (2,270)
Furfural	D	5,000 (2,270)
Guthion	X	1 (0.454)
Heptachlor	X	1 (0.454)
Hexachlorocyclopentadiene	A	10 (4.54)
Hydrochloric acid	D	5,000 (2,270)
Hydrofluoric acid	B	100 (45.4)
Hydrogen cyanide	A	10 (4.54)

Hydrogen sulfide	B	100 (45.4)
Isoprene	B	100 (45.4)
Isopropanolamine dodecylbenzenesulfonate.	C	1,000 (454)
Kepone	X	1 (0.454)
Lead acetate	A	10 (4.54)
Lead arsenate	X	1 (0.454)
Lead chloride	A	10 (4.54)
Lead fluoborate	A	10 (4.54)
Lead fluoride	A	10 (4.54)
Lead iodide	A	10 (4.54)
Lead nitrate	A	10 (4.54)
Lead stearate	A	10 (4.54)
Lead sulfate	A	10 (4.54)
Lead sulfide	A	10 (4.54)
Lead thiocyanate	A	10 (4.54)
Lindane	X	1 (0.454)
Lithium chromate	A	10 (4.54)
Malathion	B	100 (45.4)
Maleic acid	D	5,000 (2,270)
Maleic anhydride	D	5,000 (2,270)
Mercaptodimethur	A	10 (4.54)
Mercuric cyanide	X	1 (0.454)
Mercuric nitrate	A	10 (4.54)
Mercuric sulfate	A	10 (4.54)
Mercuric thiocyanate	A	10 (4.54)
Mercurous nitrate	A	10 (4.54)
Methoxychlor	X	1 (0.454)
Methyl mercaptan	B	100 (45.4)
Methyl methacrylate	C	1,000 (454)
Methyl parathion	B	100 (45.4)
Mevinphos	A	10 (4.54)
Mexacarbate	C	1,000 (454)
Monoethylamine	B	100 (45.4)
Monomethylamine	B	100 (45.4)
Naled	A	10 (4.54)
Naphthalene	B	100 (45.4)
Naphthenic acid	B	100 (45.4)
Nickel ammonium sulfate	B	100 (45.4)
Nickel chloride	B	100 (45.4)
Nickel hydroxide	A	10 (4.54)
Nickel nitrate	B	100 (45.4)
Nickel sulfate	B	100 (45.4)
Nitric acid	C	1,000 (454)
Nitrobenzene	C	1,000 (454)
Nitrogen dioxide	A	10 (4.54)
Nitrophenol (mixed)	B	100 (45.4)
Nitrotoluene	C	1,000 (454)
Paraformaldehyde	C	1,000 (454)
Parathion	A	10 (4.54)
Pentachlorophenol	A	10 (4.54)
Phenol	C	1,000 (454)
Phosgene	A	10 (4.54)
Phosphoric acid	D	5,000 (2,270)
Phosphorus	X	1 (0.454)
Phosphorus oxychloride	C	1,000 (454)

Phosphorus pentasulfide	B	100 (45.4)
Phosphorus trichloride	C	1,000 (454)
Polychlorinated biphenyls	X	1 (0.454)
Potassium arsenate	X	1 (0.454)
Potassium arsenite	X	1 (0.454)
Potassium bichromate	A	10 (4.54)
Potassium chromate	A	10 (4.54)
Potassium cyanide	A	10 (4.54)
Potassium hydroxide	C	1,000 (454)
Potassium permanganate	B	100 (45.4)
Propargite	A	10 (4.54)
Propionic acid	D	5,000 (2,270)
Propionic anhydride	D	5,000 (2,270)
Propylene oxide	B	100 (45.4)
Pyrethrins	X	1 (0.454)
Quinoline	D	5,000 (2,270)
Resorcinol	D	5,000 (2,270)
Selenium oxide	A	10 (4.54)
Silver nitrate	X	1 (0.454)
Sodium	A	10 (4.54)
Sodium arsenate	X	1 (0.454)
Sodium arsenite	X	1 (0.454)
Sodium bichromate	A	10 (4.54)
Sodium bifluoride	B	100 (45.4)
Sodium bisulfite	D	5,000 (2,270)
Sodium chromate	A	10 (4.54)
Sodium cyanide	A	10 (4.54)
Sodium dodecylbenzenesulfonate	C	1,000 (454)
Sodium fluoride	C	1,000 (454)
Sodium hydrosulfide	D	5,000 (2,270)
Sodium hydroxide	C	1,000 (454)
Sodium hypochlorite	B	100 (45.4)
Sodium methylate	C	1,000 (454)
Sodium nitrite	B	100 (45.4)
Sodium phosphate, dibasic	D	5,000 (2,270)
Sodium phosphate, tribasic	D	5,000 (2,270)
Sodium selenite	B	100 (45.4)
Strontium chromate	A	10 (4.54)
Strychnine	A	10 (4.54)
Styrene	C	1,000 (454)
Sulfuric acid	C	1,000 (454)
Sulfur monochloride	C	1,000 (454)
2,4,5-T acid	C	1,000 (454)
2,4,5-T amines	D	5,000 (2,270)
2,4,5-T esters	C	1,000 (454)
2,4,5-T salts	C	1,000 (454)
TDE	X	1 (0.454)
2,4,5-TP acid	B	100 (45.4)
2,4,5-TP acid esters	B	100 (45.4)
Tetraethyl lead	A	10 (4.54)
Tetraethyl pyrophosphate	A	10 (4.54)
Thallium sulfate	B	100 (45.4)
Toluene	C	1,000 (454)
Toxaphene	X	1 (0.454)
Trichlorfon	B	100 (45.4)
Trichloroethylene	B	100 (45.4)

Trichlorophenol	A	10 (4.54)
Triethanolamine dodecylbenzenesulfonate.	C	1,000 (454)
Triethylamine	D	5,000 (2,270)
Trimethylamine	B	100 (45.4)
Uranyl acetate	B	100 (45.4)
Uranyl nitrate	B	100 (45.4)
Vanadium pentoxide	C	1,000 (454)
Vanadyl sulfate	C	1,000 (454)
Vinyl acetate	D	5,000 (2,270)
Vinylidene chloride	B	100 (45.4)
Xylene (mixed)	B	100 (45.4)
Xylenol	C	1,000 (454)
Zinc acetate	C	1,000 (454)
Zinc ammonium chloride	C	1,000 (454)
Zinc borate	C	1,000 (454)
Zinc bromide	C	1,000 (454)
Zinc carbonate	C	1,000 (454)
Zinc chloride	C	1,000 (454)
Zinc cyanide	A	10 (4.54)
Zinc fluoride	C	1,000 (454)
Zinc formate	C	1,000 (454)
Zinc hydrosulfite	C	1,000 (454)
Zinc nitrate	C	1,000 (454)
Zinc phenolsulfonate	D	5,000 (2,270)
Zinc phosphide	B	100 (45.4)
Zinc silicofluoride	D	5,000 (2,270)
Zinc sulfate	C	1,000 (454)
Zirconium nitrate	D	5,000 (2,270)
Zirconium potassium fluoride	C	1,000 (454)
Zirconium sulfate	D	5,000 (2,270)
Zirconium tetrachloride	D	5,000 (2,270)

Appendix H

Storm Water Inspection Certification (Twice-Weekly Inspections)

TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION (TDEC)

Division of Water Resources
William R. Snodgrass Tennessee Tower, 312 Rosa L. Parks Avenue, 11th Floor, Nashville, Tennessee 37243
1-888-891-8332 (TDEC)

General NPDES Permit for Stormwater Discharges from Construction Activities (CGP)

Construction Stormwater Inspection Certification (Twice-Weekly Inspections)

Site or Project Name:		**NPDES Tracking Number: TNR**
Primary Permittee Name:		Date of Inspection:
Current approximate disturbed acreage:	Has rainfall been checked/documented daily? ☐ Yes ☐ No	Name of Inspector:
Current weather conditions:		Inspector's Training Certification Number:

Please check the box if the following items are on-site:

☐ Notice of Coverage (NOC) ☐ Stormwater Pollution Prevention Plan (SWPPP) ☐ Twice-weekly inspection documentation

☐ Site contact information ☐ Rain Gage ☐ Off-site Reference Rain Gage Location: _____

Best Management Practices (BMPs):

Are the Erosion Prevention and Sediment Controls (EPSCs) functioning correctly: If "No," describe below in Comment Section			
1.	Are all applicable EPSCs installed and maintained per the SWPPP?	☐ Yes	☐ No
2.	Are EPSCs functioning correctly at all disturbed areas/material storage areas per section 4.1.5?	☐ Yes	☐ No
3.	Are EPSCs functioning correctly at outfall/discharge points such that there is no objectionable color contrast in the receiving stream, and no other water quality impacts per section 5.3.2?	☐ Yes	☐ No
4.	Are EPSCs functioning correctly at ingress/egress points such that there is no evidence of track out?	☐ Yes	☐ No
5.	If applicable, have discharges from dewatering activities been managed by appropriate controls per section 4.1.4? If "No," describe below the measures to be implemented to address deficiencies.	☐ Yes	☐ No
6.	If construction activity at any location has temporarily/permanently ceased, was the area stabilized within 14 days per section 3.5.3.2? If "No," describe below each location and measures taken to stabilize the area(s)	☐ Yes	☐ No
7.	Have pollution prevention measures been installed, implemented, and maintained to minimize the discharge of pollutants from equipment and vehicle washing, wheel wash water, and other wash waters per section 4.1.5? If "No," describe below the measures to be implemented to address deficiencies.	☐ Yes	☐ No
8.	If a concrete washout facility is located on site, is it clearly identified on the project and maintained? If "No," describe below the measures to be implemented to address deficiencies. ☐ N/A	☐ Yes	☐ No
9.	Have all previous deficiencies been addressed? If "No," describe remaining deficiencies in Comment section. ☐ Check if deficiencies/corrective measures have been reported on a previous form.	☐ Yes	☐ No

Comment Section. If the answer is "No" for any of the above, please describe the problem and corrective actions to be taken. Otherwise, describe any pertinent observations:

Certification and Signature (must be signed by the certified inspector and the permittee per Sections 3.5.8.2 (g) and 7.7.2 of the CGP)

I certify under penalty of law that this document and all attachments were prepared by me, or under my direction or supervision. The submitted information 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. As specified in Tennessee Code Annotated Section 39-16-702(a)(4), this declaration is made under penalty of perjury.

Inspector Name and Title:	Signature:	Date:
Primary Permittee Name and Title:	Signature:	Date:

Construction Stormwater Inspection Certification Form (Twice-Weekly Inspections)

Purpose of this form/ Instructions

An inspection, as described in section 3.5.8.2. of the General Permit for Stormwater Discharges from Construction Activities ("Permit"), shall be performed at least twice every calendar week and documented on this form. Inspections shall be performed at least 72 hours apart. Where sites or portion(s) of construction sites have been temporarily stabilized, or runoff is unlikely due to winter conditions (e.g., site covered with snow or ice), such inspection only has to be conducted once per month until thawing results in runoff or construction activity resumes.

As described in section 3.5.8.1 of the Permit, inspectors performing the required twice weekly inspections must have an active certification by completing the "Fundamentals of Erosion Prevention and Sediment Control Level I" course (http://www.tnepsc.org/). Twice weekly inspections can also be performed by: a licensed professional engineer or landscape architect; a Certified Professional in Erosion and Sediment Control (CPESC) or a person who has successfully completed the "Level II Design Principles for Erosion Prevention and Sediment Control for Construction Sites" course. A copy of the certification or training record for inspector certification should be kept on site.

Qualified personnel, (provided by the permittee or cooperatively by multiple permittees) shall inspect disturbed areas of the construction site that have not been finally stabilized, areas used for storage of materials that are exposed to precipitation, structural control measures, locations where vehicles enter or exit the site, and each outfall.

Disturbed areas and areas used for storage of materials that are exposed to precipitation shall be inspected for evidence of, or the potential for, pollutants entering the site's drainage system. Erosion prevention and sediment control measures shall be observed to ensure that they are operating correctly.

Outfall points (where discharges leave the site and/or enter waters of the state) shall be inspected to determine whether erosion prevention and sediment control measures are effective in preventing significant impacts to receiving waters. Where discharge locations are inaccessible, nearby downstream locations shall be inspected. Locations where vehicles enter or exit the site shall be inspected for evidence of offsite sediment tracking.

Based on the results of the inspection, any inadequate control measures or control measures in disrepair shall be replaced or modified, or repaired as necessary, before the next rain event if possible, but in no case more than 7 days after the need is identified.

Based on the results of the inspection, the site description identified in the SWPPP in accordance with section 3.5.1 of the Permit and pollution prevention measures identified in the SWPPP in accordance with section 3.5.2 of the Permit, shall be revised as appropriate, but in no case later than 7 days following the inspection. Such modifications shall provide for timely implementation of any changes to the SWPPP, but in no case later than 14 days following the inspection.

All inspections shall be documented on this Construction Stormwater Inspection Certification form. Alternative inspection forms may be used as long as the form contents and the inspection certification language are, at a minimum, equivalent to the division's form and the permittee has obtained a written approval from the division to use the alternative form. Inspection documentation will be maintained on site and made available to the division upon request. Inspection reports must be submitted to the division within 10 days of the request.

Trained certified inspectors shall complete inspection documentation to the best of their ability. Falsifying inspection records or other documentation or failure to complete inspection documentation shall result in a violation of this permit and any other applicable acts or rules.