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| REVIEW OF NEW SPECIFICATION OR SPECIFICATION CHANGE  | 208-15b3rd Review |
| **Specification Section No.:** 208 | **Item:** Erosion Control (Under One Acre) |
| **Originating Office:** Hydraulic Resource and Ecological Design | **By:** Banovich/Boyce |
| **Date Sent For Review:** January 13, 2016 | **Date Comments Due: February 10, 2016** |
| Submit response to: STANDARDS AND SPECIFICATIONS UNIT, DIVISION OF PROJECT SUPPORT 4TH FLOOR, CDOT HEADQUARTERS |
| **Vote****/N** | **Concurrent Reviews – Others Commenting** | The attached Draft Specification is submitted for your review and comments. If not returned by Date Comments Due, the draft specification will be considered to be approved unless the Standards and Specifications Unit of the Project Development Branch [(303) 757-9474, (303) 757-9402] is advised otherwise.**REMARKS:** If these proposed modifications are approved, our unit will issue these in a four new standard special provisions. |
|  | **Spec Committee Members:** |  **✓** |
|  | Co-Chairman: Lacey |  |
|  | Region 1: Quirk |  |
|  | Region 1: Stratton |  |
|  | Region 2: Ferguson |  |
|  | Region 3: Necessary |  |
|  | Region 4: Locke |  |
|  | Region 5: Valentinelli |  |
|  | Project Development: Vacant |  |
|  | Specifications: Brinck |  |
|  | Bridge: Hasan |  |
|  | Contracts & Market Analysis: Eddy |  |
|  | Materials: Schiebel |  |
|  | Traffic Engineering: Matthews |  | REVIEWER COMMENTS:( ) Approved ( ) Disapproved ( ) ModifiedIf disapproved or modified, give reason why and show any modifications on the attached draft copy: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_ Name/Signature Date |
|  | Maintenance: Weldon |  |
|  | FHWA: Egal |  |
|  | Attorney General: Milan |  |
|  |  |  |
|  | **Others:** |  |
|  | Colorado Contractors Assoc.: Moody |  |
|  |  |  |
|  | **Technical Committees:** |  |
|  | Bridge |  |
|  | Drainage Advisory Committee (DAC) |  |
|  | Joint Co-op, CDOT/CCA |  |

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| **COLORADO DEPARTMENT OF TRANSPORTATION****SUBMITTAL OF NEW SPECIFICATION OR SPECIFICATION CHANGE** | Log No. (Assigned by Standards and Specifications Unit)107-19 and 208-15 |
| TO: Standards and Specifications Unit, Project Development, Suite 290 | FROM:Hydraulic Resource and Ecological Design(Region, Branch or Technical Committee) |
| SPECIFICATION SECTION NO.208 | ITEMErosion Control | Priority Routine[x]  Fast[ ]  |
| Reason for this new or changed specification:This is the 3rd review of this proposed rewrite of Section 208. Modifications in this version from the previous review are:1. addressed concerns from DBEs and CCA with regards to distinguishing Stormwater Administration from Erosion Control Inspection2. Incorporated the requirements of the new MS4 permit and the recent EPA Audit by clarifying the application of liquidated for failure to complete required BMPs.4. Incorporated comments from Regions 1, 2, and 4. |
| New or Revised Specification:See Attached. |
| Note: See Procedural Directive 513.1 for a description of appropriate specification development procedures. |

 **CDOT Form 1215 10/01**

REVISION OF SECTIONS 107 AND 208

WATER QUALITY CONTROL

UNDER ONE ACRE OF DISTURBANCE

**NOTICE**

This is a standard special provision that revises or modifies CDOT’s *Standard Specifications for Road and Bridge Construction.* It has gone through a formal review and approval process and has been issued by CDOT’s Project Development Branch with formal instructions for its use on CDOT construction projects. It is to be used as written without change. Do not use modified versions of this special provision on CDOT construction projects, and do not use this special provision on CDOT projects in a manner other than that specified in the instructions unless such use is first approved by CDOT’s Standards and Specifications Unit. The instructions for use on CDOT construction projects appear below.

Other agencies which use the *Standard Specifications for Road and Bridge Construction* to administer construction projects may use this special provision as appropriate and at their own risk.

**Instructions for use on CDOT construction projects:**

Use on projects not having a Colorado Discharge Permit System (CDPS) Stormwater Construction Permit (SCP) [Projects with less than one acre of disturbance].

REVISION OF SECTIONS 107 AND 208
EROSION CONTROL
UNDER ONE ACRE OF DISTURBANCE

Sections 107 and 208 of the Standard Specifications are hereby revised for this project as follows:

In subsection 107.25(b) 6 delete the second paragraph and replace it with the following:

The Contractor shall record the location of potential pollutants on the plans. Descriptions of the potential pollutants shall be submitted to and approved by the Engineer.

In subsection 208.03 delete the first paragraph and replace it with the following:

Prior to construction the Contractor shall implement BMPs in accordance with the approved project schedule as described in subsection in 208.03(b).

In subsection 208.03 delete the third, fourth, and fifth paragraphs and replace them with the following:

The Contractor shall evaluate all non-stormwater coming onto the site, such as springs, seeps, and landscape irrigation return flow. If such flow is identified, BMPs shall be used to protect off-site water from becoming contaminated with sediment or other pollutants.

The Contractor shall review existing inlets and culverts to determine if inlet protection is needed due to water flow patterns. Prior to beginning construction, inlets and culverts needing protection shall be protected and the location of the implemented BMP added to the plans.

When additional BMPs are required and approved by the Engineer, the Contractor shall implement the additional BMPs and shall record and describe them on the plans. The approved BMPs will be measured and paid for in accordance with subsections 208.11 and 208.12.

Delete subsections 208.03(c) and (d) and replace them with the following:

1. *Implementation, Maintenance and Revision of the SWMP.*

The Contractor's responsibilities shall be as follows:

1. Install, construct, and maintain all BMPs specified in the Contract and coordinate the construction of BMPs with all other construction operations.
2. Implement suitable temporary erosion and sediment control features as necessary to correct unforeseen conditions or emergency situations. Dismantle those features when their purpose has been fulfilled unless the Engineer directs that the features be left in place.
3. Implement necessary actions to reduce anticipated or presently existing water quality or erosion problems resulting from construction activities.
4. Make available, all labor, material, and equipment needed to install, maintain, and remove BMPs.
5. The Contractor shall assign to the project an individual to serve in the capacity of Stormwater Administrator (SWMP Administrator). These duties may be assumed by the Superintendent. The SWMP Administrator shall be experienced in all aspects of construction and have satisfactorily completed a Transportation Erosion Control Supervisor Certification (TECS) training authorized by the Department. Proof that this requirement has been met shall be submitted to the Engineer prior to or at the preconstruction conference. A list of authorized TECS training programs will be provided by the Engineer upon request by the Contractor. The SWMP Administrator shall be the person responsible for ensuring that the responsibilities listed in (1) through (7) in (d) are fulfilled.
6. *Documentation Available on the Project.* The following Contract documents and references will be made available for reference in one location on the project during construction.
7. Project Documents. The following documents shall be kept, maintained, and updated in a single notebook:
	1. SWMP Sheets
	2. SWMP site map, if applicable to the project.
	3. Details of BMPs used on the project not covered in Standard Plan M-208-1.
	4. List of potential pollutants as described in subsection 107.25.
	5. Spill Response Plan and reports of reportable spills submitted to CDPHE.
	6. Form 105s and all other correspondence relating to water quality.
	7. Project environmental permits and associated applications and certifications.
8. Reference Materials
9. CDOT *Erosion Control and Stormwater Quality Guide.*
10. CDOT *Erosion Control and Stormwater Quality Field Guide.*
11. Copy of biological opinion, if applicable.

In subsection 208.04 delete the first and second paragraphs and replace them with the following:

The Contractor shall modify the SWMP to clearly describe and locate all BMPs implemented at the site to control potential sediment discharges from vehicle tracking.

Vehicle tracking pads shall be used at all vehicle and equipment access points to the site to prevent sediment exiting the project site onto paved public roads. Access shall be provided only at locations approved by the Engineer.

Delete subsection 208.04(e) and replace it with the following:

1. *Stabilization.* Once earthwork has begun on a section, it shall be pursued until completion.

Clearing and grubbing operations shall be scheduled and performed so that grading operations and final stabilization measures can follow immediately thereafter if the project conditions permit. Otherwise temporary stabilization measures shall be taken between successive construction stages. Additional work required because the Contractor has failed to properly coordinate the entire erosion control schedule, thus causing previously seeded areas to be disturbed by operations that could have been performed prior to the seeding shall be performed at the Contractor's expense.

In subsection 208.06 delete the first paragraph and replace it with the following:

**208.06 Materials Handling and Spill Prevention.** The Contractor shall clearly describe and record on the SWMP, all practices implemented at the site to minimize impacts from procedures or significant material that could contribute pollutants to runoff. Areas or procedures where potential spills can occur shall have spill contingency plans in place as specified in subsections 107.25(b) 6 or 208.06(c).

In subsection 208.07 delete the second paragraph and replace it with the following:

Erodible stockpiles (including topsoil) shall be contained with acceptable BMPs at the toe (or within 20 feet of the toe) throughout construction. BMPs shall be approved by the Engineer.

In subsection 208.08, delete the first paragraph and replace it with the following:

The Contractor shall limit construction activities to those areas within the limits of disturbance shown on the plans and cross-sections. Construction activities, in addition to the Contract work, shall include the on-site parking of vehicles or equipment, on-site staging, on-site batch plants, haul roads or work access, and all other action which would disturb existing conditions. Off road staging areas must be pre-approved by the Engineer, unless otherwise designated in the Contract. Construction activities beyond the limits of disturbance due to Contractor negligence shall be restored to the original condition by the Contractor at the Contractor’s expense. The Contractor shall tabulate additional disturbances not identified in the SWMP and indicate locations and quantities on the SWMP and report to the Engineer.

In subsection 208.06 (c), delete (1) and replace with the following:

1. Identification and contact information of the Contractor, CDOT spill cleanup coordinators and the SWMP Administrator.

In subsection 208.09, second paragraph, delete the list and replace it with the following:

1. Failure to include erosion control in the project schedule or failure to include erosion control in each schedule update as specified in subsection 208.03(b).
2. Failure of the Contractor to implement necessary actions required by the Engineer as required by subsection 208.03(c) 4.
3. Failure to amend SWMP and implement BMPs as required by subsection 208.04.
4. Failure to keep documentation and records current.
5. Failure to construct or implement erosion control or spill containment measures required by the Contract, or failure to construct or implement them in accordance with the Contractor’s approved schedule as required by subsection 208.06(c).
6. Failure to stabilize disturbed areas as required by subsections 208.04(e) and 208.08.
7. Failure to replace or perform maintenance on an erosion control feature after notice from the Engineer to replace or perform maintenance as required by subsection 208.04(f).
8. Failure to remove and dispose of sediment from BMPs as required.
9. Failure to install and properly utilize a concrete washout structure for containing washout from concrete placement operations.
10. Failure to perform permanent stabilization as required by subsection 208.04 (e).

The Engineer will immediately notify the Contractor in writing of each incident of failure to perform erosion control in accordance with the CDPS-SCP and these specifications, including items (1) through (14) above. Correction shall be made as soon as possible but no later than 48 hours from the date of notification to correct the failure. The Contractor will be charged liquidated damages in the amount of $970 for each day after the 48 hour period has expired, that one or more of the incidents of failure to perform the requirements for each notification, including items (1) through (14314) above, remains uncorrected. Liquidated damages will begin at Midnight of the date the 48 hours has transpired expired.

This deduction will not be considered a penalty, but will be considered liquidated damages based on estimated additional construction engineering costs. The liquidated damages will accumulate, for each cumulative day that one or more of the incidents remain uncorrected. The number of days for which liquidated damages are assessed will be cumulative for the duration of the project; that is: the damages for a particular day will be added to the total number of days for which liquidated damages are accumulated on the project. The liquidated damages will be deducted from any monies due the Contractor.

When a failure meets any one of the following conditions, the Engineer will immediately issue a Stop Work Order in accordance with subsection 105.01 irrespective of any other available remedy:

(1) It may endanger health or the environment.

(2) It consists of a spill or discharge of hazardous substances or oil which may cause pollution of the waters of the state.

(3) It consists of a discharge which may cause an exceedance of a water quality standard.

If all other failures are not corrected within 48 hours after liquidated damages have begun to be assessed, the Engineer will issue a Stop Work Order in accordance with subsection 105.01. Work shall not resume until the Engineer has approved a written corrective action plan submitted by the Contractor that includes measures to prevent future violations and a schedule for implementation.

If the Contractor requires more than 96 hours to perform the corrective work, the Contractor shall submit a request for deferment within the 96 hour correction period. The deferment request shall be in writing and shall include the specific failure, the methodology which will be employed to make the correction and interim milestones to completing the work. The Engineer, the SWMP Administrator and the Contractor shall concur on this deferral and set a proposed date of completion. If approved, the Contractor shall complete the corrective measures by Midnight of the proposed completion date. Liquidated damages will begin immediately after this date and time, will apply retroactively back to the 48 hours after the original date of notification, and will continue until the corrections have been completed.

Deferment of work to correct failure to perform erosion control will not affect the Contractor’s other Contractual responsibilities, notifications for other non-compliance, nor the final completion date of the project. Liquidated damages for other non-compliance notifications will continue to apply during the deferment period in addition to liquidated damages associated with the deferment.

An approved deferment will not result in a Stop Work Order.

Disagreements regarding the suggested corrective action for a BMP compliance issue between the Engineer, SWMP Administrator, and Superintendent, shall be discussed with the Resident Engineer. If after the discussions, the SWMP Administrator, Engineer and the Contractor are still in disagreement and feel that additional compensation is owed, the Contractor will follow the decision of the Project Engineer, keep track of the costs and negotiate further with the Project Engineer. If after pursuing the issue, the Contractor is unable to reach agreement with the Project Engineer, then the Contractor can follow the dispute process outlined in subsection 105.22.

If the Contractor’s corrective action plan and schedule are not submitted and approved within 96 hours of the initial notice, the Engineer will issue a Stop Work Order and have an on-site meeting with the Superintendent, SWMP Administrator. This meeting will also be attended by the Resident Engineer and the Region Program Engineer. This meeting will identify and document needed corrective actions and a schedule for completion. If after the meeting, the unacceptable work is not remedied within the schedule as agreed to in the meeting, the Engineer will take action to effect compliance by utilizing CDOT Maintenance personnel or other non-Contractor forces and deduct the cost from any moneys due or to become due to the Contractor pursuant to subsection 105.17. Delays due to these Stop Work Orders shall be considered non-excusable. The Stop Work Order shall be in place until the project is in compliance.

If the Contractor remains non-responsive to requirements of the on-site meeting, the Engineer will start default or Contract termination procedures in accordance with subsections 108.09 and 108.10. CDOT will proceed with corrective or disciplinary action in accordance with the Rules for Prequalification, Debarment, Bidding and Work on Transportation, Road, Highway and Bridge Public Projects. .

Delete subsection 208.10 and replace it with the following:

**208.10 Items to Be Accomplished Prior to Requesting Partial Acceptance of Water Quality Work.**

1. *Reclamation of Washout Areas*. After concrete operations are complete, washout areas shall be reclaimed in accordance with subsection 208.05(o) at the Contractor’s expense.
2. *Survey.* The Contractor shall survey Permanent Water Quality BMPs (Permanent BMPs) on the project after they are constructed and confirm they are at final configuration and grade. The Engineer will identify which Permanent BMPs shall be surveyed prior to the final walk through. The survey shall be performed in accordance with Section 625.
3. *Removal of Temporary BMPs.* Temporary BMPs subject to removal will be determined by the Engineer at the final walk through of the project and shall be removed by the Contractor. If any temporary BMPs are left in place, the Region’s Water Pollution Control Manager shall be notified of the BMP locations.

In subsection 2018.12, delete the first paragraph and replace with the following:

SWMP Administrator duties on projects having less than one acre of total disturbed area will not be measured and paid for separately but shall be included in the work. The Erosion Control Management Pay Item will not apply to these projects.