

**AGREEMENT FOR TECHNICAL ASSISTANCE  
BETWEEN THE SECRETARY OF TRANSPORTATION  
AND THE  
UNIVERSITY OF KANSAS  
Modification No. 1  
March 25, 2003**

This document modifies the Agreement for Technical Assistance between the Secretary of Transportation of the State of Kansas, hereinafter referred to as "Secretary" and the University of Kansas, hereinafter referred to as "KU," which was effective September 9, 2002, for the project entitled "Construction of Crack-Free Concrete Bridge Decks." Modification No. 1 provides supplemental funds as authorized by the Secretary of Transportation. The following wording supplements the language in the original Agreement for Technical Assistance:

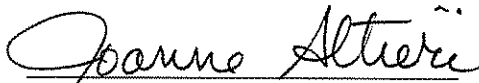
**Section 3. Basis of Payment**

The Secretary agrees to reimburse KU a supplemental amount of \$120,000 for the work completed and actual costs incurred in performance of the Agreement in accordance with the Supplemental Proposal and revised budget that is Attachment 1, in an amount not to exceed a total price of \$950,000 (\$850,000 from the original Agreement plus \$120,000 from this supplement). A combination of Federal monies and State monies are used to fund this Project. The project costs referred to in this Agreement shall be comprised of the allowable direct costs incidental to the performance of the work described in the original Workplan and indirect costs. Indirect costs shall not exceed forty-five and one half (45.5) percent of the total modified direct costs to the extent that Federal-aid funds are used for payment. In the event final approval of Federal appropriation is not obtained, the Secretary will be responsible for only those noncancelable obligations incurred by KU for work under this Agreement.

All other terms and conditions of the Agreement for Technical Assistance, effective September 9, 2002, remain in force.

KU

SECRETARY



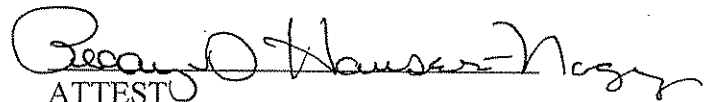
Joanne Altieri  
Director  
Contract Negotiations and Research Compliance



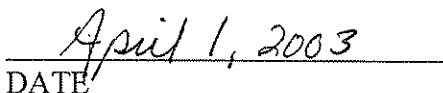
Debra L. Miller  
Secretary of Transportation  
By: W. L. Sick, P.E.  
Assistant Secretary and  
State Transportation Engineer



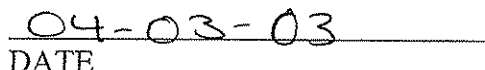
ATTEST



ATTEST



DATE



DATE

Supplemental Proposal to TPF-5(051); RE-0329-01

Kansas Department of Transportation  
Attn: Kenneth Hurst, Engineering Manager  
State Bridge Office  
Docking State Office Building - 930 West  
Topeka, KS 66612-1568  
Phone: (785) 296-3761  
Email: [kenh@ksdot.org](mailto:kenh@ksdot.org)

for

**Construction of Crack-Free Concrete Bridge Decks**

Period of Performance: 09/01/02 – 03/30/08  
Supplemental Funds Requested: \$120,000  
Total Funds for Project: \$950,000

submitted by

David Darwin, Principal Investigator  
The University of Kansas  
Department of Civil, Environmental & Architectural Engineering  
Learned Hall, 1530 W. 15th Street, Room 2006  
Lawrence, KS 66045-7609  
Phone: (785) 864-3827  
FAX: (785) 864-5631  
e-mail address: [daved@ku.edu](mailto:daved@ku.edu)

Contractual Contact

Joanne Altieri, Director  
Contract Negotiations and Research Compliance  
The University of Kansas Center for Research, Inc.  
2385 Irving Hill Road, Lawrence, KS 66045-7563  
Phone: (785) 864-7462      FAX: (785) 864-5049  
[jaltieri@ku.edu](mailto:jaltieri@ku.edu)

The University of Kansas  
2385 Irving Hill Road      Lawrence, KS 66045-7563

# University of Kansas Center for Research

March 21, 2003

Kenneth Hurst, Engineering Manager  
State Bridge Office  
Docking State Office Building - 930 West  
Topeka, KS 66612-1568  
(785) 296-3761

Dear Mr. Hurst:

The Proposal Services office has reviewed and approved the budget for the project entitled "Construction of Crack-Free Concrete Bridge Decks" submitted under the direction of Dr. David Darwin. The budget reflects a total of \$950,000 for the project duration of 09/01/02 - 03/30/08. (This total includes the supplemental funding request of \$120,000.)


Should this proposal result in an award please direct any payments to the address indicated below. We look forward to hearing from your agency regarding this application.

University of Kansas  
Administrative & Financial Services  
2385 Irving Hill Road  
Lawrence, KS 66045-7563

EIN: 48-6029925

Please contact our office if you need any additional information. Thank you for your attention to this matter.

Sincerely,

  
Barbara J. Armbrister  
Authorized Representative  
University of Kansas

## EXPLANATION OF BUDGET CHANGE

Additional states have joined the effort requiring the need for an increased budget to cover the additional work.

## PROPOSED BUDGET

Year 1: 09/01/02 to 08/31/03

					Federal (SPR)	State of Kansas	Total
<b>SALARIES AND WAGES</b>							
<u>Senior Personnel</u>							
	% time	Months	Rate				
David Darwin, PI							
summer	100	1.5	14,189	21,284	21,284	0	21,284
JoAnn Browning, Co-I							
summer	100	1.5	6,885	10,328	10,328	0	10,328
Total senior personnel				31,612	31,612	0	31,612
<u>Other Personnel</u>							
	Persons	% time	Months	Rate			
<u>Graduate Student(s)</u>							
acad	2	50	9.0	2,600	23,400	0	23,400
summer	2	50	3.0	2,600	7,800	0	7,800
<u>Undergraduate Student(s)</u>							
calendar			Hours	Rate			
			1620.0	8.00	12,960	0	12,960
Total other personnel					44,160	0	44,160
Total salaries and wages					75,772	0	75,772
<b>FRINGE BENEFITS</b>							
28% faculty and staff				8,851	8,851	0	
4% students (employed 75% or less)				1,766	1,766	0	
Total fringe benefits					10,617	0	
Total salaries, wages & fringe benefits					86,389	0	86,389
<b>TRAVEL</b>							
<i>(a) travel to bridge sites and technical planning meetings</i>							
Transportation - mileage at State of Kansas rate.				1,500			
Per diem				500			
Total (a)					2,000		
Total travel					2,000	0	2,000
<b>OTHER DIRECT COSTS</b>							
Research materials & supplies				1,000	1,000	0	1,000
Publications (copying and distribution of research results)				500	500	0	500
Consultant Services				6,000	6,000	0	6,000
<u>Other:</u>							
Tuition for 2 GRAs: Fall 02 (9 hrs) + Spring 03 (10 hrs) + Sum 03 (3 hrs)				7,984	0	7,984	7,984
Travel for state representatives				12,000	12,000	0	12,000
Computer networking costs				5,194	5,194	0	5,194
Total "Other"					17,194	7,984	25,178
Total Other Direct Costs					24,694	7,984	32,678
<b>TOTAL DIRECT COSTS</b>					113,083	7,984	121,067
<b>BASE</b>					113,083		113,083
<b>INDIRECT COSTS (45.5% of total direct costs excluding equipment and tuition allowance)</b>					51,453		51,453
<b>TOTAL PROPOSED COSTS - YEAR 1</b>					<b>\$164,536</b>	<b>\$7,984</b>	<b>\$172,520</b>

Additional states have joined the effort requiring the need for an increased budget to cover the additional work.

**PROPOSED BUDGET (Continued)**

Year 2: 09/01/03 to 08/31/04

					Federal (SPR)	State of Kansas	Total	
<b>SALARIES AND WAGES</b>								
<u>Senior Personnel</u>								
	% time	Months	Rate					
David Darwin, PI summer	100	1.5	14,898	22,347	22,347	0	22,347	
JoAnn Browning, Co-I summer	100	1.5	7,229	10,844	10,844	0	10,844	
Total senior personnel				33,191	33,191	0	33,191	
<u>Other Personnel</u>								
	Persons	% time	Months	Rate				
<u>Graduate Student(s)</u>								
acad summer	2	50	9.0	2,730	24,570	0	24,570	
	2	50	3.0	2,730	8,190	0	8,190	
<u>Undergraduate Student(s)</u>								
calendar			Hours	Rate				
			1837.0	8.40	15,431	0	15,431	
Total other personnel					48,191	0	48,191	
Total salaries and wages					81,382	0	81,382	
<b>FRINGE BENEFITS</b>								
28% faculty and staff				9,293	9,293	0	9,293	
4% students (employed 75% or less)				1,928	1,928	0	1,928	
Total fringe benefits					11,221	0	11,221	
Total salaries, wages & fringe benefits					92,603	0	92,603	
<b>TRAVEL</b>								
<i>(a) to east/west coast for professional meeting</i>								
	# Persons	Trips	Days	Amount				
Transportation (airfare)	2	1	3	430	860			
Total (a)					860	860	0	860
<i>(b) to bridge site and training sessions</i>								
Transportation - mileage at current State of Kansas rate				3,850	3,850			
Per diem				1,000	1,000			
Total (b)					4,850	4,850	0	4,850
Total travel					5,710	0	5,710	
<b>OTHER DIRECT COSTS</b>								
Research materials & supplies					1,000	1,000	0	
Publications (copying and distribution of research results)					500	500	0	
<u>Other:</u>								
Tuition: Fall 03 (9 hrs) + Spring 04 (10 hrs) + Sum 04 (3 hrs)					9,168	5,152	4,016	9,168
Travel for state representatives					14,000	14,000	0	14,000
Computer networking costs					5,449	5,449	0	5,449
Total "Other"					28,617	24,601	4,016	28,617
Total Other Direct Costs					26,101	4,016	0	30,117
<b>TOTAL DIRECT COSTS</b>					124,414	4,016		128,430
<b>BASE</b>					119,262			119,262
<b>INDIRECT COSTS (45.5% of total direct costs excluding equipment and tuition allowance)</b>					54,264			54,264
<b>TOTAL PROPOSED COSTS - YEAR 2</b>					\$178,678	\$4,016		\$182,694

**PROPOSED BUDGET (Continued)**

Year 3: 09/01/04 to 08/31/05

SALARIES AND WAGES					Federal (SPR)	State of Kansas	Total
<b>Senior Personnel</b>							
	% time	Months	Rate				
David Darwin, PI							
summer	100	1.5	15,643	23,465	23,465	0	23,465
JoAnn Browning, Co-I							
summer	100	1.5	7,590	<u>11,385</u>	<u>11,385</u>	0	<u>11,385</u>
Total senior personnel				34,850	34,850	0	34,850
<b>Other Personnel</b>							
	Persons	% time	Months	Rate			
<i>Graduate Student(s)</i>							
acad	2	50	9.0	2,867	25,803	0	25,803
summer	2	50	3.0	2,867	8,601	0	8,601
<i>Undergraduate Student(s)</i>							
calendar	Persons		Hours	Rate			
			1749.5	8.82	15,431	0	15,431
Total other personnel					<u>49,835</u>	0	<u>49,835</u>
Total salaries and wages					84,685	0	84,685
<b>FRINGE BENEFITS</b>							
28% faculty and staff				9,758	9,758	0	9,758
4% students (employed 75% or less)				<u>1,993</u>	<u>1,993</u>	0	<u>1,993</u>
Total fringe benefits					<u>11,751</u>	0	<u>11,751</u>
Total salaries, wages & fringe benefits					96,436	0	96,436
<b>TRAVEL</b>							
<i>(a) to east/west coast for professional meeting</i>							
	# Persons	Trips	Days	Amount			
Transportation (airfare)	2	1	5	500	1,000		
Total (a)			3		1,000	0	1,000
<i>(b) to bridge site and training sessions</i>							
Transportation - mileage at current State of Kansas rate				4,043	4,043		
Per diem				1,050	<u>1,050</u>		
Total (b)					5,093	0	5,093
Total travel					6,093	0	6,093
<b>OTHER DIRECT COSTS</b>							
Research materials & supplies				1,000	1,000	0	1,000
Publications (copying and distribution of research results)				500	500	0	500
<b>Other:</b>							
Tuition: Fall 04 (9 hrs) + Spring 05 (10 hrs) + Sum 05 (3 hrs)				10,518	10,518	0	10,518
Travel for state representatives				14,000	14,000	0	14,000
Computer networking costs				<u>5,727</u>	<u>5,727</u>	0	<u>5,727</u>
Total "Other"					<u>30,245</u>	0	<u>30,245</u>
Total Other Direct Costs					31,745	0	31,745
<b>TOTAL DIRECT COSTS</b>					134,274	0	134,274
<b>BASE</b>					123,756		123,756
<b>INDIRECT COSTS (45.5% of total direct costs excluding equipment and tuition allowance)</b>					56,309		56,309
<b>TOTAL PROPOSED COSTS - YEAR 3</b>					<b>\$190,583</b>	<b>\$0</b>	<b>\$190,583</b>

**PROPOSED BUDGET (Continued)**

Year 4: 09/01/05 to 08/31/06

					Federal (SPR)	State of Kansas	Total
<b>SALARIES AND WAGES</b>							
<u>Senior Personnel</u>							
	<u>% time</u>	<u>Months</u>	<u>Rate</u>				
David Darwin, PI							
summer	100	1.5	16,425	24,638	24,638	0	24,638
JoAnn Browning, Co-I							
summer	100	1.5	7,970	11,955	11,955	0	11,955
Total senior personnel				36,593	36,593	0	36,593
<u>Other Personnel</u>							
	<u>Persons</u>	<u>% time</u>	<u>Months</u>	<u>Rate</u>			
<u>Graduate Student(s)</u>							
acad	2	50	9.0	3,010	27,090	0	27,090
summer	2	50	3.0	3,010	9,030	0	9,030
<u>Undergraduate Student(s)</u>							
calendar			<u>Hours</u>	<u>Rate</u>			
			1666.4	9.26	15,431	0	15,431
Total other personnel					51,551	0	51,551
Total salaries and wages					88,144	0	88,144
<b>FRINGE BENEFITS</b>							
28% faculty and staff				10,246	10,246	0	10,246
4% students (employed 75% or less)				2,062	2,062	0	2,062
Total fringe benefits					12,308	0	12,308
Total salaries, wages & fringe benefits					100,452	0	100,452
<b>TRAVEL</b>							
<i>(a) to east/west coast for professional meeting</i>							
	<u># Persons</u>	<u>Trips</u>	<u>Days</u>	<u>Amount</u>			
Transportation (airfare)	2	1	3	430	860		
Total (a)					860	860	0
<i>(b) to bridge site and training sessions</i>							
Transportation - mileage at current State of Kansas rate				4,245	4,245		
Per diem				1,103	1,103		
Total (b)					5,348	5,348	0
Total travel					6,208	6,208	0
<b>OTHER DIRECT COSTS</b>							
Research materials & supplies				500	500	0	500
Publications (copying and distribution of research results)				500	500	0	500
<u>Other:</u>							
Tuition: Fall 05 (9 hrs) + Spring 06 (10 hrs) + Sum 06 (3 hrs)				12,038	12,038	0	12,038
Travel for state representatives				14,000	14,000	0	14,000
Computer networking costs				5,985	5,985	0	5,985
Total "Other"					32,023	32,023	0
Total Other Direct Costs					33,023	33,023	0
<b>TOTAL DIRECT COSTS</b>					139,683	0	139,683
<b>BASE</b>					127,645		127,645
<b>INDIRECT COSTS (45.5% of total direct costs excluding equipment and tuition allowance)</b>					58,078		58,078
<b>TOTAL PROPOSED COSTS - YEAR 4</b>					\$197,761	\$0	197,761



**PROPOSED BUDGET (Continued)**

Year 5: 09/01/06 to 08/31/07

						Federal (SPR)	State of Kansas	Total
<b>SALARIES AND WAGES</b>								
<u>Senior Personnel</u>								
		% time	Months	Rate				
<i>David Darwin, PI</i>								
summer		100	1.5	17,246	25,869	25,869	0	25,869
<i>JoAnn Browning, Co-I</i>								
summer		100	1.5	8,369	12,554	12,554	0	12,554
Total senior personnel					38,423	38,423	0	38,423
<u>Other Personnel</u>								
	Persons	% time	Months	Rate				
<i>Graduate Student(s)</i>								
acad	2.0	50	9.0	3,161	28,449	28,449	0	28,449
summer	2.0	50	3.0	3,161	9,483	9,483	0	9,483
<i>Undergraduate Student(s)</i>								
calendar			Hours	Rate				
			1587.6	9.72	15,431	15,431	0	15,431
Total other personnel					53,363	53,363	0	53,363
Total salaries and wages					91,786	91,786	0	91,786
<b>FRINGE BENEFITS</b>								
28% faculty and staff					10,758	10,758	0	10,758
4% students (employed 75% or less)					2,135	2,135	0	2,135
Total fringe benefits					12,893	12,893	0	12,893
Total salaries, wages & fringe benefits					104,679	104,679	0	104,679
<b>TRAVEL</b>								
<i>(a) to east/west coast for professional meeting</i>								
	# Persons	Trips	Days	Amount				
Transportation (airfare)	2	1	3	430	860	860	0	860
Total (a)					860	860	0	860
<i>(b) to bridge site and training sessions</i>								
Transportation - mileage at current State of Kansas rate				4,457	4,457			
Per diem				1,158	1,158			
Total (b)					5,615	5,615	0	5,615
Total travel					6,475	6,475	0	6,475
<b>OTHER DIRECT COSTS</b>								
Research materials & supplies	500				500	500	0	500
Publications (copying and distribution of research results)	500				500	500	0	500
<b>Other:</b>								
Tuition: Fall 06 (9 hrs) + Spring 07 (10 hrs) + Sum 07 (3 hrs)					13,730	13,730	0	13,730
Travel for state representatives					14,000	14,000	0	14,000
Computer networking costs					6,294	6,294	0	6,294
Total "Other"					34,024	34,024	0	34,024
Total Other Direct Costs					35,024	35,024	0	35,024
<b>TOTAL DIRECT COSTS</b>						146,178	0	146,178
<b>BASE</b>						132,448		132,448
<b>INDIRECT COSTS (45.5% of total direct costs excluding equipment and tuition allowance)</b>						60,264		60,264
<b>TOTAL PROPOSED COSTS - YEAR 5</b>						\$206,442	\$0	\$206,442
<b>TOTAL PROPOSED COSTS YEAR 1 - YEAR 5</b>						\$938,000	\$12,000	\$950,000