

Use of Rapid Curing Concrete to Optimize Project Schedule

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ABSTRACT: Rapid curing concrete construction entails many methods for accelerating construction. Regular acceleration methods include time incentives for project completion. Many construction companies have been using these time incentives for many years, and often contractors will meet these requirements by increasing the size of construction labor. Rapid fast curing concrete construction techniques a contractor can often complete a project without increasing team size or changing normal labor schedules.

This project optimized the project schedule by adopting a suitable method to prepare a mix design of rapid curing concrete. After completion of an experimental program, results are compared to those of normal curing days using MSP. The aims are achieved by arriving at a favorable solution to industrial projects in terms of time and money saving. The comparison of results with normal curing days yields the cost-benefit ratio.

Key Words: Rapid curing concrete, Optimize project schedule, MSP, Cost-benefit ratio.

I. INTRODUCTION

In the post-downturn period of the past five to six years, more owners protest on accelerated schedules. Institutions that needed to delay execution of projects in 2009 to 2011 are pressured to “back down” the delays, and fast-track is often the result. Others see a competitive advantage in improving their speed-to-market to establish or increase their foothold in an emerging field. Finally, some are attempting to reduce escalation of construction costs in a now-growing market or eliminate the “lost profit” of uncompleted, revenue-generating facilities. Rapid curing concrete construction resolves these problems by providing high-quality, long-lasting construction with quick public

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access. Rapid curing concrete techniques are suitable for new construction, reconstruction or resurfacing projects.

Rapid curing of concrete construction entails many methods for accelerating construction. Traditional acceleration methods include time incentive for project completion. Agencies have been using these completion-date incentives for many years, and often contractors will meet these requirements by lengthening the work day or increasing the size of construction crews. Rapid fast curing concrete construction techniques a contractor can often complete a project without increasing crew size or changing normal labor schedules.

Rapid curing concrete construction techniques allow contractor to consider concrete for projects thought unreal because of lengthy concrete cure-times. Some specifications require cure intervals from 15 to 21 days. With rapid curing concrete techniques concrete can undergo strengths in less than 24 days.

To build a fast-track project, both the contractor must make some changes to conventional construction processes. Often this entails high-early-strength (Rapid curing) concrete it reduces the total work days required to complete a work by minimizing a curing period of concrete. These project components can decrease construction time, required manpower and cost of the project.

1.1 OBJECTIVES

The main objective of this work is to optimize project schedule by using rapid curing concrete:

- To overcome the problem of delay in construction by using rapid curing concrete.

