



WINTER CONDITIONS FOR CONCRETE

Due to winter conditions, the following cold weather concreting requirements must be adhered to during construction.

Requirements for Cold Weather Concreting

According to ACI 306R-16, "If during construction it is likely that the concrete will be exposed to freezing and thawing cycles while in a saturated condition, it should be properly air entrained. Concrete should not be allowed to freeze and thaw in a saturated condition before developing a compressive strength of 3750 psi."

All concrete exposed to freeze/thaw conditions must meet the following requirements:

- Minimum concrete mix design of **3750 psi** compressive strength (or higher, e.g., 4,000 psi).
- Must be **air-entrained** (minimum of 6% air content).

Additional Requirements:

- The subgrade must be frost-free.
- All aggregates must be free of frost, with no frozen lumps.
- Air and ground temperatures must be above 40°F and rising.
- Concrete pours should be conducted **no earlier than 11:00 a.m.** and **no later than 2:00 p.m.**
- Concrete insulating blankets must be installed and securely fastened for a minimum of three (3) days to prevent freezing. Depending on the severity of the cold, blankets may need to remain in place for up to seven (7) days or longer to ensure the concrete reaches the required compressive strength before being exposed to freeze and thaw cycles.

Documentation Requirements:

- You are required to provide **concrete field-testing results, lab reports, and concrete mix design slips** for all concrete pours.
- A **description of each pour** (including relevant details like location, size, and purpose) is also required.

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