



# Building Guide

## ILLOWA Chapter of ICC

### Cold Weather Concrete Requirements



#### Concrete Contractors and Batch Plant Operators:

The following are requirements for cold weather concrete pours:

The following two temperature criteria options are necessary in conjunction with the protective measures listed below:

1. Pouring and curing will require an outside air temperature of 20 degrees Fahrenheit and rising for the entire 24 hour period of curing. Projected temperatures below 20 degrees during the 24 hour curing period will require the use of a heat source and additional inspections to maintain above freezing temperatures within the blanked forms.
2. **This option requires the use of CFA#1 batch mix.** Pouring and curing will require an outside air temperature of 10 degrees Fahrenheit and rising for the entire 24 hour period of curing. Projected temperatures below 10 degrees during the 24 hour curing period will require the use of a heat source and additional inspections to maintain above freezing temperatures within the blanked forms. **Load tickets must be supplied as substantiation that CFA#1 was used and all mixture requirements were met.**

#### Protective measures required:

- Plan ahead for enclosures, heaters or protective blankets as necessary for maintaining minimum temperatures. Materials must be on site before pouring.
- Handle concrete with a minimum of delay.
- Batch plants should be notified of the minimum placement temperature of 55 degrees or warmer for concrete temperature. This is the on site placement temperature of the concrete mixture.
- Use air entrained concrete.
- No concrete shall be placed on frozen sub-grade. Remove snow, ice and frost from sub-grade and all surfaces before pouring concrete.
- Cold weather procedures shall be observed to maintain a minimum temperature of above freezing by use of eight inches (8") of straw held in place by thermal blankets or plastic sheets. Maintain minimum recommended curing temperatures of the form work within the blanket and straw at above freezing (32 degrees Fahrenheit) for twenty-four (24) hours after placement.

DISCLAIMER: ILLOWA Chapter of the ICC has created this handout to assist with plans submittal under the 2009 International Residential Code, and it is not intended to cover all circumstances. Please check with the Department of Building Safety for additional requirements.