HE
213

Jacob Partment Insportation ral Highway inistration

Memorandum

FHWA - Iowa Division

Subject:

FHWA 2003 SPR Work Program SPR-PL-1(39) REVISIONS

Date

November 14, 2002

From:

Division Administrator, FHWA Ames, IA

In Reply

Refer To: HDA-IA

To:

Mr. Neil Volmer, Director

Planning and Programming Division, Iowa DOT

Ames, Iowa

The revisions to the FY 2003 SPR Work Program as submitted with Mr. Stu Anderson's November 12, 2002, memorandum are approved. Copies of the revised pages are attached.

If you have any questions concerning this process, please contact me at 515-233-7315.

John M. Cater, P.E.

Division Planning Engineer

Attachment

cc:

Stuart Anderson (Iowa DOT), w/attachment Amanda Martin (Iowa DOT), w/attachment Debra Coles (Iowa DOT), w/attachment John Cater, w/attachment Mark Johnson, w/attachment Diana Watts, w/attachment Jenny Balis, w/attachment

RECENTED

NOV 18 2002

OFFICE OF SYSTEMS PLANNING

Work Program SPR-PL-1(39) Fiscal Year 2002 (July 1, 2002 - June 30, 2003) Financial Summary Sheet

A. Available Federal Funds

SFY 2003 Funds

FY 2002 Funds

 SPR (Planning, 75%)
 5,132,102

 SPR (R D & TT, 25%)
 1,710,700

 Total SPR
 6,842,802

 PL
 1,112,116

 Total PL
 1,112,116

Total SPR & PL Amounts

\$7,954,918

FY03 Work Program SPR-PI-1(39) July 1, 2002 - June 30, 2003

Project Financing

	Federal Participation Ratio	Federal Funds	State Match 20%	Sub-Total	Other Funds	MPO Local Match	Total Funds
Pooled Funds	100%	\$996,000		\$996,000			\$996,000
Planning	80%	\$5,132,102	\$1,283,025	\$6,415,127	\$1,379,933	\$6,250	\$7,801,310
Research	80%	\$609,700	#4ED 4DE	\$762,125	\$18,813		\$780,938
TRB Research Correlation Service	100%	\$90,000		\$90,000			\$90,000
Subtotal		\$6,827,802	\$1,435,450	\$8,263,252	\$1,398,746	\$6,250	\$9,668,248
PL	80%	\$1,112,116		\$1,112,116		\$278,029	\$1,390,145
Total		\$7,939,918	\$1,435,450	\$9,375,368	\$1,398,746	\$284,279	\$11,058,393

5. River planning - 767
D. Urban transportation planning (\$307,583)
1. Urbanized areas - 707\$ 271,000
PL funds (not in totals)\$ 1,636,310
2. Urban areas (less than 50,000) - 708
E. Regional transportation planning - 704 (\$51,194)
VIII. Project Planning & Environmental (\$200,000)
A. Clinton Modal Study – 738\$200,000
IX. Transportation Enhancements Planning – 735 (\$55,784)\$ 55,784
X. State Transportation Improvement Program (\$81,993)
A. Statewide transportation improvement program - 753\$ 81,993
B. Parks and institutional roads program - 768 (Non-participating)
XI. Research Development and Technology Transfer (\$ 1,866,938) A. Administration
1. TRB Research Correlation Service Support - 771
2. Technical Support- 771
B. National pooled-fund studies - 776
C. General implementation - 774\$ 336,700
D. Highway research support - 775\$ 255,000
E. Other research - 777(Non-participating)
Total (excludes PL) \$9,668,248

Proposed 2003

The staff will continue to coordinate funding for the park and institutional roads program.

2002 Program

2002 Estimated Expenditures

2003 Program

Nonparticipating activity

XI. Research, Development and Technology Transfer

Total Estimated Cost: \$1,866,938

The Transportation Equity Act for the 21st Century (TEA-21) provides federal funding for state research programs by requiring that at least a minimum of ½ percent of certain federal funds apportioned to a state be used for research, development and technology transfer (RD&T) programs. Federal regulations also require that each state develop a management plan for the administration of its RD&T program. The Iowa Department of Transportation has filed an approved management plan. With a recently completed reorganization of the Department, this management plan will be reviewed and updated as appropriate during the coming year. In addition, federal regulations require that each state complete a research program peer exchange at least once every three years. The Iowa DOT will host a research peer exchange during FY2003. The work program for FY 2003 continues a collaborative process of setting research priorities, selecting research activities and reporting results. Focus groups have helped to identify specific research interests. Project Advisory Committees are formed for projects, to provide review, advice and assistance as appropriate. As project proposals and budgets are approved, this SPR Program will be amended to include them and federal-aid authorization will be sought prior to project initiation. Several multi-year projects that were included in the FY 2002 program are included for continuation funding.

In addition to the Federal-aid activities carried out under this work program, research and development activities are carried out by various Divisions and Offices of the Department, including extensive research and development activities sponsored by the Iowa Highway Research Board (IHRB). The IHRB has been implementing its updated business plan and, with input from various focus groups, developing an agenda of prioritized research interests from which it solicits competing proposals for projects. These efforts are directed at finding workable solutions to the many problems that require more than routine investigations, and at the identification and implementation of improved engineering and management practices. The IHRB, made up of members from cities, counties, universities and the Department, provides a vehicle for tailoring research activities to meet the needs of all highway jurisdictions. Projects conducted under this program are summarized annually. The annual report is available upon request from the Office of Materials, Highway Division. The IHRB program and this SP&R program are coordinated to insure a continuing effective Iowa highway research program.

A. ADMINISTRATION

1. Research monitoring and technical support - 771

Objective

Objectives are to monitor transportation research activities at the national and regional levels, keep Department staff informed of current developments, prepare research proposals and work plans, administer research contracts, and provide assistance to staff and activities that support research in the department.

Accomplishments 2002

Staff continued to review transportation research activities and to participate in the dissemination of research results throughout the department. Staff also provided statistical support to ongoing research activities. Support was provided to the DOT Library to enter historic research material into the electronic records management system.

Proposed 2003

Research administration will continue to provide direct support to research and technology transfer activities and provide analytical expertise to related activities. Iowa's research management plan will be updated to reflect its new organizational structure. A research peer exchange will be hosted during the year. Again, support will be provided to the DOT Library to enter historic research material into the electronic records management system. The DOT library will be jointly supported by the DOT and CTRE, with CTRE providing the staffing for the library. A work plan detailing this cooperative effort is available.

2002 Program	2002 Actual Expenditures	2003 Program
\$55,000	\$10,400	\$189,238

2. TRB Research Correlation Service Support - 771

Objective

The objective is to support the dissemination of research results through the Transportation Research Correlation Service.

Accomplishments 2002

The annual subscription to the Transportation Research Correlation Service was paid; DOT library and staff received notice and copies of appropriate publications and other information as developed and released by TRB.

Proposed 2003

Iowa will continue to support the Transportation Research Correlation Service through he annual subscription assessment.

2002 Program		2002 Estimated Expenditures	2003 Program
\$90,000	40.	\$89,490	\$90,000

B. National/Regional Pooled Fund Studies -- 776

Iowa will continue to participate in pooled fund research. Several projects included in the FY 2002 work program are multi-year efforts with additional funding programmed for FY 2003.

New projects may be added from the FHWA and AASHTO FY 2003 solicitations when those processes are completed, and in response to invitations from individual sponsoring lead states throughout the year.

HPR-(195)	National Cooperative Highway Research Program	\$	377,000
HPR-3(017)	Midwest States Crash Testing Program		85,000
HPR-3(020)	ITS Study (ENTERPRISE)		75,000
SPR-3(042)	Aurora Program 2000-2001 Work Program		25,000
SPR-3(044)	North Central SuperPave Center		25,000
SPR-3(048)	KSU Accelerated Pavement Testing Laboratory		75,000
SPR-3(060)	Maintenance Concept Vehicle	8	0
SPR-3(075)	Midwest States Work Zone Deployment Initiative		60,000
SPR-3(079)	Report – CARS		50,000
SPR-2(212)	Geo-Gauge Non-Nuclear Testing of Soils		0
TPF-5(046)	Transportation Curriculum Coordination Council Training		
	Management and Development		25,000
TPF-5(058)	AASHTO Strategic Highway Safety Plan – Phase 3		50,000
SPR-2(165)	Curved Girder		30,000
	General Funds for Future Projects		20,000
TPF-5(009)	SICOP		4,000

TPF-5(039)	Falling Weight Deflectometer Calibration	
	Center and Operating Improvement	10,000
TPF-5(008)	FHWA Computer Based Training	15,000
TPF-5(055)	Rapid Bridge Replacement Techniques	10,000
TPF-5(054)	Development of Maintenance Support System	40,000
	LRFD Specifications	20,000
		\$ 996,000

C. General Implementation

Technology Transfer - 774

Objective

The objectives are to promote new technology and provide support to DOT offices.

Accomplishments 2002

DOT staff continued to participate in the national and emerging regional ITS program and administer ITS initiatives, including in cooperation with and using the assistance of ISU/CTRE.

The FORETELL/CARS program is a joint effort to conduct a field operation test of ITS technologies (Project No. ITS-9719(002). It is designed to serve rural areas by providing improved road and weather information to highway jurisdictions and highway users. Development efforts continued with project partners and is reported separately. The opportunity to use CARS for Internet Web-based information presentation was presented to potential additional partners, several whom have now join project sponsorship.

Continued support for the University Transportation Center (CTRE) at Iowa State University in turn provided continuing assistance with technology transfer activities. The Center sponsored, administered and/or coordinated a number of conferences and training programs, including continued development of a technician training program, support for pavement management and geographic information systems development, initiation of a statewide construction specification and standards program for use by all jurisdictions, support for remote sensing activities as part of the GIS program and statewide traffic safety database system.

There was continued support for the Center for Portland Cement Concrete Pavement Technology at Iowa State University. DOT support continues to be accompanied by a long-term industry commitment to the program, and additional federal funding. The PCCP Center has a research advisory committee and a prioritized research agenda in collaboration with stakeholders throughout Iowa.

Proposed 2003

Basic Agreement with ISU/CTRE	\$245,000
Implementation of SHRP Research Management Division	6,000
Remote Sensing for Transportation	27,500
Stream Restoration Training Course	7,500
AASHTO NTPEP (Product Evaluation)	4,500
AASHTO – APEL (Approved Product Evaluation List)	1,200
OPIS – Bridge Substructure Shareware	30,000
Environmental Technical Assistance Program	5,000
Winter Operations Center	10,000
	\$336,700

D. Highway Research Support -- 775

Objectives

To promote and provide support for essential priority research and data collection activities in support of further development of the highway engineering program.

Accomplishments 2002

Stream flow gauging services and materials laboratory research equipment were acquired. It will be used for pavement design and research in the coming years. Stream flow gauging, carried out by the U.S. Geological Survey, provided essential data for research and design of bridge waterway openings and drainage management.

Proposed 2003

Stream Flow G	auging	- Data Co	llection		\$180,000
Materials Labo	ratory 1	research eq	uipment		75,000
					\$255,000

Laboratory equipment for materials research will be acquired to replace outdated and worn equipment, to continue providing a strong base for related research and investigations.

Research Project Summary and Index

Project Number	Study Title	Est. \$	Federal	Iowa DOT	FHWA	No.
		FY2003	Funds	Contact	Contact	Years.*
	771—Research Mon	nitoring and Te	chnical Supp	ort	THE PARTY OF	
	TRB Research Correlation Service	\$90,000	\$90,000	Larson	Balis	Ongoing
	Technical Support	189,238	151,390	Larson	Balis	Ongoing
	Total	\$279,238	\$241,390		Links or	
	776—P	ooled Fund Stu	dies			
HPR-4(201)	NCHRP	\$377,000	\$377,000	Larson	Balis	Ongoing
HPR-3(017)	Midwest States Crash Testing Prog.	85,000	85,000	Stein	Balis	Ongoing
HPR-3(020)	ITS Study (ENTERPRISE)	75,000	75,000	Whited	Brachtel	Ongoing
SPR-3(042)	Aurora Program 2000-2001 Work Prog.	25,000	25,000	Wilkinson	Brachtel	Ongoing
SPR-3(044)	North Central SuperPave Center	25,000	25,000	Heitzman	Grogg	Ongoing
TPF-5(048)	Midwest States Accelerated Pavement Testing Lab	75,000	75,000	Dunn	Grogg	Ongoing
SPR3-(060)	Maintenance Concept Vehicle	0	0	Wilkinson	Hiatt	1
SPR-3(075)	Midwest States Work Zone Initiative	60,000	60,000	Gent	Roche	Ongoing
SPR-3(079)	Report CARS	50,000	50,000	Whited	Brachtel	2
SPR-2(212)	Geo-Guage Non-Nuclear Soil Testing	0	0	Heer	Grogg	2
TPF-5(046)	Transportation Curriculum Coordination Council Training Management and Development	25,000	25,000	C. Anderson	Balis	5
TPF-5(058)	AASHTO Strategic Highway Safety Plan – Phase 3	50,000	50,000	Welch	Roche	1

^{*} Number of Years includes FY2002. Where no years are specified the project is currently considered to be a one year project. That is subject to change. The projects showing zero dollars do not require new dollars but are ongoing projects.

TPF-5(005)	Study of Erection Issues and Composite	30,000	30,000	McDonald	Monk	2
	System Behavior of a Full Scale				a series	WARE
	Curved Girder Bridge					
	General Funds for Future Pooled Fund	20,000	20,000	Larson	Balis	Ongoing
1	Projects				,	
TPF-5(009)	SICOP (Computer-Based Training	4,000	4,000	Wilkinson	Hiatt	1
	System on AI/RWIS)					
TPF-5(039)	Falling Weight Deflectometer	10,000	10,000	Berger	Grogg	3
	Calibration Center & Operations					
	Improvement					
TPF-5(008)	FHWA Computer Based Training	15,000	15,000	Stein	Balis	1
TPF-5(055)	Rapid Bridge Replacement Techniques	10,000	10,000	McDonald	Monk	2
TPS-5(054)	Development of Maintenance Support	40,000	40,000	Wilkinson	Hiatt	2
	System					
	LRFD Specifications	20,000	20,000	Larson	Balis	3
	Total	\$996,000	\$996,000			- X
	774 Com	wal Implament	tation			
		eral Implement		Laman	Balis	10
GDD 2(000)	Basic Agreement with CTRE	\$245,000	\$196,000	Larson		Ongoing
SPR-2(800)	Implementation of SHRP Research	6,000	4,800	Berger	Balis	1
	Remote Sensing for Transportation	27,500	22,000	Larson	Balis	3 .
	Stream Restoration Training Course	7,500	6,000	Solberg	Kennedy	1
	AASHTO-NTPEP (Product	4,500	3,600	Berger	Balis	Ongoing
	Evaluation)				The second	
	AASHTO-APEL (Approved Product	1,200	960	Dunn	Balis	Ongoing
	Evaluation List)					
	OPIS—Bridge Shareware	30,000	24,000	McDonald	Monk	5
PER SE	Environmental Technical Assistance	5,000	4,000	Rost	Kennedy	1
Car Marie A	Program					
		30				

	Winter Operations Center	10,000	8,000	Wilkinson	Hiatt	1
A SHARWAY	Total	\$336,700	\$269,360			
				34434 110		
	775—Hi	ghway Research	Report			
	Stream Flow Gauging—Data	180,000	144,000	Dunn	Monk	Ongoing
	Collection					
	Materials Lab Research Equipment	75,000	60,000	Berger	Grogg	Ongoing
	Total	\$255,000	\$204,000			
	Total Research	\$1,866,938	\$1,710,750			

State Transportation In	provement Program	
Statewide transportation improvement program	\$81,993	\$65,594
Total	\$81,993	\$65,594
Sub-Total Planning	\$7,801,310	\$6,241,047*
	(*actual fund	ding availability \$5,132,102)
Research Development an	d Technology Transfer	
Administration	\$279,238	\$241,390
Pooled fund studies	996,000	996,000
General implementation	336,700	269,360
Highway research support	255,000	204,000
Sub-Total Research	\$1,866,938	\$1,710,750*
	(*actual fund	ding availability \$1,710,700)
Program Totals	\$9,668,248	\$7,951,797

(103

1/02

Research Project Summary and Index

Project Number	Study Title	Est. \$ FY2003	Federal Funds	Iowa DOT Contact	FHWA Contact	No. Years.*
		F 1 2003	rulius	Contact	Contact	i ears.
	771—Research Mon	itoring and Tec	hnical Supp	ort		
1971 1 37 3	TRB Research Correlation Service	\$90,000	\$90,000	Larson	Balis	Ongoing
	Technical Support	189,238	151,390	Larson	Balis	Ongoing
	Total	\$279,238	\$241,390			
		oled Fund Stud			_	
HPR-4(201)	NCHRP	\$377,000	\$377,000	Larson	Balis	Ongoing
SPR-3(017)	Midwest States Crash Testing Program	85,000	85,000	Stein	Balis	Ongoing
SPR-3(020)	ITS Study (ENTERPRISE)	75,000	75,000	Whited	Brachtel	Ongoing
SPR-3(042)	Aurora Program 2000-2001 Work Prog.	25,000	25,000	Wilkinson	Brachtel	Ongoing
SPR-3(044)	North Central SuperPave Center	25,000	25,000	Heitzman	Grogg	Ongoing
TPF-5(048)	Midwest States Accelerated Pavement Testing Lab	75,000	75,000	Dunn	Grogg	Ongoing
SPR3-(060)	Maintenance Concept Vehicle	0	0	Wilkinson	Hiatt	1
SPR-3(075)	Midwest States Work Zone Initiative	60,000	60,000	Gent	Roche	Ongoing
SPR-3(079)	Report CARS	50,000	50,000	Whited	Brachtel	2
SPR-2(212)	Geo-Gauge Non-Nuclear Soil Testing	0	0	Heer	Grogg	2
TPF-5(046)	Transportation Curriculum Coordination Council Training Management and Development	25,000	25,000	C. Anderson	Balis	5
TPF-5(058)	AASHTO Strategic Highway Safety Plan – Phase 3	50,000	50,000	Welch	Roche	1

^{*} Number of Years includes FY2003. Where no years are specified the project is currently considered to be a one year project. That is subject to change. The projects showing zero dollars do not require new dollars but are ongoing projects.

TPF-5(005)	Study of Erection Issues and Composite System Behavior of a Full Scale Curved Girder Bridge	30,000	30,000	McDonald	Monk	2
	General Funds for Future Pooled Fund Projects	20,000	20,000	Larson	Balis	Ongoing
TPF-5(009)	SICOP (Computer-Based Training System on AI/RWIS)	4,000	4,000	Wilkinson	Hiatt	1
TPF-5(039)	Falling Weight Deflectometer Calibration Center & Operations Improvement	10,000	10,000	Berger	Grogg	3
TPF-5(008)	FHWA Computer Based Training	15,000	15,000	Stein	Balis	1
TPF-5(055)	Rapid Bridge Replacement Techniques	10,000	10,000	McDonald	Monk	2
TP\$-5(054)	Development of Maintenance Support System	40,000	40,000	Wilkinson	Hiatt	2
TPFS (068)	LRFD Specifications	20,000	20,000	Larson	Balis	3
	Total	\$ 996,000	\$ 996,000		h Latin Carrie	34 24 8 20
	Basic Agreement with CTRE	neral Implement 245,000	196,000	Larson	Balis	Ongoing
			196,000	Larson		Ongoing
SPR-2(800)	Implementation of SHRP Research	6,000	4,800	Berger	Balis	1
	Remote Sensing for Transportation	27,500	22,000	Larson	Balis	3
	Stream Restoration Training	7,500	6,000	Solberg	Kennedy	1
	AASHTO-NTPEP (Product Evaluation)	4,500	3,600	Berger	Balis	Ongoing
	AASHTO – APEL (Approved Product Evaluation List)	1,200	960	Dunn	Balis	Ongoing
	OPIS—Bridge Shareware	30,000	24,000	McDonald	Monk	5
	Environmental Technical Assistance Program	5,000	4,000	Rost	Kennedy	1
	Winter Operations Center	10,000	8,000	Wilkinson	Hiatt	1
	Total	\$336,700	\$269,360			
		xii GHV	25/013	60		

Stream Flow Gauging—Data Collection	ction 180,000	144,000	Dunn	Monk	Ongoing
Materials Lab Research Equipment	75,000	60,000	Berger	Grogg	Ongoing
Total	\$255,000	\$204,000			

amended Wood

XI. Research, Development and Technology Transfer

Total Estimated Cost: \$1,866,938

The Transportation Equity Act for the 21st Century (TEA-21) provides federal funding for state research programs by requiring that at least a minimum of ½ percent of certain federal funds apportioned to a state be used for research, development and technology transfer (RD&T) programs. Federal regulations also require that each state develop a management plan for the administration of its RD&T program. The Iowa Department of Transportation has filed an approved management plan. With a recently completed reorganization of the Department, this management plan will be reviewed and updated as appropriate during the coming year. In addition, federal regulations require that each state complete a research program peer exchange at least once every three years. The Iowa DOT will host a research peer exchange during FY2003. The work program for FY 2003 continues a collaborative process of setting research priorities, selecting research activities and reporting results. Focus groups have helped to identify specific research interests. Project Advisory Committees are formed for projects, to provide review, advice and assistance as appropriate. As project proposals and budgets are approved, this SPR Program will be amended to include them and federal-aid authorization will be sought prior to project initiation. Several multi-year projects that were included in the FY 2002 program are included for continuation funding.

In addition to the Federal-aid activities carried out under this work program, research and development activities are carried out by various Divisions and Offices of the Department, including extensive research and development activities sponsored by the Iowa Highway Research Board (IHRB). The IHRB has been implementing its updated business plan and, with input from various focus groups, developing an agenda of prioritized research interests from which it solicits competing proposals for projects. These efforts are directed at finding workable solutions to the many problems that require more than routine investigations, and at the identification and implementation of improved engineering and management practices. The IHRB, made up of members from cities, counties, universities and the Department, provides a vehicle for tailoring research activities to meet the needs of all highway jurisdictions. Projects conducted under this program are summarized annually. The annual report is available upon request from the Office of Materials, Highway Division. The IHRB program and this SP&R program are coordinated to insure a continuing effective Iowa highway research program.

A. ADMINISTRATION

1. Research monitoring and technical support - 771

Objective

Objectives are to monitor transportation research activities at the national and regional levels, keep Department staff informed of current developments, prepare research proposals and work plans, administer research contracts, and provide assistance to staff and activities that support research in the department.

Accomplishments 2002

Staff continued to review transportation research activities and to participate in the dissemination of research results throughout the department. Staff also provided statistical support to ongoing research activities. Support was provided to the DOT Library to enter historic research material into the electronic records management system.

Proposed 2003

Research administration will continue to provide direct support to research and technology transfer activities and provide analytical expertise to related activities. Iowa's research management plan will be updated to reflect its new organizational structure. A research peer exchange will be hosted during the year. Again, support will be provided to the DOT Library to enter historic research material into the electronic records management system. The DOT library will be jointly supported by the DOT and CTRE, with CTRE providing the staffing for the library. A work plan detailing this cooperative effort is available.

2002 Program	2002 Actual Expenditures	2003 Program
\$55,000	\$10,400	\$189,238

2. TRB Research Correlation Service Support - 771

Objective

The objective is to support the dissemination of research results through the Transportation Research Correlation Service.

Accomplishments 2002

The annual subscription to the Transportation Research Correlation Service was paid; DOT library and staff received notice and copies of appropriate publications and other information as developed and released by TRB.

Proposed 2003

Iowa will continue to support the Transportation Research Correlation Service through the annual subscription assessment.

2002 Program	2002 Estimated Expenditures	2003 Program
\$90,000	\$89,490	\$90,000

B. National/Regional Pooled Fund Studies -- 776

Iowa will continue to participate in pooled fund research. Several projects included in the FY 2002 work program are multi-year efforts with additional funding programmed for FY 2003.

New projects may be added from the FHWA and AASHTO FY 2003 solicitations when those processes are completed, and in response to invitations from individual sponsoring lead states throughout the year.

HPR-(195)	National Cooperative Highway Research Program \$	377,000
SPR-3(017)	Midwest States Crash Testing Program	85,000
SPR-3(020)	ITS Study (ENTERPRISE)	75,000
SPR-3(042)	Aurora Program 2000-2001 Work Program	25,000
SPR-3(044)	North Central SuperPave Center	25,000
TPF-5(048)	KSU Accelerated Pavement Testing Laboratory	75,000
SPR-3(060)	Maintenance Concept Vehicle	0
SPR-3(075)	Midwest States Work Zone Deployment Initiative	60,000
SPR-3(079)	Report – CARS	50,000
SPR-2(212)	Geo-Gauge Non-Nuclear Testing of Soils	0
TPF-5(046)	Transportation Curriculum Coordination Council Training	
	Management and Development	25,000
TPF-5(058)	AASHTO Strategic Highway Safety Plan – Phase 3	50,000
SPR-2(165)	Curved Girder	30,000
	General Funds for Future Projects	20,000
TPF-5(009)	SICOP	4,000

TPF-5(039)	Falling Weight Deflectometer Calibration	
	Center and Operating Improvement	10,000
TPF-5(008)	FHWA Computer Based Training	15,000
TPF-5(055)	Rapid Bridge Replacement Techniques	10,000
TPF-5(054)	Development of Maintenance Support System	40,000
	LRFD Specifications	20,000
		\$ 996,000

C. General Implementation

Technology Transfer - 774

Objective

The objectives are to promote new technology and provide support to DOT offices.

Accomplishments 2002

DOT staff continued to participate in the national and emerging regional ITS program and administer ITS initiatives, including in cooperation with and using the assistance of ISU/CTRE.

The FORETELL/CARS program is a joint effort to conduct a field operation test of ITS technologies (Project No. ITS-9719(002). It is designed to serve rural areas by providing improved road and weather information to highway jurisdictions and highway users. Development efforts continued with project partners and are reported separately. The opportunity to use CARS for Internet Web-based information presentation was presented to potential additional partners, several whom have now joined project sponsorship.

Continued support for the University Transportation Center (CTRE) at Iowa State University in turn provided continuing assistance with technology transfer activities. The Center sponsored, administered and/or coordinated a number of conferences and training programs, including continued development of a technician training program, support for pavement management and geographic information systems development, initiation of a statewide construction specification and standards program for use by all jurisdictions, support for remote sensing activities as part of the GIS program and statewide traffic safety database system.

There was continued support for the Center for Portland Cement Concrete Pavement Technology at Iowa State University. DOT support continues to be accompanied by a long-term industry commitment to the program, and additional federal funding. The PCCP Center has a research advisory committee and a prioritized research agenda in collaboration with stakeholders throughout Iowa.

Proposed 2003

Basic Agreement with ISU/CTRE	\$245,000
Implementation of SHRP Research Management Division	6,000
Remote Sensing for Transportation	27,500
Stream Restoration Training Course	7,500
AASHTO NTPEP (Product Evaluation)	4,500
AASHTO – APEL (Approved Product Evaluation List)	1,200
OPIS – Bridge Substructure Shareware	30,000
Environmental Technical Assistance Program	5,000
Winter Operations Center	10,000
	\$336,700

D. Highway Research Support -- 775

Objectives

To promote and provide support for essential priority research and data collection activities in support of further development of the highway engineering program.

Accomplishments 2002

Stream flow gauging services and materials laboratory research equipment were acquired. It will be used for pavement design and research in the coming years. Stream flow gauging, carried out by the U.S. Geological Survey, provided essential data for research and design of bridge waterway openings and drainage management.

Proposed 2003

Stream Flow Gauging - Data Collection	\$180,000
Materials Laboratory research equipment	75,000
	\$255,000

Laboratory equipment for materials research will be acquired to replace outdated and worn equipment, to continue providing a strong base for related research and investigations.



Service of the property of the control of the contr

The second of the control of the second of t

ที่ที่ 25 ทั่งกับ ค.ก. และได้ สามารถ ค.ก. สามารถสามารถสามารถสามารถสามารถสามารถสามารถสามารถสามารถสามารถสามารถสา ก.ส.ก. 27 ที่สามารถสามารถสามารถสามารถสามารถสามารถสามารถสามารถสามารถสามารถสามารถสามารถสามารถสามารถสามารถสามารถส

Harris harrings and visconings the case comment defense, has soon at growing with meaning the comment of the comment of the case of the ca

nem nem version de la company de la company

the last of the last time of the common and the religion of the common o