



Florida Department of Transportation

CHARLIE CRIST
GOVERNOR

605 Suwannee Street
Tallahassee, FL 32399-0450

STEPHANIE KOPELOUSOS
SECRETARY

June 9, 2010

Monica Gourdine
Program Operations Engineer
Federal Highway Administration
545 John Knox Road, Suite 200
Tallahassee, Florida 32303

Re: Office of Design, Specifications
Section 346
Proposed Specification: **3460902 Portland Cement Concrete – Sampling Frequency.**

Dear Ms. Gourdine:

We are resubmitting, for your approval, two copies of the above referenced Supplemental Specification.

A few changes have been made based on comments received from FHWA. The changes are highlighted in yellow.

If you have any questions relating to this specification change, please contact Rudy Powell, State Specifications Engineer at 414-4280 or email at rudy.powell@dot.state.fl.us.

Sincerely,

Rudy Powell, Jr., P.E.
State Specifications Engineer

RP/dt

Attachment

cc: Gregory Jones, Chief Civil Litigation
Florida Transportation Builders' Assoc.
State Construction Engineer

PORTLAND CEMENT CONCRETE.**(REV ~~64-923-101-29-10~~ (FA 2-1-10) (7-10))**

SUBARTICLE 346-9.2 (of the Supplemental Specifications) is deleted and the following substituted:

346-9.2 Sampling Frequency:

As a minimum, sample and test concrete of each design mix for water to cementitious materials ratio, air content, temperature, slump and compressive strength once per LOT as defined by Table 8. When more than one concrete production facility is used for the same mix design, describe the method of sampling, testing and LOT numbering in the QC Plan. The Engineer will randomly verify one of every four consecutive LOTs of each design mix based on a random number generator. The Department may perform Independent Verification testing to verify compliance with specification requirements. All QC activities, calculations, and inspections will be randomly confirmed by the Department.

TABLE 8	
Class Concrete	Maximum LOT Size
I	one day's production
I (Pavement)	250 lane ft, or one day's production, whichever is less
II, II (Bridge Deck), III, IV, V (Special), V, VI	50 yd ³ , or one day's production, whichever is less
IV (Drilled Shaft)	50 yd ³ , or two hours between placements, whichever is less
III (Seal)	Each Seal placement

346-9.2.1 Reduced Frequency for Acceptance Tests: *When ten consecutive strength test results from the same mix design for a Class IV or higher class of concrete are produced at the same concrete production facility, on a given Contract have all been verified and have attained an average strength greater than two standard deviations above the specified minimum, then the LOT may represent a maximum production quantity of 100 yd³. When five consecutive strength test results from the same mix design for a Class III or lower class of concrete is produced at the same concrete production facility on a given Contract have all been verified and have attained an average strength greater than two standard deviations above the specified minimum, the LOT may represent a maximum production quantity of 100 yd³.*

The average of the consecutive compressive strength test results, based on the class of concrete, can be established using historical data from a the previous Department project. The data must also represent the same prime/subcontractor. The last tests from the previous Department project job must be within the last 60 calendar days or may also be established by a succession of samples on

the current project. Only one sample can be taken from each LOT. Test data must be from a laboratory meeting the requirements of Section 105.

If at any time a strength test is not verified and/or the average strength of the previous ten or five consecutive samples based on the class of concrete described above, from the same mix design and the same production facility is less than the specified minimum plus two standard deviations, the maximum production quantity represented by the LOT will return to 50 yd³. In order to reinitiate reduced frequency, a new set of strength test results will be required.

PORTLAND CEMENT CONCRETE.
(REV 6-9-10)

SUBARTICLE 346-9.2 (of the Supplemental Specifications) is deleted and the following substituted:

346-9.2 Sampling Frequency:

As a minimum, sample and test concrete of each design mix for water to cementitious materials ratio, air content, temperature, slump and compressive strength once per LOT as defined by Table 8. When more than one concrete production facility is used for the same mix design, describe the method of sampling, testing and LOT numbering in the QC Plan. The Engineer will randomly verify one of every four consecutive LOTs of each design mix based on a random number generator. The Department may perform Independent Verification testing to verify compliance with specification requirements. All QC activities, calculations, and inspections will be randomly confirmed by the Department.

TABLE 8	
Class Concrete	Maximum LOT Size
I	one day's production
I (Pavement)	250 lane ft, or one day's production, whichever is less
II, II (Bridge Deck), III, IV, V (Special), V, VI	50 yd ³ , or one day's production, whichever is less
IV (Drilled Shaft)	50 yd ³ , or two hours between placements, whichever is less
III (Seal)	Each Seal placement

346-9.2.1 Reduced Frequency for Acceptance Tests: When ten consecutive strength test results from the same mix design for a Class IV or higher class of concrete are produced at the same concrete production facility, on a given Contract have all been verified and have attained an average strength greater than two standard deviations above the specified minimum, then the LOT may represent a maximum production quantity of 100 yd³. When five consecutive strength test results from the same mix design for a Class III or lower class of concrete is produced at the same concrete production facility on a given Contract have all been verified and have attained an average strength greater than two standard deviations above the specified minimum, the LOT may represent a maximum production quantity of 100 yd³.

The average of the consecutive compressive strength test results, based on the class of concrete, can be established using historical data from a previous Department project. The data must also represent the same prime/subcontractor. The tests from the previous Department project must be within the last 60 calendar days or may also be established by a succession of samples on the current project. Only one sample

can be taken from each LOT. Test data must be from a laboratory meeting the requirements of Section 105.

If at any time a strength test is not verified and/or the average strength of the previous ten or five consecutive samples based on the class of concrete described above, from the same mix design and the same production facility is less than the specified minimum plus two standard deviations, the maximum production quantity represented by the LOT will return to 50 yd³. In order to reinitiate reduced frequency, a new set of strength test results will be required.