

FY-2009 Research Priorities

<i>Research Need Statements</i>		<i>SAC Members</i>	<i>Estimated Cost in Work Program</i>	<i>Funded Amt.</i>	<i>Estimated Length</i>	<i>Proposed Research Agency</i>	<i>Comments</i>
Construction Management and Contract Administration							
Development of Methods and Specifications for the Use of Inertial Profilers and the International Roughness Index for Newly Constructed Pavements	SPR- 3300	Samy Nouredin Tom Duncan Mark Miller Ron Heustis Ron Walker Greg Pankow Mike Byers Bill Knopf	\$50,000	\$0	48	INDOT	Proposal Requested
District Highway Operations							
Schedule and Route Software Program for Snow and Ice Removal Activities	SPR- 3303	Tommy Nantung Tom Konieczny Dennis Belter Bob McCullouch Greg Ellis Joel Bump	\$150,000	\$150,000	63	JTRP	Approved/Funded
ITS and Traffic Engineering							
Implementation of Innovative Technology to Automate Travel Time Data Collection for Traffic Management Centers, Construction Workzones, and Signal Synchronization Projects	SPR- 3305	Shuo Li Samy Nouredin Jay Wasson Ryan Gallagher Jim Sturdevant	\$175,000	\$0	39	JTRP	Proposal Requested
Pavement Engineering and Materials Management							
Implementation and Standardization of a New Pavement Thickness Design Procedure	SPR- 3307	Tommy Nantung Tom Duncan Dave Andrewski	\$100,000	\$0	45	JTRP	Proposal Requested
Maximizing the Use of Local Materials in HMA Surface	SPR- 3308	Tommy Nantung Tom Duncan Dave Andrewski Ron Walker	\$80,000	\$0	60	JTRP	Proposal Requested

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Using Recycled Concrete as Aggregate in Concrete Pavements to Reduce Materials Cost	SPR- 3309	Tommy Nantung Ron Walker Mike Byers	\$150,000	\$157,901	66	JTRP	Approved/Funded
Investigation of Slag Aggregate and Slag Cement in Concrete Pavement to Reduce Their Maintenance Costs	SPR- 3310	Tom Duncan Dave Andrewski Tony Zander	\$185,000	\$0	45	INDOT/JTRP	Proposal Requested
Implementation of Saw-Cutting Guidelines for Concrete Pavements	SPR- 3372	Scott Newbolds Dennis Kuchler Tony Zander	\$0	\$0		JTRP	

Planning, Urban Corridor, Freight Mobility, Multimodal and Environmental Se

Using Cell Phone Technology to Estimate Origin-Destination Matrices to Assist Project Selection	SPR- 3311	Shuo Li Samy Noureldin	\$75,000	\$0	31	JTRP	Proposal Requested
Identification and Implementation of Best Management Practices for Erosion and Sediment Control that Conforms to Indiana Stormwater Quality Regulations and Guidance	SPR- 3312	Barry Partridge Janice Osadcuk Michelle Allen Randy Braun Paul Berebitsky Mike Bowman Krystal Cornett Ron Heustis Gary Mroczka Todd Shields Tom Harris Mark Miller Tom Vanderpool Clint Bryant	\$120,000	\$158,614	36	JTRP	Approved/Funded

Policy, Financing, Forecasting and Economic Development

Feasibility of Congestion Pricing (HOV/Hot Lanes)	SPR- 3313	Samy Noureldin	\$120,000	\$0	18	JTRP	Proposal Requested
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How Transportation Agencies can Participate in the Return on Investment-Feasibility of Joint Development - Synthesis Study	SPR- 3314	Samy Noureldin	\$120,000	\$0	18	JTRP	Proposal Requested
Safety, Roadway Safety and Transportation Security							
Identifying Traffic Safety Needs - A Systematic Approach	SPR- 3315	Shuo Li Barry Partridge Brad Steckler John Nagle	\$180,000	\$121,718		JTRP	Approved/Funded
Analysis and Methods of Improvements of Safety at High-Speed Rural Intersections	SPR- 3316	Shuo Li Barry Partridge Brad Steckler John Nagle	\$120,000	\$107,947	42	JTRP	Approved/Funded
Structural, Hydraulic, and Geotechnical Engineering							
Improving the Design of U-Beams for Indiana	SPR- 3144	Tommy Nantung Keith Hoernschemeyer Victor Hong Tony Zander Jim Reilman Anne Rearick Greg Pankow Mike Nelson	\$0	\$209,000	44	JTRP	Approved/Funded
Cost Reductions in INDOT Geotechnical Site Investigation and Design through the Development of SPT-Torque Test Shear Strength Correlations for Glacial Till	SPR- 3317	Tommy Nantung Keith Hoernschemeyer Athar Khan Nayyar Zia-Siddiki	\$150,000	\$198,947	75	JTRP	Approved/Funded
Reduction of Bridge Construction and Maintenance Costs through Coupled Geotech and Structural Design of Integral Abutment Bridges	SPR- 3318	Scott Newbolds Keith Hoernschemeyer Anne Rearick Athar Khan Mir Zaheer Victor Hong	\$150,000	\$0	77	JTRP	Proposal Requested

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Assessment of the Performance of MSE Abutment Walls in Indiana	SPR- 3319	Tommy Nantung Keith Hoernschemeyer Nayyar Zia-Siddiki Naveed Burki	\$75,000	\$185,350	54	JTRP	Approved/Funded
Development of a Cost Effective Bridge Preservation and Rehabilitation Program	SPR- 3320	Scott Newbolds Keith Hoernschemeyer George Snyder Victor Hong Bill Dittrich Jim Mickler Brian Harvey	\$125,000	\$0	18	JTRP	Proposal Requested
Investigation of Development of a Suite of Standardized Bridges and Bridge Elements	SPR- 3322	Sangdo Hong Keith Hoernschemeyer Scott Newbolds Anne Rearick	\$50,000	\$0	30	JTRP	Proposal Requested
Construction of Embankments and Fills Using Tire Shreds as a Lightweight Material	SPR- 3370	Tommy Nantung	\$0	\$35,000		INDOT/JTRP	Approved/Funded
Construction of Embankments and Fills Using Ash	SPR- 3371	Tommy Nantung Nayyar Zia-Siddiki	\$0	\$35,000		JTRP	Approved/Funded

System Performance, Monitoring and Analysis

Estimation of Unit Costs for Highway Construction, Rehabilitation, Maintenance and Operations	SPR- 3323	Samy Nouredin John Weaver	\$120,000	\$0	30	JTRP	Proposal Requested
Identification of Optimally Cost Effective System Condition Triggers for Repair and Renewal of Pavement and Bridges	SPR- 3324	David Holtz	\$40,000	\$0	18	INDOT/JTRP	Proposal Requested

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Technical Training Support and Emerging Technology							
Exploration of Innovative Contracting Methods	SPR- 3327	Scott Newbolds Barry Partridge	\$20,000	\$0	6	JTRP	Proposal Requested
			Total Estimated Cost	Total Funded Amt.			
			\$2,355,000	\$1,359,477			