

702-B-303 FALSEWORK REMOVAL

(Adopted 07-21-16)

The Standard Specifications are revised as follows:

SECTION 702, BEGIN LINE 758, DELETE AS FOLLOWS:

(h) Test Beams

When portland-pozzolan cement, type IP or IP-A, is incorporated into the structural concrete elements listed below, when fly ash or ground granulated blast furnace slag is incorporated into the structural concrete elements listed below, or when field operations are being controlled by beam tests, the removal of forms, ~~supports, and housings, and the discontinuance of heating and curing~~ will be allowed when the modulus of rupture reaches or exceeds the following values:

SECTION 702, BEGIN LINE 840, DELETE AND INSERT AS FOLLOWS:

(b) Removal

Unless otherwise specified, the following shall apply to the removal of falsework and centering:

1. *Falsework under a reinforced concrete slab top not supported by beams, ~~slabs, or girders, interior bent or pier caps, and arches~~ shall, ~~in warm weather,~~ remain in place at least ~~15~~seven days after the concrete is poured ~~except, if directed, this period shall be increased~~placement and until attaining or exceeding 480 psi flexural strength. Operations on the slab may continue after achieving the required flexural strength. No additional concrete shall be cast until the falsework has been released.*
2. *Falsework under a bridge deck supported by beams or girders including the bridge deck overhang shall remain in place at least three days after concrete placement and until attaining or exceeding 480 psi flexural strength. Falsework jacks may be loosened, but not removed, and operations may continue on overhangs three days after concrete placement and after achieving the required flexural strength. Falsework jacks may be removed after seven days.*
3. *Falsework for substructure concrete, such as interior bents and pier caps, shall remain in place at least 3 days after concrete placement and until attaining or exceeding 480 psi flexural strength.*
24. *Falsework and arch centering under multiple-span arch bridges shall not be released from any one span until the adjacent and spandrel walls have cured for the required time and the next adjacent arch ring has been poured for at least 48 h.*
35. *Falsework under continuously reinforced concrete slab and girder units shall not be released from any span until the entire continuous unit has been completed and all concrete cured for the required period.*

46. For concrete poured during March, April, October, and November, or any time between April and October when the average temperature is less than 50°F, the above periods shall be increased 20%. For concrete poured during December, January, and February, they shall be increased 40%.
- ~~5. If field operations are controlled by beam tests, the provisions of 702.13(h) shall apply to the time of removal of falsework unless other provisions of these specifications prohibit removal.~~
67. Removal of supports shall be such that it enables the concrete to take the stresses, due to its own weight, uniformly and gradually.
78. The removal of falsework shall be at the risk of the Contractor. Permission for removal may be refused if it is determined that there may be resulting damage to the structure.

SECTION 702, BEGIN LINE 1172, INSERT AS FOLLOWS:

702.22 Curing Concrete

Concrete in bridge decks or the top surface of reinforced concrete slab bridges shall be cured continuously for a minimum of 168 h commencing immediately after the surface is able to support the protective covering without deformation. Curing time for bridge decks and the top surface of reinforced concrete slab bridges are not controlled by beam tests and the cure time shall not be reduced. *However, in addition to the minimum of 168 h cure period, curing shall continue until a flexural strength of 550 psi has been attained.* Curing of patches or small full depth deck replacement areas on existing bridge decks that are to be overlaid, may be controlled by test beams in accordance with 702.24(a).

Unless otherwise specified, all other concrete shall be cured for at least 96 h commencing immediately after the surface is able to support the protective covering without deformation. If portland-pozzolan cement, type IP or IP-A, or fly ash is used, the concrete shall be cured for at least 120 h. *In addition to the required hours, curing shall continue until the flexural strength stated in 702.13(h) has been attained.*
