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| REVIEW OF NEW SPECIFICATION OR SPECIFICATION CHANGE | | | | **Log No.**  412-15 |
| **Specification Section No.:** 412 | | | **Item:** PCCP Consolidating and Finishing | |
| **Originating Office:** MAC | | | **By:** Kropp | |
| **Date Sent For Review:** November 17, 2010 | | | **Date Comments Due: December 15, 2010** | |
| Please submit response to: STANDARDS AND SPECIFICATIONS UNIT, ROOM 290, HEADQUARTERS, DENVER | | | | |
| **Reviewer** | **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 Specification Unit of Staff Design [(303) 757-9474, (303) 757-9402] is advised otherwise.  **REMARKS:**  If these modifications are approved, our unit will issue these in a revised version of this standard special provision. | |
|  | **Spec Committee Members:** |  |
|  | Chairman: Aschenbrener | X |
|  | Region 1: Cox | **X** |
|  | Region 2: Burch | **X** |
|  | Region 3: Alexander | **X** |
|  | Region 4: Frieler | **X** |
|  | Region 5: Beller | **X** |
|  | Region 6: Koenig | **X** |
|  | Project Development: Lacey | **X** |
|  | Specifications: Brinck | **X** |
|  | Bridge: Hasan | **X** |
|  | Agreements: Wassenaar | **X** |
|  | Materials: Zufall | **X** |
|  | Traffic Engineering: Matthews | **X** | REVIEWER COMMENTS:  ( ) Approved ( ) Disapproved ( ) Modified  If disapproved or modified, give reason why and show any modifications on the attached draft copy:    \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_  Name/Signature Date | |
|  | Maintenance: Mueller | **X** |
|  | FHWA: Urban | **X** |
|  | Attorney General: Spear | **X** |
|  | Attorney General: Morrow | **X** |
|  |  |  |
|  | **Others:** |  |
|  | Colorado Contractors Assoc.: Moody | **X** |
|  |  |  |
|  | **Technical Committees:** |  |
|  | Bridge |  |
|  | Culvert |  |
|  | Joint Co-op, CCA/CDOT |  |

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| **COLORADO DEPARTMENT OF TRANSPORTATION** **SUBMITTAL OF NEW SPECIFICATION OR SPECIFICATION CHANGE** | | | Log No. (Assigned by Standards and Specifications Unit)  412-15 | |
| TO: Standards and Specifications Unit, Project Development, Suite 290 | | FROM:  Patrick Kropp, MAC  (Region, Branch or Technical Committee) | | |
| SPECIFICATION SECTION NO.  412.12 | ITEM  412 | | | Priority  Routine Fast |
| Reason for this new or changed specification:  This change revises the requirements finishing of concrete pavement. It deletes the requirement for an ACI Concrete Flatwork Finisher and Technician (ACICFFT) or other Flatwork Finisher certification program approved by the Department. It adds the requirement for the Contractor to supply a Quality Control Plan for Conrete finishing as detailed in the specification.  This change was approved by the MAC by evote. | | | | |
| 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 SECTION 412

PORTLAND CEMENT CONCRETE PAVEMENT

CONSOLIDATING AND FINISHING

**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 the Standards and Specifications Unit of the Project Development Branch. 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 this standard special provision on all projects having portland cement concrete pavement.

REVISION OF SECTION 412

PORTLAND CEMENT CONCRETE PAVEMENT FINISHING

Section 412 of the Standard Specifications is hereby revised for this project as follows:

Delete subsection 412.12 and replace with the following:

**412.12 Finishing.** The sequence of operations shall be strike-off and consolidation, floating, and final surface finish.

Water shall not be added to the surface of the concrete to assist in finishing operations. The surface shall be finished to a uniform texture, true to grade and cross section, and free from porous areas. When the finishing machine, either form or slip form, or hand finishing method, leaves a surface that is not acceptable, the operation shall stop and corrective action shall be taken. Inability of the fin­ish machine to provide an acceptable surface finish, after corrective action, will be cause for requiring replacement of the finish machine.

Wastewater generated from concrete finishing operations shall be contained and disposed of in accordance with subsection 107.25.

1. *Hand Finishing.*

Hand finishing should be minimized wherever possible. The Engineer shall be notified prior to hand finishing work and the proposed hand finished work shall be addressed in the Quality Control Plan for concrete finishing. Unless otherwise specified, hand finishing methods will be permitted only under the following conditions. Hand finished concrete shall be struck off and screeded with a portable screed that is at least 2 feet longer than the maximum width of the slab to be struck off. It shall be sufficiently rigid to retain its shape. Concrete shall be thoroughly consoli­dated by hand vibrators. Hand finishing shall not be allowed after concrete has been in-place for more than 30 minutes or when initial set has begun unless otherwise approved by the Engineer. Finishing tools made of aluminum shall not be used.

The Contractor shall provide a Quality Control Plan (QCP) to ensure that proper hand finishing is accomplished in accordance with current Industry standards in the concrete pavement placement. It shall also identify the Contractor’s method for ensuring that the provisions of the QCP are met. The QCP shall be submitted to the Engineer at the Preconstruction Conference. Paving operations shall not begin until the Engineer has approved the QCP. The QCP shall identify and address issues affecting the quality of finished concrete pavement including but not limited to:

1. Timing of hand finishing operations
2. Methodology to place and transport concrete
3. Equipment and tools to be utilized
4. Qualifications and training of finishers and supervisors

When the Engineer determines that any element of the approved QCP is not being implemented or that hand finished concrete is unacceptable, work shall be suspended. The Contractor shall supply a written plan to address improperly placed material and how to remedy future hand finishing failures and bring the work into compliance with the QCP. The Engineer will review the plan for acceptability prior to authorizing the resumption of operations.