



DSA Structural Amendments under review are highlighted in GRAY

Template 19-42

2001 CBC - Chapter 19A
CONCRETE

Section - 1918A - PRESTRESSED CONCRETE

Subsection(s) - 1918A.21 - 1918A.21.3

1918A.21 Prestressed Flat Slab.

1918A.21.1 Span depth ratio. The ratio of the span to depth of the slab continuous over at least three supports with cantilevers at the ends shall not be greater than 40 for floor slabs or 44 for roof slabs.

1918A.21.2 Distribution of tendons. The use of banded tendons is acceptable. Maximum tendon spacing shall be six times the slab thickness, not to exceed 42 inches (1067 mm). A minimum prestress level of 125 psi (861 kPa) on the local slab section tributary to the tendon or tendon group is required. A minimum of two tendons in flat slabs shall be placed over columns in each direction. Tendons at slab edges shall be placed 6 inches (152 mm) clear of the slab edge. Tendons shall be firmly supported at intervals not exceeding 42 inches (1067 mm) to prevent displacement during concrete placement. Tendons shall not be bundled in groups greater than five monostrand tendons. At horizontal plane deviations grouped tendons at curved portions must be separated with 1-inch-minimum (25 mm) clear between each tendon.

1918A.21.3 Slab edge reinforcement. The slab edges, including interior openings with anchorages, shall be reinforced with two No. 5 bars, one top and one bottom, minimum, with a No. 3 hairpin placed each side of each anchorage or tendon carrying an effective prestressing force of 50,000 pounds (223 kN) or less. These hairpins shall be increased to No. 4 hairpins if the effective force per anchorage or tendon is greater than 50,000 pounds (223 kN).