



## SECTION 806

### POLLUTION, EROSION AND SEDIMENT CONTROL

**806.1 Description.** This work shall consist of furnishing, installing, maintaining and removing temporary pollution, erosion and sediment control measures; furnishing and placing permanent erosion control features; or a combination of both as shown on the plans or as directed by the engineer.

**806.2 Schedule of Work.** Prior to the preconstruction conference and the start of construction, the contractor shall submit schedules for the implementation of temporary pollution control and temporary and permanent erosion control work, as applicable, for construction operations. The contractor's schedule shall address specifically the pollution and erosion control measures planned at all streams or other bodies of water. No work shall start until the pollution and erosion control schedules and methods of operations have been approved by the engineer. Any delay of the work resulting from failure to submit acceptable pollution and erosion control schedules and methods of operations will be considered nonexcusable.

**806.3 Material.** All material shall be in accordance with Division 1000, Material Details, and specifically as herein.

**806.4 Construction Requirements.** The engineer will limit the surface area of erodible earth material exposed by clearing and grubbing or by excavation, borrow and fill operations in accordance with the following. The engineer may direct the contractor to provide immediate permanent or temporary pollution control measures to prevent contamination of adjacent streams or other bodies of water. Such work may involve the construction of temporary berms, dikes, dams, sediment basins and slope drains, and use of temporary mulches, seeding or other control devices or methods as necessary to control erosion and pollution.

**806.4.1** If erosion and sediment control measures, as shown on the plans, are not suitable due to site conditions, a suitable system of Best Management Practices (BMP) as defined by the applicable Missouri State Operating Permit for land disturbance activities and the Stormwater Pollution Prevention Plan (SWPPP), shall be applied as approved by the engineer.

**806.4.2** The contractor shall exercise effective management practices throughout the life of the project to control pollution. Pollutants such as chemicals, fuels, lubricants, bitumen, raw sewage or other harmful material shall not be discharged on or from the project. Temporary pollution control measures, such as storage and handling of petroleum products and other pollutants, shall be coordinated with temporary and permanent erosion and sediment control features specified in the contract to ensure economical, effective and continuous erosion and pollution control. These requirements will also apply to work within easements designated by the Commission.

**806.4.3** The contractor shall incorporate all permanent erosion, sediment, and pollution control features into the project at the earliest practical time. Temporary measures shall be used to correct conditions that develop during construction which were not foreseen during the design stage, that are needed prior to installation of permanent pollution control features, or

that are needed temporarily to control erosion and sediment that develops during normal construction practices, but are not associated with permanent control features on the project.

**806.4.4** Installation of temporary control measures shall be scheduled to coincide with clearing and grubbing operations, but before grading operations begin. The project land area disturbance shall not exceed one acre without installation of erosion and sediment controls. The total project land disturbance area shall not exceed 20 acres without written approval from the engineer.

**806.4.5** The engineer may allow additional land disturbance acreage if appropriate BMP's including temporary seeding and mulching, have been applied to previously disturbed areas and the contractor has the resources to apply the BMP's to the expanded area.

**806.4.6** Unless otherwise provided or approved in writing by the engineer, construction operations in streams or other bodies of water shall be restricted to those areas that must be entered for the construction of temporary or permanent structures. Streams or other bodies of water shall be promptly cleared of all falsework, piling, debris or other obstructions placed therein or caused by construction operations.

**806.4.7** Fording of streams or other bodies of water with construction equipment will not be permitted, except as allowed by the engineer. Temporary bridges or other structures shall be used when frequent crossing of streams or other bodies of water is necessary. Unless otherwise approved in writing by the engineer, mechanized equipment shall not be operated in streams or other bodies of water except as may be required to construct channel changes and temporary or permanent structures. If a Corps of Engineer Section 404 or Department of Natural Resources Section 401 permit is applicable for a project, the permit requirements and conditions will prevail.

**806.4.8** The contractor shall obtain all necessary permits to cover all project-associated activities on external sites that are not located on MoDOT right of way or easements. Project-associated activities includes borrow areas, plant sites, and staging areas. All costs associated with the permits and pollution control shall be at the contractor's expense, including providing, installing, maintaining, and removal of all erosion and sediment control devices, and final stabilization of disturbed areas.

**806.4.9** In the event of conflict between these requirements and the pollution control laws, rules or regulations of other federal, state or local agencies, the more restrictive laws, rules or regulations will apply.

**806.4.10** The contractor is encouraged to incorporate mulch from the clearing and grubbing operation into the BMP's on the project. BMP's may consist of compost filled socks, compost filter berms, soil protection cover or any other method as approved by the engineer.

**806.4.11** Unless otherwise specified, or directed by the engineer, all temporary erosion and sediment control measures shall be removed by the contractor after permanent erosion and sediment control measures are established and the project has achieved final stabilization as defined in the SWPPP. Biodegradable erosion and sediment control materials may be allowed to be incorporated into the project in accordance with the SWPPP, as approved by the engineer. Rock from ditch checks and other temporary sediment devices may be repositioned to serve as ditch liner in accordance with the SWPPP, and as directed by the engineer.

#### **SECTION 806.10 TEMPORARY BERMS.**

**806.10.1 Description.** This work shall consist of constructing and maintaining temporary berms at the top of slopes or transverse to the centerline of fills as shown on the plans.

**806.10.2 Material.** Type B berms shall consist of graded material from within the project limits, rock, or other suitable material approved by the engineer. Type C berms shall consist of rock with a predominant size between 4 inches and 12 inches.

**806.10.3 Construction Requirements.** Temporary berms shall be constructed and maintained to the approximate dimensions shown on the plans.

**806.10.3.1 Type B Berms.** Type B berms shall be machine compacted with a minimum of three passes over the entire width of the berm. Material removed from Type B berms shall be incorporated in the embankment when possible. The contractor shall remove and dispose of any excess or unsuitable material to a location approved by the engineer.

**806.10.3.1.1** Type B berms shall drain to a compacted outlet at slope drain. On transverse berms, the top width of the berms may be wider and the side slopes flatter to allow equipment to pass over these berms with minimal disruption.

**806.10.3.2 Type C Berms.** Vegetative mulch, erosion control blanket or geotextile fabric shall be placed on the upslope of the Type C berm. The vegetative mulch shall be placed in such a manner that the final compacted thickness is 2 inches. The material for the vegetative mulch shall be in accordance with [Sec 802](#). The straw layer erosion control blanket or geotextile fabric shall be removed and replaced as directed by the engineer.

**806.10.4 Method of Measurement.** Measurement of Type B and C berms will be made to the nearest linear foot.

**806.10.5 Basis of Payment.** The accepted quantities of Type B and C berms will be paid for at the contract unit price and will be considered full compensation for material, installation, maintenance, removal and any other hand work necessary to construct the berms. No payment will be made for the straw layer, erosion control blanket or geotextile fabric on the Type C berm. No payment will be made for any seeding and mulching needed after removal.

## **SECTION 806.20 TEMPORARY SLOPE DRAINS.**

**806.20.1 Description.** This work shall consist of furnishing, constructing, maintaining and removing temporary slope drains to carry water down slopes and to reduce erosion. The method selected shall be approved by the engineer prior to construction.

**806.20.2 Construction Requirements.** The contractor shall provide temporary, impermeable slope drains to carry water or water with suspended solids down fill slopes until permanent erosion control measures are established. The contractor shall provide temporary slope drains on fillslopes at approximately 500-foot intervals or as directed by the engineer. All temporary slope drains shall be adequately anchored to the slope to prevent disruption of flow. The inlet ends shall include a ditch check and be constructed to channel water into the temporary slope drain. Outlet ends shall have some means of dissipating the energy of the water to reduce erosion downstream and have the ability to capture sediment. After removal, the contractor shall restore the site of the slope drains to the satisfaction of the engineer.

**806.20.3 Method of Measurement.** Measurement of temporary slope drains will be made to the nearest linear foot.

**806.20.4 Basis of Payment.** The accepted quantities of temporary slope drains will be paid for at the contract unit price. Payment shall include furnishing, constructing, maintaining and removing temporary slope drains, and restoration of the slope drain sites. No payment will be made for any seeding and mulching needed after removal.

## **SECTION 806.30 TEMPORARY DITCH AND INLET CHECKS.**

**806.30.1 Description.** This work shall consist of furnishing, constructing, maintaining, removing and disposing of temporary ditch and inlet checks.

### **806.30.2 Construction Requirements.**

**806.30.2.1 Rock Ditch Checks.** Rock ditch checks shall be constructed in accordance with the plans, or as directed by the engineer, and shall have a minimum effective height of 18 inches. The predominant size of the rock used shall range between 4 inches and 12 inches.

**806.30.2.2 Alternate Ditch Checks.** Alternate ditch checks shall be constructed in accordance with the manufacturer's specifications, and as shown on the plans, or as directed by the engineer. Alternate ditch checks shall have a minimum effective height of 9 inches, shall follow guidance provided in the SWPPP, and shall perform to the level that meets or exceeds the requirement of the current Missouri Operating Permit.

**806.30.2.2.1** Unless otherwise disallowed, the contractor has the option to construct rock ditch checks in lieu of alternate ditch checks. Rock ditch checks constructed in lieu of alternate checks shall have a minimum effective height of 18 inches. Spacing shall be increased, as determined by the engineer, to account for the additional height of rock ditch check. The toe-to-top capacity requirements shown on the plans will be used to determine the spacing.

**806.30.2.3 Inlet Checks.** Inlet checks shall be installed in accordance with the plans or as directed by the engineer to prevent sediment from entering drop inlets, manholes, and other openings to culverts and closed drainage systems.

**806.30.2.3.1** Inlet checks shall be constructed in accordance with [Sec 806.30.2.1](#), rock ditch checks, and shall completely surround the inlet or other structure, as indicated on the plans. Other allowable methods of protecting inlets will be listed in the SWPPP.

**806.30.2.4 Curb Inlet Checks.** Curb inlet checks shall consist of socks filled with rock, or other fillers of sufficient weight to keep the device in place. Curb inlet checks shall be installed in the gutter or as shown on the plans. Other proprietary devices may be used, as approved by the engineer.

**806.30.3 Maintenance.** The contractor shall monitor the condition of all temporary checks and repair or replace checks that are not functional. The contractor shall remove sediment in accordance with [Sec 806.110](#). Alternate ditch checks shall be maintained in accordance with this provision and the manufacturer's specifications or as directed by the engineer.

**806.30.4 Removal.** All types of temporary checks shall remain in service until removal has been approved by the engineer. Removal shall be in accordance with Sec 806.4.11 and as stated herein. The contractor shall remove any sediment from the check, remove the check, and restore the area to match existing ground condition. When necessary, seeding and mulching shall be in accordance with Secs 802 and 805 respectively, and shall be considered incidental.

**806.30.5 Method of Measurement.**

**806.30.5.1** Measurement of rock ditch checks will be made to the nearest linear foot as measured along the top of the check. Rock ditch checks constructed in lieu of alternate checks will be included in this measurement for payment. Inlet checks, except for curb inlet checks, will be included in this measurement for payment.

**806.30.5.2** Measurement of alternate ditch checks will be made to the nearest linear foot as measured along the top of the check.

**806.30.5.3** No measurement will be made for any portion of a check that exceeds the length necessary to adequately span the ditch as shown on the plans or as directed by the engineer.

**806.30.5.4** Measurement of curb inlet checks will be made per each check.

**806.30.6 Basis of Payment.**

**806.30.6.1** The accepted quantities of rock ditch checks, alternate ditch checks, inlet checks, and curb inlet checks will be paid for at the contract unit price for each pay item included in the contract. If the engineer determines unusual conditions warrant complete replacement of a check, payment will be made for the replacement check at the contract unit price.

**806.30.6.2** Payment for sediment removal shall be in accordance with [Sec 806.110](#).

**SECTION 806.40 SEDIMENT BASINS.**

**806.40.1 Description.** This work shall consist of constructing and maintaining temporary or permanent sediment basins as shown on the plans or as directed by the engineer. This work shall include clearing and excavation to construct the basin, disposal of excavated material, and providing and installing rock or other stabilizing material as approved by the engineer. For temporary basins, removal, backfilling, and site restoration is also included in the work.

**806.40.2 Construction Requirements.** The sediment basin shall be an excavated or dammed storage area with defined side slopes. Inlet and outlet areas shall be lined with rock of sufficient size to withstand the water flow. In lieu of rock, other allowable liners may be used as described in the SWPPP. Outlets may be constructed with a riser pipe, surface skimmers, or stabilized spillway, or a combination of one or more of these features.

**806.40.2.1** The inlet of a sediment basin shall be constructed with a wide cross-section and a minimum grade to prevent turbulence and to allow deposition of soil particles.

**806.40.2.2** Sediment shall be removed and disposed in accordance with [Sec 806.110](#), and before the depth reaches approximately one-half the original depth of the sediment basin in any part of the pool.

**806.40.2.3** Temporary sediment basins shall remain in service until removal has been approved by the engineer. Removal shall be in accordance with [Sec 806.4.11](#) and as stated herein. The contractor shall remove any sediment from the basin, backfill, compact all excavations, restore the area to match existing ground conditions, and seeding and mulching in with [Secs 802](#) and [805](#) respectively.

**806.40.3 Method of Measurement.**

**806.40.3.1** Measurement of excavation to construct sediment basin will be made to the nearest tenth of a cubic yard.

**806.40.3.2** Measurement of rock placed to construct sediment basins will be made to the nearest tenth of a cubic yard.

**806.40.4 Basis of Payment.**

**806.40.4.1** The accepted quantities for excavation to construct sediment basins will be paid for at the contract unit price. Payment includes clearing, excavation, removal, backfilling and final grading.

**806.40.4.2** The accepted quantity for rock used to construct sediment basins will be paid for at the contract unit price. Payment shall include furnishing, placing, and removal of rock.

**806.40.4.3** No direct payment will be made for seeding and mulching necessary to restore the area after removal.

**806.40.4.4** Payment for sediment removal shall be in accordance with [Sec 806.110](#).

**SECTION 806.50 TEMPORARY SEEDING AND MULCHING.**

**806.50.1 Description.** This work shall consist of furnishing and applying fertilizer, seed, vegetative mulch or other acceptable cover, in disturbed areas authorized by the engineer. Temporary seeding and mulching is utilized to establish a quick ground cover that reduces erosion in disturbed areas where staging requires the area to be disturbed again at a later date, and for areas that are complete but current seasonal conditions are not favorable for applying permanent seeding. Finish grading will not be required except for areas that will not receive further grading prior to permanent seeding. Hydraulic seeding and fertilizing in accordance with [Sec 805](#) will be permitted.

**806.50.2 Construction Requirements.** Seeding and mulching shall be a continuous operation on all cut and fillslopes, excess material sites and borrow pits during the construction process. All disturbed areas shall be seeded and mulched as necessary to control erosion. When a project is shown in the contract to be constructed in stages and operations in those staged areas are suspended for a significant amount of time, the contractor shall receive payment for temporary seed and mulch. When the engineer allows the contractor to disturb additional ground beyond the restrictions in [Sec 806.4.4](#) solely to enhance the contractor's operation, the contractor shall not receive compensation for temporary seed or mulch, as required by the engineer, for ground cover for areas exceeding the restrictions in [Sec 806.4.4](#).

**806.50.2.1** The contractor shall provide permanent seeding and mulching as shown on the plans following temporary seeding. Any preparation of the seed bed that might be necessary prior to permanent seeding shall be considered incidental to temporary seeding.

**806.50.2.2** Temporary seeding mixtures of cereal grains shall be applied at a minimum rate of 100 pounds per acre. All erodible seeded areas shall provide a minimum of 20 plants of the species planted per square foot on at least two random counts per acre in representative areas of the field. For areas with a large percentage of rock, the number of living plants shall be proportional to the percentage of erodible surface, as determined by the engineer. The counts will be conducted 60 days after the species is planted.

**806.50.2.3** Mulch placed over temporary seed mixtures shall be applied in accordance with [Sec 802](#).

**806.50.2.4** Fertilizer shall be applied at a rate of 40 pounds nitrogen (N) per acre.

**806.50.2.5** Lime will not be required for temporary seeding.

**806.50.3 Method of Measurement.** Measurement of temporary seeding areas will be made to the nearest tenth of an acre. No measurement will be made for mulch..

**806.50.4 Basis of Payment.** The accepted quantities of temporary seeding will be paid for at the contract unit price per acre. Payment for fertilizer and mulch shall be included in the cost of temporary seeding.

## **SECTION 806.60 SEDIMENT TRAP.**

**806.60.1 Description.** This work shall consist of constructing, maintaining and removing sediment traps as shown on the plans or as directed by the engineer.

### **806.60.2 Construction Requirements.**

**806.60.2.1** Sediment traps shall be constructed as shown on the plans or as directed by the engineer. Traps may require excavation, or placement of rock of sufficient size to impound water, or a combination of excavation and placement of rock.

**806.60.2.2** Sediment traps shall be installed with clearing and grubbing operations or as directed by the engineer. The contractor shall monitor sediment levels and remove sediment in accordance with [Sec 806.110](#).

**806.60.2.3** Sediment traps shall remain in service until removal has been approved by the engineer. Removal shall be in accordance with [Sec 806.4.11](#) and as state herein. The contractor shall remove any sediment from the trap, backfill, compact all excavations, restore the area to match existing ground condition, and seeding and mulching in accordance with [Secs 802](#) and [805](#) respectively.

### **806.60.3 Method of Measurement.**

**806.60.3.1** Measurement of excavation to construct sediment traps will be made to the nearest tenth of a cubic yard.

**806.60.3.2** Measurement of rock placed to construct sediment traps will be made to the nearest tenth of a cubic yard.

### **806.60.4 Basis of Payment.**

**806.60.4.1** The accepted quantity for excavation to construct sediment traps will be paid for at the contract unit price. Payment includes clearing, excavation, removal, backfilling, and final grading.

**806.60.4.2** The accepted quantity for rock used to construct sediment traps will be paid for at the contract unit price. Payment shall include furnishing, placing, and removal of rock.

**806.60.4.3** No direct payment will be made for seeding and mulching necessary to restore the area after removal.

**806.60.4.4** Payment for sediment removal will be in accordance with [Sec 806.110](#).

#### **SECTION 806.70 SILT FENCE.**

**806.70.1 Description.** This work shall consist of furnishing, installing, maintaining, and removing of a silt fence to control sediment along slopes and other designated areas. The quantity of silt fence shown on the plans may be increased or decreased, as directed by the engineer. The engineer may also modify the location as necessary to improve the effectiveness of the silt fence. Variations in quantity and location will not be considered as a change in work.

**806.70.2 Material.** When geotextile fabric is used, material shall be in accordance with Sec 1011. All other material shall be as specified in the SWPPP.

**806.70.2.1 Posts.** Wood, steel or synthetic posts may be used. Posts shall be of sufficient length, but no less than 4 feet, to ensure adequate embedment while fully supporting the fence and shall have sufficient strength to resist damage during installation and to support applied loads while in service.

**806.70.2.2 Prefabricated Fence.** Prefabricated fence systems may be used if the systems meet all of the above material requirements.

#### **806.70.3 Construction and Maintenance Requirements.**

**806.70.3.1 Fabric Fence.** The contractor shall install silt fence as shown on the plans and at other locations directed by the engineer. Fence construction shall be adequate to handle the stress from hydraulic and sediment loading. Fabric at the bottom of the fence shall be buried a minimum of 6 inches to prevent flow under the barrier. The trench shall be backfilled, and the soil compacted over the fabric. Fabric splices with a minimum 2-foot overlay shall be located only at a support post. Any installation method acceptable to the engineer will be allowed as long as the effectiveness and intent of the silt fence is achieved.

**806.70.3.1.1** Post spacing shall not exceed 5 feet. Posts shall be driven a sufficient depth into the ground or placed on closer spacing as necessary to ensure adequate resistance to applied loads.

**806.70.3.1.2** The silt fence shall be fastened securely to the upslope side of the post. When wire support fence is used, the wire shall extend into the trench a minimum of 2 inches.

**806.70.3.2 Alternate Fence Types.** Alternate silt fence types shall be in accordance with the SWPPP or as approved by the engineer.

**806.70.3.3 Maintenance.** The contractor shall monitor the condition of all fences and repair or replace fences that are not functional as long as the fences are necessary to contain sediment runoff. Any deficiencies shall be corrected by the contractor in accordance with the SWPPP. In addition, the contractor shall review the effectiveness of silt fences in areas where

construction activities have changed the natural contour and drainage runoff. Where deficiencies exist, additional silt fences shall be installed as approved or directed by the engineer.

**806.70.3.4 Sediment.** The contractor shall remove and dispose of sediment in accordance with [Sec 806.110](#). Segments of silt fence that receive heavy sediment loading may require a secondary silt fence or installation of other controls to adequately contain sediment.

**806.70.3.5 Removal.** Silt fence shall be removed in accordance with [Sec 806.4.11](#) and as specified herein. The contractor shall remove and dispose of any excess silt accumulation along the fence, shall restore the area to match existing ground condition, and seeding and mulching in accordance with [Secs 802](#) and [805](#) respectively.

**806.70.4 Method of Measurement.** Silt fence will be measured to the nearest linear foot from end to end of each separate installation.

**806.70.5 Basis of Payment.**

**806.70.5.1** The accepted quantities of silt fence will be paid for at the contract unit price.

**806.70.5.2** No direct payment will be made for seeding and mulching necessary to restore the area after removal.

**806.70.5.3** Payment for sediment removal will be in accordance with [Sec 806.110](#).

#### **SECTION 806.80 TEMPORARY PIPE.**

**806.80.1 Description.** This work shall consist of installing and removing temporary pipe utilized to carry water under temporary roadways, silt fences, berms or other locations determined by the engineer and to prevent the contractor's equipment from coming in direct contact with water when crossing an active stream, intermittent streams created during heavy rainfalls or other bodies of water.

**806.80.2 Material.** Any pipe approved by the engineer may be used.

**806.80.3 Construction Requirements.** Installation of temporary pipe shall be in accordance with the specifications for permanent pipe and shall prevent water from causing erosion around the pipe. All backfill material for pipes shall be placed in 6-inch lifts and mechanically compacted. Compaction tests will not be required. Temporary pipe placed in intermittent or active streams shall be backfilled with clean rock of sufficient size to withstand normal stream flows.

**806.80.4 Method of Measurement.** Measurement of temporary pipe will be made to the nearest linear foot for those pipes specified on the plans.

**806.80.5 Basis of Payment.** The accepted quantities of temporary pipe will be paid for at the contract unit price for temporary pipes specified on the plans. No payment will be made for temporary pipes that the contractor chooses to install to facilitate construction. Unless provided as a pay item in the contract documents, no direct payment will be made for the placement and removal of the backfill material or rock.

#### **SECTION 806.90 EROSION CONTROL BLANKETS AND TURF REINFORCEMENT MATS.**

**806.90.1 Description.** This work shall consist of furnishing and placing erosion control blankets (ECBs) and turf reinforcement mats (TRMs) on slopes or ditches for short-term or long-term protection of seeded areas at locations shown on the plans or as directed by the engineer.

**806.90.2 Material.** ECBs and TRMs shall be used as designated in the contract or as approved by the engineer. The contractor shall provide ECBs and TRMs of the type specified in the contract and shall provide a manufacturer's certification stating that they are in accordance with [Sec 1011](#).

**806.90.3 Construction Requirements.** ECBs and TRMs shall be installed and maintained according to the manufacturer's recommendations.

**806.90.4 Method of Measurement.** Measurement of ECBs and TRMs will be made to the nearest square yard of surface area covered.

**806.90.5 Basis of Payment.** The accepted quantity of ECBs and TRMs will be paid for at the contract unit price for each of the pay items included in the contract. If ECBs and TRMs are used in lieu of other erosion control measures, payment will be made at the contract unit price for the pay items in the contract for the respective items that the blanket replaces.

#### **SECTION 806.100 TEMPORARY STREAM CROSSING.**

**806.100.1 Description.** This work shall consist of constructing a temporary stream crossing to facilitate the movement of equipment across a stream.

**806.100.2 Construction Requirements.** The contractor shall be responsible for the design, installation, maintenance and removal of the temporary stream crossing and any structures installed for the construction of the temporary stream crossing. Appropriate measures shall be taken to maintain near normal downstream flows and to minimize flooding upstream. The temporary stream crossing shall be constructed to permit the free movement of the stream's aquatic life. Fill material, if allowed by the Corps of Engineer permit, shall be clean rock of sufficient size to withstand normal stream flows.

**806.100.2.1** Prior to construction of the temporary stream crossing, all information shall be submitted to the engineer as needed for the issuance or modification of the Corps of Engineer permit. The contractor shall not begin construction on any temporary stream crossing without written permission from the engineer.

**806.100.2.2** All approaches to the temporary stream crossing shall be maintained such that all storm water runoff is diverted to retention devices.

**806.100.2.3** When the temporary stream crossing is no longer needed, the crossing shall be removed as soon as possible and the area shall be restored to pre-project conditions or to the satisfaction of the engineer.

**806.100.3 Basis of Payment.** No direct payment will be made for the design, installation, maintenance or removal of temporary stream crossings. The contractor shall be responsible for all costs, including damage and penalties.

#### **SECTION 806.110 SEDIMENT REMOVAL.**

**806.110.1 Description.** This work shall consist of removing and disposing of sediment from sediment control devices, such as ditch and inlet checks, sediment basins, sediment traps, silt fence, and other devices that accumulate sediment.

**806.110.2 Construction Requirements.** The contractor shall monitor sediment levels in all sediment control devices and remove sediment prior to the level reaching approximately one-half the design heights for checks and fences, and one-half the storage capacities for basins and traps. The engineer may require sediment removal from devices prior to levels reaching the specified limits.

**806.110.2.1** The contractor shall dispose of the sediment in a location that does not allow the sediment to erode back into the sediment devices or to pollute streams or other bodies of water.

**806.110.3 Method of Measurement.** Measurement of sediment removal will be made to the nearest tenth of cubic yard.

**806.110.3.1** No measurement will be made for sediment removal that accumulates due to the contractor's failure to complete erosion control measures in accordance with the SWPPP or as directed by the engineer. The engineer shall determine the volume of sediment that will be excluded from payment due to a lack of required erosion control measures.

**806.110.3.2** No measurement will be made for removing any remaining sediment during final removal of the sediment control devices.

**806.110.4 Basis of Payment.** The accepted quantity of sediment removal will be paid for at the contract unit price.