

TECHNICAL REPORT TITLE PAGE

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3. TITLE AND SUBTITLE Fast Track and Fast Track II Cedar Rapids, Iowa	4. TYPE OF REPORT & PERIOD COVERED Final Report, 10-88 to 11-93
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8. ABSTRACT <p>Two lanes of a major four lane arterial street needed to be reconstructed in Cedar Rapids, Iowa. The traffic volumes and difficulty of detouring the traffic necessitated closure for construction be held to an absolute minimum. Closure of the intersections, even for one day, was not politically feasible. Therefore, Fast Track and Fast Track II was specified for the project.</p> <p>Fast Track concrete paving has been used successfully in Iowa since 1986. The mainline portion of the project was specified to be Fast Track and achieved the opening strength of 400 psi in less than twelve hours.</p> <p>The intersections were allowed to be closed between 6 PM and 6 AM. This could occur twice - once to remove the old pavement and place the base and temporary surface and the second time to pave and cure the new concrete. The contractor was able to meet these restrictions. The Fast Track II used in the intersections achieved the opening strength of 350 psi in six to seven hours.</p> <p>Two test sections were selected in the mainline Fast Track and two intersections were chosen to test the Fast Track II. Both flexural and compression specimens were tested. Pulse velocity tests were conducted on the pavement and test specimens. Maturity curves were developed through monitoring of the temperatures. Correlations were performed between the maturity and pulse velocity and the flexural strengths. The project was successful in establishing the feasibility of construction at night, with no disruption of traffic in the daytime, using Fast Track II. Both the Fast Track II pavements were performing well four years after construction.</p>	
9. KEY WORDS Portland cement concrete Fast track concrete Rapid set concrete, early opening	10. NO. OF PAGES 30