

SUBJECT: Plain and Decorative Portland Cement Concrete: Pre-Paving and Pavement Marking Conference

GENERAL:

The quality construction of Plain Portland Cement Concrete (PPCC) and Decorative Portland Cement Concrete Pavement (DPCC) and Pavement Markings depends on Teamwork between all relevant SHA personnel, the Contractor, Subcontractors, Decorative Concrete Installers, Manufactures, Concrete Producers, and the Pavement Marking Manufacture and Applicator and others that are directly involved with the work.

PURPOSE:

To establish a uniform procedure to implement Quality Control/Quality Assurance (QC/QA) for PPCC, DPCC and Pavement Markings.

PURPOSE OF THIS REVISION:

To add topics for DPCC

PROCEDURE:

Prior to placing concrete on a project, the Construction Project Engineer (CPE) shall conduct a conference as follows:

The CPE will notify the following representatives of the date, time and location of the conference seven days in advance.

- a. Regional Construction Engineer
- b. District Area Engineer
- c. FHWA Area Engineer (if applicable)
- d. CID Inspector(s) assigned to paving /pavement markings
- e. Area Materials Engineer
- f. Representative from Office of Materials and Technology/Structures and Pavement Inspection Division.
- g. Contractors' Foreman and Superintendent
- h. Concrete Producer
- i. Contractor's Safety Officer
- j. Pavement Marking Material Supplier
- k. Pavement Marking Striping Subcontractor Representative

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PROCEDURE: (continued)

- l. Assistant District Engineer-Traffic or Representative
- m. CID Safety Officer

The following additional attendees will be invited for DPCC

- n. Office of Environmental Design Representative
- o. DPCC installer/subcontractor (if applicable)
- p. Sampling and testing agency responsible for concrete mix design

A record of the conference will be prepared by the CPE. This record will consist of a list of those in attendance and minutes of the meeting. The minutes will be placed in the Project file and distributed to the District Engineer, Chief CID and all those in attendance at the conference.

Topics for Discussion :

Topics to be discussed regarding concrete production:

Safety requirements

Status of mix design approvals

Has plant been certified

Have truck mixers and hauling equipment been approved

Temperature and seasonal requirements for concrete and placement

Who decides go/no-go situation?

Condition of Contractor equipment and back-up equipment.

Who is responsible for testing ? Are they certified?

Is there a certified QA/QC technician assigned to the project?

Do project personnel and Contractor have copies of testing procedures?

T-119 - Slump of Portland Cement Concrete

T-152 - Air Content of Freshly Mixed Concrete by the Pressure Method

T-22 - Compression Strength

T-23 - Mixing and Curing Concrete Specimens in the Field

T-141 - Sampling Fresh Concrete

M-157 - Ready Mixed Concrete

Who specifies desired slump and air?

Who has the authority to reject concrete and for what reasons?

- 1. Slump
- 2. Air Content

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PROCEDURE: (continued)

3. Time
4. Temperature
5. Water Cement Ratio
6. Other

What procedure should be followed for failing slump?

What procedure should be followed for failing air?

1. Brand and type of admixture (source must be preapproved)

Have acceptable provisions been made for curing?

1. What material(s) will be used?
2. Is adequate protective covering available in case of sudden inclement weather?

Number of samples required? 7 days, 28 days.

1. Frequency Guide
2. Quality Assurance Samples and Tests

Where and how are samples to be cured?

1. Initial
2. For adequacy of mix design
3. All early break cylinders should be cured in the same manner as the concrete represented. SHA staff should monitor the curing of all cylinders.

Does curing box or tank meet requirements of AASHTO T-23 ?

1. Min./Max. Thermometer
2. Heated/Cooled?

Will an on-site lab be provided on the project?

How will cylinders be transported to Lab?

1. Approved box
2. Sand

Basis for acceptance and/or adjustment required

Topics specific to concrete placement to be discussed at the conference may include, but not be limited to the following:

Subgrade preparation

Review and inspection of the paving equipment 24 hours prior to use

Grade, cross slope and alignment control

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PROCEDURE: (continued)

Use of electronic controls

Width of placement

Number and type of hauling vehicles (to maintain continuous operation)

Sequence of operations:

1. Minimum width of pavement
2. Joint layout
3. Joint material
4. Joint sawing
5. Joint types
6. Reinforcing
7. Keyways
8. Tie Bar Details
9. Finishing
10. Straightedging & Pavement Profile
11. Texturing or grooving
12. Curing – including edges and keyways

Additional Topics for DPCC

1. Contractor/Subcontractor qualifications to construct DPCC
2. Materials
 - a. DPCC Mix- Modified Mix No. 6
 - b. Colorant and coloring method
 - Integral concrete colorant
 - Dry-Shake hardener colorant
3. Release agents
4. Pattern equipment
 - Stamp Mats
 - Stamp Tools
 - Texture Rollers
5. Construction
 - Sample Panel
 - Equipment for placing DPCC
 - Colorant Manufactures recommendations for placement of DPCC
 - Final finish and pattern placement

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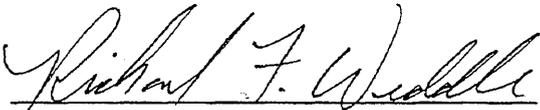
PROCEDURE: (continued)

6. Manufacture's actual certified test results of all Quality Control test conducted on the materials used for DPCC.

Topics to be discussed regarding permanent pavement markings shall include but not be limited to the following:

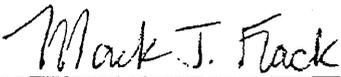
- a. Contractor's Quality Control Plan
- b. Contractor's Quality Control Testing
- c. Contractor's Certified Technician
- d. Administration's Quality Assurance
- e. Material specifications
- f. Manufacturers' recommendations
- g. Material preparation
- h. Application procedures
- i. Application equipment
- j. Temperature requirements
- k. Inspection procedures
- l. Quality Control Results/Fax to SPID, 410-321-3099, when striping is completed and ready for final inspection.

Any deviation from the approved procedures discussed at the conference shall be immediately brought to the attention of the Contractor who shall take the necessary corrective action to ensure compliance with the Contract Documents.



Chief – Construction Inspection Division

APPROVED:



Director, Office of Construction