

**SPECIFICATION LIST**  
**LEWIS COUNTY, TENNESSEE**  
**TORNADO DEBRIS REMOVAL**  
**EMERGENCY WATERSHED PROTECTION PROGRAM PROJECT 5125**  
05-17-2023

The site in Lewis County, TN covered by this specification set is:  
Rockhouse Creek Road Site 1.

**SPEC.  
NO.**

**DESCRIPTION**

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**CONSTRUCTION SPECS**

<b>5</b>	<b>Pollution Control</b>
<b>6</b>	<b>Seeding, Sprigging, and Mulching</b>
<b>8</b>	<b>Mobilization and Demobilization</b>
<b>9</b>	<b>Traffic Control</b>
<b>405</b>	<b>Channel Obstruction and Debris Removal and Disposal</b>

**MATERIAL SPECS**

**None**

Construction and Material Specifications

Approved By:



Digitally signed by MARK DOSE  
Date: 2023.06.07 16:20:37  
-05'00'

State Conservation Engineer

## Construction Specification 5—Pollution Control

### 1. Scope

The work consists of installing measures or performing work to control erosion and minimize the production of sediment and other pollutants to water and air from construction activities.

The following BioPreferred® product categories are applicable to this specification: — mulch and compost materials

erosion control materials

fertilizers

dust suppressants

agricultural spray adjuvants

### 2. Material

Silt fence shall conform to the requirement of Materials Specification 592, Geotextile. All other material furnished shall meet the requirements of the material specifications listed in section 8 of this specification.

### 3. Erosion and sediment control measures and works

The measures and works shall include, but are not limited to, the following:

**Staging of earthwork activities**—The excavation and moving of soil materials shall be scheduled to minimize the size of areas disturbed and unprotected from erosion for the shortest reasonable time.

**Seeding**—Seeding to protect disturbed areas shall occur as soon as reasonably possible following completion of that earthwork activity.

**Mulching**—Mulching to provide temporary protection of the soil surface from erosion.

**Diversions**—Diversions to divert water from work areas and to collect water from work areas for treatment and safe disposition. They are temporary and shall be removed and the area restored to its near original condition when the diversions are no longer required or when permanent measures are installed.

**Stream crossings**—Culverts or bridges where equipment must cross streams. They are temporary and shall be removed and the area restored to its near original condition when the crossings are no longer required or when permanent measures are installed.

**Sediment basins**—Sediment basins collect, settle, and eliminate sediment from eroding areas from impacting properties and streams below the construction site(s). These basins are temporary and shall be removed and the area restored to its original condition when they are no longer required or when permanent measures are installed.

**Sediment filters**—Straw bale filters or geotextile silt fences trap sediment from areas of limited runoff. Sediment filters shall be properly anchored to prevent erosion under or around them. Silt fences shall be installed and maintained in accordance with ASTM D6462. These filters are temporary and shall be removed and the area restored to its original condition when they are no longer required or when permanent measures are installed.

**Waterways**—Waterways for the safe disposal of runoff from fields, diversions, and other structures or measures. These works are temporary and shall be removed and the area restored to its original condition when they are no longer required or when permanent measures are installed.

**Other**—Additional protection measures as specified in section 8 of this specification or required by Federal, State, or local government.

#### **4. Chemical pollution**

The contractor shall provide watertight tanks or barrels or construct a sump sealed with plastic sheets to collect and temporarily contain chemical pollutants, such as drained lubricating or transmission fluids, grease, soaps, concrete mixer washwater, or asphalt, produced as a by-product of the construction activities. Pollutants shall be disposed of in accordance with appropriate state and Federal regulations. At the completion of the construction work, tanks, barrels, and sumps shall be removed and the area restored to its original condition as specified in section 8 of this specification. Sump removal shall be conducted without causing pollution.

Sanitary facilities, such as chemical toilets, or septic tanks shall not be located next to live streams, wells, or springs. They shall be located at a distance sufficient to prevent contamination of any water source. At the completion of construction activities, facilities shall be disposed of without causing pollution as specified in section 8 of this specification.

#### **5. Air pollution**

The burning of brush or slash and the disposal of other materials shall adhere to state and local regulations.

Fire prevention measures shall be taken to prevent the start or spreading of wildfires that may result from project activities. Firebreaks or guards shall be constructed and maintained at locations shown on the drawings.

All public access or haul roads used by the contractor during construction of the project shall be sprinkled or otherwise treated to fully suppress dust. All dust control methods shall ensure safe construction operations at all times. If chemical dust suppressants are applied, the material shall be a commercially available product specifically designed for dust suppression and the application shall follow manufacturer's requirements and recommendations. A copy of the product data sheet and manufacturer's recommended application procedures shall be provided to the engineer 5 working days before the first application.

#### **6. Maintenance, removal, and restoration**

All pollution control measures and temporary works shall be adequately maintained in a functional condition for the duration of the construction period. All temporary measures shall be removed and the site restored to near original condition.

#### **7. Measurement and payment**

**Method 1**—For items of work for which specific unit prices are established in the contract, each item is measured to the nearest unit applicable. Payment for each item is made at the contract unit price for that item. For water or chemical suppressant items used for dust control for which items of work are established in section 8 of this specification, measurement for payment will not include water or chemical suppressants that are used inappropriately or excessive to need. Such payment will constitute full compensation for the completion of the work.

**Method 2**—For items of work for which lump sum prices are established in the contract, payment is made as the work proceeds and supported by invoices presented by the contractor that reflect actual costs. If the total of all progress payments is less than the lump sum contract price for this item, the balance remaining for this item will be included in the final contract payment. Payment of the lump sum contract price will constitute full compensation for completion of the work.

**Method 3**—For items of work for which lump sum prices are established in the contract, payment will be prorated and provided in equal amounts on each monthly progress payment estimate. The number of months used for prorating shall be the number estimated to complete the work as outlined in the contractor's approved construction schedule. The final month's prorate amount will be provided with the final contract payment. Payment as described will constitute full compensation for completion of the work.

**All Methods**—The following provisions apply to all methods of measurement and payment. Compensation for any item of work described in the contract, but not listed in the bid schedule is included in the payment for the item of work to which it is made subsidiary. Such items, and the items to which they are made subsidiary, are identified in section 8 of this specification.

## 8. Items of work and construction details

Items of work to be performed in conformance with this specification and the construction details are:

### a. Subsidiary Item, Pollution Control, Rockhouse Creek Road Site 1.

- (1) This item shall consist of the furnishing, installation, and removal of all work necessary to control erosion and sediment pollution, chemical pollution, water pollution and air pollution during the period of this contract.
- (2) The Contractor shall perform the work in a manner that will reduce erosion, minimize sediments and other pollutants to the water and streams and create a minimum of air pollution consistent with standard construction operations.
- (3) The Contractor shall perform work in such a manner that all Local, State and Federal regulations regarding pollution (i.e. air, water, etc.) are adhered to.
- (4) In Section 3, Other, the Contractor shall provide acceptable temporary erosion control methods as needed, such as, but not limited to:
  - (a) Provide temporary measures such as but not limited to silt fence, staked straw bales, temporary mulching, contouring, water bars, and dust control at access and haul roads, stream crossings, side inlet drainages and other locations as necessary. The Contractor shall provide such additional measures as necessary to control sediment and abate pollution should his/her operations cause pollution that cannot be controlled by the stated measures.
  - (b) Where temporary access roads are constructed or utilized at locations alongside of the stream channels, the Contractor shall provide staked straw bales at side inlet locations and at other locations as necessary to protect the streams and channels from sedimentation. Additional measures such as silt fence, brush barriers, settling basins, and/or rock checks shall be used singly or in combination as necessary. Such measures shall be checked regularly, cleaned, maintained, and repaired until permanent seeding has been accomplished as specified in Construction Specification 6, Seeding, Sprigging, and Mulching. At the time of permanent seeding, all temporary measures shall be removed and the area restored to near original condition and seeded. Straw bales that were used in erosion control shall be used as mulch in the seeding operation or disposed of off-site.
  - (c) The timing of the installation of the necessary erosion control measures along the disturbed access areas along stream channels shall be prior to any forecasted or anticipated rainfall event or after the heavy debris removal has occurred whichever is earliest. Once installed, erosion control measures shall be properly cleaned, maintained, and replaced as needed until permanent seeding and mulching has been accomplished. The COR shall have the final determination as to the location and timing of pollution control measures.
  - (d) All measures shall be installed as necessary to properly function for erosion control. For example, silt fence tails shall be buried securely to prevent water from traveling under the silt fence. Straw bales shall be buried sufficiently in a small trench, their joints stuffed with straw, and adjacent bales placed and staked in such a manner that water will pond behind and not travel under, around, or through the straw bale system until sediments have been settled out. See drawings for details of staked straw bales and silt fence.
  - (e) At a minimum, every time the equipment must cross a stream channel or drainage way, existing downed brush and logs shall be used to line the stream or drainage way. The brush and logs shall be placed in the drain length wise to allow the water to flow between the brush and logs without creating an impoundment in the stream. The brush should be across the entire streambed or drainage way, and it shall extend up to

the top of bank locations on both sides on the entrance and exit ramps of the crossing. The debris shall be left in place until the contractor has completed the debris removal and disposal in these locations. If this area undergoes numerous crossings by equipment, then it will be necessary to add more brush to the crossing to protect the streambed or the drainage way. Once the debris removal and debris disposal has been completed, then the debris placed in the crossings shall be removed and disposed of as specified in Specification 405.

- (5) In Section 4, Chemical Pollution, any disturbed area shall be returned to the preconstruction condition prior to the seeding operation. Sanitary facilities shall be located at each project site while workers are present. Sanitary facilities shall be located conveniently close to the workers to encourage their use by the workers. Sanitary facilities shall be adequately maintained in a safe and sanitary condition with adequate supplies.
- (6) In Section 7, Measurement and Payment, no separate payment will be made for this item. Compensation for Subsidiary Item, Pollution Control (all sites) will be included in the applicable payment for:

Bid Item 2, Debris Removal & Disposal, Site 1.

## Construction Specification 6—Seeding, Sprigging, and Mulching

### 1. Scope

The work consists of preparing the area for treatment; furnishing and placing seed, sprigs, mulch, fertilizer, inoculant, lime, and other soil amendments; and anchoring mulch in designated areas as specified.

The following BioPreferred® product categories are applicable to this specification:

- Mulch and compost materials
- Erosion control materials
- Fertilizers
- Agricultural spray adjuvants

### 2. Material

**Seed**—All seed must conform to the current rules and regulations of the State where it is being used and must be from the latest crop available. It must meet or exceed the standard for purity and germination listed in section 7.

Seed must be labeled in accordance with State laws and U.S. Department of Agriculture rules and regulations under the Federal Seed Act in effect on the date of invitations for bids. Bag tag figures are evidence of purity and germination. No seed may be accepted with a test date of more than 9 months before the date of delivery to the site.

Seed that has become wet, moldy, or otherwise damaged in transit or storage will not be accepted. The percent of noxious weed seed allowable must be as defined in the current State laws relating to agricultural seeds. Each type of seed must be delivered in separate sealed containers and fully tagged unless an exception is granted in writing by the contracting officer.

**Fertilizer**—Unless otherwise specified, the fertilizer must be a commercial-grade fertilizer. It must meet the standard for grade and quality specified by State law. Where fertilizer is furnished from bulk storage, the contractor must furnish a supplier's certification of analysis and weight. When required by the contract, a representative sample of the fertilizer must be furnished to the contracting officer for chemical analysis.

**Inoculants**—The inoculant for treating legume seeds must be a pure culture of nitrogen-fixing bacteria prepared specifically for the species and must not be used later than the date indicated on the container or as otherwise specified. A mixing medium, as recommended by the manufacturer, must be used to bond the inoculant to the seed. Two times the amount of the inoculant recommended by the manufacturer must be used, except that four times the amount must be used when seed is applied using a hydraulic seeder. Seed must be sown within 24 hours of treatment and must not remain in the hydraulic seeder longer than 4 hours.

**Lime and other soil amendments**—Lime must consist of standard ground agriculture limestone, or approved equivalent. Standard ground agriculture limestone is defined as ground limestone meeting current requirements of the State department of agriculture. Other soil amendments must meet quality criteria and application requirements specified in section 7.

**Mulch tackifiers**—Asphalt emulsion tackifiers must conform to the requirements of ASTM D977, Specification for Emulsified Asphalt. The emulsified asphalt may be rapid setting, medium setting, or slow setting. Nonasphaltic tackifiers required because of environmental considerations must be as specified in section 7.

**Straw mulch material**—Straw mulch must consist of wheat, barley, oat or rye straw, hay, grass cut from native grasses, or other plants as specified in section 7. The mulch material must be air-dry, reasonably light in color, and must not be musty, moldy, caked, or otherwise of low quality. The use of mulch that contains noxious weeds is not permitted. The contractor must provide a method satisfactory to the contracting officer for determining weight of mulch furnished.

**Other mulch materials**—Mulching materials, such as wood cellulose fiber mulch, mulch tackifiers, synthetic fiber mulch, netting, and mesh may be required for specialized locations and conditions. These materials, when specified, must be accompanied by the manufacturer's recommendations for methods of application.

### 3. Seeding mixtures, sod, sprigs, and dates of planting

The application rate per acre for seed mixtures, sprigs, or sod and date of seeding or planting must be as shown on the plans or as specified in section 7.

#### 4. Seedbed preparation and treatment

Areas to be treated must be dressed to a smooth, firm surface. On sites where equipment can operate on slopes safely, the seedbed must be adequately loosened (4 to 6 inches deep) and smoothed. Depending on soil and moisture conditions, disking or cultipacking, or both, may be necessary to properly prepare a seedbed. Where equipment cannot operate safely, the seedbed must be prepared by hand methods by scarifying to provide a roughened soil surface so that broadcast seed will remain in place.

If seeding is to be accomplished immediately following construction operations, seedbed preparation may not be required except on a compacted, polished, or freshly cut soil surface.

Rocks larger than 6 inches in diameter, trash, weeds, and other debris that will interfere with seeding or maintenance operations must be removed or disposed of as specified in section 7.

Seedbed preparation must be discontinued when soil moisture conditions are not suitable for the preparation of a satisfactory seedbed as determined by the responsible engineer.

#### 5. Seeding, sprigging, fertilizing, mulching, and stabilizing

All seeding or sprigging operations must be performed in such a manner that the seed or sprigs are applied in the specified quantities uniformly in the designated areas. The method and rate of seed application must be as specified in section 7. Unless otherwise specified, seeding or sprigging must be accomplished within 2 days after final grading is completed and approved.

Fertilizer, lime, and other soil amendments must be applied as specified in section 7. When specified, the fertilizer and soil amendments must be thoroughly incorporated into the soil immediately following surface application.

The rate, amount, and kind of mulching or mesh must be as specified in section 7. Mulches must be applied uniformly to the designated areas. They must be applied to areas seeded not later than 2 working days after seeding has been performed. Straw mulch material must be stabilized within 24 hours of application using a mulch crimper or equivalent anchoring tool or by a suitable tackifier. When the mulch crimper or equivalent anchoring tool is used, it must have straight blades and be the type manufactured expressly for and capable of firmly punching the mulch into the soil. Where the equipment can be safely operated, it must be operated on the contour. Hand methods must be used where equipment cannot safely operate to perform the work required.

The tackifier must be applied uniformly over the mulch material at the specified rate, or it must be injected into the mulch material as it is being applied. Mesh or netting stabilizing materials must be applied smoothly but loosely on the designated areas. The edges of these materials must be buried or securely anchored using spikes or staples as specified in section 7.

The contractor must maintain the mesh or netting areas until all work under the contract has been completed and accepted. Maintenance must consist of the repair of areas damaged by water erosion, wind, fire, or other causes. Such areas must be repaired to reestablish the intended condition and to the design lines and grades required by the contract. The areas must be refertilized, reseeded, and remulched before the new application of the mesh or netting.

#### 6. Measurement and payment

**Method 1**—For items of work for which specific unit prices are established in the contract, each area treated is measured as specified in section 7 and the area is calculated to the nearest 0.1 acre. Payment for treatment is made at the contract unit price for the designated treatment, which will constitute full compensation for completion of the work.

When specified as an item of work, mesh or netting is measured to the nearest square yard of surface area covered and accepted. Payment is made at the contract unit price and will constitute full compensation for completion of the work.

**Method 2**—For items of work for which specific lump-sum prices are established in the contract, the quantity of work will not be measured for payment. Payment for this item is made at the contract lump-sum price for the item and constitutes full compensation for the completion of the work.

**Method 3**—For items of work for which lump-sum prices are established in the contract, payment is made as the work proceeds. Progress payments are determined as specified in section 7. Payment of the lump sum contract price constitutes full compensation for completion of the work.

**All Methods**—The following provisions apply to all methods of measurement and payment. Compensation for any item of work described in the contract but not listed in the bid schedule is included in the payment for the item of work to which it is made subsidiary. Such items and the items to which they are made subsidiary are identified in section 7.



**7. Items of work and construction details**

Items of work to be performed in conformance with this specification and the construction details are:

**a. Subsidiary Item, Seeding, Sprigging and Mulching, Rockhouse Creek Road Site 1.**

- (1) This item shall consist of the seedbed preparation and the application of lime, fertilizer, seed, and mulch to establish temporary erosion control and perennial vegetation at the travel lanes and at any other non-woods grassed or bare areas disturbed by the work. Upon completion of each 1,000 feet long section of debris removal on each site, the contractor shall apply temporary mulch to all disturbed areas to provide temporary erosion control. The extent and time each area is to receive final treatment shall be within 3 days of final debris removal operations or as soon as local soil conditions allow. Large sections of projects will be completed long before the final disposal of the debris piles is completed. These areas located away from the debris piles shall be seeded within 3 days of final debris removal as specified above. The contractor shall not wait until all of the debris piles are disposed of to begin establishment of perennial vegetation on the areas located away from the debris pile locations. Delays in seeding treatment must be approved by the COR. Until disturbed areas are permanently seeded, the pollution control measures as specified in Construction Specification 5, Pollution Control, shall remain in-place and properly maintained.
- (2) Temporary erosion control shall be accomplished by applying small grain straw uniformly to all disturbed areas at a rate of one-and-a-half tons (1.5) tons per acre (or seventy (70) pounds per 1,000 square feet for small areas). No ruts shall be smoothed in preparation for the temporary erosion control mulch.
- (3) All ruts created by the debris removal and disposal operation shall be left in a smooth condition prior to seedbed preparation.
- (4) Agricultural limestone shall be applied uniformly at the rate of two (2) tons per acre or if only a small area use ninety-two (92) pounds per 1,000 square feet.
- (5) Fertilizer shall be applied uniformly at the rate of eight hundred (800) pounds of 15-15-15 per acre or if only a small area use nineteen (19) pounds of 15-15-15 per 1,000 square feet.
- (6) Agricultural limestone and fertilizer shall be applied prior to seedbed preparation.
- (7) Areas designated for seeding shall be prepared in accordance with Section 4 of this specification. All trash and rubbish shall be removed prior to seeding. Debris larger than that specified in Construction Specification 405, Channel Obstruction and Debris Removal and Disposal, shall be removed.
- (8) The areas shall be seeded with the following per acre mixture of pure live seed:
  - 40 pounds of KY-31 Tall Fescue,
  - 15 pounds of small grain rye, and
  - 2.0 pounds of White Clover.
- (9) When a small area is disturbed, the area shall be seeded with the following per 1,000 square foot mixture of pure live seed:
  - 1.0 pound of KY-31 Tall Fescue,
  - 0.4 pounds of small grain rye, and
  - 0.05 pounds of White Clover.
- (10) All seeding shall be done upon completion of the debris removal operations unless otherwise approved by the COR.

- (11) All seed shall conform to the material requirements contained in the current Tennessee Seed Law. No seed shall be less than 80% pure live seed of the current year.
- (12) Immediately after broadcasting seed, seed shall be partially covered by cultipacker, drag, bulldozer tracks up and down slope, or other approved means.
- (13) Final establishment of mulch shall be small grain straw applied uniformly to seeded areas at a rate of one-and-a-half tons (1.5) tons per acre (or seventy (70) pounds per 1,000 square feet for small areas) for areas designated for seeded vegetation. Mulch shall be crimped using a crimper or the tracks of the debris removal equipment such as a bulldozer or front-end loader.
- (14) Fertilizer, lime, seed, and mulch shall not be applied to any water body or within the limits of the stream bank.
- (15) Seeding and mulching by methods other than described herein shall be submitted to the COR for approval prior to application.
- (16) In Section 6, Measurement and Payment, no separate payment will be made for this item. Compensation for the Subsidiary Item, Seeding, Sprigging, and Mulching (all sites), will be included in the applicable payment for:

Bid Item 2, Debris Removal & Disposal, Site 1.

## **Construction Specification 8—Mobilization and Demobilization**

### **1. Scope**

The work consists of the mobilization and demobilization of the contractor's forces and equipment necessary for performing the work required under the contract. It does not include mobilization and demobilization for specific items of work for which payment is provided elsewhere in the contract. Mobilization will not be considered as work in fulfilling the contract requirements for commencement of work.

### **2. Equipment and material**

Mobilization shall include all activities and associated costs for transportation of contractor's personnel, equipment, and operating supplies to the site; establishment of offices, buildings, and other necessary general facilities for the contractor's operations at the site; premiums paid for performance and payment bonds including coinsurance and reinsurance agreements as applicable; and other items specified in section 4 of this specification.

Demobilization shall include all activities and costs for transportation of personnel, equipment, and supplies not required or included in the contract from the site; including the disassembly, removal, and site cleanup of offices, buildings, and other facilities assembled on the site specifically for this contract.

This work includes mobilization and demobilization required by the contract at the time of award. If additional mobilization and demobilization activities and costs are required during the performance of the contract as a result of changed, deleted, or added items of work for which the contractor is entitled to an adjustment in contract price, compensation for such costs will be included in the price adjustment for the item or items of work changed or added.

### **3. Payment**

Payment will be made as the work proceeds, after presentation of paid invoices or documentation of direct costs by the contractor showing specific mobilization and demobilization costs and supporting evidence of the charges of suppliers, subcontractors, and others. When the total of such payments is less than the lump sum contract price, the balance remaining will be included in the final contract payment. Payment of the lump sum contract price for mobilization and demobilization will constitute full compensation for completion of the work.

Payment will not be made under this item for the purchase costs of materials having a residual value, the purchase costs of materials to be incorporated in the project, or the purchase costs of operating supplies.

#### **4. Items of work and construction details**

Items of work to be performed in conformance with this specification and the construction details are:

##### **a. Bid Item 1 - Mobilization and Demobilization, Site 1**

- (1) This item shall consist of the mobilization and demobilization of the Contractor's forces, materials, and equipment necessary to perform the work required under the contract. This item shall also include all work required to provide and maintain temporary construction access to each site and any work required to repair or replace damaged fencing, gates, etc. necessary for site access.
- (2) This item shall NOT include the transportation of personnel, equipment, materials, and operating supplies between and within the individual channel reaches and sites.
- (3) Fences, gates, and other such items which must be cut or removed for access or are damaged because of the Contractor's operations shall be repaired or replaced by the Contractor at his/her expense to equal or better quality to that which existed prior to the start of work under this contract. Where the Contractor must remove existing gate fence posts, if the removed post is damaged and cannot be reinstalled, the replacement shall be at a minimum 8-inch diameter by 8-foot-long pressure treated post. Concrete shall be installed six inches thick around the sides and bottom of the post for the last two feet of post length only if the removed post had concrete around it. Gates destroyed by the Contractor shall be replaced with metal gates of the size and quality locally available that is the closest match to that being replaced. Contractor shall supply all hardware, equipment, and labor necessary to re-install or replace damaged fencing, posts, gates, etc.

Line posts and fencing damaged by the Contractor's operations shall be replaced with like materials and methods.

- (4) Access shall be as shown on the drawings. If alternate routes are obtained by the Contractor, the routes must be approved by NRCS prior to use. All access routes shall be restored by the Contractor at his/her expense to a condition of equal or better quality and condition to that which existed prior to the start of work under this contract. It shall be the Contractor's sole responsibility to obtain adequate land rights to use any alternate access route not shown on the drawings and to be responsible for all costs resulting from not obtaining adequate land rights prior to commencing work at the alternate access location.

## **Construction Specification 9—Traffic Control**

### **1. Scope**

The work shall consist of establishing traffic control and maintaining safe, convenient use of public roads and rights-of-way.

### **2. Traffic and access**

The contractor's operations shall cause no unnecessary inconvenience to the public. The public rights-of-way shall be maintained at all times unless interruption is authorized by proper local authority. Contractor's authorized closing or detour plans shall be provided to the engineer for approval.

Safe and adequate access shall be provided and maintained to all public protection devices and to all critical utility control locations. Facility access shall be continuous and unobstructed unless otherwise approved.

### **3. Storage of equipment and material in public streets**

Construction materials and equipment shall not be stored or parked on public streets, roads, or highways. During any material or equipment loading or unloading activities that may temporarily interfere with traffic, an acceptable detour shall be provided for the duration of the activity. Any associated expense for this activity is the responsibility of the contractor.

Excavated material, including suitable material that is intended for adjacent trench backfill or other earth backfill as specified in section 5 of this specification, shall not be stored on public streets, roads, or highways that remain in service for the public. Any waiver of this requirement must be obtained from the proper local authority and approved by the engineer. All excess and unsuitable material shall be removed from the site as soon as possible. Any spillage shall be removed from roadways before they are used by the public.

### **4. Street closures, detours, and barricades**

The contractor shall comply with the requirements of all applicable responsible units of government for closure of any street, road, or highway. The contractor shall provide the required barriers, guards, lights, signs, temporary bridges, and flaggers together with informing the public of any detours and construction hazards by the most suitable means available, such as local newspapers or radio stations. The contractor is also responsible for compliance with additional public safety requirements that may arise during construction. The contractor shall furnish, install, and, upon completion of the work, promptly remove all signs, warning devices, and other materials used in the performance of this work.

Unless otherwise specified, the contractor shall notify, in writing, the fire chief, police chief, county sheriff, state patrol, schools that operate school buses, or any other government official as may be appropriate no less than 7 days before closing, partly closing, or reopening any street, road, or highway.

Unless otherwise specified, the contractor shall furnish to the engineer a written plan showing the proposed method of signing, barricading for traffic control, and safety for street detours and closures.

All temporary detours will be maintained to ensure use of public rights-of-way is provided in a safe manner. This may include dust control, grading, and graveling as required in section 7 of this specification.

**5. General and specific references**

All signs, signals, barricades, use of flaggers, and other traffic control and public safety devices shall conform to the general requirements set forth in the Manual of Uniform Traffic Control Devices (MUTCD) and the latest edition of *Standard Highway Signs and Standard Alphabets for Highway Signs* and/or *OSHA Construction Industry Standards (29 CFR Part 1926), Subpart G, Signs, Signals, and Barricades* unless otherwise specified in section 7 of this specification.

**6. Measurement and payment**

For items of work for which specific lump sum prices are established in the contract, payment for the work is made at the contract lump sum price. Progress payments will be made based upon the percentage of estimated total time that traffic control will be required unless otherwise specified in section 7 of this specification. Payment will constitute full compensation for all flaggers, labor, materials, equipment, and all other items necessary and incidental to completion of the work.

Compensation for any item of work described in the contract, but not listed in the bid schedule will be included in the payment for the item of work to which it is made subsidiary. Such items and items to which they are made subsidiary are identified in section 7 of this specification.

## **7. Items of work and construction details**

Items of work to be performed in conformance with this specification and the construction details are:

### **a. Subsidiary Item, Traffic Control, Rockhouse Creek Road Site 1.**

- (1) This item shall consist of providing the necessary traffic control devices (signs, signals, markings, personnel, etc.) where needed, to allow for the safe and expeditious movement of traffic through and adjacent to the construction area for the duration of this contract.
- (2) Contractor shall have a comprehensive plan to control traffic that complies with all local and state regulations and requirements as appropriate. Any permits, plans, or other requirements shall be the responsibility of the Contractor.
- (3) The roadway and all traffic control devices shall be restored to their equal or better condition as compared to the pre-contract conditions at the expense of the Contractor.
- (4) All debris, materials, and equipment shall be stored off the road surface and shall not create any sight distance problems.
- (5) In Section 4, if a section of road is temporarily closed, the Contractor shall make provisions for the reasonable and timely access of local traffic. A written plan is not required to be furnished to the engineer. All road closures shall be coordinated with the local road authority and all government notices are required. Contractor shall comply with all requirements of the local road authority.
- (6) Flagger shall be provided when necessary to safely direct traffic during construction operations; all such expenses shall be the responsibility of the Contractor.
- (7) In Section 6, Measurement and Payment, no separate payment will be made for this item. Compensation for Subsidiary Item, Traffic Control (all sites), will be included in the payment for:

Bid Item 2, Debris Removal & Disposal, Site 1.

## CONSTRUCTION SPECIFICATION

### 405. CHANNEL OBSTRUCTION AND DEBRIS REMOVAL AND DISPOSAL

1. **SCOPE**

The work shall consist of the cleanup of designated channel areas as shown on the drawings. The cleanup consists of the removal and disposal of trees, downed trees, dead trees, leaning trees, logs, stumps, brush, tops, downed or damaged limbs, drifts, rubbish, metal, insulation, building materials, house contents, appliances, and any other debris deposited in or adjacent to the channel within the work limits.

2. **MARKING THE LIMITS OF WORK**

Beginning and ending points of segments have been marked with flagging or paint and may be inspected prior to submitting a bid. These beginning and ending points are also referenced with latitude and longitude coordinates referenced to the NAD83 datum and provided on the drawings. Channel lines representing the contiguous work areas are shown on the drawings and are intended to show the approximate and general direction of the channel.

3. **ACCESS, IMPROVEMENTS, AND UTILITIES**

Access routes to all work areas shall be limited to those routes shown on the drawings unless alternate routes are obtained by the Contractor as specified in Construction Specification 8, Mobilization and Demobilization. All access routes shall be restored by the Contractor to the condition prior to commencement of work under this contract. The Contractor shall be responsible for all costs associated with utilizing alternate access route locations. All costs to construct and maintain temporary construction access roads along each channel reach shall be included in the debris removal costs of the appropriate site.

The Contractor shall use existing fords for stream crossings to the fullest extent possible. Additional stream crossings may be used only if approved by the Government Representative (GR) prior to use. Bedrock bottom stream locations shall be utilized where available to the fullest extent possible. Use of stream crossings shall be limited to the minimum necessary to accomplish the work especially when water is flowing. The Contractor shall plan the work so as to accomplish the work with the fewest crossings possible. *All* stream crossings and drainage ways shall have woody debris placed across the entire streambed, and on both entrance and exit ramps all the way up to the top of the bank. The woody debris materials shall be kept in place until all of the debris removal and disposal has been completed. This includes the final disposal of all woody debris piles that are to be hauled to the disposal site, and final establishment of perennial vegetation. Materials used to form stream or channel crossings shall be removed and disposed of once the work for the subject reach is completed.

The woody debris used in the stream crossings shall be placed lengthwise parallel to the flowing water to avoid the obstruction of water flow in any channel or side drain that must be crossed. Crossing methods that fill the channel with something other than the woody debris shall not be utilized.



The Contractor shall notify the GR one day in advance if the performance of work requires fence removal or destruction. The Contractor will only be required to install or repair fences and gates that he/she has removed or damaged as specified in Construction Specification 8, Mobilization and Demobilization. Special care shall be taken to minimize damages to roadways, roadway surfaces, fences, crops, existing structures, and other existing improvements. The Contractor shall repair all damages caused by his/her construction operations at his/her expense.

Overhead power lines and other utilities are in many areas of the work. However, there may be additional utilities or lines that are unknown. It shall be the Contractor's responsibility to ascertain all utilities, both public and private, and take special care and precautions to avoid any damage to the same. Any damage to utilities shall be the sole responsibility of the Contractor and shall be repaired without additional cost to the Government. Contractor shall call and use the TN-811 call system for utility location at all sites.

#### 4. CLEARING

Clearing of live undamaged trees and vegetation shall only be allowed to gain access to the stream bank and to provide the minimum required access route into and through the individual sites. The Contractor shall be required to conference with and gain the GR's approval of methods and rationale to cut and remove growing, undamaged, or minorly damaged trees and vegetation. Special care shall be taken to prevent damage to live trees and vegetation to remain on-site. Living trees where their existing root masses are 50 percent or more in contact with the soil shall not be cut or removed from the work limits. Trees that are significantly damaged by the Contractor's operations, and their existing root masses are 50 percent or more in contact with the soil shall be removed by the Contractor. All other trees that are significantly damaged by the Contractor's operations shall be removed at his/her expense only if designated by the GR to be removed. All dead trees are to be removed. The amount of clearing for access shall be kept to a minimum. Access routes in wooded areas shall be selected to leave the best quality trees and vegetation in-place and such routes may not be the straightest or most direct. Access routes will be allowed to temporarily extend outside of the removal work limits if approved by the GR to save trees or reduce environmental damages and if land rights have been obtained. This clearing work shall be considered subsidiary to debris removal as applicable to each site.

#### 5. REMOVAL

All downed trees, tree snags that are less than 10 feet in total height, severely leaning damaged trees, logs, stumps, brush, tops, downed or damaged limbs, drifts, rubbish, metal, insulation, building materials, house contents, appliances, plastic bottles, bottle caps, and any other debris within the designated areas shall be removed as shown on the drawings. **To the maximum extent possible, debris removal from within the stream banks shall be by sawing into manageable pieces and lifting or carrying in a manner that minimizes damage to the stream banks, stream bottom, and existing vegetation.** In sites where the equipment cannot reach across the stream while staying out of the stream channel, the equipment shall work from one stream bank, and then it shall work from the other stream bank. In sites where the equipment can only work from one side of the stream, the debris shall be cabled across the stream channel. The debris shall not be drug up and over the stream banks. It shall be uncabled at the edge of the stream channel, and then the equipment shall lift the debris out of the stream channel up over the streambank where it will be hauled off-site for disposal.

**The GR will make the final determination for the approval and acceptance of removal methods. The removal methods utilized shall cause minimal damage and disturbance to the stream channel and stream bottom.** Equipment shall not be operated in flowing water at any time except to cross existing fords. Additional requirements shall be as specified in Section 9.

The following guidelines will be used to determine which trees, stumps, and brush to remove. **The final determination for removal will be made by the GR.**

- All downed trees, brush, limbs, tops, vines, and other woody vegetative materials lying completely or partially within the stream banks, or within the adjacent floodplain shall be removed.
- Trees - Undermined, damaged, or dead trees that are located within or outside of the stream banks which are still standing but likely to fall shall be removed as long as they are leaning at a 30-degree or greater angle from the vertical, and their root masses are less than 50 percent in contact with the soil. Damaged trees that are leaning less than a 30-degree angle from the vertical, or their root masses are 50 percent or more in contact with the soil shall not be removed.
- Tree snags that are still standing shall be cut and removed.
- Stumps of downed trees within the channel banks shall not be removed unless they meet the criteria specified in Section 9 of this specification.

All building materials, manufactured items, and other loose foreign debris lying completely or partially within the limits of designated areas shall be removed.

## **6. DISPOSAL**

All non-woody material such as house debris, building materials, etc. and all woody material such as trees, tops, limbs, stumps, etc. produced from the Contractor's "Channel Obstruction and Debris Removal and Disposal" operations, shall be hauled to the Lewis County Landfill located at 641 Waynesboro Highway, Hohenwald, Tennessee. Hazardous or other sensitive debris shall be disposed of at a legal off-site disposal site licensed to receive the material or as directed by the GR. The Contractor is responsible for all costs including any and all tipping fees for any off-site disposal location.

No on-site burning will be allowed. All debris shall be hauled off-site to the specified location for disposal.

## 7. SPECIAL REQUIREMENTS

Roadways constructed in the work areas shall be kept to the minimum width necessary. No grading for equipment to work or benching of the channel sides will be permitted without the prior concurrence of the GR. Such consideration will only be given on a case-by-case basis.

All saw cuts shall be made parallel to and as close to ground level as the cutting tools will permit, but no higher than 6" – 10" above the ground when stumps are to remain. Existing stumps shall be re-cut to comply with this requirement. The exception to the cutting height requirement is when trees or stumps containing fencing wire or numerous nails are encountered. In such cases, the GR shall designate the cut elevation.

**The Contractor shall take reasonable precautions to prevent further damage to the channel and its environment to include channel banks, fishery resources, and undamaged trees and vegetation.** The Contractor shall provide tanks or barrels to be used for off-site disposal of chemical pollutants such as drained lubricating or transmission oils, greases, etc. produced as a by product of this work. Washing, fueling, or servicing of equipment shall be avoided where spillage, wash water or contaminated runoff water can enter the watercourse.

The Contractor shall not operate heavy equipment such as crawler tractors and tracked excavators within flowing channels. Any operation of heavy equipment within the banks of the watercourse must be approved by the GR.

Existing holes or those created by stump removal within the stream banks shall remain as a hole. Absolutely NO placement of fill material will be allowed within the stream banks.

**In residential and other landscaped areas,** the Contractor shall smooth and/or backfill holes in all grassed and maintained areas where the holes are a result of the Contractor's stump and debris removal and disposal operations. Backfill shall be the best fill material available from within fifty (50) feet of the hole (excluding the channel). Upon occasion, spoil may not be available. In such cases, suitable fill material, as concurred in by the GR, shall be hauled into the site to fill the holes. In residential or other landscaped areas, the fill used to backfill the holes shall be topsoil. In residential and other landscaped areas, all track or wheel ruts created as a result of the debris removal and disposal operations shall be removed by smoothing and/or backfilling. The backfilling procedure is as prescribed here: the earthfill shall be spread in not greater than twelve (12) inch lifts and compacted by at least two passes of the tracks or wheels of the placement equipment over the entire fill surface. The earthfill cover shall be placed a few inches higher than the surrounding ground surface and graded to drain and transition into the surrounding ground.

All track or wheel ruts created as a result of the debris removal and disposal operations within the removal limits along the channel but not within the channel banks, access routes, and disposal sites shall be removed by smoothing and/or backfilling as prescribed above for holes and dressing the area, as necessary. Upon completion of dressing operations all these areas shall be seeded in accordance with Construction Specification 6, Seeding, Sprigging and Mulching.

The Contractor shall take all reasonable precautions to prevent further damage to structures, utilities, or other fixed improvements and shall promptly repair or replace at his/her expense any such improvements damaged by his/her operations.

The Contractor shall coordinate with the appropriate highway department or agency on the proposed methods and manners of traffic control and receive approval of methods used. See Construction Specification 9, Traffic Control, for additional requirements.

**8. MEASUREMENT AND PAYMENT**

The work will not be measured for payment. Payment shall be made at the contract lump sum price. Such payment shall constitute full compensation for all labor, equipment, tools, and all other items necessary and incidental to completion of the work. Compensation for any item of work described in the contract, but not listed in the bid schedule, will be included in the payment for the item of work to which it is made subsidiary. Such items and the items to which they are made subsidiary are identified in Section 9 of this specification.

**9. ITEMS OF WORK AND CONSTRUCTION DETAILS**

Items of work to be performed in conformance with this specification and the construction details are:

**Bid Item 2, Debris Removal and Disposal, Rockhouse Creek Road Site 1.**

- (1) This item consists of the removal and disposal of trees, downed trees, dead trees, leaning trees, logs, stumps, brush, tops, downed or damaged limbs, drifts, rubbish, metal, insulation, building materials, house contents, appliances, plastic bottles, bottle caps, and any other debris deposited in or adjacent to the channel within the limits as shown on the drawings and as staked in the field.
- (2) Bull dozers shall be allowed to do seedbed preparation and spread soil material over the holes and ruts resulting from the Contractor's stump and debris removal and disposal operations. Bull dozers and similar equipment shall NOT be utilized to push woody debris for collection along the stream channel or floodplain.
- (3) Equipment and methods shall be selected that provides the smallest environmental damage and soil disturbance. The equipment utilized by the Contractor shall be of the size and type to provide the Contractor with the capability to accomplish the work and keep the damage to the floodplain, stream banks, stream crossings, access roads, etc. to the least amount possible. It is suggested that small trackhoes with thumbs, skid steer loaders, and other appropriate small equipment be utilized that leaves a small environmental footprint. Collapsing stream bank failure will not be allowed when due to equipment operations. If in the opinion of the GR the damages to the environment are too severe, the Contractor shall stop his work and revise his selection and usage of equipment, labor force, and/or methods to reduce the damages to the environment to an acceptable level at no additional cost to the Government. The final determination shall be made by the GR. The Contracting Officer may suspend the work if damages become too severe. If a suspension is warranted, the Contractor shall be responsible for all de-mobilization and re-mobilization costs.
- (4) It is required that a sufficient labor force be provided that uses manual collection methods to compliment the equipment to keep environmental and stream channel damages to a minimum. See the additional requirements in Section 5, Removal, of this specification.
- (5) The non-woody debris removal work limits shall be as shown on the drawings and extend to 25 feet either side of the top of bank. All non-woody debris within the 25-foot work limits such as rubbish, metal, insulation, building materials, house contents, appliances, plastic bottles, bottle caps, and any other non-woody debris shall be removed and disposed of as specified in Section 6, Disposal, of this specification.
- (6) All sites shall have a 25-foot down trees and debris removal work limits from the top of bank. All woody debris shall be removed within the 25 feet just as described for the down trees and debris removal work limits in the following paragraphs of this specification.
- (7) The lateral work limits shall be as shown on the drawings. Where it is difficult to

determine the top of bank locations (i.e., a shallow swale) the lateral work limits shall originate at the centerline of the drainage way and extend perpendicular from the centerline of the drainage way. GR concurrence is required to use the centerline of drainage way as the origin of the work limits. When one bank of the stream channel is a steep bluff, the top of bank elevation for the steep bluff side shall be considered the same as the top of bank elevation on the opposite side of the steep bluff. For all types of debris removal, the lateral extent of work limits shall be the bluff surface which is 10 feet above the defined top of bank elevation. When a public roadway is within the down trees and debris removal work limits, the debris removal operation shall stop at the closest edge of pavement or earthen roadway travel surface.

- (8) The beginning and ending work limits shall be as shown on the drawings at the GPS coordinates provided. When debris removal is required at a bridge or culvert, the work limits shall be the distance necessary to remove all piled, floating and submerged accumulated debris. Debris removal within the dripline of a bridge or inside of a culvert is not allowed on EWPP projects nor is work allowed on the right-of-way of a state or federal highway.
- (9) The Contractor shall be required to commence the debris removal operations on the upstream end of the project site, and proceed to the downstream end unless directed differently by the GR.
- (10) Lines on the drawings are intended to show the channel alignment as well as the contiguous lateral work limits and are approximate. The Contractor shall follow the actual alignment of the channels as they exist on-the-ground. If a channel splits and is not shown as a split on the drawings, and travels outside of the designated work limits distance, the GR will determine the main channel to follow. No additional compensation or consideration will be made for any difference in actual versus drawn channel alignments.
- (11) All woody debris within the downed trees and woody debris removal work limits as shown on the drawings shall be removed as described herein. In all debris removal areas, vegetative debris longer than 48 inches and having a diameter greater than 4 inches shall be removed from within the work limits. The Contractor shall not be allowed to break-up debris to fall under the dimensional limits described. Doing so will require removal of the smaller broken pieces. This is to include, but is not limited to, all debris (trees, root balls which have been displaced, etc.) that is a part of the debris within the work limits. Leaning trees, (those which are leaning over the channel and are identified for removal), shall be cut off at the ground line leaving the root mass in place. If any part of a downed or leaning tree, that is leaning more than 30 degrees from the vertical, that has less than 50% of the root mass in contact with the soil, and is within the lateral work limits, the entire tree shall be removed. It is not the intention of this specification to require the removal of trees that are leaning more than 30 degrees from the vertical that have naturally grown this way, which are in no danger of falling down, and have more than 50% of the root mass in contact with the soil. If the root mass of a damaged, leaning tree is outside the work limits, the tree shall be cut off at the root mass and the root mass shall remain, with the exception of root masses in residential yards which shall be removed as per the following stipulations as concurred in by the GR. The root mass of any tree, within the work limits, designated for removal, shall only be left in place if 50% or more of the root mass is still in direct contact with the soil and with the roots intact. Root

masses of trees, within the work limits, which are designated for removal, and which are less than 50% in contact with the soil shall be removed, unless in the opinion of the GR the removal of such root mass would cause a potentially erosive condition. Any hanging tree tops or limbs within the work limits shall be removed and disposed of. The Contractor shall take care to not damage any existing trees; however, if any trees are damaged by the debris removal operations, they shall be removed and disposed if they are downed, or are leaning at greater than a 30 degree angle from the vertical, and the root mass has less than 50% contact with the soil. The maximum height for removal of hanging or damaged limbs in a tree shall be 25 feet. Entire tree removal due to hanging or damaged limbs shall not be required.

- (12) The Contractor is responsible for collecting and properly disposing of all woody and non-woody debris that exists within the work limits. This also includes any woody and non-woody debris which his operation may dislodge and cause to float downstream of the work limits. All non-woody debris (e.g., house debris, trash, plastic bottles, and caps, etc. as defined in paragraph (1) above) shall be collected, removed, and properly disposed of at the off-site location specified in Section 6, Disposal. Nets, booms, or whatever methods necessary shall be used to collect such debris that is floating or dislodged from the work area especially such materials as contained in and behind a channel blockage.
- (13) All stumps and woody debris as defined in paragraph (1) above shall be collected, transported, and piled at temporary disposal areas designated on the drawings or as marked in the field by the GR. Temporarily piled woody debris shall be disposed of by hauling offsite to the designated location in Section 6, Disposal. Burning is not allowed. The disposal requirements for all existing debris piles shall be the same as specified herein for contractor generated debris.
- (14) All non-woody debris shall be removed from within the work limit areas even if above the ground, such as in a tree, and disposed of as specified in Section 6, Disposal, of this specification. The maximum height of required removal of non-woody debris lodged in a tree is 25 feet. For non-woody debris higher than 25 feet lodged in a tree, entire tree removal shall not be required, and the debris shall remain in place.
- (15) **Any hazardous material** encountered, such as batteries, used motor oil, scrap tires, white goods, any item which could contain CFC's, etc., shall be loaded and hauled to the county provided disposal site specified in Section 6, Disposal.
- (16) Burning will NOT be allowed at any project location.
- (17) In Section 8, Measurement and Payment, no measurement will be made. Payment will be as specified in Section 8 of this specification. Such payment will constitute full compensation for the related subsidiary items. Items of work subsidiary to this bid item are:
  - (a) Pollution Control, Rockhouse Creek Road Site 1.
  - (b) Seeding, Sprigging and Mulching, Rockhouse Creek Road Site 1.
  - (c) Traffic Control, Rockhouse Creek Road Site 1.
  - (d) Clearing for Access - Construction Specification 405, Section 4, Clearing, Rockhouse Creek Road Site 1.

SITE NO. 1  
 DEBRIS REMOVAL AND DISPOSAL  
 EMERGENCY WATERSHED PROTECTION WORK  
 LEWIS COUNTY, TENNESSEE  
 PROJECT CODE 5125

U.S. Department of Agriculture  
 Natural Resources Conservation Service

Cooperating with  
 LEWIS COUNTY GOVERNMENT

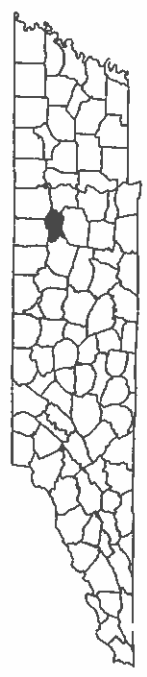
AND

LEWIS COUNTY SOIL CONSERVATION DISTRICT

- INDEX TO DRAWINGS:**
1. Cover Sheet
  2. Plan View – Site 1, Rockhouse Creek Road
  3. Typical Section – Debris Removal
  4. Silt Fence and Straw Bale Details



Vicinity Map  
 Not to Scale



Tennessee Proximity Map  
 Not to Scale



**IMPORTANT:**  
 Users/Customers must be notified of the Date and Time Construction is Scheduled To Approach  
 The Utilities (Powerline, Telephone Lines, etc.). Construction Start/Stop Dates  
 Until all Utility Companies have been notified and have their Utilities Located on the Ground.  
 Excavations will be in accordance with OSHA Standard 29 CFR 1926 Subpart P App B, Shoring  
 and Bracing.

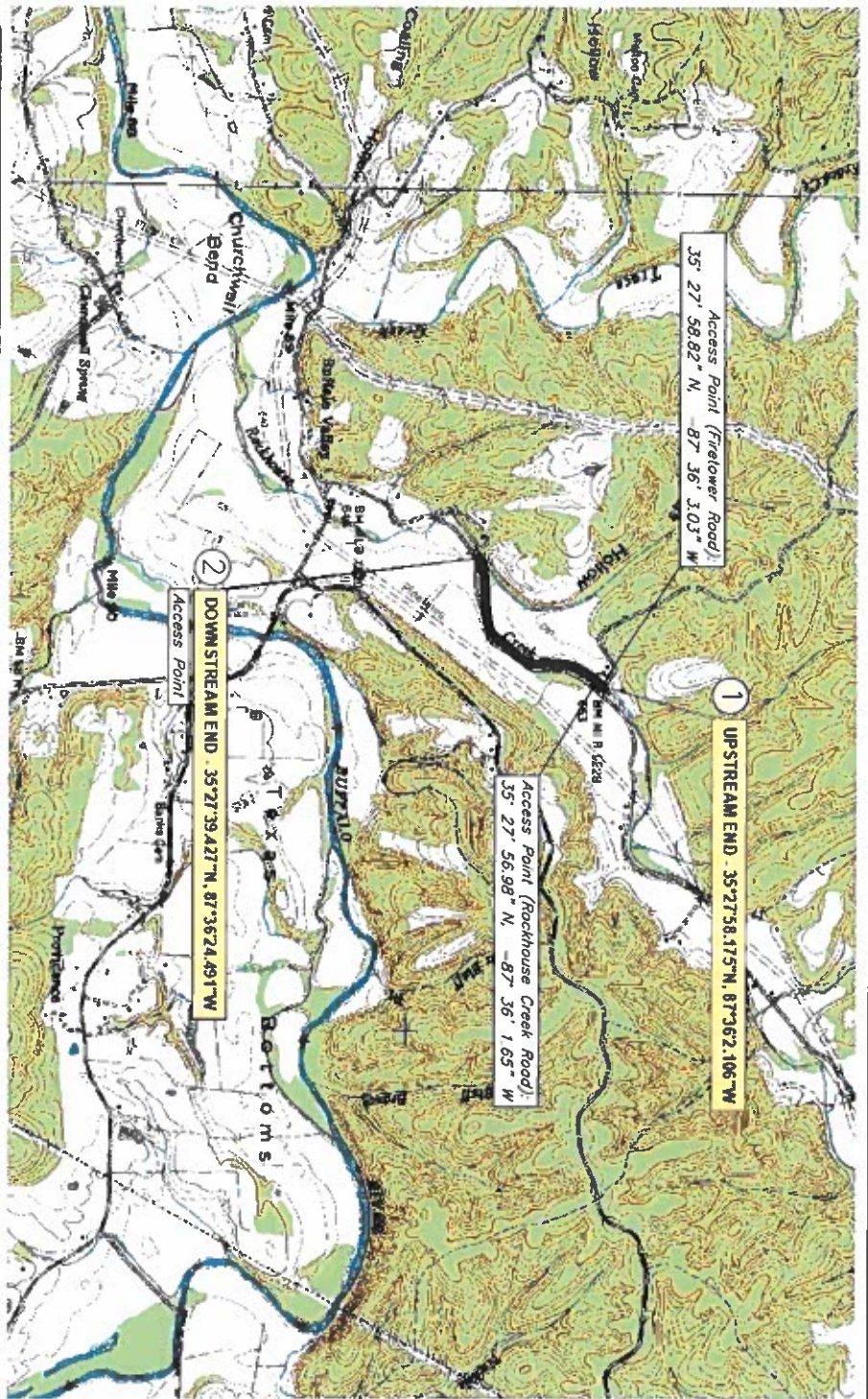
**CONSTRUCTION DRAWINGS APPROVED**  
 Digitally signed by MARK DOSE  
 Date: 2023.06.07 16:18:24 -05'00'

SIGNATURE: *Mark Dose*  
 Title: State Conservation Engineer, NRCS  
 Location: Nashville, TN


SHEET 1 OF 4 DRAWING NO. TN-Lewis County-5125

The United States Department of Agriculture (USDA) prohibits discrimination in its programs on the basis of race, color, national origin, sex, religion, age, disability, political beliefs and marital or familial status.






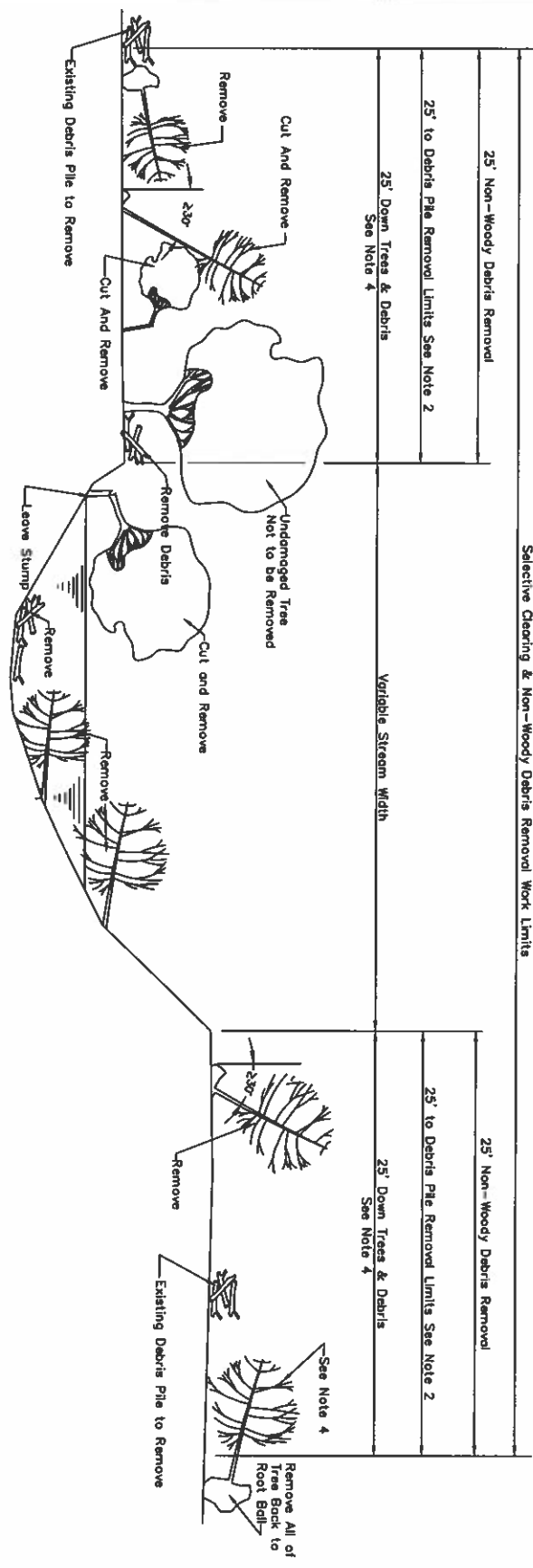
Point No.	Description	Latitude	Longitude
1 (Rockhouse Creek Rd.)	Rockhouse Creek Road Start Location and Access Point	35 27' 58.175"	87 36' 2.106"
2 (Rockhouse Creek Rd.)	Rockhouse Creek Road End Location and Access Point	35 27' 39.427"	87 36' 24.491"

**Legend**  
 Limits of Work in Channel

- Notes:**
1. For general construction notes and typical section view see Sheet 3 of 4.
  2. All debris shall be disposed of at the Lewis County Landfill. Address is: 641 Wynnesboro Highway, Hohenwald, TN 38462.

 <b>United States Department of Agriculture</b> <b>Natural Resources Conservation Service</b>	<b>LEWIS COUNTY DEBRIS REMOVAL          EMERGENCY WATERSHED PROTECTION          LEWIS COUNTY, TENNESSEE          PLAN VIEW - SITE 1 - ROCKHOUSE CREEK RD</b>		Date 05/2023
	Designed <u>J. Horne</u> Drawn <u>J. Horne, F. Barbour</u> Checked <u>J. Horne</u> Approved <u>Mark Fox</u>	Date 05/2023	

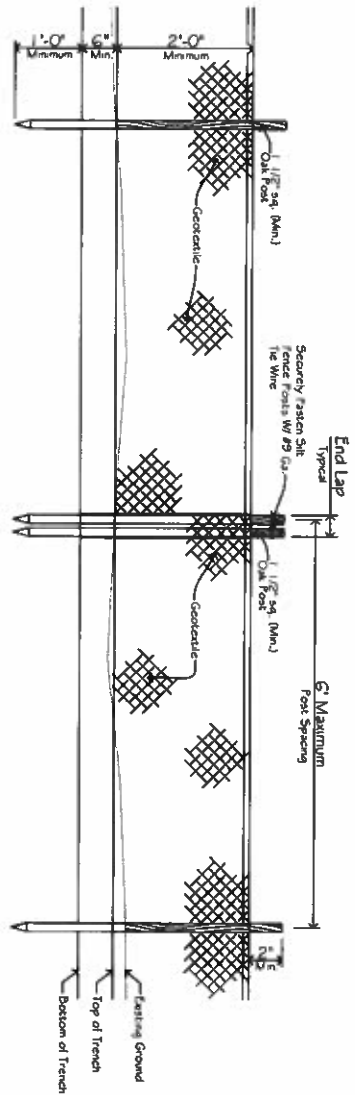
Selective Clearing & Non-Woody Debris Removal Work Limits



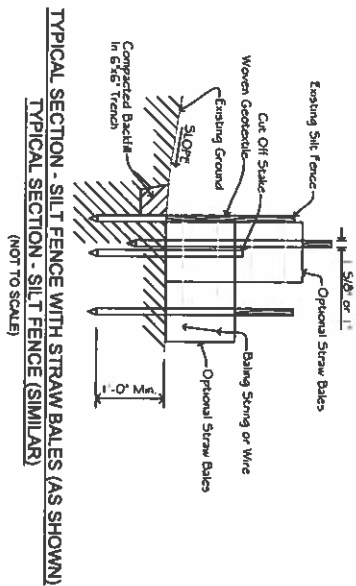
Typical Section - Debris Removal  
Not to Scale

Construction Notes:

1. Additional access points are by approval of the Government Representative.
2. If any portion of an existing debris pile is within the 25 foot limit, then the entire existing debris pile shall be removed and disposed of according to the specification.
3. Starting and ending points are as marked on the ground in the field.
4. For a tree that has fallen within the 25 foot removal zone but the remainder of the tree is outside this limit, then the entire tree shall be removed. For a tree that has fallen into the 25 foot removal zone, but its root ball is outside this limit (greater than 25 feet), then that tree shall be cut 6 to 10 inches above its root ball and the tree removed but the root ball may remain.
5. Non-woody debris removal and disposal is required within the 25' non-woody debris removal limits.
6. All debris shall be disposed of at the Lewis County Landfill. Address is 641 Wynessboro Highway, Hohenwald, TN 38462.



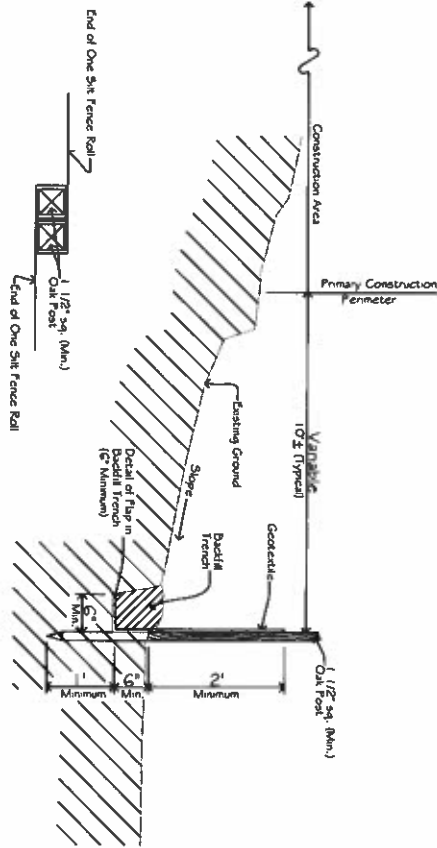
ELEVATION - SILT FENCE



TYPICAL SECTION - SILT FENCE WITH STRAW BALES (AS SHOWN)

TYPICAL SECTION - SILT FENCE (SIMILAR)

(NOT TO SCALE)



PLAN OF END LAP

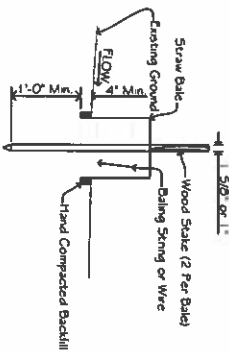
SECTION - SILT FENCE

**Construction Notes:**

1. Filter Cloth Shall Have Approved Backing or a Built-in Reinforced Structure, as Recommended by the Manufacturer to Support the Filter Cloth.
2. Backfill in Trench Shall be Compacted w/ Two (2) Passes of a Hand Directed Tamper or Other Approved Method.
3. A Preassembled Silt Fence Meeting the Requirements of this Drawing is Acceptable in Lieu of a Field Constructed Silt Fence.
4. Field Openings in Silt Fence Shall be Installed at Locations Which Prevent Flow From Leaving the Site. Silt Fence Shall be Installed so as to Trap Sediment From Concentrated & Sheet Water Flow Leaving the Site.
5. Actual Location of Temporary Silt Fence Will be Stated in the Field.
6. Fabric Shall be Attached to the Posts in Accordance With Manufacturer's Recommendations.
7. If Steel Post are used the Posts shall be of the Type Specifically Manufactured for or Recommended by the Manufacturer of the Silt Fence.

TYPICAL SECTION - STRAW BALES AT CONCENTRATED FLOW

(NOT TO SCALE)



**Notes:**

1. Straw bales marked as optional above are to be placed when specified by the NRCS Inspector or CR.
2. When straw bales are stacked on top of each other, the exposed stake top from the lower bale shall be cut off when necessary to prevent damage to the upper bale during installation.
3. See specification 5 for additional requirements.
4. Minimum length of straw bales shall be 32 inches.
5. Minimum width of straw bales shall be 16 inches.
6. Joints between straw bales shall be tightly packed with straw to completely fill the flow path of water.

**BID SCHEDULE**  
**LEWIS COUNTY SITES**  
**TORNADO DEBRIS REMOVAL AND DISPOSAL**  
**EMERGENCY WATERSHED PROTECTION PROGRAM PROJECT 5125**  
**LEWIS COUNTY, TN**

05-17-2023

<b>Item No.</b>	<b>Services</b>	<b>Spec. No.</b>	<b>Quantity</b>	<b>Unit</b>	<b>Unit Price</b>	<b>Amount</b>
<b>ROCKHOUSE CREEK ROAD SITE 1</b>						
1.	Mobilization & Demobilization, Site 1	8	1	Job	\$ _____	\$ _____
2.	Debris Removal & Disposal, Site 1	405	1	Job	\$ _____	\$ _____

**Rockhouse Creek Road Site 1 Grand Total Bid: \$ \_\_\_\_\_**