INDUSTRY NOTICE
CONCRETE ENFORCEMENT

DISTRIBUTED: **November 29, 2022**

REMINDER: Concrete Safety Managers, Construction Managers, Project Managers, and Superintendents Should Maintain Best Practices to Prevent Structural Damage to Concrete During Cold Weather Placements

Cold weather concreting practices must be instituted when the average daily air temperature is less than 40° F for more than 3 consecutive days or when the air temperature is 50° F or less for more than 12 hours in any 24-hour period. To prevent concrete damage due to freezing and ensure proper mixture, follow these safeguards:

Planning

- Conduct pre-construction meetings with the concrete supplier
- Maintain a cold weather concreting plan

Inspection

- Record surface and air temperatures and ensure no ice is present within forms prior to placement.
- Inspect the surface (subgrade, form, rebar, etc.) that is in contact with fresh concrete to ensure temperature is within limitation.

Protection

- Provide protection immediately after concrete placement. Provide extra protection to formwork corners and edges, which are vulnerable to freezing
- Maintain curing conditions that resemble normal strength development
- Remove insulation and protection slowly at the end of the required period so surface temperature decreases gradually during the subsequent 24-hour period

Temperature

- Limit rapid temperature change and monitor concrete temperature for a minimum of 24 hours after concrete is placed.
  - Cold weather mix designs may require prior approval by the EOR
  - Use of accelerators, hot water, and aggregates must be approved by the EOR
- Field inspectors from the concrete testing lab must record temperatures during concrete placement. Special inspectors from the concrete testing lab must record the temperature of the concrete in place in time intervals

For additional information, refer to **ACI 306R**, **ACI 318**, **NYC BC 2022**.