

FINAL REPORT
FOR
INCENTIVE-DISINCENTIVE CLAUSE
CONDUCTED AS
A
FEDERAL HIGHWAY ADMINISTRATION
EXPERIMENTAL PROJECT

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BY

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Final Report of Incentive-Disincentive Clause
Project No. F-65-4(34)--20-77
Polk County
Concrete Pavement

It is generally recognized that necessary highway improvements in high traffic areas must be accomplished in such a manner as to minimize inconveniences and exposure to safety hazards for the traveling public. With this tenet in mind, an incentive-disincentive provision was developed and attached by specification to the contract for this project.

Special Provision 549, page 2, dated March 15, 1984, entitled Special Provision for Incentive for Early Completion allowed additional payment to be made to the contractor at the contract established rate for liquidated damages for each working day remaining in the contract period after full traffic service had been restored. A maximum payment of 10% of the contract amount was specified.

This project was let on March 15, 1984, and awarded to Cedar Valley Corporation of Waterloo, Iowa, for \$4,432,752.50. In addition to the provision described above, other requirements included a 6-day work week, no winter free-time after November 15, and an approximate starting date of April 2, 1984, with 160 working days allowed. The liquidated damage rate was \$800 per day.

Work on the 2-mile project began on April 4, 1984, with the first of five stages involved. Besides his own activities, the contractor was responsible for coordinating the work of 13 subcontractors who performed approximately 35% of the original contract work. Eighty original contract items and over 63 additional items added by 37 extra work orders were involved. Early progression was hampered by adverse weather and utility relocations, however, throughout the construction period, work was performed on only one Sunday and one holiday. After initial delays, progress was very good and the requirements of the early completion incentive were met on November 4, 1984, when the project and side streets were fully reopened to traffic with only 119 working days assessed. An incentive bonus of \$32,800 for 41 days at \$800 per day was authorized by extra work order.

The contractor reported that because of uncertainties regarding progress inherent in this type of project, he did not revise his bidding to reflect an anticipated bonus for early completion. However during actual construction, longer hours were worked and extra crews assigned when a potential for time savings was evident. The contractor stated that the clause encouraged efforts to improve progress and expedite the work when possible.

Based on the excellent results achieved with this project, it is recommended that the Incentive-Disincentive Clause be utilized on future selected projects where minimization of interference with normal traffic flow is desirable.

WORK PLAN FOR INCENTIVE - DISINCENTIVE CLAUSE

Project No. F-65-4(34)--20-77

Polk County

Concrete Pavement

I. Purpose

There is an urgent need to complete projects in high traffic urban areas in the shortest possible time. These road user benefits resulting from faster construction will minimize public inconvenience, safety hazards and a total cost to the public.

The incentive - disincentive clause in the contract will encourage the contractor to expedite all phases in the contract. A copy of this special provision is part of this work plan and other details of construction are included in the plan and specification of Project F-65-4(34)--20-77.

II. User Cost Calculations

Traffic is to be maintained on two lanes for approximately 2.0 miles while construction work is performed on the other two lanes. The \$800 per day incentive cost is twice the normal liquidated damages per day.

III. Evaluation

The contractors work and rate of progress will be monitored during the project. The contractor will be interviewed as the project nears completion to provide an evaluation on the effect the incentive - disincentive clause had on his bidding, the work scheduling, and to determine how much, if any, the work was expedited by this clause.

IV. Reporting

The report on the results of the incentive - disincentive plan will be submitted within four months of the project completion. The report will include recommendations as to the future use of this bidding clause.

The Construction Office and Contracts Office will participate in the evaluation and the Office of Construction will prepare the final report.

EXPERIMENTAL PROJECT REPORT

EXPERIMENTAL PROJECT	EXPERIMENTAL PROJECT NO. STATE YEAR NUMBER SUF. I A 8 4 - 0 1	CONSTRUCTION PROJ. NO. 8 F-65-4(34)--20-77	LOCATION In Des Moines 28 Polk County		
	EVALUATION FUNDING 1 <input type="checkbox"/> HP&R 3 <input type="checkbox"/> DEMONSTRATION 48 2 <input checked="" type="checkbox"/> CONSTRUCTION 4 <input type="checkbox"/> IMPLEMENTATION	NEEP NO. 49	PROPRIETARY FEATURE? <input type="checkbox"/> YES <input type="checkbox"/> NO 51		
SHORT TITLE	TITLE 52 Incentive-Disincentive Contract				
THIS FORM	DATE MO. YR. 140 0 4 - 8 4	REPORTING 1 <input checked="" type="checkbox"/> INITIAL 2 <input type="checkbox"/> ANNUAL 3 <input type="checkbox"/> FINAL 144			
KEY WORDS	KEY WORD 1 145 Construction	KEY WORD 2 167 Management			
	KEY WORD 3 189 Contract	KEY WORD 4 211 Incentive-Disincentive			
	UNIQUE WORD 233	PROPRIETARY FEATURE NAME 255			
CHRONOLOGY	Date Work Plan Approved: MO. YR. 277 0 3 - 8 4	Date Feature Constructed: MO. YR. 281	Evaluation Scheduled Until: MO. YR. 285 1 2 - 8 4	Evaluation Extended Until: MO. YR. 289	Date Evaluation Terminated: MO. YR. 293
QUANTITY AND COST	QUANTITY OF UNITS (Rounded to whole numbers) 160 working days 297	UNITS 1 <input type="checkbox"/> LIN. FT. 5 <input type="checkbox"/> TON 2 <input type="checkbox"/> S.Y. 6 <input type="checkbox"/> LBS. 3 <input type="checkbox"/> S.Y.-IN. 7 <input checked="" type="checkbox"/> EACH 4 <input type="checkbox"/> C.Y. 8 <input type="checkbox"/> LUMP SUM 305	UNIT COST (Dollars, Cents) \$ 8, 0, 0, 0, 0 306		
AVAILABLE EVALUATION REPORTS	<input type="checkbox"/> CONSTRUCTION 315	<input type="checkbox"/> PERFORMANCE	<input type="checkbox"/> FINAL		
EVALUATION	CONSTRUCTION PROBLEMS 1 <input type="checkbox"/> NONE 2 <input type="checkbox"/> SLIGHT 3 <input type="checkbox"/> MODERATE 4 <input type="checkbox"/> SIGNIFICANT 5 <input type="checkbox"/> SEVERE 318		PERFORMANCE 1 <input type="checkbox"/> EXCELLENT 2 <input type="checkbox"/> GOOD 3 <input type="checkbox"/> SATISFACTORY 4 <input type="checkbox"/> MARGINAL 5 <input type="checkbox"/> UNSATISFACTORY 319		
APPLICATION	1 <input type="checkbox"/> ADOPTED AS PRIMARY STD. 2 <input type="checkbox"/> PERMITTED ALTERNATIVE 3 <input type="checkbox"/> ADOPTED CONDITIONALLY 320		4 <input type="checkbox"/> PENDING 5 <input type="checkbox"/> REJECTED 6 <input type="checkbox"/> NOT CONSTRUCTED		(Explain in Remarks if 3, 4, 5, or 6 is checked)
REMARKS	321 Reconstruction on U.S. 65 and 69 in the city of Des Moines from Army Post Road north to Pleasantview Drive.				