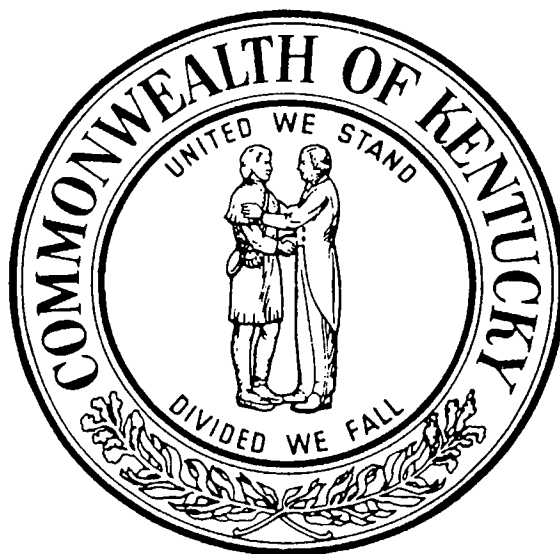


# PLANNING WORK

# PROGRAM

SPR-PL-1-(40)  
JUNE 16, 2004 – JUNE 15, 2005



IN COOPERATION WITH  
U.S. DEPARTMENT OF TRANSPORTATION  
FEDERAL HIGHWAY ADMINISTRATION

**COMMONWEALTH OF KENTUCKY  
TRANSPORTATION CABINET  
DEPARTMENT OF HIGHWAYS  
DIVISION OF PLANNING  
DIVISION OF MULTIMODAL PROGRAMS**

**WORK PROGRAM AND COST ESTIMATE  
FOR  
PROJECT SPR-PL-1(40)  
June 16, 2004 through June 15, 2005**

**PART I  
PLANNING  
MULTIMODAL PROGRAMS**

**PREPARED IN COOPERATION  
WITH  
U.S. DEPARTMENT OF TRANSPORTATION  
FEDERAL HIGHWAY ADMINISTRATION**

## **FOREWARD**

This Planning Program SPR-PL-1(40) for the period June 16, 2004 to June 15, 2005 is submitted in compliance with the provisions of Section 307 of Title 23, United States Code, and describes programs and operations for planning activities in the Kentucky Transportation Cabinet (KYTC). This program modifies and updates previous such programs and is specifically intended to reflect the needs of the Kentucky Transportation Cabinet. It is fully expected that products from this program will also have national applications.

The Divisions of Planning and Multimodal Programs are charged with the responsibility for recommending, advising, and assisting the chief administrators of the KYTC in the development of the overall goals, policies, project priorities, and procedures relating to the total transportation program of the Cabinet. Proposed activities for Fiscal Year 2005 are reported in detail by Volume and Chapter in this Work Program.

**KENTUCKY TRANSPORTATION CABINET**  
**DEPARTMENT OF HIGHWAYS**  
**FISCAL YEAR 2005**  
**PLANNING WORK PROGRAM**

<u>PROGRAM IDENTITY</u>	<u>FEDERAL</u>	<u>STATE MATCH</u>	<u>LOCAL</u>	<u>TOTAL</u>
<b>PLANNING</b>				
SPR-PR Part I Planning	\$8,331,200	\$2,082,800		\$10,414,000
PL Funded Metropolitan Area Planning	\$1,594,000	\$96,875	\$301,625	\$1,992,500
Other Planning Activities	*\$300,000	*\$900,000		\$1,200,000
<b>TOTALS - PLANNING</b>	<b>\$10,225,200</b>	<b>\$3,079,675</b>	<b>\$301,625</b>	<b>\$13,606,500</b>

\*Six Year Highway Plan charged to projects, not FH02.

<u>CHAPTER</u>	<u>TITLE</u>	<u>AMOUNT</u>
1	Administrative	\$331,700
2	Personnel Training	\$205,000
3	Equipment Management	\$1,175,000
4	Traffic Data Collection and Processing	\$1,892,000
5	Strategic Corridor Planning	\$1,737,200
6	Intermodal Statewide Planning	\$999,200
7	Roadway Systems	\$606,400
8	Geographic Information Systems	\$350,800
9	Cartography	\$297,300
10	GPS/HIS Development and Support	\$157,400
11	Global Positioning System (GPS)	\$339,600
12	Highway Information System	\$1,047,000
13	Special Analysis	\$152,100
14	Air Quality Conformity Analysis Program	\$177,300
15	Metropolitan Planning Organizations	\$362,800
16	Small Urban Areas Studies	\$57,500
17	Bicycle and Pedestrian Transportation Program	\$140,100
18	Traffic Congestion Management System & ITS Coordination	\$26,400
19	Smart Growth and Transportation Planning	\$76,100
20	Traffic Data – Forecasting	\$204,000
21	Statewide Traffic Model	\$79,100
	TOTAL	\$10,414,000

**CHAPTER 1:**

Administrative

**RESPONSIBLE UNIT:**

Division of Planning  
 Customer Service Activity Center (Internal Customer Service Team, External Customer Service Team, and Administrative Team)  
 Division of Multimodal Programs (Administrative Team)

**PURPOSE AND SCOPE:** The Customer Service Activity Center within the Division of Planning is comprised of the Internal Customer Service Team, External Customer Service Team, and the Administrative Team. The Internal Customer Service Team plans, organizes, directs, motivates, and controls activities to accomplish Division goals in accordance with Cabinet and federal transportation policies and procedures. They are responsible for the preparation of all correspondence, daily time and attendance records, and in state and out-of-state travel requests. This Team also oversees training, EEO reporting, ADA, Workers Comp, and FLSA reporting. The External Customer Service Team focuses on customers external to the Division for cartographic products, statistical reports, and responses to various data requests including responding to the Division's web page. This Team also oversees map sales. The Division produces city, county, and other miscellaneous maps for sale to other divisions within the Cabinet, other state government agencies, and to the general public. The External Customer Service Team is responsible for the plotting and sale of all maps upon request. They also keep records of maps sold and process the necessary paperwork for billing. In addition, they are also responsible for updating traffic count station maps for all counties and incorporated areas with the latest available traffic count and station data. The Administrative Team recommends, advises, and assists the chief administrators of the Cabinet in the development of the overall goals, policies, project priorities, and procedures relating to the transportation program of the Cabinet. This team is also responsible for the Appalachian Development Cost Estimate (APD). The APD is submitted every five years and submitted to FHWA. Additionally, it is the function of the Administrative Team to administer National Scenic Byway grants, oversee the state Scenic Byway program, prepare the annual Work Program, oversee federal reporting requirements, and monitor and process payments against various contracts awarded to the Division. The administration of the SPR Work Program, Area Development Districts Regional Transportation Program, and the Metropolitan Planning Organizations UPWPs also include full consideration of Title VI and the Civil Rights Act of 1964 and other social, environmental, and economic implications and is in compliance with the Cabinet's approved Affirmative Action Program.

**PROPOSED ACTIVITIES FOR 2004-2005:** Service and respond to all internal, external, and administrative requests in a precise, timely, and customer friendly manner regarding all inquiries for assistance as described above.

**DISTRIBUTION OF ESTIMATED COST FOR 2004-2005**

	<b>PLANNING</b>	<b>MULTIMODAL PROGRAMS</b>	<b>TOTAL</b>
<b>PERSONNEL</b>	\$229,000	\$81,700	\$310,700
<b>OTHER</b>	*\$21,000	\$0	\$21,000
<b>TOTAL</b>	\$250,000	\$81,700	\$331,700

\*Outsourced for completion of the FHWA 536 report

**CHAPTER 2:** Personnel Training

**RESPONSIBLE UNIT:** Division of Planning  
Division of Multimodal Programs

**PURPOSE AND SCOPE:** The training of personnel is essential to the transportation program in order to keep pace with changing techniques and evaluate new procedures and developments. This is particularly essential to the Cabinet's multimodal/intermodal programs as more and better technical analyses and assistance are required.

**PROPOSED ACTIVITIES FOR 2004-2005:** An effort will be made to continue a level of staff training which will maintain the integrity of professional career development and improvement of technological skills.

Such training will include, but not be limited to the following conference/workshops or like training: Highway Performance Monitoring System (HPMS), Highway Economic Requirements System (HERS), Exor (upgrade of Highway Information System), TransCAD Traffic Model Training, ASCE Kentucky annual meeting, ITE Kentucky annual meeting, KBT Annual Meeting, Partnering Conference, Small and Medium Sized Communities Conference, National Access Management Conference, TRB Committee Meetings, Planning Applications Conference, NATMEC, TMG training, reauthorization and mobility measures training, and other miscellaneous workshops and conferences related to transportation planning and activities of this program.

We also anticipate training in the following areas: ArcGIS, Exor, Air Quality, Transportation Enhancement, Roundabouts, Highway Capacity, CORSIM, accident analysis, safety conscious planning, freight movement, rural transportation planning, federal highway bill provisions, National Environmental Policy Act, land use, access management, Road User Cost Analysis, GIS systems, Congestion Management Systems, MPO and rural Planning, as well as other courses/conferences that will teach us about any changes in the federal legislation, help us assist our customers better, and carry out the activities we are responsible for in the United States Code and the Code of Federal Regulations. Also provide annual in-state Traffic Data Recorder Training for District Personnel and training for the District Planning personnel in procedures, etc..

**DISTRIBUTION OF ESTIMATED COST FOR 2004-2005**

	<b>PLANNING</b>	<b>DISTRICT OFFICE</b>	<b>MULTIMODAL PROGRAMS</b>	<b>TOTAL</b>
<b>PERSONNEL</b>	<b>\$80,000</b>	<b>\$21,000</b>	<b>\$67,900</b>	<b>\$168,900</b>
<b>OTHER</b>	<b>\$7,700</b>	<b>\$3,000</b>	<b>\$25,400</b>	<b>\$36,100</b>
<b>TOTAL</b>	<b>\$87,700</b>	<b>\$24,000</b>	<b>\$93,300</b>	<b>\$205,000</b>

**CHAPTER 3:** Equipment Management

**RESPONSIBLE UNIT:** Division of Planning  
Traffic and Equipment Management Activity Center  
Equipment Management Team

**PURPOSE AND SCOPE:** This team focuses on the identification, purchase, repair/maintenance, placement, and operation of various pieces of traffic data collection equipment statewide with the Districts and within the Division.

**PROPOSED ACTIVITIES FOR 2004-2005:** Collect volume and classification data on fifty interstate index stations and volume data on 150 non-index interstate stations.

Collect data at approximately 450 regularly scheduled volume and classification stations to assist District efforts.

Collect, process, analyze, and submit quarterly one week of weigh-in-motion (WIM) data at 28 permanent WIM stations. Periodically calibrate and assess equipment for adjustments in order to obtain quality data.

Collect, process, and submit 48 hours of WIM data at ten portable WIM stations.

Install and maintain permanent vehicle sensors at approximately 30 high volume locations.

Repair and maintain 77 Automatic Traffic Recorders (ATR) and install additional stations as necessary.

Investigate and purchase new technologies, sensors, data recorders, and communication devices developed for the traffic-counting industry to provide for safer, more efficient and more accurate methods of collection.

Certify, repair, and maintain approximately 600 traffic data recorders.

Inspect, repair, and maintain 400 permanent vehicle sensor locations.

Track emerging highway projects and produce plans and specifications for new and replacement traffic sensor installations for submittal into construction and pavement rehabilitation contracts.

Oversee any outside assistance necessary to assist this team in accomplishing the above tasks.

Repair and maintenance of equipment is estimated to include the following:

Item Description	Quantity	Unit Cost	Total Cost
Asphalt cold patch	20	\$5.0000	\$ 100.00
ATR station repair parts (surge panel, low V disconnects, solar reg, fuses, harnesses)	1	\$5,000.0000	\$ 5,000.00
Band-it and accessories	1	\$500.0000	\$ 500.00



**CHAPTER 3:****Equipment Management (Continued)****RESPONSIBLE UNIT:**

Division of Planning  
 Traffic and Equipment Management Activity Center  
 Equipment Management Team

<b>Item Description</b>	<b>Quantity</b>	<b>Unit Cost</b>	<b>Total Cost</b>
Batteries, equipment, 1.5V etc.	1	\$1,000.0000	\$ 1,000.00
Batteries, Storage, 12V	10	\$60.0000	\$ 600.00
Batteries, Storage, 6V	50	\$25.0000	\$ 1,250.00
Cables and parts (hoods, connectors, etc.)	1	\$1,000.0000	\$ 1,000.00
Camera, Digital cameras	4	\$200.0000	\$ 800.00
Camera, Film (delete if we can get digital cameras)	50	\$20.0000	\$ 1,000.00
Cleaning supplies, (solvent, towels, hand cleaner, brushes, buckets, etc.)	1	\$1,500.0000	\$ 1,500.00
Concrete (cabinet and pole bases)	150	\$3.0000	\$ 450.00
Concrete Saw Accessories- Blades, water pumps, gaskets, hoses	3	\$500.0000	\$ 1,500.00
Conduit, (Various sizes, types and fittings)	1	\$3,000.0000	\$ 3,000.00
Electronic Components (diodes, capacitors, soldering iron, solder, etc.)	1	\$500.0000	\$ 500.00
Epoxy, 2-part (Fabick)	400	\$30.0000	\$ 12,000.00
Epoxy, Mixing Tubes	200	\$3.0000	\$ 600.00
<b>Equipment, New Technology and testing</b>	2	\$25,000.0000	\$ 50,000.00
<b>Equipment, NonIntrusive Counting Devices</b>	4	\$12,500.0000	\$ 50,000.00
<b>Equipment, rental</b>	10	\$200.0000	\$ 2,000.00
<b>Equipment, test (electrical, piezo, ground, meters, o'scope, loop, modem)</b>	3	\$2,000.0000	\$ 6,000.00
<b>Equipment, Traffic Data Recorder, (replacements for stolen, damaged beyond repair)</b>	10	\$1,500.0000	\$ 15,000.00
<b>Equipment, Traffic Data Recorder, repair parts</b>	1	\$20,000.0000	\$ 20,000.00
<b>Equipment, Traffic Data Recorders for use with existing ITS monitoring station.</b>	12	\$6,000	\$ 72,000
Erosion Control, (mulch, nuggets, straw, etc.)	150	\$5.0000	\$ 750.00
<b>Fasteners, (screws, nuts, bolts, nails, clamps, banding, brackets, straps, etc.)</b>	1	\$2,000.0000	\$ 2,000.00
<b>GPS and accessories</b>	3	\$250.0000	\$ 750.00
Hardware, roadway - Chain	6	\$200.0000	\$ 1,200.00
Hardware, roadway - Chinese Fingers	500	\$3.0000	\$ 1,500.00
Hardware, roadway - Figure 8's	1000	\$1.0000	\$ 1,000.00
Hardware, roadway - Nails, PK (boxes)	14	\$20.0000	\$ 280.00
Hardware, roadway - Nails, Spikes	150	\$1.0000	\$ 150.00
Hardware, roadway - Tube clamps	200	\$0.6000	\$ 120.00
Inverters/power strips	3	\$250.0000	\$ 750.00

**CHAPTER 3:**

**Equipment Management (Continued)**

**RESPONSIBLE UNIT:**

Division of Planning  
 Traffic and Equipment Management Activity Center  
 Equipment Management Team

Item Description	Quantity	Unit Cost	Total Cost
Jbox, (6x6x4)	50	\$50.0000	\$ 2,500.00
Jbox, Type B	20	\$250.0000	\$ 5,000.00
Labels (repair tags, warning labels, wire numbers, etc.)	1	\$500.0000	\$ 500.00
Loop Sealant	1200	\$8.0000	\$ 9,600.00
Loop/Piezo Installation Materials, (mixing buckets, putty knives, spatulas, electrical tape, marking crayons, butt splices, spade lugs, drill bits, hole saws, etc.)	1	\$1,500.0000	\$ 1,500.00
Modems	4	\$300.0000	\$ 1,200.00
Paint and accessories (brushes, buckets, rollers, handle extensions)	1	\$1,000.0000	\$ 1,000.00
Pesticide and Herbicide	1	\$1,000.0000	\$ 1,000.00
Phone parts and accessories	1	\$1,000.0000	\$ 1,000.00
Piezo Cables Type I, 11 foot	20	\$800.0000	\$ 16,000.00
Piezo Cables Type I, 6 foot	20	\$500.0000	\$ 10,000.00
Piezo Cables Type II, 6 foot	40	\$300.0000	\$ 12,000.00
Poles, telescopic poles for equipment mounts	4	\$275.0000	\$ 1,100.00
Road Tubing (.2845/feet)	15,000	\$0.3000	\$ 4,500.00
Safety apparel, (Goggles, gloves, ear protection, rainsuits, hard hats, vests, flashlights, etc.)	1	\$1,000.0000	\$ 1,000.00
Sealant, waterproof (silicone, duct seal, etc.)	1	\$250.0000	\$ 250.00
Software, analytical (could range from \$50,000 to \$250k)	1	\$200,000.0000	\$ 200,000.00
Software, polling (if available)	1	\$2,000.0000	\$ 2,000.00
Solar panels	10	\$200.0000	\$ 2,000.00
Splice Kits (\$7.40 each)	80	\$7.5000	\$ 600.00
Tape Primer	30	\$10.0000	\$ 300.00
Tape, bookbinding	1	\$1,000.0000	\$ 1,000.00
Tape, asphalt tape in various sizes and types	1	\$6,000.0000	\$ 6,000.00
Toolboxes, containers	12	\$30.0000	\$ 360.00
Tools, hand tools (shovels, rakes, picks, hammers, pliers, cutters, pneu. and hand caulk guns, screwdrivers, meas. tape, etc.)	1	\$3,500.0000	\$ 3,500.00
Tools, small power (drills, weed eater, leaf blower, power washer, etc.)	1	\$3,000.0000	\$ 3,000.00
Traffic Control	1	\$70,000.0000	\$ 70,000.00
Training, (annual counter technician tng)	1	\$3,000.0000	\$ 3,000.00
Uniforms	52	\$50.0000	\$ 2,600.00

**CHAPTER 3:****Equipment Management (Continued)****RESPONSIBLE UNIT:**

Division of Planning  
 Traffic and Equipment Management Activity Center  
 Equipment Management Team

Item Description	Quantity	Unit Cost	Total Cost
Vehicle, accessories dash hardware, safety lights, etc.	2	\$1,500.0000	\$ 3,000.00
<del>Vehicle, new (2 units)</del>	<del>2</del>	<del>\$20,000.0000</del>	<del>\$40,000.00</del>
Vehicles, operating cost, Central Office	12	\$2,500.0000	\$30,000.00
Vehicles, operating cost, Districts	12	\$6,000.0000	\$72,000.00
Walkie Talkies		\$200.00	\$200.00
Wire, 4 pair	500	\$0.8500	\$425.00
Wire, loop	50000	\$0.0600	\$ 3,000.00
Wire, piezo coax	2	\$500.0000	\$ 1,000.00
Wood, (posts, plywood, forms, boards, shelving, etc.)	10	\$25.0000	\$ 250.00
Misc.	1	\$10,000.0000	\$ 10,000.00
<b>GRAND TOTAL (estimated)</b>			<b>\$ 677,685.00</b>

**DISTRIBUTION OF ESTIMATED COST FOR 2004-2005**

	PLANNING	CAPITAL EXPENDITURES	DISTRICT OFFICES	TOTAL
<b>PERSONNEL</b>	<b>\$314,000</b>	<b>\$0</b>	<b>\$13,000</b>	<b>\$327,000</b>
<b>OTHER</b>	<b>\$168,000</b>	<b>*\$678,000</b>	<b>\$2,000</b>	<b>\$848,000</b>
<b>TOTAL</b>	<b>\$482,000</b>	<b>\$678,000</b>	<b>\$15,000</b>	<b>\$1,175,000</b>

\*This figure represents the purchase of new equipment and parts as outlined above.

**CHAPTER 4:** Traffic Data Collection and Processing

**RESPONSIBLE UNIT:** Division of Planning  
Traffic and Equipment Management Activity Center  
Traffic Data Collection and Processing Team

**PURPOSE AND SCOPE:** To assign, process, analyze, and provide access to traffic volume and vehicle classification data for highway planning, design, reporting to FHWA, transportation decisions, and various other purposes. This involves making a significant number of short duration (usually 48 hours) portable machine counts on the State Highway System and state-maintained local roads. An adequate program of continuous traffic counting stations (ATRs) provides the basis for factoring short-term counts. Vehicle classification data will be assigned, processed, and made available to Cabinet staff for analytical and forecasting purposes.

**PROPOSED ACTIVITIES FOR 2004-2005:** Approximately 6,500 regularly scheduled short-duration portable machine counts will be performed statewide. These counts are one-third of all short-duration traffic count stations in the state and are now performed on a three-year cycle.

Vehicle classification data at approximately 1,500 stations will be collected and processed. This is the beginning of an effort to increase the number of classification stations to 25-30% of all traffic count stations in accordance with the Traffic Monitoring Guide.

Review, assign, process, analyze, and distribute data for approximately 400 special count stations that have been requested by outside divisions.

Download, process, maintain, and analyze data from 77 permanent ATR stations. Review operation with Equipment Management Team for proper operation, locations, and coverage for possible new ATR station installations.

Maintain, update, analyze, provide quality control and assurance of data, and make available data from more than 13,000 traffic count stations.

Update axle, monthly factors used in adjusting short counts, such as weekly, monthly, and axle correction factors from data collected at ATR and vehicle classification stations.

Update in-house databases to include any new stations or roadway alignment changes. Correct beginning and ending milepoints to better represent traffic generators.

Detect, analyze, and adjust volume counts while combining and creating additional stations where necessary.

**CHAPTER 4:** Traffic Data Collection and Processing (Continued)

**RESPONSIBLE UNIT:** Division of Planning  
Traffic and Equipment Management Activity Center  
Traffic Data Collection and Processing Team

**PROPOSED ACTIVITIES FOR 2004-2005 (continued):**

Update data summaries developed under the research study entitled "Estimation of Equivalent Axleloads."

Purchase new software to move mainframe vehicle classification and potentially volume data to a pc-based software with much more capabilities for display, trend analysis, and viewing. Begin the process of converting the existing vehicle classification file from a mainframe to a PC environment.

**DISTRIBUTION OF ESTIMATED COST FOR 2004-2005**

	<b>PLANNING</b>	<b>DISTRICT OFFICES</b>	<b>TOTAL</b>
<b>PERSONNEL</b>	<b>*\$675,000</b>	<b>\$856,700</b>	<b>\$1,531,700</b>
<b>OTHER</b>	<b>**\$325,000</b>	<b>\$35,300</b>	<b>\$360,300</b>
<b>TOTAL</b>	<b>\$1,000,000</b>	<b>\$892,000</b>	<b>\$1,892,000</b>

\*This figure includes the costs of three additional staff to this team.

\*\*Includes \$300,000 outsourced for assistance with data collection.

**CHAPTER 5:** Strategic Corridor Planning

**RESPONSIBLE UNIT:** Division of Planning  
Strategic Planning Activity Center  
Strategic Corridor Planning Team

**PURPOSE AND SCOPE:** Develop and implement an evaluation/scoring process for prioritizing projects for inclusion in the Six-Year Highway Plan and the Unscheduled Projects List. Evaluate system and corridor needs for the state maintained roadway network. Analyze data to measure performance of the transportation network and identify needs. Perform the necessary level of planning to develop a conceptual purpose and need statement, identify major environmental issues including environmental justice, initiate consultation with local officials, initiate agency coordination, involve the public early and often for projects listed in the Six-Year Highway Plan and Statewide Transportation Plan (Long-Range Plan), identify and evaluate alternatives, generate project cost estimates, and oversee outsourced activities. Also included are brief technical project studies, interchange justification studies, and/or other special studies. Evaluate and research techniques to better inform and involve the public about the project development process. Work with the Highway District Offices (HDOs) and Area Development Districts (ADDs) as needed to complete necessary tasks.

**PROPOSED ACTIVITIES FOR 2004-2005:** Using available data such as adequacy ratings or other information, projects in the current Six-Year Highway Plan and Unscheduled Projects List (UPL) will be scored, evaluated, and prioritized for possible inclusion in future Six-Year Highway Plans. Brief scoping efforts may be conducted on these proposed projects to further define the project description, need, and cost prior to programming. Based on scheduled design starts or programmed planning phases, projects will be selected from the Six-Year Highway Plan (first priority) or the higher needs of the URL for analysis. This may include developing a conceptual purpose and need statement, establishing an environmental footprint, identifying major environmental issues for each project, coordinating with various agencies and organizations, initiating consultation with local officials and other stakeholders including potential affected minority and low-income populations as appropriate, participating in a public involvement process to solicit input about project needs and requirements, defining project concepts and alternatives, selecting preferred concepts and/or alternatives as appropriate, and developing cost estimates for project concepts and alternatives. Work with HDOs in setting up team meetings, reviewing and completing cost estimates, participating in project teams, and setting up public involvement activities. Assist HDOs in conducting early project planning studies. Works with ADDs in setting up meetings and evaluating environmental justice issues.

**CHAPTER 5:**

## Strategic Corridor Planning (continued)

**RESPONSIBLE UNIT:**

Division of Planning  
 Strategic Planning Activity Center  
 Strategic Corridor Planning Team

**DISTRIBUTION OF ESTIMATED COST FOR 2004-2005**

	<b>PLANNING</b>	<b>CAPITAL EXPENDITURES</b>	<b>DISTRICT OFFICES</b>	<b>TOTAL</b>
<b>PERSONNEL</b>	\$350,000	\$0	\$184,200	\$534,200
<b>OTHER</b>	*\$1,170,000	**\$30,000	\$3,000	\$1,203,000
<b>TOTAL</b>	\$1,520,000	\$30,000	\$187,200	\$1,737,200

\*Includes \$300,000 for access management and \$500,000 for project scoping studies. An additional \$1,000,000 (non-SPR funds) is estimated for resources outside the Kentucky Transportation Cabinet.

\*\*New vehicle to be purchased to replace current Planning van that was bought in 2001.

**CHAPTER 6:****Intermodal Statewide Planning****RESPONSIBLE UNIT:**

Division of Planning  
Strategic Planning Activity Center  
Intermodal Statewide Planning Team  
Division of Multimodal Programs

**PURPOSE AND SCOPE:** Conduct a comprehensive statewide transportation planning process with the Area Development Districts (ADDs), Metropolitan Planning Organizations (MPOs), and the Highway District Offices (HDOs). Periodically update a multimodal Statewide Transportation Plan (STP) based on the Cabinet's long-range goals and objectives and the public involvement process. Provide input to the Six-Year Highway Plan. This process includes intermodal and statewide transportation planning programs, Freight Team, Mobility Team, consideration of all modes and intermodal highway access, the development of a policy driven approach to identification and prioritization of needs, and support of the Rural Transportation Planning program through the fifteen ADDs and twelve HDOs.

**PROPOSED ACTIVITIES FOR 2004-2005:** Prepare an updated STP that incorporates the Cabinet's strategic goals and objectives, regional transportation goals, and data-driven needs assessment. Coordinate with other transportation modes to obtain input on intermodal issues for the STP. Obtain input for the intermodal and statewide transportation planning process and support the Cabinet's Freight Team and Mobility Team. Work closely with the ADDs/HDOs to enhance the statewide transportation planning process including data collection, analysis, public involvement, and coordination with the MPOs. Work with the ADDs and HDOs to conduct a comprehensive updating of Project Identification Forms. Provide the ADDs and HDOs with data, training, transportation systems information, tools, and guidance. Analyze, identify, and prioritize transportation projects through analyses of data, freight flow patterns, intermodal and freight facility locations, National Highway System (NHS) and National Truck Network (NN) access, and public input. Assist with the development and implementation of a scoring process for prioritizing projects for inclusion in the Six-Year Highway Plan as well as evaluation of system and corridor needs for the state maintained roadway network. Conduct special studies and collect data as needed to analyze riverport issues, rail transportation issues, and freight transportation and highway access to intermodal facilities. Provide direction for special projects. Respond to inquiries about proposed transportation projects. Review surplus property/right-of-way proposals and school site locations as relates to long-range transportation needs. Make information on intermodal and statewide transportation available for public use. Assist with other planning activities as needed, such as the Cabinet's Highway Safety Program through the ADDs and Division of Traffic Operations.



**CHAPTER 6:**

Intermodal Statewide Planning (continued)

**RESPONSIBLE UNIT:**Division of Planning  
Strategic Planning Activity Center  
Intermodal Statewide Planning Team  
Division of Multimodal Programs**DISTRIBUTION OF ESTIMATED COST FOR 2004-2005**

	<b>PLANNING</b>	<b>DISTRICT OFFICE</b>	<b>MULTIMODAL PROGRAMS</b>	<b>TOTAL</b>
<b>PERSONNEL</b>	<b>\$400,900</b>	<b>\$390,000</b>	<b>\$39,300</b>	<b>\$830,200</b>
<b>OTHER</b>	<b>*\$159,000</b>	<b>\$10,000</b>	<b>\$0</b>	<b>\$169,000</b>
<b>TOTAL</b>	<b>\$559,900</b>	<b>\$400,000</b>	<b>\$39,300</b>	<b>\$999,200</b>

\* This amount includes \$50,000 in outsourced assistance for support of intermodal transportation planning activities and \$100,000 to assist in the annual Regional Transportation Program with the Area Development Districts. This chapter also includes \$698,600 (not financed with SPR funds) for the annual program with the Area Development Districts.

**CHAPTER 7:****Roadway Systems****RESPONSIBLE UNIT:**

Division of Planning  
 Transportation Systems Activity Center  
 Roadway Systems Team

**PURPOSE AND SCOPE:** To maintain the official Department of Highways records for the State Primary Road System, National Highway System, Functional Classification System, Designated National Truck Network (NN), Coal Haul Highway System, and Forest Highway System. Work with our Highway District Office Planning staff to conduct the necessary research and evaluations relative to proposed system changes, prepare official documentation for approval and signature, and notify all necessary personnel of the approved changes. For the Coal Haul System, annually gather and compile source data on the transportation of coal by truck in the Commonwealth of Kentucky.

**PROPOSED ACTIVITIES FOR 2004-2005:** Continue to examine systems change process to respond in a more timely fashion. Work to scrub our State Primary Road System so that the Cabinet is maintaining roadways of significance that match our functional classification system. Update, maintain, and publish for distribution to interested parties and the trucking industry an official listing of truck route descriptions and a statewide map depicting the NN. Send out forms semi-annually to coal companies and truck transporters for reporting the truck transportation of coal, update database and maps from information on returned semi-annual reports, provide ton-mile statistics to Department for Local Government, publish Kentucky's Official Coal Haul System Report, study possible legislative proposals to streamline and stabilize the Coal Haul Road System, and provide the Division of Traffic Operations information for updating the "Extended Weight Coal Haul Road System."

**DISTRIBUTION OF ESTIMATED COST FOR 2004-2005**

	<b>PLANNING</b>	<b>DISTRICT OFFICES</b>	<b>TOTAL</b>
<b>PERSONNEL</b>	<b>*\$385,000</b>	<b>\$205,000</b>	<b>\$590,000</b>
<b>OTHER</b>	<b>\$10,000</b>	<b>\$6,400</b>	<b>\$16,400</b>
<b>TOTAL</b>	<b>\$395,000</b>	<b>\$211,400</b>	<b>\$606,400</b>

\*This amount includes the cost of one additional staff person to this team.

**CHAPTER 8:**

## Geographic Information Systems (GIS)

**RESPONSIBLE UNIT:**

Division of Planning  
 Transportation Systems Activity Center  
 GIS Team

**PURPOSE AND SCOPE:** To meet the needs of the Division, Cabinet, other state agencies, and entities outside state government for accurate GIS based electronic maps. To maintain the transportation layer base map to the highest map standard level and most up-to-date status possible. See that data links to the base map are always complete and accurate. GIS will be utilized to analyze graphically and spatially the Cabinet's highway transportation needs.

**PROPOSED ACTIVITIES FOR 2004-2005:** Create and maintain a seamless statewide transportation GIS base map using GPS data on all public streets and roads; work with the Data Management Activity Center to conflate data to new GIS transportation layer for all public roads and link new data as required; develop new county maps using ESRI® based GIS tools to show all the transportation layers and other pertinent features; and maintain and update the GIS base maps to continually reflect the latest street and road alignments, road attribute data, and other map features. Provide various GIS displays of data to assist transportation decision-makers in their roles.

**DISTRIBUTION OF ESTIMATED COST FOR 2004-2005**

	<b>PLANNING</b>	<b>TOTAL</b>
<b>PERSONNEL</b>	<b>\$240,800</b>	<b>\$240,800</b>
<b>OTHER</b>	<b>*\$110,000</b>	<b>\$110,000</b>
<b>TOTAL</b>	<b>\$350,800</b>	<b>\$350,800</b>

\*Includes \$100,000 for University of Kentucky technical assistance program.

**CHAPTER 9:**

Cartography

**RESPONSIBLE UNIT:**

Division of Planning  
 Transportation Systems Activity Center  
 Cartography Team

**PURPOSE AND SCOPE:** To meet the needs of the Division, Cabinet, other state agencies, and entities outside state government for general and special purpose maps. This continuing program involves creating, updating, printing, and distributing a wide variety of cartographic projects.

**PROPOSED ACTIVITIES FOR 2004-2005:** Continue development of electronic mapping for all city, county, state, and special-purpose cartographic products; maintain and publish electronic formats of cartographic products on the internet; use the large-format plotter to print city, county, and state maps as needed for distribution through the Division of Planning inter-account service and the Kentucky Geological Survey Map Sales function contained in Chapter 1, Administrative; update the Official State Highway Map and have necessary printing accomplished; create reports and exhibits for various Division projects and studies; and provide mapping and graphic assistance to other Divisions and Departments on request.

**DISTRIBUTION OF ESTIMATED COST FOR 2004-2005**

	<b>PLANNING</b>	<b>CAPITAL EXPENDITURES</b>	<b>DISTRICT OFFICES</b>	<b>TOTAL</b>
<b>PERSONNEL</b>	<b>\$215,000</b>	<b>\$</b>	<b>\$ 6,300</b>	<b>\$221,300</b>
<b>OTHER</b>	<b>*\$55,000</b>	<b>**\$20,000</b>	<b>\$1,000</b>	<b>\$76,000</b>
<b>TOTAL</b>	<b>\$270,000</b>	<b>\$20,000</b>	<b>\$7,300</b>	<b>\$297,300</b>

\*Includes \$50,000 for the Official State Highway Map printing.

\*\*New Plotter estimated at \$20,000.

**CHAPTER 10:****GPS/HIS Development and Support****RESPONSIBLE UNIT:**

Division of Planning  
Data Management Activity Center  
Development and Support Team

**PURPOSE AND SCOPE:** Provide **assistance** and **support** for maintenance of Cabinet's Geographic Information System (GIS). Implement Highway Information System (HIS) database upgrade to "Highways by Exor" product. Research, develop, and incorporate available data options into base map and/or HIS database maintenance and updates.

**PROPOSED ACTIVITIES FOR 2004-2005:** Develop programs and procedures to review, edit, and update Cabinet's base map and HIS/Exor database. Work with Transportation's Office of Technology and other agencies to move existing data to new database, run in parallel with existing system, identify problems to be addressed by Cabinet or vendor, and to accept upgrade as the production system. Assist in resolving Division hardware and software problems. Review software that will assist in maintenance of base map and database. Work with other agencies to maintain link to current roadway network. Will be involved in testing, training, report migration, and looking for enhancements with the new Exor.

**DISTRIBUTION OF ESTIMATED COST FOR 2004-2005**

	<b>PLANNING</b>	<b>TOTAL</b>
<b>PERSONNEL</b>	<b>\$139,400</b>	<b>\$139,400</b>
<b>OTHER</b>	<b>\$18,000</b>	<b>\$18,000</b>
<b>TOTAL</b>	<b>\$157,400</b>	<b>\$157,400</b>

**CHAPTER 11:** Global Positioning System (GPS)

**RESPONSIBLE UNIT:** Division of Planning  
Data Management Activity Center  
GPS Team

**PURPOSE AND SCOPE:** Coordinate **data collection activities** for the statewide Geographic Information System (GIS) transportation layer in cooperation with the Area Development Districts (ADDs). Match Global Positioning System (GPS) centerline data collected and processed with existing Linear Referencing System (county, route, milepoint). Assist in the migration of the existing Highway Information System (HIS) database to "Highways by Exor" using Oracle Spatial.

**PROPOSED ACTIVITIES FOR 2004-2005:** Collect and maintain roadway centerline data using GPS technology or incorporating alignments from highway design plans for all public roads, statewide. Perform office reviews to verify data meets the required standards and confidence levels established by this Division and in accordance with the National Standard for Spatial Data Accuracy. Incorporate newly acquired centerline data to the existing highway network; includes updating and verifying roadway mileage, highway systems data, and use in maintaining and generating data driven maps. These include County Road Aid Series, functional, truck, state system, and traffic station maps. Make GIS base map changes as necessitated by changes to the highway network.

**DISTRIBUTION OF ESTIMATED COST FOR 2004-2005**

	<b>PLANNING</b>	<b>DISTRICT OFFICES</b>	<b>TOTAL</b>
<b>PERSONNEL</b>	<b>\$282,100</b>	<b>\$31,500</b>	<b>\$313,600</b>
<b>OTHER</b>	<b>\$18,000</b>	<b>\$8,000</b>	<b>\$26,000</b>
<b>TOTAL</b>	<b>\$300,100</b>	<b>\$39,500</b>	<b>\$339,600</b>

**CHAPTER 12:**

## Highway Information System

**RESPONSIBLE UNIT:**

Division of Planning  
 Data Management Activity Center  
 HIS Team

**PURPOSE AND SCOPE:** Maintain and operate the Highway Information System (HIS) database. Use the Highway Performance Monitoring System (HPMS) to establish a baseline for measuring highway system performance and produce the highway data submittal required annually by Federal Highway Administration (FHWA). Provide information to the Transportation Cabinet, other governmental agencies, consultants, and private organizations. Continue development and maintenance of the HIS database interface with the Geographic Information System (GIS) and other Cabinet databases. Provide data to be posted to Division's web site.

**PROPOSED ACTIVITIES FOR 2004-2005:** Work with the Office of Technology and other divisions within the Transportation Cabinet to: upgrade the HIS database to "Highways by EXOR" and consolidate the Cabinet's data maintenance efforts. Assist in the development and maintenance of a Cabinet GIS and maintain database network for Kentucky's public highway system. Provide up-to-date route network, DMI, functional class, NHS, and urban area information. Utilize HPMS to update Rating Indices, Capacity, and Volume/Service Flow ratio in the HIS database. Use HIS to measure highway system performance and assist with analyses of the Unscheduled Needs List. Maintain currency of HPMS software, perform changes required by federal legislation, regulations, policies, and/or guidelines, as needed to the HPMS. Make updates to the HIS database. Investigate results of HPMS each year and analyze changes in processes to improve output of report.

**DISTRIBUTION OF ESTIMATED COST FOR 2004-2005**

	<b>PLANNING</b>	<b>CAPITAL EXPENDITURES</b>	<b>DISTRICT OFFICES</b>	<b>TOTAL</b>
<b>PERSONNEL</b>	<b>\$300,000</b>	<b>\$0</b>	<b>\$42,000</b>	<b>\$342,000</b>
<b>OTHER</b>	<b>\$50,000</b>	<b>*\$650,000</b>	<b>\$5,000</b>	<b>\$705,000</b>
<b>TOTAL</b>	<b>\$350,000</b>	<b>\$650,000</b>	<b>\$47,000</b>	<b>\$1,047,000</b>

\* Purchase new Data Collection Van

