

**CONTRACT DOCUMENTS  
BOONE COUNTY, MISSOURI  
BID NO: 30-07APR05**

**ADDENDUM #1  
(Issued April 4, 2005)**

This addendum is issued in accordance with the Introduction and General Conditions of Bidding and is hereby incorporated into and made a part of the Contract Documents. Bidders are reminded that receipt of this addendum should be acknowledged and submitted with bidder's *Response Form*.

Specifications for the above noted Request for Bid and the work covered thereby are herein modified as follows, and except as set forth herein, otherwise remain unchanged and in full force and effect:

**BID DOCUMENTS:**

Replace Section 01570 - Seeding & Mulching of the Technical Specifications with the following:

**SECTION 01570 - SEEDING & MULCHING - Addendum #1 Revision**

**PART 1 - GENERAL**

**1.1 PROJECT DESCRIPTION**

The Contractor is responsible for installation of permanent water pollution control measures to prevent discharge of pollutants and sediment.

**1.1 GENERAL**

- A. The Contractor shall furnish and install permanent control measures. The Contractor shall prevent the discharge of silt or polluted storm water from the construction site.
- B. The Contractor shall install erosion control fabric and rip-rap as shown on the plans. The County may require additional erosion control measures to be installed by the Contractor, if needed to adequately prevent the discharge of silt and polluted storm water from the site.
- C. Erosion control measures shall comply with Sections 276 through 284 of the Boone County, Missouri, Roadway Regulations, Chapter II, Road, Bridge, & Right of Way Regulations, Effective Date: May 13, 2004.
- D. The Contractor shall place Topsoil in all disturbed areas which will seeded.

**1.2 METHOD OF MEASUREMENT AND BASIS OF PAYMENT**

- A. No final measurement of erosion control measures will be made. Plan quantity will be used as the basis of compensation unless additional measures are authorized to be installed by the Engineer.
- B. Payment for erosion control measures will be included in the contract bid price as follows:
- C. Erosion Control Blankets paid per square yard;
- D. Type 3 Mulches paid per acre;
- E. Restoration / Seeding paid per acre
- F. Lime and fertilizer will be considered incidental to Seeding. No separate payment will be made for lime and fertilizer.
- G. No measurement of erosion control maintenance will be made under this Contract. Payment will be incidental to restoration
- H. No measurement of Top Soil will be made under this Contract. Payment will be incidental to restoration.

**PART 2 - PRODUCTS**

**2.1 EROSION CONTROL BLANKETS**

- A. Blankets: North American Green SC150 Extended-Term Blankets, or approved equal.
- B. Staples: Wire staples as recommended by the Manufacture.

**2.2 TYPE 1 MULCH**

- A. Vegetative mulch consisting of prairie hay or straw from oats, rye, wheat, or barley.

- B. Prairie Hay shall consist of any combination of Big Bluestem, Little Bluestem, Indian Grass, Sideoats Grama, and native wildflowers.
- C. Mulch shall be free of prohibited weed seed as stated in the Missouri Seed Law and shall be relatively free of all other noxious and undesirable seed.
- D. Mulch shall be clean and bright, relatively free of foreign material and be dry enough to spread properly.

**2.3 TYPE 3 MULCH**

- A. Vegetative mulch with overspray consists of Type I Mulch as defined in Section 2.2 of this Specification and overspray material consists of virgin wood cellulose fibers or recycled slick paper.
- B. Virgin Wood Cellulose Fibers shall be produced by either the ground or cooked fiber process and shall have a moisture content of 15 percent by weight.
- C. Recycled Slick Paper shall be produced from printer's slick paper containing wood cellulose and kaolin clay. Recycled newsprint or cardboard are not allowed, The material shall be free of other materials or filler and shall have maximum moisture content of 8 percent by mass and a pH between 4.5 and 6.5.
- D. The overspray shall not contain any germination or growth inhibiting substances.
- E. The overspray shall be green in color after application and shall be evenly dispersed and suspended when agitated in water.
- F. The overspray shall form an absorbent cover, allowing percolation of water to the underlying soil.
- G. The mulch shall be packaged in moisture resistant bags with the net weight of the packaged material plainly shown on each bag.
- H. The mulch fibers shall not be water soluble.

**2.4 SEEDING MIX**

- A. Seed shall comply with the requirements of the Missouri Seed Law. Commercially available seed will be permitted, however, the percentages for purity and germination as certified by the supplier shall be subject to the approval of the Engineer.
- B. The Contractor shall supply the supplier's certifications to the engineer. Seed may be accepted on the basis of bag labels. If seed is accepted on the basis of bag labels, the Contractor shall retain the bag labels and shall write a letter to the Engineer stating the amount and type of seed.
- C. The Yard Mix Seeding mixture and rate of application shall be as specified below:
 

Yard Mix Seeding	Mixture (%)
Kentucky Bluegrass	20% @ 260 lbs/per acre
Perennial Rye Grass	30% @ 260 lbs/per acre
Creeping Red Fescue	30% @ 260 lbs/per acre
Annual Rye	20% @ 260 lbs/per acre
Purity	85%
Germination	80%
Maximum Weed Seed	1%
- D. Lime shall be pelletized bagged lime or an agricultural lime with not less than 90 percent passing the No. 8 sieve and containing not less than 65 percent calcium carbonate equivalent.
- E. Fertilizer shall be standard commercial product that will supply a minimum of 145 pounds of total nitrogen, 435 pounds of available phosphoric acid, and 270 pounds of soluble potash per acre. Material may be accepted on the basis of bag label analysis or supplier's certification and shall comply with all applicable Missouri fertilizer laws.

**2.5 TOPSOIL MATERIAL**

Topsoil material shall be obtained from approved sources. It shall be fertile, friable, and loamy soil of uniform quality, without admixture of subsoil material, and shall be free from material such as hard clods, stiff clay, hardpan, partially disintegrated stone, pebbles larger than 1 inch in diameter, and any other similar impurities. Topsoil shall be relatively free from grass, roots, weeds and other objectionable plant material or vegetative debris undesirable or harmful to plant life or which will prevent the formation of suitable seedbed.

**PART 3 - EXECUTION**

**3.1 EROSION CONTROL BLANKET INSTALLATION**

- A. Place seed mix, lime, and fertilizer prior to installing the blankets.
- B. Install the blankets per Manufacturer's recommendations including check slots and stapling materials.
- C. Install the blankets to line the entire 2-foot depth with 3:1 side slopes of the storm water channels.
- D. Anchor product so that a continuous contact with the soil surface is maintained.



- E. Maintenance: Inspect for erosion or undermining after storm events until vegetation is established. If erosion occurs, pull back that portion of the blanket, add tamped soil, reseed, and resecure the blankets. If blankets should become damaged or dislocated, repair or replace as necessary.

**3.2 TYPE 1 AND TYPE 3 MULCH APPLICATIONS**

- A. All mulch shall be distributed evenly over the areas to be mulched within 24 hours following seeding operations.
- B. Following mulching operations, precautions shall be taken to prohibit foot or vehicular traffic over the mulched areas.
- C. Type I Mulch shall be applied at the rate of 2 ½ tons per acre.
- D. Type 3 Mulch overspray shall be hydraulically applied over the vegetative mulch as a separate operation at the following rates:
  - a. 750 pounds per acre for recycled slick paper;
  - b. 750 pounds per acre for virgin wood cellulose fiber with 90 percent or more organic fibers; or
  - c. (750 pounds per acre) x (actual percent organic matter) x (100) for virgin wood cellulose fiber with 80 to 89 percent organic fibers.
- E. Overspray mulch shall be mixed with water in a manner to provide a homogeneous slurry. The slurry mix shall be agitated during application to keep the ingredients thoroughly mixed.
- F. Maintenance: Any mulch that is displaced shall be replaced after the damaged area has been restored.

**3.3 SEEDING**

- A. Seeding shall be applied between March 15th and May 15th or between September 1st and October 10th.
- B. Prepare the seedbed by loosening the soil to a depth of approximately 3 inches. Avoid preparing the seedbed under excessively wet conditions.
- C. Add lime and fertilizer evenly at the rates specified.
- D. Apply seed evenly with a broadcast seeder, drill, cultipacker seeder, or hydroseeder. Plant small grains no more than 1 ½ inches deep and grasses and legumes no more than ½ inch deep.
- E. Harrow, rake, or drag a chain to lightly incorporate broadcast seed.
- F. Maintenance: Check seeding within 4 to 6 weeks of planting to determine if stands are of adequate thickness. Fertilize, reseed, and mulch bare and sparse areas.

**3.4 TOPSOIL**

- A. Topsoil shall be placed and spread over the areas designated as Yard Mix Seeding.
- B. The source of topsoil material shall be furnished by the Contractor. The County shall approve the topsoil source prior to topsoil placement.
- C. The surface on which the topsoil is to be placed shall be free of all loose rock and foreign material greater 1 inch and it shall be raked or otherwise loosened just prior to being covered with topsoil.
- D. Topsoil shall be placed and spread to a depth of 2 inches after settling. After spreading, all large clods and foreign material shall be removed by the Contractor.

**3.5 OVERALL MAINTENANCE REQUIREMENTS**

- A. The seeded areas shall be maintained by the Contractor as necessary to assure growth.
  - B. A performance guarantee period of one year from the Final Acceptance of work will be required.
    - a. At the time of Final Acceptance of the work, the Contractor shall furnish Boone County a one-year performance bond in the amount of 1.5 times the lump sum price bid for the total of Seeding and Mulch.
    - b. During the one year performance guarantee period, if there are deficient areas where the grass died, where sheet and rill erosion occurred, or where gravel or other deleterious backfill material surfaces, upon notification by the County of such areas, the Contractor shall rework all such areas as necessary to bring the areas into conformance with the Specifications.
  - C. In the event that upon notification of deficient areas, the Contractor fails to remedy the problems, the County shall have the work completed by other means and shall bill the charge against the Contractors performance bond for seeding.
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**Clarification Notes:**

1. **Rip Rap @ outflow of Bethel Road cross pipe is not shown on the plans, however it has been included in the bid quantity and shall be completed as directed in the field. Additional tonage will be paid at unit price if required.**
  
2. **Inflow of Bethel Road cross pipe is not shown in detail on the plans. Minor grading will be required to the east. Determination during construction will be made to utilize Rip Rap or Erosion Control Fabric in this area. Additional tonage for Rip Rap or square yardage for Erosion Control Blanket will be paid at unit price.**

By:   
Heather Turner, CPPB  
Buyer, Purchasing

BIDDER has examined copy of Addendum #1 to Bid Number 30-07APR05 Good Time Acres Neighborhood Improvement Project, receipt of which is hereby acknowledged:

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

Address: \_\_\_\_\_  
\_\_\_\_\_

Phone Number: \_\_\_\_\_

Fax Number: \_\_\_\_\_

Authorized Representative Signature: \_\_\_\_\_

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

