

**CONCRETE MIX DESIGN
FOR
LOVELAND READY MIX CONCRETE**

Re: CDOT State Spec Flow Fill

Mix Number: 021 FLOW FILL

Minimum 28-Day Compressive Strength - 50 PSI

Removability Modulus: 1.17 (RM needs to be 1.5 or less as per CDOT spec)

Maximum Aggregate Size - 3/4" - ASTM/AASHTO Size No. 67 Blend

Type I - II Portland Cement GCC ASTM C 150

Mix Proportions (Per Cubic Yard of Concrete)

Absolute Volume

Cement - .50 sack	35 #	0.18 Ft. ³
Fly ash - 46% Replacement	30 #	0.17 Ft. ³
3/8" Aggregate, ASTM C 33 Size No. 67	590 #	3.55 Ft. ³
3/4" Aggregate, ASTM C 33 size No. 67	995 #	6.02 Ft. ³
Sand - ASTM C 33	1685 #	10.27 Ft. ³
Water - 40 gals.	334 #	5.34 Ft. ³
Air - 2.5% Entrapped		1.62 Ft. ³
Total	3669 #	27.15 Ft. ³

Water-Cement Ratio – 5.13 (By Weight)

Theoretical Unit Weight – 135.10

Theoretical Yield - 27.15

% Sand of Total Aggregate - 52%

Aggregated weights based on saturated surface dry.