CONCRETE MIX DESIGN FOR JOHNSTOWN READY MIX CONCRETE

Re: COFC annual Mix Submittal General Contractor: City of Fort Collins – Fort Collins, Colorado

Mix Number: 076 CDOT Class B and D

Minimum 28-Day Compressive Strength 4500 PSI Maximum Aggregate Size - 3/4" Type I - II Portland Cement GCC ASTM C 150 Fly Ash - Boral Material Technologies Inc. Class C ASTM C 618-97 Air Entraining Agent - Sika Air ASTM C 260 Water Reducing Agent – Mid Range Sikament 686, ASTM C 494 (Type F), Low Range Plastocrete 161, ASTM C 494 (Type A)

Slump - 5" Max.

Mix Proportions (Per Cubic Yard of Concrete)

Absolute Volume

Cement	7.02sk	528 #	2.69	Ft. ³
Fly Ash	20 % Replacement	132 #	.77	Ft. ³
Water	31 gal	258 #	4.13	Ft. ³
WRDA-Mid 5 oz/100 wt. Cementitious Material		33 oz		
WRDA-Low 3 oz/100 wt. Cementitious Material		20 oz		
Air - 5% - 8%			1.62	Ft. ³
3/4" Aggregate, ASTM C 33 Size No. 67		1625 #	9.84	Ft. ³
Sand - ASTM C 33		1335 #	8.14	Ft. ³
	Total	3880 #	27.19	Ft. ³

Water-Cement Ratio -	.39	(By Weight)	
Water-Cement Ratio -	4.42	Gallons/Sack of Cementitious Material	
Theoretical Unit Weight – 142.70			
Theoretical Yield -	27.19		
% Sand of Total Aggregate - 45%			

Aggregated weights based on saturated surface dry.