

## Bridge Deck (October 1995)

Project No. \_\_\_\_\_

Date \_\_\_\_\_

Reviewer \_\_\_\_\_

% Work Complete \_\_\_\_\_

% Time Elapsed \_\_\_\_\_

In Company with: \_\_\_\_\_

Note: References are "Portland Cement Concrete" Section 505

"Concrete Structures" Section 506

### Specification Requirements

Concrete Mix Temperature \_\_\_\_\_ ° F \_\_\_\_\_ ° F max.  
min.

Air Content% \_\_\_\_\_ to \_\_\_\_\_ %

Slump (no water reducer) \_\_\_\_\_ inches to \_\_\_\_\_ inches

Slump (water reducer) \_\_\_\_\_ inches to \_\_\_\_\_ inches

W/C Ratio \_\_\_\_\_ Gals/bag, \_\_\_\_\_ lbs/lbs

Strength \_\_\_\_\_ psi(min.)

### Plant Site

1. Which coarse aggregate gradation was selected? Check gradation results for both coarse and fine aggregates (505.2.2, p.301 and 505.2.3, p.302).
2. Is the combined minus 200 less than 1.75% (505.2.3.4, p.303)?
3. Does the coarse aggregate gradation meet the maximum size aggregate requirement(s) (505.3.1.1, p.305)?
4. Has a mix design been submitted and approved (505.3.2, p.307)?
5. Is Type II cement being used (505.2.1, p.300)?
6. Is fly ash being used? Is it from an approved source? Has maximum replacement been followed (15%) using the replacement ratio specified (1.25:1)? (505.2.5.4, p.303 and 304)
7. Are there adequate supplies of aggregate both coarse and fine (505.3.11.8, p.314)?
8. Have batch plant scales been certified (505.3.4.1, p.309)?
9. Are air-entraining agents and other approved admixtures added to water before it enters the mixer (505.3.4.4, p.309)?
10. When using two admixtures, are they kept separate so they will not be in contact prior to entering the mixing drum (505.3.4.4, p.309)?
11. Mixing - stationary mixers should have 80 seconds mixing time (505.3.4.5, p.309), and truck mixers should mix for 70 to 100 revolutions (505.3.4.8, p.309) and a minimum of 90 revolutions for front-end discharge trucks (505.3.4.8, p.309)?
12. Are transit mixer trucks properly equipped with water meters and revolution counters (505.3.6.2, p.311)?

13. W/C ratio shall not exceed the maximum specified. Is the W/C ratio being monitored? Has the W/C ratio been exceeded (505.3.6.3, p.311)?
14. If fly ash is used, has the cement been introduced into the mixer before the fly ash (505.3.4.5, p.309)?
15. If heated, the mixing water shall be heated to a temperature of not less than 70 ° F nor more than 150 ° F when introduced into the mixer (505.3.5.6, p.310)?

Remarks

### Project Site

1. Are forms properly placed and secure? Has the reinforcing steel been properly placed (506.3.1.2 and 506.3.2, p.317)?
2. Are the forms clean and oiled (506.3.2.6 and 506.3.2.7, p.318)?
3. When sampled on the deck, is the sample taken from a small pile placed in the same manner as the normal operation in front of the deck screed? Has all the grout been pumped out? (505.3.9.1, p.312)
4. Has minimum sampling and testing frequency been met (air content, slump, and strength - one per 50 yd<sup>3</sup> of concrete from Table 505-6, p.312 and section 505.3.11.4, p.314)? Has the start-up frequency and frequency after failures been met (505.3.11.3, p.314)?
5. Has an adequate storage device for test cylinders been provided at least 24 hours before concrete placement? Has it been checked out (505.3.9.2, p.312)?
6. If transit mixer trucks are used, is water added after leaving the plant? Has the W/C ratio been exceeded? If water is added, has concrete been mixed for 30 revolutions (505.3.6.3, p.311)?
7. Water shall not be added after 2 CY of concrete has been discharged (505.3.6.3, p.311).
8. Has concrete been placed within 90 minutes for temperatures below 80°F and 60 minutes if the temperature is above 80 °F (505.3.7.2, p.311)?
9. Is the concrete temperature between 50° F and 90 °F (60 ° F and 90 ° F for cold weather concreting - 506.3.9.2, p.324) at time of placement (505.3.8, p.311)?
10. Has curing compound been applied at an appropriate time (within 20 minutes of the tining operation - 506.3.14.1, p.332)?
11. Has the surface been textured as specified (1/8 inch-wide, 1/8 inch deep, and spaced randomly from 2 to 3/4 inch - 506.3.13.9, p.332)?
12. Has the deck been straight-edged during the deck placement (506.3.13.8, p.331)?
13. Review results of air content and slump for compliance with the specifications (Table 505-5, p.305).

Remarks