#### AGREEMENT FOR TECHNICAL ASSISTANCE BETWEEN THE SECRETARY OF TRANSPORATION AND KANSAS STATE UNIVERSITY

### SUPPLEMENTAL AGREEMENT

This agreement, made and entered into this 19<sup>th</sup> day of Nov 2004 for Technical Assistance between the Secretary of Transportation of the State of Kansas, hereinafter referred to as Secretary, and Kansas State University, hereinafter referred to as KSU.

#### **RECITALS:**

WHEREAS, the Secretary and KSU entered into an Agreement for Technical Assistance, hereinafter referred to as "Original Agreement" for the Project entitled "Thin Bonded Rigid Overlay on PCC and HMA Pavements."

WHEREAS, funding for this Project originates with the Kansas Department of Transportation as part of its K-TRAN Research Program, award number KSU-C1436.

**WHEREAS**, the Secretary agrees to provide additional funds of \$64,957 to perform the work described in Attachment A.

**NOW, THEREFORE,** the Secretary and KSU in consideration of the need to clarify the Original Agreement the Parties hereto agree to as follows:

#### Section 3. Basis of Payment.

The Secretary agrees to reimburse KSU an additional amount not to exceed \$64,957 in accordance with the proposed budget, (attached), to cover the cost of the work described in Attachment A. The total amount available for reimbursement under the Agreement shall not exceed \$334,930.

All other terms and conditions of the Original Agreement for Technical Assistance, dated September 5, 2003, shall remain in force.

KSU

Paul R. Lowe

Assist. Vice Provost for Research

Debra Miller Secretary of Transportation

Warren L. Sick Assistant Secretary and State Transportation Engineer

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## ATTACHMENT A

November 1, 2004



Engineering Experiment Station 148 Rathbone Hall Manhattan, KS 66506 -5202 785-532-5844 Fax: 785-532-7810

Mr. Richard McReynolds KDOT Materials & Research Center 700 SW Harrison St. Topeka, KS 66603-3754

## Re: CISL Project #13 (Thin Bonded Rigid Overlay on PCC and HMA Pavements) KSU Account 5-33012

This letter is to request additional funds for the completion of the project. The funds are necessary because of additional loading needs to be applied to the four pavement structures constructed for this experiment. To achieve the objectives of this research, accelerated loading must be continued until pavements will exhibit or joint faulting cracking. More than 2 million passes (only 1.2 million were initially budgeted) of the single axle bogie have been applied to two pavements with thin whitetopping and no severe deterioration has been observed. Considering the work needed to apply the additional accelerated loading, additional funds of \$64,957 are requested.

If you approve the additional funds, please sign both copies of the supplemental agreement and return one copy to this office. Thank you,

Sincerely,

Stefan A. Romanoschi Assistant Professor of Civil Engineering Kansas State University

# Proposed Budget Increase

For the Period 10/01/04 to 03/1/05

For the Period 10/01/04 to 03/1/05		
	KDOT	KSU
A. SALARIES, WAGES & FRINGE BENEFITS		
1 Principal Investigator: Stefan Romanoschi		
0.2 time, 3 months academic year '04-'05	2,453	2,453
0.0 time, 0 month summer 2005	0	
0.0 time, 5 months academic year '05-'06	0	0
2 Co-Principal Investigator: Mustaque Hossain		
0.0 time, 0 months academic year '04-'05	0	0
0.0 time, 0 month summer 2005	0	
3 Research Technologist (Paul Lewis)		
1.0 time, 6 months year '04	24,500	
1.0 time, 0 months year '05	0	
4 Graduate Research Assistant		
1 @ 0.5 time, 6 months calendar year (PhD)	8,775	
1 @ 0.5 time, 6 months calendar year (PhD)	0	
5 Undergraduate Students	3,000	
6 Fringe Benefits		
32.5% of A1- A3, 5% of A4 & 1.4% of A5	9,241	797
Subtotal Salaries, Wages and Fringe Benefits	47,969	3,250
B. EQUIPMENT		
Instrumentation	0	
C. MATERIALS AND SUPPLIES	500	
D. TRAVEL - DOMESTIC	0	
E. OTHER DIRECT COSTS		
1 Fees for ATL equipment usage	0	
2 Service for soil and pavement placing and removal	1,000	
3 In-state Tuition - Graduate Student (Full)		
3 hrs. Summer; 9 hrs. Fall & Spring	2,500	
4 Telecommunication, Duplication	100	
Subtotal Other Direct Costs	3,600	
Total Direct Costs	52,069	2 250
	52,009	3,250
F. FACILITIES AND ADMINISTRATIVE COSTS		
26 % of MTDC	12,888	
46 % of MTDC	12,000	1,495
46 % of MTDC less sponsor share		9,914
		0,017
TOTAL PROJECT COST	64,957	14,659
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