



September 6, 2022

MEMORANDUM: Current State of Cement Supply

Background:

The department is aware that cement supplies have become tighter than anticipated for this part of the construction season. All the approved cement sources are operating at full capacity and are supplying a constant stream of cement to Wisconsin via the Mississippi River, Great Lakes, and railways. The supply issues are related to supply chain disruptions and higher than average demand for cement across the nation.

The Effects:

The cement supply disruption has prompted suppliers to allocate some of their customers. What this means is the cement supplier can only supply them with a certain tonnage of cement per week. This has caused a slow-down in concrete production which can cause project schedules to become affected. The other side-effect is the increased need for contractors to change sources of cement on an approved mixture design. There is a procedure that must be followed if the contractor wants to change the cement source.

Cement Source Change to previously submitted Concrete Mix Design:

The **only** acceptable cement source change is to use a source that is currently on WisDOT's APL. This action will only be valid until **12/31/2022**. *This is the following process:*

Class I Concrete

- A change in cement source must be submitted to the engineer for approval 3 days prior to placement (November 2021 ASP6: 710.4 (4))
- A cement source change still needs trial batching, but the mixture design has preliminary concurrence to be used. Trial batching will still need to be performed including strength specimens. The specimens will need to be cast during the trial batching and the mixture is allowed to be placed prior to having the strength test results.
 - Trial batching strength specimens:
 - Satisfactory Trial Batching Strength Specimens **AND** Satisfactory Field Strengths
 - ❖ Mix design is allowed to be used on future projects.
 - ❖ Current project is evaluated as if trial batching was completed prior to placing concrete.
 - Failing Trial Batching Strength Specimens **AND** Satisfactory Field Strengths
 - ❖ Mix design is NOT allowed to be used on future projects.
 - ❖ Current project is evaluated as if trial batching was completed prior to placing concrete.
 - Failing Trial Batching Strength Specimen **AND** Failing Field Strengths
 - ❖ **STOP placement of mix design.**
 - ❖ Submit a new mix design and follow timelines and requirements in the Standard Specification and applicable ASP 6.
 - **Documentation Requirements:**
 - Amend Quality Control Plan to reflect source change
 - Provide updated mixture design forms with new source
 - Provide mill certification from new source
 - Generate new Contractor and MRS Mix ID (132 report prefix)
 - Generate new lots and sublots

Class II Concrete

- A change in cement source must be submitted to the engineer for approval 3 days prior to placement (November 2021 ASP6: 710.4 (4)).
- Concrete will be evaluated according to Standard Specification and applicable ASP 6.
- **Documentation Requirements:**
 - Amend Quality Control Plan to reflect source change
 - Provide updated mixture design forms with new source
 - Provide mill certification from new source
 - Generate new Contractor and MRS Mix ID (132 report prefix)
 - Generate new lots and sublots