205-R-261 QUALITY CONTROL TEMPORARY EROSION AND SEDIMENT CONTROL

(Adopted 11-21-14)

The Standard Specifications are revised as follows:

SECTION 108, DELETE LINES 107 THROUGH 211.

SECTION 205, DELETE LINES 1 THROUGH 516.

SECTION 205, BEGIN LINE 1, INSERT AS FOLLOWS:

SECTION 205 - QUALITY CONTROL 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 the approved contractor developed Erosion and Sediment Control Quality Control Plan.

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)*

**The minimum depth does not apply. 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 Contractor shall locate, install, maintain and remove temporary sediment and erosion control Best Management Practices, BMPs, for earth disturbing activity areas, and develop a project specific Revised SWPPP in accordance with IAC 327 15-5. The SWPPP shall be developed as part of the E&SC Quality Control Plan, QCP. The SWPPP shall be developed by a professional engineer who also holds a current Certified Professional in Erosion and Sediment Control, CPESC, certification or approved

equivalent. The SWPPP developer shall be familiar with the project site and develop the SWPPP in accordance with the site conditions. The SWPPP shall be revised as required. The Contractor shall furnish and install temporary sediment and erosion control best management practices in compliance with all National Pollutant Discharge Elimination System, NPDES, and surface water permits. In the event of conflict between these requirements and pollution control laws, rules, or regulations of other Federal, State or local agencies the Contractor shall adhere to the more restrictive laws, rules, or regulations.

If a governmental agency or a local governmental authority finds a violation of NPDES or any surface water permits that were provided in the bid documents or that the BMPs are incomplete, or that the SWPPP is incomplete or that the implementation of the SWPPP is not performed or complete, full responsibility shall be borne by the Contractor to make corrections. In addition if an assessment, damage judgment or finding, agreed order, fine or any other expense for a violation of the contract requirements is leveled against the Department, the Contractor shall reimburse the State for that amount within 30 days. The Contractor agrees to indemnify and hold harmless the Department and will reimburse the Department for any assessments, damage judgments or finding, fine, penalty or other expense relating to this portion of the contract. The Department may withhold the amount owed from the Contractor's subsequent pay estimates. Delays caused by stop work orders from regulatory agencies, suspension of work orders from the Department, or any other delays caused by inadequate submittals or implementation will be considered Non-Excusable Delays in accordance with 108.08(c).

(a) Storm Water Quality Manager

The Contractor shall designate one person as Storm Water Quality Manager, SWQM. The SWQM shall be responsible for ensuring the preparation, submittal, and receipt of the approved QCP. The SWQM shall be responsible for the installation, maintenance, and removal of all erosion and sediment control measures and shall be in responsible charge of the weekly and post-event inspections. The inspections shall be documented in the erosion and sediment control inspection report form provided by the Engineer and available on the Department's website. The SWQM shall attend the preconstruction conference and at least one scheduling meeting per calendar month when earth disturbing activities are a significant work activity. The SQWM shall accompany personnel from IDEM or other governmental agencies, as required, during site visits by those agencies. The SWQM shall be responsible for completion of all inspection reports. The name of the SWQM shall be furnished to the Engineer at, or prior to, the preconstruction meeting. If the designated individual needs to be replaced during the contract time, the replacement shall be designated within 24 h and notification shall be furnished to the Engineer.

For contracts that have had a Notice of Intent, NOI, filed per 327 IAC-15-5 or require a 401/404 or any other waterway permit, the SWQM shall have attended the Department's Construction Storm Water Certification course, or be certified as a Certified Erosion Sediment and Stormwater Inspector, CESSWI, or CPESC by Envirocert, Inc. or an approved equal.

(b) Design

The Contractor shall prepare and implement the project QCP for all temporary erosion and sediment control measures in accordance with 327 IAC 15-5, Chapter 205 of the Indiana Department of Transportation Design Manual, the IDEM "Indiana Storm Water Quality Manual", and all other applicable contract documents. The Contractor shall incorporate into his SWPPP all included plan sheets for temporary erosion and sediment control. The QCP shall include the Contractor's Revised SWPPP and plan to comply with all known permit requirements applicable to the construction phase of the project included in the NOS, 401/404 and all other permits as well as those required by the Contractor in accordance with 107.01. The Contractor's SWPPP shall be stamped by the SWPPP developer as defined above. The SWPPP developer shall issue clarifications, and correct errors and omissions as required. The SWPPP shall address the construction phasing and include the proper sequencing of installation of temporary erosion and sediment control measures for the protection of Waters of the United States and off-site sedimentation. The plan shall address the installation, maintenance, and removal sequencing of temporary erosion and sediment control measures during construction of the proposed project and shall also include haul roads, stockpile sites, equipment storage sites, plant sites, and borrow and disposal sites as applicable. A copy of the Notice of Sufficiency, NOS, that includes operations at offsite stockpile, borrow, waste, or storage areas shall be submitted to the Engineer prior to operations at those sites. Electronic files of any plan sheets and narratives shall be provided in .pdf format.

The Contractor may elect to prepare and submit the SWPPP in multiple phases, the first phase showing location, installation, and maintenance of temporary sediment and erosion control BMPs for the existing topography of the project during clearing activities prior to earth moving activities for the remaining construction. Additional phases shall show the progression from the existing topography to the final grade. The first phase of the SWPPP may be submitted prior to the subsequent phases, however no earth moving work or any other work not shown and approved in the first phase shall begin until approval of the additional phases of the SWPPP. Each phase of the SWPPP shall be modified to meet existing field conditions as needed.

(c) QCP Preparation and Implementation

The QCP shall be prepared by or under the supervision of the SWQM and in accordance with ITM 803, Contractor Quality Control Plans. The QCP shall include a discussion of how the Contractor intends to comply with the requirements as outlined in this section.

The QCP shall be submitted to the Engineer for review. If the Contractor elects to submit the first phase of the SWPPP prior to the complete QCP, it shall be submitted 15 days prior to the beginning of clearing activities. The complete QCP including at least the SWPPP for the next phase of work shall be submitted to the Engineer at least 15 days prior to commencing earth moving activities. No earth moving activity shall begin until after the QCP has been received and approved by the Department. The cost of the QCP shall be included in the cost of E&SC QCP Preparation and Implementation.

The item E&SC Budget is included in the schedule of pay items to establish a budget to fund payment of the items listed in 205.11 with an established price. The

Contractor shall provide a cost summary using the prices shown in 205.11 in spreadsheet format as the cost proposal for implementing the QCP.

At a minimum the SWPPP shall include the following:

1. *Locations of all proposed top soil stockpiles.*

2. *Locations of all proposed equipment storage areas, fueling locations, construction trailers, batch plants, and designated concrete truck washout areas.*

3. *Proposed construction sequence and phasing of erosion control measures.*

4. *Locations and design flow from offsite areas that drain onto project limits. The QCP design shall include BMPs properly sized and placed to accommodate runoff from outside of the project limits and the drainage quantity from within the project limits.*

5. *Location of all construction entrances where vehicles and equipment will enter and exit the site.*

6. *Material handling and spill prevention plan.*

7. *Statements that the erosion control measures for the project shall, at a minimum, be inspected on a weekly basis and within 24 h of every 1/2 in. rain event.*

8. *Provisions to ensure that pollutants such as fuels, lubricants, asphalt, sewage, wash water, or waste from concrete mixing operations, and other harmful materials shall not be discharged into existing bodies of water.*

9. *Provisions to ensure that all applicable regulations and statutes relating to the prevention and abatement of pollution shall be complied with in the performance of the contract.*

10. *Statement that all appropriate erosion control items shall be in place prior to disturbing the project site.*

When Waters of the United States are located within the project limits the following shall also be addressed in the SWPPP:

1. *A method for delineating the boundaries of the waters of the US as shown on the plans.*

2. *When work areas are located in or adjacent to bodies of water, all work in those locations shall be conducted in strict compliance with all conditions as outlined in the 401/404 permits.*

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 SWQM shall be responsible for the installation, inspection, and maintenance of these measures. Temporary erosion control measures shall be placed as soon as practicable. 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 made to satisfy field conditions and shall be subject to the Engineer's approval. Adjustments made to meet field conditions shall be made as soon as practicable 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. These temporary entrances shall be the responsibility of the Contractor to completely install, maintain, and remove.

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(b).

(d) Permanent Erosion Control Features

Permanent erosion control measures shall be incorporated into the work at the earliest practicable time.

205.04 Temporary Surface Stabilization

Non-vegetated areas shall be temporary stabilized if the area remains inactive for more than seven 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.

(a) Seed

Temporary seeding shall be placed on disturbed areas that are expected to be

inactive for more than seven 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 six 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 or as shown on the SWPPP, 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. Temporary revetment riprap shall be in accordance with 616. 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, the construction areas which shall utilize diversion type A or B. Slope drains shall be provided at the low points of the diversion interceptor. If required in the SWPPP, 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 seven calendar days. Stabilization methods shall be as shown in the SWPPP or as directed by the Engineer.

(d) Sediment Traps

Sediment Traps shall be constructed with revetment riprap, filter stone and geotextile.

(e) Sediment Basins

Embankment construction shall be in accordance with 203. Temporary 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. Sediment basins shall be designed to provide a minimum storage volume to contain the runoff from a 10 year 24 h storm event.

(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.

(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.

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 silt fence material 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 or other method recommended by the manufacturer. 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 or in the SWPPP. The filter berm may be constructed of organic mulch, filter sock, or No. 5 and No. 8 filter stone.

205.07 Maintenance

Temporary erosion and sediment control measures shall be inspected, at a minimum, once every seven 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 ½ 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 design volume.

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

Temporary Silt fence and check dams, traversable will be measured by the linear foot. Temporary Sediment basins will be measured by each. Temporary Revetment riprap check dams, temporary 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 used as a manufactured surface protection product 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. Temporary revetment riprap will be measured by the ton. Temporary slope drains will be measured by the linear foot, and only once for the maximum footage in place at one time, per drain location regardless of the number of times the material is moved. Temporary Inlet protection will be measured per each unit installed. Temporary Filter berms will be measured by the linear foot complete in place. Filter sock will be measured by the linear foot, complete in place. Concrete washouts will not be measured separately. No. 2 stone for stable construction entrances will be measured by the ton. Revetment riprap and filter stone used in sediment basins will be measured by the ton. Fertilizer will be measured by the ton. Manufactured surface protection product, type will be measured by the square yard. Mobilization and demobilization for surface stabilization will be measured per each trip as provided in the SWPPP, or as directed, to the project site. Standard metal end sections will be measured by each.

Diversion interceptors type A and B, and interceptor ditches will not be measured for payment. Diversion interceptors type C will be measured by the linear foot.

BMPs used at the off-site locations designated in 205.03 will not be measured for payment.

Excavation for detention ponds, temporary sediment traps and temporary sediment basins will be measured as common excavation in accordance with 203.27.

Weekly Inspections will be measured by each for inspections conducted after the contract completion date. E&SC QCP Preparation and Implementation will not be measured.

205.11 Basis of Payment

The accepted quantities of silt fence will be paid for at the established unit price per linear foot, complete in place. Temporary mulch will be paid at the established unit price by the ton. Temporary mulch stabilization will be paid for at the established unit price by the square yard. Temporary seeding will be paid for at the established unit price per pound. Temporary geotextile will be paid at the established unit price by the square yard. Temporary check dams, revetment riprap, temporary sediment trap and splashpads will be paid for at the established unit price by the ton. Temporary filter stone will be paid for at the established unit price by the ton. Temporary check dams, traversable will be paid for at the established unit price by the linear foot. Temporary revetment riprap will be paid for at the established unit price by the ton. Temporary filter berms will be paid at the established unit price by the linear foot. Temporary entrances utilized by the Contractor for borrow and waste areas will not be paid for directly. Temporary slope drains will be paid for at the established unit price by the linear foot. Removal of sediment will be paid for at the established unit price per cubic yard. Temporary inlet protection will be paid for at the established unit price per each unit installed. Filter sock will be paid for at the established unit price by the linear foot. Diversion Interceptors, type C will be paid by the linear foot at the established unit price. No. 2 stone for stable construction entrances will be paid for at the established unit price by the ton. Revetment riprap and filter stone used in sediment basins will be paid for at the established unit price by the ton. Fertilizer will be paid for at the established unit price by the ton. Manufactured surface protection product type, will be paid for at the established unit price by the square yard. Payment for mobilization and demobilization for surface stabilization will be paid at the established unit price per each and will be made for the initial movement to the project site for each occurrence as provided in the SWPPP, or as directed, so that temporary seeding, mulching or other surface stabilization is performed. Payment for standard metal end sections will be at the established unit price per each.

The accepted quantities of excavation for detention ponds, temporary sediment traps and temporary sediment basins will be paid for as common excavation in accordance with 203.28

Weekly Inspections will be paid at the established unit price by each for inspections conducted after the contract completion date. No payment will be made for

inspections during the time when Liquidated Damages in accordance 108.09 are assessed.

The Department will pay for those items listed in 205.11 with Established Prices in the quantities installed and as shown in the department approved QCP at the established price. The Department will include the pay item E&SC Budget, with an amount, in the proposal to pay for BMP work. The fixed amount shown in the proposal is included in the Total Bid Amount. This fixed amount is the Department's estimate of the total cost of the BMP work required to be performed for the contract. If the BMP work exceeds this amount, the BMP work will be paid at the pre-determined prices. Other BMPs required to implement the QCP will be considered in accordance with 104.03.

The item E&SC QCP Preparation and Implementation will be paid as a Lump Sum. The item will be considered 60% complete when approved by the Engineer. 60% of the bid price will be paid when the QCP is approved. The balance will be paid as the plan is implemented. 5% of the bid price will be paid in each subsequent progress payment until 100% of the bid price has been reached.

BMPs required for permit compliance will be considered in accordance with 104.03.

The Department will pay to replace BMPs that have failed during a rain event at the unit price shown in 205.11 if those BMPs had been adequately designed based on the watershed, installed correctly, and maintained when needed.

Items shown with an Established Price will be paid at the price shown. If any of the following items are shown in the schedule of pay items the bid item and price will prevail over the established price.

Payment will be made under:

Pay Item	***Pay Unit Symbol***	***Established Price***
Diversion Interceptor Type C	*LFT*	*$20.00*
E&SC Budget	*DOL*	
E&SC QCP Preparation and Implementation	*LS*	
Fertilizer	*TON*	*$725.00*
Filter Sock	*LFT*	*$5.00*
Manufactured Surface Protection Product, _____ type	*SYS*	*$1.25*
Mobilization and Demobilization for Surface Stabilization	*EACH*	*$650.00*
No. 2 Stone	*TON*	*$25.00*
Sediment, Remove	*CYS*	*$20.00*
Splashpad	*TON*	*$55.00*
Standard Metal End Section	*EACH*	*$340.00*
Temporary Check Dam, Revetment Riprap	*TON*	*$50.00*
Temporary Check Dam, Traversable	*LFT*	*$15.00*
Temporary Filter Berm	*LFT*	*$15.00*

Temporary Filter Stone	*TON*	*$40.00*
Temporary Geotextile	*SYS*	*$2.50*
Temporary Inlet Protection	*EACH*	*$100.00*
Temporary Mulch	*TON*	*$400.00*
Temporary Mulch Stabilization,_____ type	*SYS*	*$0.25*
Temporary Revetment Riprap	*TON*	*$50.00*
Temporary Sediment Basin	*EACH*	*$3,000.00*
Temporary Sediment Trap	*TON*	*$40.00*
Temporary Seed	*LBS*	*$2.50*
Temporary Silt Fence	*LFT*	*$2.00*
Temporary Slope Drain	*LFT*	*$20.00*
Temporary Underdrain Outlet Pipe	*LFT*	*$5.00*
Weekly Inspection	*EACH*	*$400.00*

The payment for temporary silt fence includes trenching, backfilling, posts, fencing, and all necessary incidentals.

The costs for diversion interceptor types A and B and interceptor ditches shall be included in the cost of the earth moving items.

The payment for temporary check dams, traversable includes stakes, trenching, backfilling, posts, and all necessary incidentals.

The payment for temporary sediment basin includes all costs involved with construction of the basin except for the excavation, which will be paid as common excavation in accordance with 203.28, and the use of revetment riprap and filter stone, which are separate pay items.

The payment for temporary sediment trap is to include all costs involved with construction of the trap except for the excavation, which will be paid as common excavation in accordance with 203.28.

The payment for temporary slope drain include 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 payment for items in this section includes materials, installation, maintenance, removal and proper disposal of temporary erosion and sediment control 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 shall be included in the costs of the concrete pay items.

Payment for sediment removal includes costs associated with temporary filter stone replacement due to maintenance and sediment removal.

Costs associated with the weekly and post-event inspections and all other inspections conducted prior to the contract completion date are to be included in the costs of the other pay items of this section.
