



American Concrete Institute®
Advancing concrete knowledge

SCC in Repair Applications

ACI Spring 2013 Convention
April 14 - 16, Minneapolis, MN

ACI
WEB SESSIONS

Prepackaged SCC for Repairs and Case Studies

presented by

Mike Cook, Quality Control Manager, Granite Rock
Company, Redwood City, CA

ACI
WEB SESSIONS

Dumbarton Bridge Labor Day Weekend

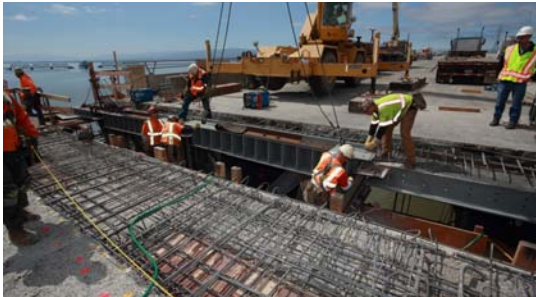


Share Our Key Learnings Case Study

1. The need for very specific detail up front about the project and project spec are vital.
2. Specialty concrete can be a challenge to technical groups with limited aggregate resources.
3. Preparation for use of SCC has added complexity. Successful execution includes determination of all variables that might occur during production and placement.

Understanding What Is Promised At Bid Time

Did we completely understand SCC requirements at bid time?



Mix Specification



Getting the Right Cocktail



Available Aggregates

1/2" A.R. Wilson Quarry
Aggregate, Aromas, California



Available Aggregates

A.R. Wilson Quarry Washed
Sand, Aromas, California



Available Aggregates

Quail Hollow Quarry, Felton,
California



Concrete Mix Proportions

Basic Mix Data					
Ingredient	Relative Density	Volume (cu.ft.)	Weight (lbs./SSD)	Vol (cu.m.)	Wt (kg/SSD)
Cement (Type II)	3.15	4.07	800	0.15	474
Fly Ash		0.00	0	0.00	0
Water	32.0 (gal)	0.00	9	0.00	0
Air		4.39	274	0.16	162
		0.59	0	0.02	0
		0.00	0	0.00	0
		0.00	0	0.00	0
Gravels 1/2"	2.8	9.07	1585	0.34	938
		0.00	0	0.00	0
		0.00	0	0.00	0
		0.00	0	0.00	0
		0.00	0	0.00	0
Gravels Sand	2.71	7.20	1218	0.27	721
		0.00	0	0.00	0
		0.00	0	0.00	0
QB Washed	2.6	1.34	217	0.05	129
TOTALS:		26.66	4094	1.00	2423
Admixtures and Additives					
Weight (lb/cu yd)	Weight (kg/cu yd)	Weight (lb/cu yd)	Weight (kg/cu yd)	DCI	
Dispers 1000	0	0.00	0	Eclipse	0
WRDA 44	0	0.00	0	Other Adm.	0
ADVA	13	104.00	RECOVER	2	16.00
				Other Adm. Wt	80.00 yd

Proving Out at the Plant



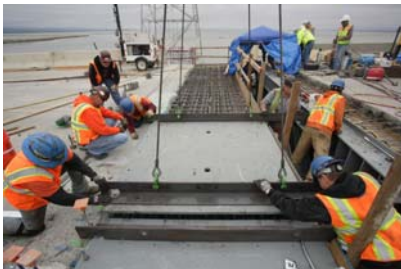
Plant Trials



Field Trial



Placing Joint Plates



Memorial Day Weekend First Placement

