SECTION 00440 - COMMERCIAL GRADE CONCRETE

(Follow all instructions and make all edits with "Track Changes" turned on. If there are no instructions [purple text] above a subsection, paragraph, sentence, or bullet, then include it in the project. Delete all purple text before preparing the final document. All other modifications to this Section will require ODOT Technical Resource and State Specifications Engineer approval.)

Comply with Section 00440 of the Standard Specifications modified as follows:

00440.11 Proportions - Replace the paragraph that begins "Furnish, in writing to the Engineer …" with the following paragraph:

Provide, in writing to the Engineer, the proportions by weight of the following Materials before using any CGC:

00440.12 Properties of Commercial Grade Concrete - Replace the bullet that begins "**Entrained Air**…" with the following bullet:

- **Entrained Air** - 4.0 to 7.0 percent
  - Entrained air not required for precast elements utilizing dry cast mix designs.

00440.13 Field-Mixed Concrete - Replace the paragraph that begins "CGC Work items listed in 00440.14(a)…" with the following paragraph:

CGC Work items listed in 00440.14(a) may be field-mixed conventionally, or by volumetric/mobile mixers according to ASTM C685. When approved, concrete sidewalks, concrete curb ramps, concrete driveways, and other flat concrete surfaces may be field-mixed using volumetric/mobile mixers according to ASTM C685, request approval prior to placement. For all other CGC applications, submit written request to the Engineer for approval to use volumetric/mobile mixers according to ASTM C685 at least 21 Days prior to placement.

00440.14(a) General - Replace the paragraph that begins "Acceptance sampling…" with the following paragraph:

Acceptance sampling and testing is based on tests performed by the Contractor's QCT from samples obtained at the site of placement from the discharge of the delivery vehicle.

00440.40(b) Placing - Replace the paragraph that begins "Place CGC…" with the following paragraph:

Place CGC according to the appropriate Sections where CGC is required and the following:

00440.40(c) Forms - Replace the paragraph that begins "Provide forms for CGC …" with the following paragraph:

Provide forms for CGC according to the appropriate Sections where CGC is required and best common practices. Place to the lines and grades shown or directed.

00440.40(e) Curing - Replace this subsection, except for the subsection number and title, with the following:

Cure CGC for a minimum of 7 Calendar Days by one of the following methods:

- Cover with wet burlap, canvas, Sand, or other acceptable Material, and keep moist.
- Apply curing compounds at a rate of not less than 1 gallon per 150 square feet. Do not use on surfaces that come into contact with adjacent pours and avoid overspray on exposed reinforcement. Use curing compounds according to the following:

Table 00440-1

Section	Item	Type 1 or 1-D (Clear)	Type 2 (White-Pigmented)
00480	Drainage Curbs	*	*
00599	Slope Paving Curbs and Berm Paving	Yes	No
00759	Walks, Curb Ramps, Driveways, Surfacings, Curbs, and Islands	*	*

*Use Type 2 except when the Engineer requires Type 1 or 1-D