# KANSAS DEPARTMENT OF TRANSPORTATION SPECIAL PROVISION TO THE STANDARD SPECIFICATIONS, 2015 EDITION

# Delete SECTION 843 and replace with the following:

#### **SECTION 843**

#### FLOWABLE FILL

#### 843.1 DESCRIPTION

Backfill the designated structures or excavations with flowable fill.

BID ITEM
Flowable Fill (\*)
\*Low Strength or High Strength

## 843.2 MATERIALS

**a. General.** Provide materials that comply with the applicable requirements.

Fine Aggregate	DIVISION 1100
Cement and Fly Ash (approved for stabilization & cold recycle)	
Water	DIVISION 2400

The Engineer will approve the use of admixtures to achieve flowability and acceptable set time, based on performance.

**b. Mix Design.** Design a flowable fill mixture that possesses adequate flow characteristics to fill all voids, and complies with the compressive strength and unit weight requirements shown in **TABLE 843-1**.

TABLE 843-1: REQUIREMENTS FOR FLOWABLE FILL MIXTURE		
	LOW-STRENGTH MIXTURE	HIGH-STRENGTH MIXTURE
7 Day Compressive Strength (minimum)	-	50 psi
28 Day Compressive Strength	50-125 psi	1000 – 2500 psi
Unit Weight (maximum)	125 pcf	<del>-</del>

Obtain approval from the District Materials Engineer for the job mixture. Supply 28-day compressive strength information for low-strength mixtures, or 7 and 28-day compressive strength information for high-strength mixtures, along with the mix design.

- **c. KDOT Assurance and Acceptance.** The Engineer will make test cylinders for each 100 cubic yards of flowable fill placed, and whenever the mixture is changed. The cylinders will be made and tested according to **DIVISION 2500**.
  - For the low-strength mixture, 2 cylinders will be made. The 1<sup>st</sup> cylinder will be tested on the 28<sup>th</sup> day. The 2<sup>nd</sup> cylinder will be held in reserve to verify any questionable cylinder breaks.
  - For the high-strength mixture, 3 cylinders will be made. The 1<sup>st</sup> cylinder will be tested on the 7<sup>th</sup> day. The 2<sup>nd</sup> cylinder will be laboratory cured and tested on the 28<sup>th</sup> day. The 3<sup>rd</sup> cylinder will be held in reserve to verify any questionable cylinder breaks.
  - For the low-strength mixture, the Engineer will test the unit weight a minimum of every 50 cubic yards of flowable fill placed.
  - The Engineer will accept the flowable fill based on the results of the compressive strength for both low-strength and high-strength mixtures, unit weight tests for low-strength mixtures, and visual inspection of the mixture placed on the project.

# 843.3 CONSTRUCTION REQUIREMENTS

Place the flowable fill in the excavation so all voids around the structure or in the excavation are filled. Place the flowable fill around structures in lifts preventing the buildup of excess hydrostatic pressure. Observe the weather limitations specified in **DIVISION 400** when placing the flowable fill.

## 843.4 MEASUREMENT AND PAYMENT

The Engineer will measure flowable fill placed in the specified locations by the cubic yard. Payment for "Flowable Fill" at the contract unit price is full compensation for the specified work.

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