

## Ohio Department of Transportation Mike DeWine, Governor Jack Marchbanks, Ph.D., Director

1980 W. Broad Street, Columbus, OH 43223 614-466-7170 transportation.ohio.gov

February 10, 2022

**To:** Industry and ODOT Representatives

From: Jordan Zamary, PE

Cement and Concrete Engineer

Re: Portland-Limestone Cement, ODOT CMS Item 701.15 and Supplement 1126

Industry and ODOT Representatives,

As many of you are aware, the transition to Type 1L cement is underway for many certified cement suppliers in our region (Supplement 1028). This material has minor differences than the typical Type I or I/II cement currently being used in production of portland cement concrete mix designs. The desire for the Type IL or portland-limestone cement (PLC), is to help be more environmentally friendly in the production of cement, and also lessen the carbon footprint on the job site. While PLCs have been on the certified list for many years, the desire to lessen the carbon footprint has become more in demand by the EPA, and other environmental initiatives. The Department is making an attempt to assist with this initiative and assist with lowering our carbon footprint where possible.

The Office of Materials Management has received test data from Ohio Concrete, by way of multiple certified cement suppliers, to review and determine our next steps forward. This data has shown a strong correlation in performance to Type I/II cement, with the largest differences being found in response to admixtures, development of entrained air, and time of set parameters. Supplement 1126 currently requires new testing be performed when a cement type is changed in the mix, it is understood that this will become burdensome for both the supplier and the AASHTO Accredited Laboratory community (when required). With the previous item in mind, ODOT will be allowing a 1 for 1 swap from Type I, (I/II), to Type IL without the need for new testing following Supplement 1126. Increasing the cement/cementitious content on the approved mix design will not be an acceptable practice and defeats the purpose of the change to Type IL cement. The readymix supplier will notify the contractor, Project Engineer, and District Concrete Monitor of the intended date to switch over to Type IL. Do not comingle Type I and Type IL cement on any construction items (i.e., bridge deck, parapet, columns, etc.). Mix designs selected by the contractor must be submitted following the guidance in Supplement 1126.03, prior to use on the contract.

Going forward, suppliers and contractors will maintain responsibility for meeting specifications for placed material, and that this transition should be undertaken with caution. Adjust batching software to show Type IL on the computer-generated ticket to track when the substitution is made on the mix design. Handwriting batch information on tickets is not an acceptable practice, unless otherwise approved by the Department in writing.

Questions or concerns with regards to this item will be addressed by the Office of Materials Management. Please reach out to Jordan Zamary at (614) 275-1325 or <u>Jordan.Zamary@dot.ohio.gov</u>.

Regards,

Jordan Zamary, PE

Cement and Concrete Engineer

Dan Miller, PE Administrator