

3460200 STRUCTURAL PORTLAND CEMENT CONCRETE
COMMENTS FROM INTERNAL/INDUSTRY REVIEW

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Comments: (11-5-21, Internal)

The following sentence in 346-2.4.2 is not needed. LWFA for internal curing is already addressed in 902-7

“The requirements for LWFA suitable for internal curing are specified in ASTM C1761.”

Response: Response: Agree. Addressed during internal review. The sentence was removed.

346-2.4.1 Optimized Aggregate Gradation: Improve the aggregate packing density at the Contractor’s option, by adding an intermediate-size coarse aggregate. Meet the requirements of Section 9.2, Volume II of the Materials Manual, on the methods used to produce combined aggregate gradation of fine, intermediate, and coarse aggregate sizes for the concrete mixes.

~~**346-2.5 Fine Lightweight Aggregate (FLWA) for Internal Curing:** Reduce the probability of cracking and improve the durability of low w/cm concrete mixes, at the Contractor’s option, by replacing some of normal fine aggregate with saturated FLWA. The requirements for FLWA suitable for internal curing are specified in ASTM C1761.~~

Updated version:

346-2.4.1 Optimized Aggregate Gradation: Improve the aggregate packing density at the Contractor’s option, by adding an intermediate-size coarse aggregate. Meet the requirements of Section 9.2, Volume II of the Materials Manual, on the methods used to produce combined aggregate gradation of fine, intermediate, and coarse aggregate sizes for the concrete mixes.

346-2.4.2 Lightweight fine aggregate (LWFA) for internal curing: At the Contractor’s option, use LWFA to reduce the early-age concrete cracking by replacing some of normal fine aggregate with saturated LWFA.

Actions: No change is needed in the proposed specification.

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Comments: (12-8-21, Industry)

Sections 2.2 & 2.3 allow a Type IT cement. However, the only cement requirement listed in section 2.1 is Section 921. Section 921 does not list IT. Either add IT to 921 or list ASTM C 595 in section 2.1 - I understand the thought of removing the words "Course" from the title of section 2.4 because a fine aggregate was introduced for internal curing. However, section 2.4 has become convoluted with only a reference to lightweight fine aggregate and not normal fine aggregate. Maybe add a simple sentence stating the default fine aggregate is silica sand?

Response: Agree. Section 921 of the July 2022 Standard Specifications will be updated in tandem with Section 346 to identify Type IT cement and ensure the two documents remain consistent. The proposed modifications have changed the title “Coarse Aggregate Gradation” to

“Aggregates” to cover special requirements for coarse and fine aggregates that have not been described in other parts of Section 346. Silica sand has been included in 346-2.1. There is no need to repeat silica sand in this Sub-article.

Actions: No change is needed in the proposed specification.
