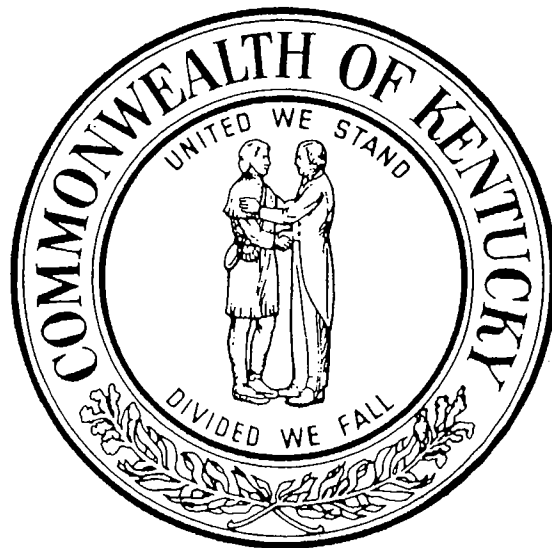


# **PLANNING WORK PROGRAM**

SPR-PL-1(41)  
JUNE 16, 2005 – JUNE 15, 2006



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

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

**WORK PROGRAM AND COST ESTIMATE  
FOR  
PROJECT SPR-PL-1(41)  
June 16, 2005 through June 15, 2006**

**PART I  
DIVISION OF PLANNING**

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

## INTRODUCTION

The Planning and Research Program Annual Work Program is required under 23 CFR 420.111. Due to the organization of the Cabinet, the Planning and Research portions are submitted as separate documents. This document outlines the transportation planning activities as Planning (Part I) of the work program, with a summary of the Research Parts II and III.

This year's work program has some changes from prior years. The Cabinet's Division of Multimodal Programs and the Division of Planning have merged organizationally and are now called the Division of Planning. Therefore, under each chapter, there is no longer the Multimodal Programs expenditure column. To illustrate the merge, a detailed organization chart (See Exhibit 1) has been inserted in the work program addressing the various functional areas of the new division responsible for planning activities.

In performing the planning activities, the Kentucky Transportation Cabinet has many partners. In this year's work program, those partners are outlined. In each of the work program chapters, there is a denotation of the Highway District Offices. Each Highway District Office has a Planning Branch that performs planning activities for many of the chapters in the work program. We also have agreements with each of the 15 Area Development Districts (ADDs) in the Commonwealth. The ADDs in cooperation with the Highway District Offices Planning Branch perform for the Cabinet much of the Public Involvement in Statewide Transportation Planning (23 CFR 450.200), intermodal and freight activities, environmental justice evaluation and data collection. The Metropolitan Planning Organizations receive money each year to meet the requirements of 23 CFR 450 Subpart C. At times, we also work with the Kentucky Transportation Center to perform research that Parts II and III of the research program are unable to accommodate, and to also perform one of the required 500 Series FHWA reports. The consulting industry is also used at times when additional resources are needed. Those partners are addressed in Exhibits Two and Three (except for the consulting industry) in this year's work program.

This year, there will be major ongoing activities for which one is a major upgrade of the Cabinet's Highway Information System (HIS) database that will integrate the highway graphics and highway data in a newer platform and more recent version of Oracle. Another emphasis area will be the documentation of the TMS processes, and the update of a planning manual that would incorporate the reorganization. There is a strong continued effort in this work program to install more loops at high volume locations to obtain volume and class counts without endangering our employees. If time allows, an upgrade of the many traffic databases currently in place will be examined and possible integration of those systems into one with the purchase of new software is a goal. There will potentially be a push for additional data collection efforts to update HIS with more current data. With the merger of divisions, there will be an opportunity to focus in the freight area more than in past years also. One more major initiative is the pilot project of combining the rural and MPO work programs for the FIVCO ADD/MPO for this year. If this proves successful, we will add more to the pilot. With focus on data collection, the division will be increasing vehicle classification counts to approximately 25% of the volume stations, in attempt to move closer to the percentage recommendation in the TMG (Traffic Monitoring Guide). For more details, refer to each chapter contained within this work program.

## FOREWARD

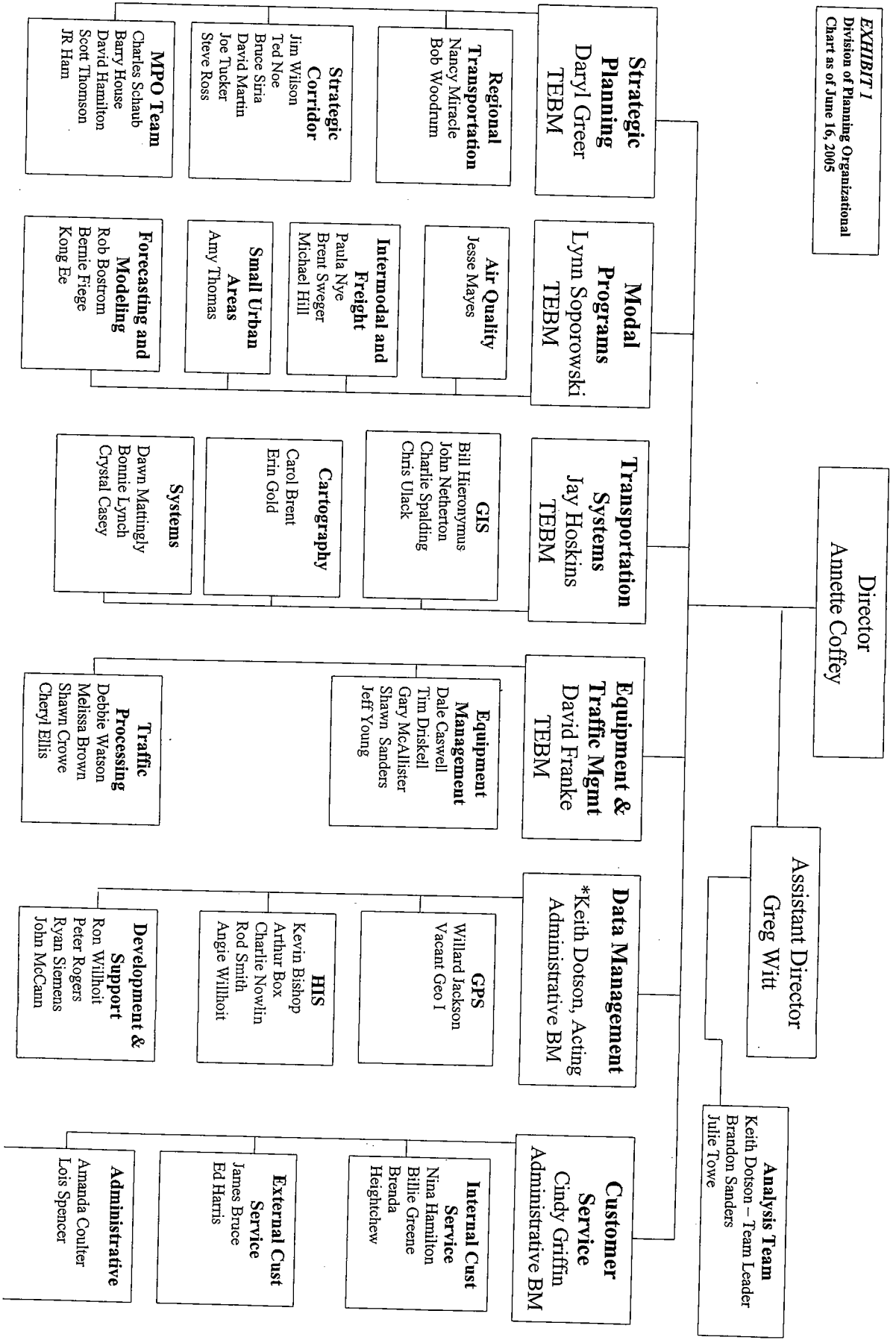
This Planning Program SPR-PL-1(41) for the period June 16, 2005 to June 15, 2006 is submitted in compliance with the provisions of Section 307 of Title 23, United States Code, and describes programs and operations for planning activities in the Kentucky Transportation Cabinet (KYTC). This program modifies 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 Division of Planning is 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 2006 are reported in detail by Volume and Chapter in this Work Program.

Until a Transportation Reauthorization Bill is passed by Congress the fiscal portions of the UPWP are based on past historical data. When the Transportation Bill is passed the fiscal portions may be amended to reflect the actual funding availability.

Attached as Exhibit 1 is the Division of Planning Organizational Chart as of June 16, 2005.

**EXHIBIT 1**  
 Division of Planning Organizational  
 Chart as of June 16, 2005



**KENTUCKY TRANSPORTATION CABINET  
DEPARTMENT OF HIGHWAYS  
FISCAL YEAR 2006  
Subpart I- SPR-PLANNING WORK PROGRAM**

**PROGRAM IDENTITY**                      **STATE**                      **FEDERAL**                      **MATCH**                      **LOCAL MATCH**                      **OTHER**                      **TOTAL**

**PLANNING**

SPR-Part I						
District Office Planning Personnel Cost	\$6,484,300	\$1,675,400				\$8,159,700
<i>Sub-Total Personnel Cost</i>	\$1,489,200	\$372,300				\$1,861,500
	\$7,973,500	\$2,047,700				\$10,021,200
Operating Cost	\$582,600	\$0			*\$1,200,000	
<i>Subtotal</i>	\$582,600	\$0			*\$1,200,000	\$10,603,800

**Partner Agencies \*\***

Metropolitan Planning Organizations						
PL Funded MPO Planning Budgeted	\$1,560,600	\$97,538		\$292,613		\$1,950,751
PL Discretionary Fund	\$484,734	\$8,713		\$112,471		\$605,918
<i>Total PL Funds</i>	\$2,045,334	\$106,251		\$405,084		\$2,556,669

ADD Regional Transportation Program (State Funds)		\$698,600		\$77,622		\$776,222
ADD Regional Transportation Program (General Funds)		\$400,000		\$44,444		\$444,444
Additional Mapping	\$113,600	\$28,400		\$0		\$142,000
<i>Total ADD funds</i>	\$113,600	\$1,127,000		\$122,066		\$1,362,666

**TOTALS - PLANNING**

<b>\$13,160,469</b>
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\*Six-Year Highway Plan charged to projects, not SPR.

\*\* See Exhibit 2 for more detail

**KENTUCKY TRANSPORTATION CABINET  
DEPARTMENT OF HIGHWAYS  
FISCAL YEAR 2005**

**SPR RESEARCH PART II AND PART IIIB WORK PROGRAM**

<b>PROGRAM IDENTITY</b>	<b>FEDERAL</b>	<b>STATE MATCH</b>	<b>TOTAL</b>
SPR-Part II Research	\$2,050,000	\$512,500	\$2,562,500
FY 04 Carryover Funds	\$57,200	\$14,300	\$71,500
Part III B Research		\$200,000	\$200,000
NCHRP Dues	\$600,000		\$600,000
Pooled Funds	\$100,000		\$100,000
<b>TOTALS</b>	<b>\$2,807,200</b>	<b>\$726,800</b>	<b>\$3,534,000</b>



**FISCAL YEAR 2005-2006 BUDGETS  
FOR  
REGIONAL TRANSPORTATION PROGRAM  
WITH THE  
AREA DEVELOPMENT DISTRICTS**

ADD	NO MATCH SPR Mapping	State (90%) Local (10%) Match Program			General Fund (state)	State Totals 90/10	Local Match 90/10	TOTAL PROGRAM
		ADD Planner Assistance	Regional Trans. Prog.	Trans. Prog.				
BARREN RIVER	\$20,000.00		\$47,500.00	\$27,040.00	\$74,540.00	\$8,282.00	\$102,822.00	
BIG SANDY	\$17,000.00		\$40,010.00	\$23,200.00	\$63,210.00	\$7,023.00	\$87,233.00	
BLUEGRASS			\$62,507.00	\$36,040.00	\$98,547.00	\$10,950.00	\$109,497.00	
BUFFALO TRACE	\$20,000.00		\$40,010.00	\$23,200.00	\$63,210.00	\$7,023.00	\$90,233.00	
CUMBERLAND VALLEY		\$2,000.00	\$48,553.00	\$27,800.00	\$78,353.00	\$8,706.00	\$87,059.00	
FIVCO	\$17,000.00		\$40,010.00	\$23,200.00	\$63,210.00	\$7,023.00	\$87,233.00	
GATEWAY			\$40,010.00	\$23,200.00	\$63,210.00	\$7,023.00	\$70,233.00	
GREEN RIVER			\$47,500.00	\$27,040.00	\$74,540.00	\$8,282.00	\$82,822.00	
KIPDA	\$17,000.00		\$47,500.00	\$27,040.00	\$74,540.00	\$8,282.00	\$99,822.00	
KENTUCKY RIVER			\$47,500.00	\$27,040.00	\$74,540.00	\$8,282.00	\$82,822.00	
LAKE CUMBERLAND	\$17,000.00		\$47,500.00	\$27,040.00	\$74,540.00	\$8,282.00	\$99,822.00	
LINCOLN TRAIL			\$47,500.00	\$27,040.00	\$74,540.00	\$8,282.00	\$82,822.00	
NORTHERN KENTUCKY			\$47,500.00	\$27,040.00	\$74,540.00	\$8,282.00	\$82,822.00	
PENNYRBE	\$17,000.00		\$47,500.00	\$27,040.00	\$74,540.00	\$8,282.00	\$99,822.00	
PURCHASE	\$17,000.00		\$47,500.00	\$27,040.00	\$74,540.00	\$8,282.00	\$99,822.00	
TOTAL	\$142,000.00	\$2,000.00	\$698,600.00	\$400,000.00*	\$1,100,600.00	\$122,286.00	\$1,364,886.00	

\*The 2005-2006 Match Program will be used to fund the construction of the ADD. The ADD will be used to fund the construction of the ADD. The ADD will be used to fund the construction of the ADD.

**PL funds for MPO Unified Planning Work Programs for FY 2006  
Assumes 100% Federal Funds Available**

MPO AREA	TOTAL FY 2006 PL Funding										TOTAL	FED+ST FUNDING	F+S = %
	Fed \$	Fed %	State \$	State %	Local \$	Local %	F+S+L=\$	F+S=\$	F+S = %				
LOUISVILLE	\$ 813,445	80.0%	\$ 50,840	5.00%	\$ 152,521	15.00%	\$ 1,016,807	\$ 864,286	85.00%				
NORTHERN KY	\$ 307,887	80.0%	\$ 19,243	5.00%	\$ 57,729	15.00%	\$ 384,858	\$ 327,129	85.00%				
LEXINGTON	\$ 275,669	80.0%	\$ 17,229	5.00%	\$ 51,688	15.00%	\$ 344,586	\$ 292,898	85.00%				
HENDERSON	\$ 35,969	80.0%	\$ 1,623	3.61%	\$ 7,369	16.39%	\$ 44,961	\$ 37,592	83.61%				
OWENSBORO	\$ 74,317	80.0%	\$ 4,645	5.00%	\$ 13,934	15.00%	\$ 92,896	\$ 78,962	85.00%				
ASHLAND	\$ 61,995	80.0%	\$ 3,875	5.00%	\$ 11,624	15.00%	\$ 77,494	\$ 65,870	85.00%				
FT CAMPBELL	\$ 20,782	80.0%	\$ 1,299	5.00%	\$ 3,897	15.00%	\$ 25,977	\$ 22,081	85.00%				
BOWLING GREEN	\$ 60,280	80.0%	\$ 3,559	4.72%	\$ 11,511	15.28%	\$ 75,350	\$ 63,839	84.72%				
RADCLIFF-													
ELIZABETHTOWN	\$ 62,991	80.0%	\$ 3,937	5.00%	\$ 11,811	15.00%	\$ 78,738	\$ 66,927	85.00%				
DISCRETIONARY FOR SEPARATE CONTRACT	\$ 332,000	80.0%	\$ -	0.00%	\$ 83,000	20.00%	\$ 415,000	\$ 332,000	80.00%				
<b>TOTALS</b>	<b>\$ 2,045,334</b>		<b>\$ 106,250</b>		<b>\$ 405,084</b>		<b>\$ 2,556,668</b>	<b>\$ 2,151,584</b>					
<b>PL Budget Total</b>	<b>\$ 1,560,600</b>	<b>80%</b>	<b>\$ 97,538</b>	<b>5.00%</b>	<b>\$ 292,613</b>	<b>15.00%</b>	<b>\$ 1,950,750</b>	<b>\$ 1,658,138</b>	<b>85.00%</b>				
<b>PL Discretionary</b>	<b>\$ 484,734</b>	<b>80%</b>	<b>\$ 8,713</b>	<b>1.44%</b>	<b>\$ 112,471</b>	<b>18.56%</b>	<b>\$ 605,918</b>	<b>\$ 493,447</b>	<b>81.44%</b>				

- \* State funds are 5% for formula funds only.
- \* Local does NOT flow thru the Cabinet.
- \* Discretionary For Separate Contract will be divided into 3 projects in 3 MPO areas.

## TABLE OF CONTENTS

<u>CHAPTER</u>	<u>TITLE</u>	<u>AMOUNT</u>
1	Administrative	\$331,100
2	Personnel Training	\$110,000
3	Equipment Management	\$953,800
4	Traffic Data Collection and Processing	\$2,079,200
5	Strategic Corridor Planning	\$1,274,100
6	Statewide Transportation Planning	\$786,900
7	Roadway Systems	\$553,700
8	Geographic Information Systems (GIS)	\$331,600
9	Cartography	\$340,000
10	GPS/HIS Development and Support	\$118,900
11	Global Positioning System (GPS)	\$209,300
12	Highway Information System	\$627,500
13	Special Analysis	\$651,800
14	Air Quality Conformity Analysis Program	\$213,500
15	Metropolitan Planning Organizations	\$471,200
16	Small Urban Areas Studies	\$848,200
17	Multimodal	\$287,300
18	Statewide Congestion, Mobility, and Access Management	\$91,600
19	Traffic Data Forecasting	\$242,100
20	Statewide Traffic Model	\$82,000
	TOTAL	\$10,603,800

**CHAPTER 1:** Administrative

**RESPONSIBLE UNIT:** Division of Planning  
Customer Service Activity Center  
Internal Customer Service Team  
External Customer Service Team  
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
- Prepares
  - Correspondence
  - Daily time and attendance records
  - In-state and out-of-state travel requests
- Oversees
  - Training
  - EEO reporting
  - ADA
  - Workers Comp
  - FLSA reporting

**The External Customer Service Team**

- Focuses on customers external to the Division for
  - Cartographic products
  - Statistical reports
  - Responses to various data requests including responding to the Division's web page
- Oversees map sales
- Plots maps upon request
- Keeps records of maps sold
- Processes the necessary paperwork for billing
- Produces city, county, and other miscellaneous maps for sale
  - to other divisions within the Cabinet
  - to other state government agencies
  - to the general public
- Updates traffic count station maps for all counties and incorporated areas with the latest available traffic count and station data

**CHAPTER 1:**

Administrative (continued)

**RESPONSIBLE UNIT:**

Division of Planning  
 Customer Service Activity Center  
 Internal Customer Service Team  
 External Customer Service Team  
 Administrative Team

**PURPOSE AND SCOPE (continued):**

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. 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.

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
- Monitor and process payments against various contracts awarded to the Division.
- Track budgets and the annual work program expenditures
- Prepare Travel requests
- Prepare travel and registrations
- Prepare requisitions
- Track Employee Training
- Prepare ADHS (Appalachian Development Highway System)

**PROPOSED ACTIVITIES FOR 2005-2006:** 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 2005-2006**

<b>PLANNING</b>	<b>FEDERAL SHARE 80%</b>	<b>STATE SHARE 20%</b>	<b>TOTAL</b>
<b>PERSONNEL</b>	<b>\$248,080</b>	<b>\$62,020</b>	<b>\$310,100</b>
<b>OTHER</b>	<b>*\$16,800</b>	<b>*\$4,200</b>	<b>\$21,000</b>
<b>TOTAL</b>	<b>\$264,880</b>	<b>\$66,200</b>	<b>\$331,100</b>

\*Outsourced for completion of the FHWA 536 report

**CHAPTER 2:** Personnel Training

**RESPONSIBLE UNIT:** Division of Planning

**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 2005-2006:** 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) and other economic modeling training
- Exor (upgrade of Highway Information System)
- TransCAD Traffic Model Training
- Modeling Conferences and 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
- Bike/Ped Conference
- Other miscellaneous workshops and conferences related to transportation planning and activities of this work program

**CHAPTER 2:** Personnel Training (continued)

**RESPONSIBLE UNIT:** Division of Planning

**PROPOSED ACTIVITIES FOR 2005-2006 (continued):**

- ArcGIS
- Air Quality
- Roundabouts
- Highway Capacity
- STAQ
- 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
- Other courses/conferences that will
  - Teach us about any changes in the federal legislation
  - Help us assist our customers better
  - Carry out the activities we are responsible for in the United States Code and the Code of Federal Regulations.

We will 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 2005-2006**

	PLANNING		DISTRICT OFFICES		TOTAL
	Federal Share 80%	State Share 20%	Federal Share 80%	State Share 20%	
<b>PERSONNEL</b>	\$64,000	\$16,000	\$16,000	\$4,000	\$100,000
<b>OTHER</b>	\$5,600	\$1,400	\$2,400	\$600	\$10,000
<b>TOTAL</b>	\$69,600	\$17,400	\$18,400	\$4,600	\$110,000

**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 2005-2006:**

- Collect volume and classification data on 200 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	\$5.00	\$ 100.00
ATR station repair parts (surge panel, low V disconnects, solar reg, fuses, harnesses)	1	\$5,000.00	\$ 5,000.00
Band-it and accessories	1	\$500.00	\$ 500.00
Batteries, equipment, 1.5V etc.	1	\$1,000.00	\$ 1,000.00
Batteries, Storage, 12V	10	\$60.00	\$ 600.00
Batteries, Storage, 6V	50	\$25.00	\$ 1,250.00
Cables and parts (hoods, connectors, etc.)	1	\$1,000.00	\$ 1,000.00
Cleaning supplies, (solvent, towels, hand cleaner, brushes, buckets, etc.)	1	\$1,500.00	\$ 1,500.00
Concrete (cabinet and pole bases)	150	\$3.00	\$ 450.00



**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
Concrete Saw Accessories- Blades, water pumps, gaskets, hoses	3	\$500.00	\$ 1,500.00
Conduit, (Various sizes, types and fittings)	1	\$3,000.00	\$ 3,000.00
Electronic Components (diodes, capacitors, soldering iron, solder, etc.)	1	\$500.00	\$ 500.00
Epoxy, 2-part (Fabick)	400	\$30.00	\$ 12,000.00
Epoxy, Mixing Tubes	200	\$3.00	\$ 600.00
<b>Equipment, NonIntrusive Counting Devices</b>	2	\$5,000.00	\$ 10,000.00
<b>Equipment, rental</b>	5	\$200.00	\$ 1,000.00
<b>Equipment, test (electrical, piezo, ground, meters, o'scope, loop, modem)</b>	1	\$2,000.00	\$ 2,000.00
<b>Equipment, Traffic Data Recorder, (replacements for stolen, damaged beyond repair)</b>	10	\$1,500.00	\$ 15,000.00
<b>Equipment, Traffic Data Recorder, repair parts</b>	1	\$10,000.00	\$ 10,000.00
<b>Equipment, Traffic Data Recorders for use with existing ITS monitoring station.</b>	5	\$6,000.00	\$ 30,000.00
Erosion Control, (mulch, nuggets, straw, etc.)	145	\$5.00	\$ 725.00
<b>Fasteners, (screws, nuts, bolts, nails, clamps, banding, brackets, straps, etc.)</b>	1	\$2,000.00	\$ 2,000.00
Hardware, roadway - Chain	6	\$200.00	\$ 1,200.00
Hardware, roadway - Chinese Fingers	500	\$3.00	\$ 1,500.00
Hardware, roadway - Figure 8's	1,000	\$1.00	\$ 1,000.00
Hardware, roadway - Nails, PK (boxes)	14	\$20.00	\$ 280.00
Hardware, roadway - Nails, Spikes	150	\$1.00	\$ 150.00
Hardware, roadway - Tube clamps	200	\$0.60	\$ 120.00
Inverters/power strips	3	\$250.00	\$ 750.00
<b>Jbox, (6x6x4)</b>	50	\$50.00	\$ 2,500.00
<b>Jbox, Type B</b>	20	\$250.00	\$ 5,000.00
<b>Labels (repair tags, warning labels, wire numbers, etc.)</b>	1	\$500.00	\$ 500.00
Loop Sealant	1,200	\$8.00	\$ 9,600.00
<b>Loop/Piezo Installation Materials, (mixing buckets, putty knives, spatulas, electrical tape, marking crayons, butt splices, spade lugs, drill bits, hole saws, etc.)</b>	1	\$1,500.00	\$ 1,500.00
<b>Paint and accessories (brushes, buckets, rollers, handle extensions</b>	1	\$500.00	\$ 500.00
<b>Pesticide and Herbicide</b>	1	\$500.00	\$ 500.00
<b>Phone parts and accessories</b>	1	\$100.00	\$ 100.00
<b>Piezo Cables</b>	40	\$500.00	\$ 20,000.00

**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
Radio, hand-held	4	50.00	\$ 200.00
Poles, telescopic poles for equipment mounts	4	\$275.00	\$ 1,100.00
Road Tubing (.2845/feet)	15,000	\$0.30	\$ 4,500.00
<b>Safety apparel</b> , (Goggles, gloves, ear protection, rainsuits, hard hats, vests, flashlights, etc.)	1	\$1,000.00	\$ 1,000.00
Sealant, waterproof (silicone, duct seal, etc.)	1	\$250.00	\$ 250.00
Solar panels	10	\$200.00	\$ 2,000.00
Splice Kits (\$7.40 each)	80	\$7.50	\$ 600.00
Tape Primer	30	\$10.00	\$ 300.00
Tape, bookbinding	1	\$1,000.00	\$ 1,000.00
Tape, asphalt tape in various sizes and types	1	\$6,000.00	\$ 6,000.00
Toolboxes, containers	5	\$30.00	\$ 150.00
<b>Tools, hand tools</b> (shovels, rakes, picks, hammers, pliers, cutters, pneu. and hand caulk guns, screwdrivers, meas. tape, etc.)	1	\$1,500.00	\$ 1,500.00
<b>Tools, small power</b> (drills, weed eater, leaf blower, power washer, etc.)	1	\$1,000.00	\$ 1,000.00
Traffic Control	1	\$35,000.00	\$ 35,000.00
Uniforms	52	\$50.00	\$ 2,600.00
Vehicle, accessories dash hardware, safety lights, etc.	1	\$1,500.00	\$ 1,500.00
Vehicles, operating cost, Central Office	12	\$2,500.00	\$ 30,000.00
Vehicles, operating cost, Districts	12	\$5,100.00	\$ 61,200.00
Wire, 4 pair	500	\$0.85	\$ 425.00
Wire, loop	50,000	\$0.06	\$ 3,000.00
Wire, piezo coax	1	\$500.00	\$ 500.00
Wood, (posts, plywood, forms, boards, shelving, etc.)	10	\$25.00	\$ 250.00
Misc.	1	\$1,000.00	\$ 1,000.00
<b>GRAND TOTAL (estimated)</b>			<b>\$ 300,000.00</b>

**CHAPTER 3:**

Equipment Management (continued)

**RESPONSIBLE UNIT:**

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

**DISTRIBUTION OF ESTIMATED COST FOR 2005-2006**

	PLANNING		CAPITAL EXPENDITURES		DISTRICT OFFICES		TOTAL
	Federal Share 80%	State Share 20%	Federal Share 80%	State Share 20%	Federal Share 80%	State Share 20%	
<b>PERSONNEL</b>	\$310,960	\$77,740	\$0	\$0	\$20,000	\$5,000	\$413,700
<b>OTHER</b>	\$95,920	\$23,980	*\$240,000	*\$60,000	\$16,000	\$4,000	\$439,900
<b>TOTAL</b>	\$406,880	\$101,720	*\$240,000	*\$60,000	\$36,000	\$9,000	\$853,600

\*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:** Working with our Highway District Offices we 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 2005-2006:**

- Work with the Highway District Offices to perform approximately 6,500 regularly scheduled short-duration portable machine counts. 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.
- Work with the FHWA to document the entire TMS process.
- Provide oversight of consultants/contractors to assist the Division TMS field data collection. Process and provide quality control and assurance of those counts. Provide storage and analyzation of those counts.
- Update data summaries developed under the research study entitled "Estimation of Equivalent Axleloads."
- Investigate, evaluate and 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 that also works with the upgrade of HIS. Begin the process of converting the existing vehicle classification file from a mainframe to a PC environment.

**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

**DISTRIBUTION OF ESTIMATED COST FOR 2005-2006**

	PLANNING		DISTRICT OFFICES		TOTAL
	Federal Share 80%	State Share 20%	Federal Share 80%	State Share 20%	
<b>PERSONNEL</b>	\$171,360	\$42,840	\$660,000	\$165,000	\$1,039,200
<b>OTHER</b>	*\$768,000	*\$192,000	\$64,000	\$16,000	\$1,040,000
<b>TOTAL</b>	\$939,360	\$234,840	\$724,000	\$181,000	\$2,079,200

\*Includes \$660,000 to outsource for assistance with data collection and \$300,000 for the purchase of integrated Traffic Management System software.

**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
- Conduct studies to determine a “backbone” highway network for the Commonwealth and identify needs on said network
- Perform the necessary level of planning to do the following:
  - 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
  - Oversee outsourced activities
- Prepare 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), Metropolitan Planning Organizations (MPOs), and Area Development Districts (ADDs) as needed to complete necessary tasks

**PROPOSED ACTIVITIES FOR 2005-2006:**

- Score, evaluate, and prioritize projects in the current Six-Year Highway Plan and Unscheduled Projects List (UPL), using available data such as adequacy ratings or other information to provide executive staff with a tool to analyze projects 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.
- Develop a recommendation and identify needs for a major transportation “backbone” network for the Commonwealth that serves as the major skeletal support for the other minor roadways.

**CHAPTER 5:**

Strategic Corridor Planning (continued)

**RESPONSIBLE UNIT:**

Division of Planning  
Strategic Planning Activity Center  
Strategic Corridor Planning Team

**PROPOSED ACTIVITIES FOR 2005-2006 (continued):**

- Develop policy and procedures for project selection for the Six-Year Highway Plan based on data driven needs, “backbone” network needs, and Cabinet goals and objectives. 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 UPL 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
  - Developing cost estimates for project concepts and alternatives
- Review and evaluate Project Identification Forms for needed improvements and updates
- Work with HDOs to do the following:
  - Set up team meetings
  - Review and completing cost estimates
  - Participate in project teams
  - Set up public involvement activities
  - Conduct early project planning and special studies
- Work with MPOs and ADDs to do the following:
  - Set up meetings
  - Evaluate environmental justice issues
  - Evaluate study issues
  - Prioritize projects

**CHAPTER 5:**

Strategic Corridor Planning (continued)

**RESPONSIBLE UNIT:**

Division of Planning  
 Strategic Planning Activity Center  
 Strategic Corridor Planning Team

**DISTRIBUTION OF ESTIMATED COST FOR 2005-2006**

	PLANNING		DISTRICT OFFICES		TOTAL
	Federal Share 80%	State Share 20%	Federal Share 80%	State Share 20%	
<b>PERSONNEL</b>	\$276,400	\$69,100	\$32,000	\$8,000	\$385,500
<b>OTHER</b>	*\$706,880	*\$176,720	\$4,000	\$1,000	\$888,600
<b>TOTAL</b>	\$983,280	\$245,820	\$36,000	\$9,000	\$1,274,100

\*Includes \$873,600 for planning studies discussed in proposed activities. An additional \$2,400,000 (non-SPR funds) is estimated for resources outside the Kentucky Transportation Cabinet.



**CHAPTER 6:**

## Statewide Transportation Planning

**RESPONSIBLE UNIT:**

Division of Planning  
Strategic Planning Activity Center  
Statewide Planning Team

**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).
- 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 the following:
  - Intermodal and statewide transportation planning programs
  - Consideration of all modes and intermodal highway access
  - Development of a policy driven approach to identification and prioritization of needs
  - Support of the Rural Transportation Planning and Metropolitan Planning programs through the fifteen ADDs, nine MPOs, and twelve HDOs

**PROPOSED ACTIVITIES FOR 2005-2006:**

- 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
- Work closely with the ADDs, MPOs, and HDOs to enhance the statewide transportation planning process including data collection, analysis, public involvement, and coordination
- Work with the ADDs, MPOs, and HDOs to prepare, evaluate, and update 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
- Assist with the development and identification of needs for a major transportation "backbone" network for the Commonwealth that serves as the major skeletal support for the other minor roadways
- Provide direction for special projects
- Respond to inquiries about proposed transportation projects
- Review surplus property/right-of-way proposals and school site locations as they relate to long-range transportation needs
- Make information on 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:**

Statewide Transportation Planning (continued)

**RESPONSIBLE UNIT:**

Division of Planning  
 Strategic Planning Activity Center  
 Statewide Planning Team

**DISTRIBUTION OF ESTIMATED COST FOR 2005-2006**

	PLANNING		DISTRICT OFFICES		TOTAL
	Federal Share 80%	State Share 20%	Federal Share 80%	State Share 20%	
<b>PERSONNEL</b>	\$184,240	\$46,060	\$344,000	\$86,000	\$660,300
<b>OTHER</b>	*\$88,480	*\$22,120	\$12,800	\$3,200	\$126,600
<b>TOTAL</b>	\$272,720	\$68,180	\$356,800	\$89,200	\$786,900

\* This chapter also includes \$698,600 (not financed with SPR funds) for the annual program with the Area Development Districts and \$100,000 to outsource for "backbone" corridor studies or assistance in research or public involvement.

