205-C-230 TEMPORARY EROSION AND SEDIMENT CONTROL

(Revised 02-21-13)

The Standard Specifications are revised as follows:

SECTION 101, AFTER LINE 104, INSERT AS FOLLOWS:

SWPPP Stormwater Pollution Prevention Plan

SECTION 109, AFTER LINE 820, INSERT AS FOLLOWS:

(g) Erosion and Sediment Control, E&SC

Quality adjustments will be calculated in accordance with 205.08.

SECTION 203, BEGIN LINE 194, DELETE AND INSERT AS FOLLOWS:

The Engineer will direct the Contractor to stabilize an area if the disturbed ground ~~has been or will~~*is anticipated to* be left bare and unworked for ~~15~~*7* consecutive calendar days. Once directed, the Contractor shall stabilize the~~se~~ areas within ~~10 calendar~~*7* days. The~~se~~ methods shall be installed in accordance with ~~621~~*205* or as otherwise directed.

SECTION 203, BEGIN LINE 268, DELETE AND INSERT AS FOLLOWS:

The soil slopes shall be roughened to create a series of ridges and depressions parallel to the ~~roadway~~ *contour* making grooves at least 1 in. ~~(25 mm)~~ deep and not more than 15 in. ~~(381 mm)~~ apart. When directed, slopes shall be stabilized using temporary seeding in accordance to ~~621~~*205*.

SECTION 205, DELETE LINES 1 THROUGH 212.

SECTION 205, BEGIN LINE 1 INSERT AS FOLLOWS:

SECTION 205 – TEMPORARY EROSION AND SEDIMENT CONTROL

205.01 Description

This work shall consist of furnishing, installing, maintaining, and removing temporary erosion and sediment control measures in accordance with 105.03.

MATERIALS

205.02 Materials

Materials shall be in accordance with the following:

Coarse Aggregate, Class F or Higher 904
Fertilizer.....914.03
Filter Sock.....914.09(h)
Geotextile 918
Grass Seed, Temporary.....914.02
Manufactured Surface Protection Products.....205.04(c)
Metal End Sections.....908.06
Mulch.....914.05(a)
Pipe Drains .....715.02(d)
Plastic Net .....914.09(g)
Revetment Riprap 904
Stakes.....914.09(b)

Top Soil 914.01
Water .....914.09(a)
Wire Staples .....914.09(f)

Straw bales shall not weigh less than 35 lb. Bales shall be bound with wire or nylon twine.

CONSTRUCTION REQUIREMENTS

205.03 General Requirements

The installation of temporary erosion and sediment control measures shall include those necessary or required by permits at off-site locations such as borrow and disposal areas, field office sites, batch plants, locations where the Contractor's vehicles enter and leave public roads, and other locations where work pertaining to the contract is occurring. The Contractor's designated individual in accordance with 108.04 shall be responsible for the installation, inspection, and maintenance of these measures. Temporary erosion control measures shall be placed as soon as practical. Perimeter protection and sediment traps shall be installed prior to beginning earth disturbing activities. Pipe end sections and anchors shall be installed when the structure is installed. If the pipe end sections or anchors cannot be placed at the same time, temporary riprap splashpads shall be placed at the outlets of the pipes until end sections or anchors can be installed.

Adjustments of the erosion and sediment control measures shall be subject to the Engineer's approval to satisfy field conditions. These measures shall be constructed as soon as practical and shall be maintained as necessary.

The Contractor shall provide a stable construction entrance at the points where construction traffic will enter onto an existing road. Additional stone may be required, as directed by the Engineer. Where there is insufficient space for a stable construction entrance, other measures shall be taken to prevent the tracking of sediment onto the pavement. Temporary entrances utilized by the Contractor for borrow and waste areas will not be paid for directly. These temporary entrances shall be the responsibility of the Contractor to completely install, maintain, and remove.

Non-vegetated areas shall be temporary stabilized if the area remains inactive for more than 7 days or as directed by the Engineer. The area will be considered inactive when no meaningful work toward accomplishing a pay item has been performed at a site of disturbed soil.

The Contractor shall provide concrete washout facilities of adequate capacity in accordance with project requirements. The concrete washout shall be located as far from surface waters as practical, and shall be able to contain all liquid and solid material from concrete truck or mixer washing operations without contacting or contaminating the ground.

The Contractor shall employ dust control measures in accordance with 107.08.

205.04 Temporary Surface Stabilization

(a) Seed

Temporary seeding shall be placed on disturbed areas that are expected to be inactive for more than 7 days, or as directed. Seed shall be placed either by drilling in, spraying in a water mixture, or by use of a mechanical method which places the seed in direct contact with the soil. Where inaccessible to mechanical equipment, or where the area to be seeded is small, a hand operated cyclone seeder or other approved equipment may be used. Seed shall not be covered more than 1/2 in. Seed may be distributed by a drill seeder, cyclone seeder, hand or other approved equipment which allows for even distribution of the seed. If as a result of a rain event, the prepared seed bed becomes crusted or eroded, or ruts, or depressions exist, the soil shall be reworked until it is smooth. Reworked areas shall be re-seeded. All seeded areas shall be mulched within 24 h after seeding.

Seed mixture T shall be used for surface stabilization and temporary ground cover. Temporary cover mixtures shall be placed as directed and be subject to seasonal limitations as defined herein. This mixture is not intended to be used as a permanent seed mixture. This mixture shall not be used to satisfy the requirements of the warranty bond.

The mix shall be spray mulched where the slope is steeper than 3:1. From June 16 through August 31, mulching alone shall be used to stabilize the soil.

1. Spring Mix

Spring mix shall be used from January 1 through June 15. This mixture shall be applied at the rate of 150 lb/ac. The mix shall consist of oats.

2. Fall Mix

Fall mix shall be used from September 1 through December 31. This mixture shall be applied at the rate of 150 lb/ac. This mix shall consist of winter wheat.

Where directed, fertilizer shall be spread uniformly over the area to be seeded and shall be applied at 1/2 the rate shown in 621.05(a) unless otherwise directed. Fertilizer shall only be applied during the active growing season March through November.

(b) Mulch

Mulch shall be applied uniformly in a continuous blanket at the rate of 2.5 t/ac. If seeded, mulch shall be placed within 24 h after seeding. The percent of moisture in the mulch shall be determined in accordance with 621.14(c).

Mulch shall be punched into the soil so that it is partially covered. The punching operation shall be performed longitudinally to the slope. The tools used for punching purposes shall be disks that are notched and have a minimum diameter of 16 in. The disks shall be flat or uncupped. Disks shall be placed a minimum of 8 in. apart. Shaft or axle sections of disks shall not exceed 8 ft in length.

The disk for punching shall be constructed so that weight may be added or hydraulic force may be used to push puncher into the ground. An even distribution of mulch shall be incorporated into the soil.

On a slope of 3:1 or steeper but flatter than 2:1, or where specified, temporary mulch stabilization shall also be used. Unless otherwise specified, the following types may be used.

1. Type A

The mulch shall be held in place by means of commercially produced water borne mulch binder product. The product shall be manufactured and used in accordance with all applicable State and Federal regulations. Such product shall be applied in accordance with the manufacturer's written instructions. A copy of the written instructions shall be supplied to the Engineer prior to the seeding work. The product shall include a coverage indicator to facilitate visual inspection for evenness of application. If the mulch fails to stay in place, the Contractor shall repair all damaged areas.

2. Type B

The mulch shall be held in place with binder twine fastened down with wooden pegs not less than 6 in. long spaced 4 ft apart. The twine shall be placed parallel to and also at 60° to the pavement edge in both directions. The distance between the intersections of the diagonal strands measured along the strands shall be 12 ft. The strand parallel to the pavement shall cross the diagonal strands at their intersections to form equilateral triangles of 12 ft on a side.

3. Type C

The mulch shall be held in place with a polymeric plastic net. The plastic net shall be unrolled such that it lays out flat, evenly, and smoothly, without stretching the material. The plastic net shall be held in place by means of wire staples. The wire staples shall be driven at a 90° angle to the plane of the soil slope. Staples shall be spaced not more than 4 ft apart with rows alternately spaced. The plastic net shall be secured along the top and bottom of the soil slope with staples spaced not more than 1 ft on center. The ends and edges of the plastic net shall be overlapped approximately 4 in. and stapled. Overlaps running parallel to the slope shall be stapled 1 ft on center and overlaps running perpendicular to the slope shall be stapled at least 3 ft on center. The plastic net shall be placed with the length running from top of slope to toe of slope, or the plastic net shall be placed with the length running horizontally or parallel to the contour.

On a slope of 2:1 or steeper, or where specified, a manufactured surface protection product shall be used.

(c) Manufactured Surface Protection Products

The following manufactured surface protection products may be used for covering an area that has not been seeded. Soil cover shall not be used to cover seeded areas. Prior to placing the manufactured surface protection product, the area to be covered shall be free of all rocks or clods of over 1 1/2 in. in diameter, and all sticks or other foreign material, which prevent the close contact of the blanket with the seed bed.

After the area has been properly shaped, fertilized, and seeded, the manufactured surface protection product shall be laid out flat, evenly, and smoothly, without stretching the material.

1. Excelsior Blanket

An excelsior blanket may be used as mulch for seeding where seeding is specified or where erosion control blanket is specified. Excelsior blankets shall be placed within 24 h after seeding operations have been completed. Excelsior blankets shall be installed in accordance with the manufacturer's recommendation.

2. Straw Blanket

A straw blanket may be used as mulch for seeding where mulched seeding is specified or where erosion control blanket is specified. Straw blankets shall be placed within 24 h after seeding. The straw blanket shall be unrolled over the designated area so that the plastic mesh is on top and the straw fibers are snugly and uniformly in contact with the soil surface. The rolls shall be butted together and stapled in place. The staples shall be driven through the blanket at a 90° angle to the plane of the ground surface. Each staple shall anchor the plastic mesh. The staples shall be spaced per the manufacturer's recommendation.

For placement on a slope, the straw blankets shall be placed with the length running from the top of slope to the toe of slope and shall extend a minimum of 3 ft over the crown of the slope. The blanket shall be stapled in accordance with the manufacturer's recommendation.

For placement in ditch lines, the straw blanket shall be unrolled parallel to the centerline of the ditch. The blanket shall be placed so that there are no longitudinal seams within 24 in. of the bottom centerline of the ditch. In a ditch line, the blanket shall be stapled in accordance with the manufacturer's recommendation with a minimum of 6 staples across the upstream end of each roll.

3. Rolled Erosion Control Products

Where directed, the Contractor shall install, or with approval of the Engineer, the Contractor may use degradable rolled erosion control products, RECP, including netting, open weave textile, and erosion control blankets.

Unless soil infilling is required, seed shall first be applied in accordance with 621. If soil infilling is required, RECP shall be first installed and then seed applied and brushed or raked 1/4 to 3/4 in. of topsoil into voids in the RECP filling the full product thickness. Staples of at least 6 in. in length shall be used to secure the RECP. The RECP shall be unrolled parallel to the primary direction of flow and placed in direct contact with the soil surface. RECP shall not bridge over surface inconsistencies. Edges of adjacent RECP shall be overlapped by 2 to 4 in. Staples shall be placed to prevent seam separation in accordance with the manufacturer's recommendations.

4. Geotextile

Where directed, disturbed soil shall be covered with geotextile. The covering shall be placed over the exposed soil in a shingle like fashion with a 2 ft minimum overlap covering all loose or disturbed soil. The geotextile, if new, shall be in accordance with 918.02. The geotextile used for soil covering need not be new but shall not have holes or unrepaired rips or tears. All repairs shall be made in accordance with the manufacturer's recommendation.

205.05 Concentrated Flow Protection

(a) Check Dam

Check dams and modified check dams shall be constructed as shown on the plans. Geotextile for check dams shall be in accordance with 616 unless otherwise specified. Revetment riprap shall be in accordance with 616 unless otherwise specified. No. 5 and No. 8 filter stone shall be in accordance with 904.

(b) Check Dam, Traversable

Traversable check dams shall be composed of straw bales, 8 in. minimum diameter fiber rolls, or 8 in. minimum diameter socks filled with straw, ground wood chips, shredded bark, or other approved material for site specific conditions. Rolls and socks may be stacked in a triangle pattern as shown on the plans. Check dams shall be staked as shown on the plans or as directed by the manufacturer. Check dams shall be configured to eliminate gaps between sections. Straw bales shall be placed such that the bindings are parallel to and not in contact with the ground.

(c) Diversion Interceptors

Grading for diversion interceptors shall be in accordance with 203 with the exception that compaction requirements will not apply. The Contractor shall identify, in the SWPPP update, the construction areas which shall utilize diversion type A or B. Revetment riprap stable outlet with geotextile shall be constructed in accordance with 616 unless otherwise specified. Perimeter diversion, type C shall be installed prior to earth moving activities and shall be immediately stabilized. Type A or B shall be stabilized if anticipated to be left in place for more than 15 calendar days. Stabilization methods shall be as shown on the plans or as directed by the Engineer.

(d) Sediment Traps

Revetment riprap and filter stone in accordance with 904 shall be used in construction of sediment traps, unless otherwise specified. Geotextiles shall be in accordance with 918.02.

(e) Sediment Basins

Embankment construction shall be in accordance with 203. Revetment riprap used for overflow protection shall be in accordance with 904, unless otherwise specified. Sediment basins shall be constructed as shown on the plans, or as directed.

(f) Slope Drains

Slope drain pipes shall be lengthened as required due to the construction of the embankment.

(g) Vegetative Filter Strips

Designated vegetative filter strips shall not be disturbed. Small rills that form shall be repaired. Fertilizer shall be applied as directed.

(h) Splashpads

Splashpads shall be constructed with revetment riprap with geotextile in accordance with 904 and 918, respectively.

(i) Inlet Protection

All deck and curb drains shall have sediment control measures when the structure or road is to be used for hauling operations or adjacent to disturbed areas. Copies of all current manufacturers' installation manuals shall be provided prior to installation.

Inlet protection shall be as shown on the plans.

(j) Retention Ponds

Excavation shall be in accordance with 203. The soil used in the liner shall be in accordance with AASHTO M 145, classification A-6 or A-7.

The sides and bottom of the retention pond shall be lined with a soil liner of 2 ft minimum thickness. The soil in the liner shall be compacted to 95% of the maximum dry density in accordance with 203.23. The Contractor may use an alternate pond lining system. Details of the proposed pond lining system shall be submitted to the Office of Geotechnical Services for approval. The details shall include all necessary information such as liner thickness, smooth versus textured surface, thickness and type of proposed soil cover, joint construction, material used in the liner, and the manufacturer of the liner.

205.06 Perimeter Protection

(a) Silt Fence

Shipping, handling and storage shall be in accordance with the manufacturer's recommendations. The silt fence material shall be in accordance with 918.04. The geotextile will be rejected if it has defects, tears, punctures, flaws, deterioration, or damage incurred during manufacture, transportation, storage, or installation. Each roll shall be labeled or tagged to provide product identification.

Joints shall be made from the ends of each section of fence wrapped around a wood stake and joined together. Copies of all current manufacturer manuals shall be provided prior to installation.

(b) Filter Berm

A filter berm shall be installed as shown on the plans. The filter berm may be constructed of organic mulch, filter sock, or No. 5 and No. 8 filter stone in accordance with 904.

205.07 Maintenance

Temporary erosion and sediment control measures shall be inspected, at a minimum, once every 7 days and after a 1/2 in. rain event. Inspections shall be documented and records shall be maintained by the Contractor, to be submitted to the Engineer on the next business day following the inspection. The temporary protection measures shall be returned to working conditions within 48 h after inspection or as directed. The Contractor shall rebuild or repair damaged temporary erosion and sediment control measures.

(a) Silt Fence

If the fence fabric tears, starts to decompose, or becomes ineffective, the affected portion shall be replaced. Deposited sediment shall be removed once it reaches 1/2 the height of the fence at its lowest point. Once the contributing drainage area has been stabilized, the Contractor shall remove the fence and sediment deposits, grade the site to blend with the surrounding area, and stabilize the graded area.

(b) Sediment Basin

Sediment shall be removed once it has accumulated to the design volume. The filter stone around the riser pipe shall be replaced if the sediment pool does not drain within 72 h following a stormwater runoff event.

(c) Filter Berm

Accumulated sediment shall be removed once it reaches 1/4 of the height of the filter berm. The filter berm shall be inspected to ensure that it is holding its shape and allowing adequate flow. Eroded and damaged areas shall be repaired.

(d) Inlet Protection

Accumulated sediment shall be removed once identified and after each storm event. Flushing with water will not be allowed. The sediment shall not be allowed to re-enter the paved area or storm drains. Curb inlet inserts shall be cleaned in accordance with the manufacturer's recommendations.

(e) Sediment Traps

Following each storm event, the Contractor shall repair slope erosion and piping holes as required. Sediment shall be removed once it has accumulated to 1/2 design volume. The Contractor shall replace the coarse aggregate filter stone if the sediment pool does not drain within 72 h following a stormwater runoff event.

(f) Concrete Washout

The containment system shall be inspected for leaks, spills, and tears, and shall be repaired or replaced as necessary. The Contractor shall ensure that each containment system maintains adequate capacity. Solidified waste concrete shall be disposed of in accordance with 202.

(g) Check Dams

Sediment shall be removed once it reaches 1/2 the height of the check dam. Sediment shall be removed and disposed of in accordance with 201.03 and 203.08. The Contractor shall rebuild or repair each damaged check dam to maintain the design height, cross section, and erosion control function.

205.08 Quality Adjustments

If maintenance deficiencies are not remedied within 48 h after identifying them in the inspection or as directed, the Contractor may be assessed damages for failure to maintain the required temporary erosion and sediment control. For each day, during which the following units of temporary erosion and sediment control are in an unsatisfactory condition, a quality adjustment, in accordance with 109, will be assessed as shown for each day, per unsatisfactory unit.

If conditions do not allow the Contractor access to the location of the erosion or sediment control features using normal equipment and maintenance has been directed, the Contractor may propose a written alternate schedule, within 48 h, to bring the erosion and sediment control features back into compliance. Damages may be assessed based on compliance with the approved schedule.

(a) Silt Fence: $100.00 per each contiguous 100 ft section or portion thereof
(b) Check Dam: $100.00 per check dam
(c) Sediment Basin: $100.00 per basin
(d) Sediment Trap: $100.00 per trap
(e) Inlet Protection Devices: $100.00 per unit
(f) Failure to inspect site per 327 IAC requirements: $100.00 per required inspection
(g) Failure to temporary stabilize non-vegetated areas: $100.00 per acre or portion thereof
(h) Failure to correct identified deficiencies not defined above: $100 per day per measure

Silt fence will be considered unsatisfactory if the fence material has an exposed cut or tear exceeding 1 ft in length, a seam has separated or the retained sediment exceeds 1/2 of the height of the fence.

Check dams, sediment basins and sediment traps will be considered unsatisfactory if they no longer perform their function, or the retained sediment exceeds 1/2 of the effective height.

Inlet protection devices will be considered unsatisfactory if they no longer perform their function, or the accumulated sediment exceeds 1/2 of the height of the device.

205.09 Removal

Temporary erosion and sediment control measures shall remain in place until directed to be removed. The Contractor shall remove and dispose of all excess silt accumulations, dress the area, and vegetate all bare areas in accordance with the contract requirements. Use or disposal of temporary erosion and sediment control measures shall be as directed.

205.10 Method of Measurement

Silt fence and check dams, traversable will be measured by the linear foot. Check dams, traversable will be measured once per dam parallel to the dam and at the widest point. Sediment basins will be measured by the unit installed complete in place. Revetment riprap check dams, sediment traps, and splashpads will be measured by the ton. Temporary filter stone will be measured by the ton. Temporary mulch will be measured by the ton. Temporary mulch stabilization will be measured by the square yard. Temporary seeding will be measured by the pound. Temporary geotextile will be measured by the square yard, and only once for the maximum square yardage in place at one time, regardless of the number of times the material is moved. Removal of sediment will be measured by the cubic yard. Revetment riprap will be measured in accordance with 616.12. Slope drains will be measured in accordance with 715.13. Inlet protection will be measured per each unit installed. Filter berm will be measured by the linear foot complete in place. Filter sock will be measured by the linear foot, complete in place. Diversion interceptor type C will be measured by the linear foot. Concrete washouts will not be measured separately. No. 2 stone for stable construction entrances will be measured by the ton in accordance with 109.01(b).

Diversion interceptors type A and B, and the off-site locations designated in 205.03 will not be measured for payment.

Excavation for detention and retention ponds will be measured as common excavation in accordance with 203.27. Retention pond liners will not be measured for payment.

205.11 Basis of Payment

The accepted quantities of silt fence will be paid for at the contract unit price per linear foot, complete in place. Temporary mulch will be paid for by the ton. Temporary seeding will be paid for at the contract unit price per pound. Temporary geotextile will be paid for by the square yard. Sediment basins will be paid for at the contract unit price per each unit installed. Temporary check dams, revetment riprap; temporary filter stone; sediment traps; and splashpads will be paid for by the ton. Temporary check dams, traversable will be paid for by the linear foot. Revetment riprap will be paid for in accordance with 616.13. Slope drains will be paid for in accordance with 715.14. Removal of sediment will be paid for at the contract unit price per cubic yard. Inlet protection will be paid for at the contract unit price per each unit installed. Filter berm will be paid for at the contract unit price per linear foot complete in place. Filter sock will be paid for at the contract unit price per linear foot, complete in place. Diversion interceptors, type C will be paid for at the contract unit price per linear foot.

The accepted quantities of excavation for detention or retention ponds will be paid for as common excavation in accordance with 203.28. Retention pond liners will be paid for as a lump sum.

Payment will be made under:

Pay Item	***Pay Unit Symbol***
Diversion Interceptor Type C	*LFT*

Fertilizer.....*TON*
Filter Sock.....*LFT*
Liner for Retention Pond..... *LS*
Manufactured Surface Protection Product, _____..... *SYS*
type
No. 2 Stone.....*TON*
Sediment, Remove.....*CYS*
Splashpad.....*TON*
Temporary Check Dam, Revetment Riprap.....*TON*
Temporary Check Dam, Traversable.....*LFT*
Temporary Filter Berm.....*LFT*
Temporary Filter Stone.....*TON*
Temporary Geotextile..... *SYS*
Temporary Inlet Protection.....*EACH*
Temporary Mulch.....*TON*
Temporary Mulch Stabilization, _____..... *SYS*
type
Temporary Sediment Basin.....*EACH*
Temporary Sediment Trap.....*TON*
Temporary Seed Mixture.....*LBS*
Temporary Silt Fence.....*LFT*
Temporary Slope Drain.....*LFT*

The costs of geotextile, trenching, backfilling, posts, fencing, and all necessary incidentals shall be included in the cost of temporary silt fence.

The costs for diversion interceptor types A and B shall be included in the cost of other pay items in this section.

The costs of stakes, trenching, backfilling, posts, and all necessary incidentals shall be included in the cost of temporary check dams, traversable.

The cost of interceptor ditches shall be included in the cost of other pay items in this section.

The cost of slope drain shall include the standard metal end section, anchors, and all incidentals necessary to perform the work.

The cost of materials, installation, inspection, maintenance, and removal of temporary erosion and sediment control measures at off-site locations designated in 205.03 will not be measured for payment.

Except for the removal of sediments, the cost of materials, installation, maintenance, and removal of temporary erosion and sediment control items shall be included in the costs of the respective pay items.

The cost of constructing, maintaining, and removal of the construction entrance, other than those constructed by the Contractor for borrow and waste sites, shall be

included in the cost of No. 2 stone. No direct payment will be made for construction entrances for borrow and waste sites.

Costs associated with concrete washout will be included in the costs of the concrete pay items.

Costs associated with filter stone replacement due to maintenance and sediment removal shall be included in the cost of sediment removal.

SECTION 621, BEGIN LINE 43, DELETE AS FOLLOWS:

~~For temporary seeding, the seed bed, if not loose, shall be scarified. The area to be temporary seeded need not be made smooth and uniform.~~

SECTION 621, BEGIN LINE 268, DELETE AS FOLLOWS:

~~**(f) Seed Mixture T**~~

~~This seed mixture shall be used to establish a temporary cover for disturbed soil during the construction operations. Seed mixture T shall be used for soil stabilization and temporary ground cover. Temporary cover mixtures shall be placed as directed and be subject to seasonal limitations as defined herein. This mixture is not intended to be used as a permanent seed mixture. The mix shall be mulched in accordance with 621.05(c) when slopes exceed 3:1. From December 1 to March 14 and from June 16 to August 31, mulching alone shall be used to stabilize the soil. This mixture shall not be used to satisfy the requirements of the warranty bond.~~

~~**1. Spring Mix**~~

~~Spring mix shall be used from March 15 through June 15. This mixture shall be applied at the rate of 150 lb/ac (168 kg/ha). The mix shall consist of oats.~~

~~**2. Fall Mix**~~

~~Fall mix shall be used from September 1 through November 30. This mixture shall be applied at the rate of 150 lb/ac (168 kg/ha). This mix shall consist of winter wheat.~~

SECTION 621, BEGIN LINE 431, DELETE AS FOLLOWS:

Payment for mobilization and demobilization for seeding will be made for the initial movement to the project site so that permanent ~~or temporary seeding~~ or mulching work, as specified, is performed. When 1 or more operations are completed within the same mobilization, payment will be made for 1 mobilization. Payment will be for all work necessary to move personnel and equipment to and from the project site. Payment will also be made for additional mobilization, when directed.

SECTION 914, AFTER LINE 255, INSERT AS FOLLOWS:

6. Compost Mulch

Compost mulch shall consist of well-composted vegetable matter, leaves, yard trimmings, food scraps, composted manures, paper fiber, wood bark, class A bio-solids as defined in Title 40 of the Code of Federal Regulations at 40 CFR Part 503, or any combination thereof. Compost shall be produced using an aerobic composting process in accordance with 40 CFR Part 503 regulations, including time and temperature data indicating effective weed seed pathogen, and insect larvae kill. Compost shall be well

decomposed, stable, and weed free. Compost shall be refuse free by less than 1% by weight. Compost shall be free of any contaminants and materials toxic to plant growth. Inert materials shall not exceed 1% by dry weight, pH of 5.5 to 8.0. Carbon-nitrogen ratio shall not exceed 100. Moisture content shall not exceed 45% by dry weight. Variable particle size of the compost shall be a maximum dimension of 3 in. in length 1/2 in. in width, and 1/2 in. in depth. Compost mulch shall not be used in storm water runoff channels or where concentrated flow is anticipated.

SECTION 914, AFTER LINE 503, INSERT AS FOLLOWS:

(h) Filter Sock

Filter socks for sediment control applications shall use a continuous tubular knitted mesh netting with 3/8 in. openings and constructed of 500 denier polypropylene. They shall be set in place using hardwood stakes of 1 by 2 in. or stakes of equivalent strength.

Where using socks with compost soil bark mixture as a filler, the Contractor shall use a continuous knitted mesh netting with 3/8 in. openings and constructed of 5 mil thickness of photodegradable HDPE.

Filler particle size shall not be greater than 3 by 1/2 by 1/2 in. and shall be capable of staying within the sock.
