

Optimizing Portland cement concrete mix design to environmental and construction variables with the aid of computer design software

by

Sybil K. Reinert

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James K. Cable, Major Professor  
Vernon Schaefer  
Stephen Vandeman  
Kevin Wang

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**Summary :** Free optimizing portland cement concrete mix design to environmental and construction variables with the aid of computer design software pdf download - there is a need in the concrete industry to optimize the characteristics of concrete for construction concrete mixture performance analysis system compass is a computer-based program designed to help contractors and clients evaluate their concrete mix designs compass was used to evaluate the characteristics of four iowa paving mixes paving projects were selected from areas of iowa to incorporate the different aggregates and cement producers the following paving projects were selected to evaluate compass cass county hwy 71 in southwest iowa sac county hwy 175 in central iowa osceola county hwy 60 in northwest iowa and wapello county u s 63 in southeast iowa it was found that for each project compass yielded mix proportions similar to the actual project mix designs compass found only minor material incompatibilities for any projects the program provided multiple warnings for each project about concrete characteristics that are caused by certain materials within the mixes

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