



SUBMITTAL 03 30 00-01

REVIEWED JUN 12, 2026

Cast-in-Place Concrete — 4000 PSI Mix Design

§ 03 30 00 — Cast-in-Place Concrete · Part 2.3 Concrete Mixtures

92 /100

Substantially compliant

3 items to confirm

COMPLIANCE NARRATIVE

The submitted 4,000 PSI mix design satisfies the core requirements of Section 03 30 00 — strength, water-cementitious ratio, air content, and slump all fall within specified tolerances. The package is substantially compliant, with three items to confirm: a fly ash dosage above the specified cap, an admixture sourced outside the approved products list, and — flagged proactively — the absence of a cold-weather placement plan for the Q1 schedule. All are resolvable with documentation rather than a redesign.

WHERE IT ALIGNS

- ✓ Meets specified 28-day compressive strength (4,000 PSI) § 2.3.A
- ✓ Water-cementitious ratio of 0.44 within the 0.45 maximum § 2.3.A
- ✓ Air entrainment at 5.5% inside the 5–7% range § 2.3.C
- ✓ Slump reported at 4 in., consistent with 3–5 in. tolerance § 2.3.D

FLAGS TO CONFIRM

Fly ash substitution exceeds cap § 2.3.B.2

Class F fly ash is dosed at 25% of total cementitious material; the spec caps it at 20%. Confirm the mix qualifies for the exception.

Admixture not on approved list § 2.4.B

The water reducer is from a manufacturer not listed in the approved products. Performance data looks equivalent, but a substitution request is likely required.

No cold-weather placement plan ACI 306

Not a spec line item, but the Q1 pour schedule implies temperatures below 40°F. A protection plan is worth requesting up front.

REFERENCES: Project Spec 03 30 00 §2.3–2.4 · ACI 318 · ACI 306

AI-assisted review — final determinations rest with the engineer of record.