PLANNING WORK PROGRAM

SP 0007 (001)
JUNE 16, 2006 – JUNE 15, 2007

Kentucky UNBRIDLED SPIRIT

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 SP 0007 (001)
June 16, 2006 through June 15, 2007

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. To illustrate the Division of Planning, a detailed organization chart (See Exhibit 1) has been inserted in the work program addressing the various functional areas of the 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, 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.

Continuing in this year's work program is continued activities related to the upgrade of the Cabinet's Highway Information System (HIS) database to a newer version. As with any upgrade, there are various changes in process and activities that need to be made as well as continued fixes to the database to meet the Cabinet's data requirements. There is also a continued emphasis to install additional loops at high volume locations to obtain volume and class counts in a safe and efficient manner. To align with the HIS upgrade, we also seek to improve the quality of the data that is maintained in the databases. This year we anticipate efforts to collect and update data that is maintained in HIS.

We will continue the pilot program to combine the effort of the rural and MPO planning activities within FIVCO. We did not expand the program to other combined agencies this year in order to further evaluate the effectiveness of the combination as well as to determine what adjustments need to be made to work programs to further streamline their planning efforts. In the Air Quality area we will continue to evaluate and assist with conformity analysis for the PM 2.5 Fine Particulate Standard. Small Urban Studies will focus on a revised process that will address more directly operational and performance improvements that will enable the Cabinet to maximize the efficiency of the existing transportation network in a more cost effective manner. With the recent merger of the Divisions of Planning and Multimodal Programs, we now have a Modal Branch that is charged with modes other than highways which includes freight, waterways, rail, bicycle, pedestrian, and other related issues.

Because of downsizing efforts within the Cabinet, additional efforts will be placed toward outsourcing services which may include traffic counts, traffic forecasts, data collection, map products, planning studies, and other needed activities. The Division of Planning is also evaluating our core functions in order to streamline and align our efforts so that required activities are completed. We also anticipate working this upcoming year to further evaluate the planning provisions in SAFETEA-LU and work toward compliance both in the Statewide and MPO areas. Please refer to each chapter contained within this work program for more details.

FOREWARD

This Planning Program SP 0007 (001) for the period June 16, 2006 to June 15, 2007 is submitted in compliance with the provisions of 23 CFR 420 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 2007 are reported in detail by Volume and Chapter in this Work Program.

We expect the majority of activities in this Work Program to be completed by June 15, 2007. Those items that are not complete by June 15 will be identified in the Annual Performance and Expenditure Report

The fiscal portions of the UPWP are based on funding availability provided by the Cabinet's Office of Budget and Fiscal Management.

Administrative activities that are directly attributable to a work program chapter will be charged to the appropriate work program chapter.

Costs for development of the Annual SPR Work Program and Planning and Expenditures Report will be distributed among the work program chapters.

DIVISION OF PLANNING

Last Updated June 1, 2006

EXHIBIT 1

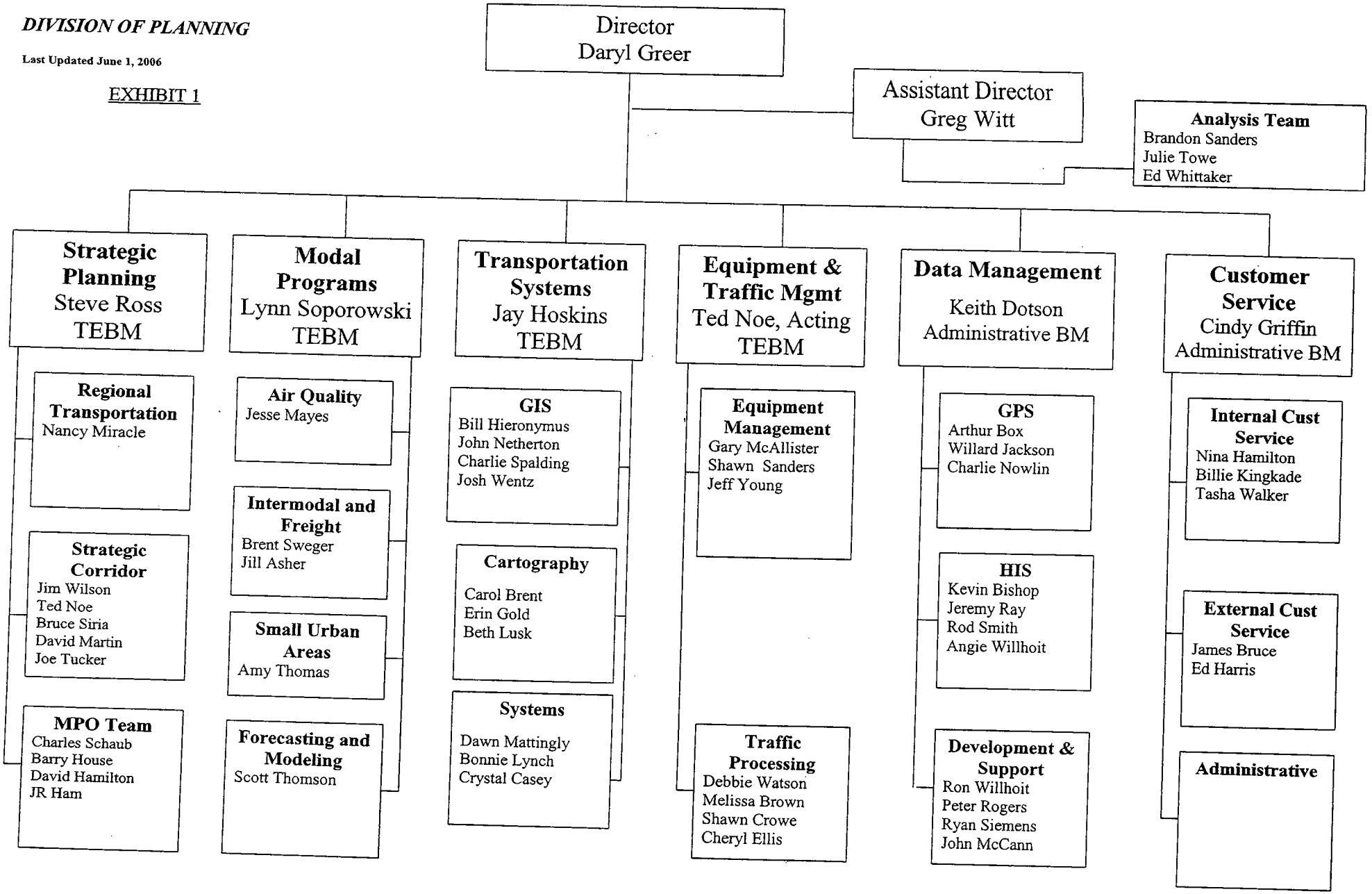

EXHIBIT 2
KENTUCKY TRANSPORTATION CABINET
DEPARTMENT OF HIGHWAYS
FISCAL YEAR 2007
Subpart A- ADMINISTRATION OF FHWA PLANNING AND RESEARCH FUNDS

PROGRAM IDENTITY	FEDERAL	STATE MATCH	LOCAL MATCH	OTHER	TOTAL
PLANNING					
SPR-Part I	$4,501,500	$1,483,400			$5,984,900
District Office Planning Personnel Cost	$1,328,300	$437,700			$1,766,000
Sub-Total Personnel Cost	**$5,829,800**	**$1,921,100**			**$7,750,900**
Other Cost	$3,296,300	$167,300		*$7,680,000	$3,463,600
					$11,214,500
Partner Agencies **					
Metropolitan Planning Organizations					
PL Funded MPO Planning Budgeted	$1,890,367	$118,148	$354,444		$2,362,959
PL Discretionary Fund	$248,000		$62,000		$310,000
Total PL Funds	***$2,138,367***	***$118,148***	***$416,444***		***$2,672,959***
ADD Regional Transporation Program (State Funds)		$798,600	$88,734		
ADD Regional Transporation Program (General Funds)		$400,000	$44,444		$444,444
Total ADD funds		***$1,198,600***	***$133,178***		***$444,444***
TOTALS – PLANNING					**$13,887,459**

*Six-Year Highway Plan charged to projects, not SPR.

** See Exhibits 2 and 3 for more detail

Note: Potential Outsourced Items are indicated in each chapter

EXHIBIT 3

FHWA FUNDING AVAILABILITY

Status of Funds as of 5/30/2006

Fund	Code	Unobligated Balance
2% Highway Planning & Research	O810	40,401.02
2% Highway Planning & Res3arch – STEA03	H550	4,787,248.71
Statewide Planning 2%	L550	6,959,697.00
Total Available SPR		**$11,787,346.73**
1% Metropolitan Planning	O850	29,672.75
1% Metropolitan Planning – STEA03	H450	1,170,770.00
Metropolitan Planning 1.25% Takedown	L450	2,232,520.00
1% Metropolitan Planning – TEA21	Q450	29,266.01
Total Available PL		**$3,462,228.76**

KENTUCKY TRANSPORTATION CABINET
OFFICE OF BUDGET AND FISCAL MANAGEMENT
2006-2008 BIENNIAL BUDGET (HB 380)
FY 2006-07

Project Budget Unit

FH03 – SPR Planning			
	State Road Fund	Personnel	1,921,100.00
		Operating	167,300.00
		Total State Road Funds	2,088,400.00
	Federal Funds	Personnel	5,829,800.00
		Operating	3,296,300.00
		Total Federal Funds	9,126,100.00
	Total FH03 Funds		**$11,214,500.00**
FH04 – Metropolitan Planning			
	State Road Funds	Personnel	240,300.00
	Federal Funds	Personnel	2,291,900.00
	Total FH04 Funds		**$2,532,200.00**

KENTUCKY TRANSPORTATION CABINET
DEPARTMENT OF HIGHWAYS
FISCAL YEAR 2007
SPR RESEARCH PART II AND PART IIIB WORK PROGRAM

PROGRAM IDENTITY	FEDERAL	STATE MATCH	TOTAL
SPR-Part II Research	$3,329,600	$832,400	$4,162,000
FY 06 Carryover Funds	$358,000	$89,500	$447,500
Part III B Research		$220,000	$220,000
NCHRP Dues	$600,000		$600,000
Pooled Funds	$100,000		$100,000
TOTALS	$4,387,600	$1,141,900	$5,529,500

EXHIBIT 4
FISCAL YEAR 2006-2007
BUDGETS
FOR
REGIONAL TRANSPORTATION PROGRAM
IN THE
AREA DEVELOPMENT DISTRICTS

ADD	Regional Planning Program				
	Road Fund (State)	General Fund (State)	State Totals 90%	Local Match 10%	TOTAL PROGRAM 90/10
BARREN RIVER	$53,557.00	$27,080.00	**$80,637.00**	**$8,960.00**	**$89,597.00**
BIG SANDY	$45,963.00	$23,240.00	**$69,203.00**	**$7,689.00**	**$76,892.00**
BLUEGRASS	$74,178.00	$36,240.00	**$110,418.00**	**$12,267.00**	**$122,685.00**
BUFFALO TRACE	$45,963.00	$23,240.00	**$69,203.00**	**$7,689.00**	**$76,892.00**
CUMBERLAND VALLEY	$53,557.00	$27,080.00	**$80,637.00**	**$8,960.00**	**$89,597.00**
FIVCO	$45,963.00	$23,240.00	**$69,203.00**	**$7,689.00**	**$76,892.00**
GATEWAY	$45,963.00	$23,240.00	**$69,203.00**	**$7,689.00**	**$76,892.00**
GREEN RIVER	$53,557.00	$27,080.00	**$80,637.00**	**$8,960.00**	**$89,597.00**
KIPDA	$53,557.00	$27,080.00	**$80,637.00**	**$8,960.00**	**$89,597.00**
KENTUCKY RIVER	$53,557.00	$27,080.00	**$80,637.00**	**$8,960.00**	**$89,597.00**
LAKE CUMBERLAND	$53,557.00	$27,080.00	**$80,637.00**	**$8,960.00**	**$89,597.00**
LINCOLN TRAIL	$53,557.00	$27,080.00	**$80,637.00**	**$8,960.00**	**$89,597.00**
NORTHERN KENTUCKY	$53,557.00	$27,080.00	**$80,637.00**	**$8,960.00**	**$89,597.00**
PENNYRILE	$53,557.00	$27,080.00	**$80,637.00**	**$8,960.00**	**$89,597.00**
PURCHASE	$58,557.00	$27,080.00	**$85,637.00**	**$9,515.00**	**$95,152.00**
TOTAL	$798,600.00	$400,000.00	**$1,198,600.00**	**$133,178.00**	**$1,331,778.00**

Note: State Match (90%) and Local Match (10%)

Exhibit 5
PL Funds for MPO Unified Planning Work Programs for FY 2007

	TOTAL FY 2007 PL Funding						TOTAL 100%	FED+ST FUNDING	
MPO AREA	**Fed $**	**Fed %**	**State $**	**State %**	**Local $**	**Local %**	**F+S+L=$**	**F+S= $**	**F+S = %**
LOUISVILLE	$ 1,099,540	80.00%	$ 57,221	4.16%	$ 217,664	15.84%	$ 1,374,425	$ 1,156,762	84.16%
NORTHERN KY	$ 346,529	80.00%	$ 21,658	5.00%	$ 64,974	15.00%	$ 433,161	$ 368,187	85.00%
LEXINGTON	$ 291,410	80.00%	$ 18,213	5.00%	$ 54,639	15.00%	$ 364,262	$ 309,623	85.00%
HENDERSON	$ 28,877	80.00%	$ 1,805	5.00%	$ 5,414	15.00%	$ 36,096	$ 30,682	85.00%
OWENSBORO	$ 78,561	80.00%	$ 4,910	5.00%	$ 14,730	15.00%	$ 98,201	$ 83,471	85.00%
ASHLAND	$ 69,776	80.00%	$ 4,361	5.00%	$ 13,083	15.00%	$ 87,220	$ 74,137	85.00%
CLARKSVILLE / OAK GROVE	$ 26,307	80.00%	$ 1,644	5.00%	$ 4,932	15.00%	$ 32,883	$ 27,951	85.00%
BOWLING GREEN	$ 95,323	80.00%	$ 3,958	3.32%	$ 19,873	16.68%	$ 119,153	$ 99,280	83.32%
RADCLIFF-ELIZABETHTOWN	$ 102,044	80.00%	$ 4,378	3.43%	$ 21,133	16.57%	$ 127,555	$ 106,422	83.43%
TOTALS	**$ 2,138,367**		**$ 118,148**		**$ 416,444**		**$ 2,672,958**	**$ 2,256,514**	
Discretionary for Separate Contract	$ 248,000	80.00%		0.00%	$ 62,000	20.00%	$ 310,000	$ 248,000	80.00%
PL Base Budget Total	$ 1,890,367	80.00%	$ 118,148	5.00%	$ 354,444	15.00%	$ 2,362,958	$ 2,008,514	85.00%
PL Discretionary Total	$ 248,000	80.00%		0.00%	$ 62,000	20.00%	$ 310,000	$ 248,000	80.00%

State funds are 5% of formula funds (base budget) only.
Local funds do not flow through the Cabinet.
Discretionary for Separate Contract will be divided into 4 projects in 3 MPO areas.
State does not provide the match for discretionary funds. Match will be provided by the local agencies.
- Nashville Road Circulation Study, Bowling Green
- Fort Knox Traffic Circulation Study, Radcliff-Elizabethtown
- Taylorsville Road (KY 155) Study, Louisville
- Rehl Road Interchange Traffic Operations Study, Louisville

CHAPTER FUNDING SUMMARY

CHAPTER	TITLE	AMOUNT
1	Personnel Training	$563,140
2	Equipment Management	$1,433,840
3	Traffic Data Collection and Processing	$2,615,840
4	Strategic Corridor Planning	$621,140
5	Statewide Transportation Planning	$910,540
6	Roadway Systems	$612,040
7	Geographic Information Systems (GIS)	$342,740
8	Cartography	$445,440
9	GPS/HIS Support	$236,740
10	Global Positioning System (GPS)	$310,760
11	Highway Information System	$476,160
12	Special Analysis	$231,460
13	Air Quality Conformity Analysis Program	$219,760
14	Metropolitan Planning Organizations	$597,160
15	Small Urban Areas Studies	$237,960
16	Multimodal Planning and Technical Assistance	$555,060
17	Statewide Congestion, Mobility, and Access Management	$153,380
18	Traffic Data Forecasting	$285,680
19	Statewide Traffic Model	$132,880
20	Area Development District Inventory	$232,780
	TOTAL	$11,214,500

CHAPTER 1: 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 2006-2007: 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) (Chapter 12–Highway Information System)
- Highway Economic Requirements System (HERS) and other economic modeling training (Chapter 13–Special Analysis)
- Exor (upgrade of Highway Information System) (Chapter 12–Highway Information System)
- TransCAD Traffic Model Training (Chapter 19–Traffic Data Forecasting)
- Modeling Conferences and Training (Chapter 19–Traffic Data Forecasting)
- Small and Medium Sized Communities Conference (Chapter 6–Statewide Transportation Planning, Chapter 15–Metropolitan Planning Organizations)
- National Access Management Conference (Chapter 18–Statewide Congestion, Mobility, and Access Management)
- NATMEC (Chapter 3–Equipment Management, Chapter 4–Traffic Data Collection and Processing)
- TMG training (Chapter 3–Equipment Management, Chapter 4–Traffic Data Collection and Processing)
- Reauthorization and mobility measures training (Chapter 18–Statewide Congestion, Mobility, and Access Management)
- Bike/Ped Conference(Chapter 17–Statewide Congestion, Mobility, and Access Management)
- Socioeconomic Analysis and Public Involvement Plan Development (Chapter 6–Statewide Transportation Planning, Chapter 15–Metropolitan Planning Organizations)
- ArcGIS (Chapter 8–Geographic Information Systems)
- Air Quality (Chapter 14–Air Quality Conformity Analysis Program)
- Roundabouts (Chapter 18–Statewide Congestion, Mobility, and Access Management)
- Highway Capacity (Chapter 5–Strategic Corridor Planning, Chapter 16–Small Urban Areas Studies)
- STAQ (Chapter 14–Air Quality Conformity Analysis Program)
- CORSIM (Chapter 18–Statewide Congestion, Mobility, and Access Management)

CHAPTER 1: Personnel Training (continued)

RESPONSIBLE UNIT: Division of Planning

PROPOSED ACTIVITIES FOR 2006-2007 (continued):

- Accident analysis (Chapter 5–Strategic Corridor Planning)
- Safety conscious planning (Chapter 6–Statewide Transportation Planning, Chapter 15–Metropolitan Planning Organizations)
- Freight movement (Chapter 17–Statewide Congestion, Mobility, and Access Management)
- Rural transportation planning (Chapter 6–Statewide Transportation Planning)
- National Environmental Policy Act (Chapter 5–Strategic Corridor Planning)
- Land use (Chapter 18–Statewide Congestion, Mobility, and Access Management)
- Access management (Chapter 18–Statewide Congestion, Mobility, and Access Management)
- Road User Cost Analysis (Chapter 13–Special Analysis)
- GIS systems (Chapter 8–Geographic Information Systems)
- Congestion Management Systems (Chapter 18–Statewide Congestion, Mobility, and Access Management)
- MPO and rural planning (Chapter 6–Statewide Transportation Planning, Chapter 15–Metropolitan Planning Organizations)

We will also provide annual in-state Traffic Data Recorder Training for District Personnel and training for the District Planning personnel in procedures, etc.

PRODUCTS

- Personnel with career development opportunities, improved technological skills, broadened knowledge, and enhanced capabilities

DISTRIBUTION OF ESTIMATED COST FOR 2006-2007

	PLANNING		DISTRICT OFFICES		TOTAL
	Federal Share 80%	State Share 20%	Federal Share 80%	State Share 20%	
PERSONNEL	$75,320	$18,820	$8,000	$2,000	$104,140
OTHER	*$362,400	*$90,600	$4,800	$1,200	$459,000
TOTAL	$437,720	$109,420	$12,800	$3,200	$563,140

*Includes bringing in outside training for KYTC, MPOs and ADDs for socioeconomic analysis, public involvement, or other needs as necessary.

CHAPTER 2: 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 2006-2007:

- Collect volume and classification data on 200 interstate stations
- Collect data at approximately 250 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 80+ 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:

WORK PROGRAM 2006-2007

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
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 (for piezo installations)	200	$90.00	$18,000.00
Equipment, rental	5	$200.00	$1,000.00
Equipment, test (electrical, piezo, ground, meters, o'scope, loop, modem)	1	$2,000.00	$2,000.00
Equipment, Traffic Data Recorder, (replacements for stolen, damaged beyond repair)	10	$1,500.00	$15,000.00
Equipment, Traffic Data Recorder, (WIM capable)	4	$10,000.00	$40,000.00
Equipment, Traffic Data Recorder, repair parts	1	$10,000.00	$10,000.00
Equipment Traffic Data Recorders for use w/ existing ITS monitoring stations	4	$6,000.00	$24,000.00
Erosion Control, (mulch, nuggets, straw, etc.)	100	$7.50	$750.00
Fasteners, (screws, nuts, bolts, nails, clamps, banding, brackets, straps, etc.)	1	$2,000.00	$2,000.00
Hardware, roadway - Chain	5	$200.00	$1,000.00
Hardware, roadway - Chinese Fingers	500	$3.00	$1,500.00
Hardware, roadway - Figure 8's	1000	$1.20	$1,200.00
Hardware, roadway - Nails, PK (boxes)	16	$20.00	$320.00
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
Jbox, (6x6x4, 10x8x4.6)	50	$50.00	$2,500.00
Jbox, Type B	20	$250.00	$5,000.00
Labels (repair tags, warning labels, wire numbers, etc.)	1	$1,000.00	$1,000.00
Loop Sealant	1200	$8.00	$9,600.00

Item Description	Quantity	Unit Cost	Total Cost
Loop/Piezo Installation Materials, (mixing buckets, putty knives, spatulas, electrical tape, marking crayons, butt splices, spade lugs, drill bits, hole saws, etc.)	1	$1,500.00	$1,500.00
Modems	15	$300.00	$4,500.00
Paint and accessories (brushes, buckets, rollers, handle extensions	1	$500.00	$500.00
Pesticide and Herbicide	1	$500.00	$500.00
Phone parts and accessories	1	$100.00	$100.00
Piezo Cables	40	$500.00	$20,000.00
Poles, telescopic poles for equipment mounts	4	$275.00	$1,100.00
Radio, hand-held	4	$50.00	$200.00
Road Tubing (.2845/feet)	15,000	$0.30	$4,500.00
Safety apparel, (Goggles, gloves, ear protection, rain suits, 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
Tools, hand tools (shovels, rakes, picks, hammers, pliers, cutters, pneu. and hand caulk guns, screwdrivers, meas. tape, etc.)	1	$1,500.00	$1,500.00
Tools, small power (drills, weed eater, leaf blower, power washer, rechargeable batteries,etc.)	1	$1,000.00	$1,000.00
Traffic Control	1	$35,000.00	$35,000.00
Training, (annual counter technician tng)	1	$3,000.00	$3,000.00
Uniforms	52	$30.00	$1,560.00
Vehicle, accessories - dash hardware, safety lights, etc.	1	$1,500.00	$1,500.00
Vehicles, per month operating cost, Central Office	12	$2,500.00	$30,000.00
Vehicles, per month operating cost, Districts	12	$5,100.00	$61,200.00
Wire, 4 pair	500	$1.00	$500.00
Wire, loop	50000	$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

GRAND TOTAL $336,500.00

CHAPTER 2: Equipment Management (continued)

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

PRODUCTS

- Volume and Classification data from permanent installations
- Weigh-in-motion data
- Installed and maintained permanent vehicle sensor locations at high volume or other locations where it is infeasible to conduct portable counts
- Installed and maintained permanent Automatic Traffic Recorders (ATRs)
- Special Counts

DISTRIBUTION OF ESTIMATED COST FOR 2006-2007

	PLANNING		DISTRICT OFFICES		TOTAL
	Federal Share 80%	State Share 20%	Federal Share 80%	State Share 20%	
PERSONNEL	$335,160	$83,780	$28,000	$7,000	$453,940
OTHER*	$778,320	$191,580	$8,000	$2,000	$979,900
TOTAL	$1,113,480	$275,360	$36,000	$9,000	$1,433,840

* This includes the purchase of new counting equipment and vehicles for central office personnel, an estimated $120,000 for WIM research and an estimated $147,000 for new traffic count or WIM loop sites. Equipment and vehicle purchases not specifically itemized in this chapter will be submitted to FHWA for individual approval.

CHAPTER 3: 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 2006-2007:

- 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 80+ 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 13,500 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.
- Review, analyze, and update data summaries for vehicle weights and calculating Equivalaent Single Axle Loads (ESALs).
- 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 3: Traffic Data Collection and Processing (continued)

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

PRODUCTS

- Short-duration portable machine volume and classification counts
- Processed data for special count stations
- Processed data from permanent Automatic Traffic Recorders (ATRs)
- Updated axle, monthly factors, and correction factors
- Updated and maintained databases of count data, count stations, or other associated data

DISTRIBUTION OF ESTIMATED COST FOR 2006-2007

	PLANNING		DISTRICT OFFICES		TOTAL
	Federal Share 80%	State Share 20%	Federal Share 80%	State Share 20%	
PERSONNEL	$195,000	$48,740	$600,000	$150,000	$993,740
OTHER	*$937,680	*$234,420	*$360,000	*$90,000	$1,622,100
TOTAL	$1,132,680	$283,160	$960,000	$240,000	$2,615,840

*Includes $660,000 to outsource for assistance with data collection and $350,000 for the purchase of integrated Traffic Management System software. Also, includes purchases of new vehicles for central office and District personnel. Each vehicle purchase will be submitted for individual approval.

CHAPTER 4: Strategic Corridor Planning

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

PURPOSE AND SCOPE:

- Enhance and continue to update 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
- Continue to evaluate and update a "backbone" highway network for the Commonwealth and identify needs on said network
- Evaluate system and local needs of small urban areas (population less than 50,000) and recommend ways to improve safety and reduce congestion throughout the system
- 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, and recommend phasing priorities
  - 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 2006-2007:

- 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.
- Continue to update 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 4: Strategic Corridor Planning (continued)

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

PROPOSED ACTIVITIES FOR 2006-2007 (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:
  - a conceptual purpose and need statement
  - Developing/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
  - Developing phasing priorities for implementation of the preferred concept/alternative
- Review and evaluate Project Identification Forms for needed improvements and updates
- Develop policy and procedures for evaluating system and local needs of small urban areas. This may include:
  - Analyzing road system data
  - Identifying problem spots
  - Coordinating a multidisciplinary field review
  - Initiating consultation with local officials
  - Developing project concepts to improve safety and reduce congestion
  - Recommending preferred concept as appropriate
- 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 4: Strategic Corridor Planning (continued)

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

PRODUCTS

- Feasibility Studies
- Programming Studies
- Pre-Design Scoping Studies
- Alternatives Studies
- Interchange Justification Studies
- Special Studies

DISTRIBUTION OF ESTIMATED COST FOR 2006-2007

	PLANNING		DISTRICT OFFICES		TOTAL
	Federal Share 80%	State Share 20%	Federal Share 80%	State Share 20%	
PERSONNEL	$234,520	$58,620	$40,000	$10,000	$343,140
OTHER	*$214,400	*$53,600	$8,000	$2,000	$278,000
TOTAL	$448,920	$112,220	$48,000	$12,000	$621,140

*Includes $100,000 for planning studies discussed in proposed activities. An additional $7,680,000 (non-SPR funds) is estimated for resources outside the Kentucky Transportation Cabinet. FHWA will be notified if a study is initiated using SPR Funds.

CHAPTER 5: 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, identified needs and the public involvement process.
- Ensure that the Statewide Transportation Plan (STP) and the Statewide Transportation Planning Program is in compliance with SAFETEA-LU requirements prior to July 1, 2007.
- 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 and data-based approach to identification, analysis 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 2006-2007:

- Prepare an updated STP that incorporates the Cabinet's strategic goals and objectives, regional transportation goals, and data-driven needs assessment and conduct the public review process as required for the STP
- Identify, evaluate, and develop processes and/or activities to address compliance with SAFETEA-LU, regulations, or proposed rule making
- Coordinate with other transportation modes, economic development agencies, land use, environmental, and other resource agencies 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/analyses of needs for a major transportation "backbone" network for the Commonwealth that serves as the major skeletal support for the other minor roadways
- Coordinate as necessary with other Divisions and agencies on the Strategic Highway Safety Plan

CHAPTER 5: Statewide Transportation Planning (continued)

RESPONSIBLE UNIT: Division of Planning
Strategic Planning Activity Center
Statewide Planning Team

PROPOSED ACTIVITIES FOR 2006-2007 (continued):

- Maintain an Unscheduled Project List and Project Prioritization Histories, documented by Project Identification Forms
- 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, Small Urban Studies or other Planning Studies as required

PRODUCTS

- Statewide Transportation Plan
- Unscheduled Projects List
- Project Identification Forms
- Annual Work Programs and Contracts for 15 Area Development Districts
- Five Statewide Transportation Planning Meetings
- Draft Statewide Transportation Planning Handbook

DISTRIBUTION OF ESTIMATED COST FOR 2006-2007

	PLANNING		DISTRICT OFFICES		TOTAL
	Federal Share 80%	State Share 20%	Federal Share 80%	State Share 20%	
PERSONNEL	$223,640	$55,900	$264,000	$66,000	$609,540
OTHER	*$214,400	*$53,600	$26,400	$6,600	$301,000
TOTAL	$438,040	$109,500	$290,400	$72,600	$910,540

*This chapter also includes $798,600 (not financed with SPR funds) for the annual program with the Area Development Districts and $100,000 to outsource for studies or assistance in research or public involvement. FHWA will be notified if a study is initiated using SPR Funds.

CHAPTER 6: Roadway Systems

RESPONSIBLE UNIT: Division of Planning
Transportation Systems Activity Center
Roadway Systems Team

PURPOSE AND SCOPE:

- Maintain the official Department of Highways records for the following:
  - State Primary Road System (SPRS)
  - National Highway System (NHS)
  - Functional Classification System
  - Designated National Truck Network (NN)
  - Coal Haul Highway System
  - 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
  - Notify all necessary personnel of the approved changes
- Gather and compile source data annually for the Coal Haul System on the transportation of coal by truck in the Commonwealth of Kentucky

PROPOSED ACTIVITIES FOR 2006-2007:

- Continue to examine the systems change process to respond in a more timely fashion
- Work ensuring the State Primary Road System reflects roadways of significance and match the functional classification system
- Generate official documentation recommending appropriate SPRS revisions to the Commissioner of Highways for approval.
- Review SPRS revisions for any necessary modifications to other systems such as functional classification, National Highway System, National Truck Network, etc.
- 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
- Update database and maps from information on returned semi-annual reports sent to coal companies and truck transporter of coal
- Provide ton-mile statistics to the Governor's Office for Local Development for coal
- Publish Kentucky's Official Coal Haul System Report
- Provide the Division of Maintenance information for updating the "Extended Weight Coal Haul Road System"

CHAPTER 6: Roadway Systems (continued)

RESPONSIBLE UNIT: Division of Planning
Transportation Systems Activity Center
Roadway Systems Team

PRODUCTS

- Transportation Official Orders
- Functional Classification Reports
- Coal Haul System Report
- National Truck Network (NN) modifications as needed

DISTRIBUTION OF ESTIMATED COST FOR 2006-2007

	PLANNING		DISTRICT OFFICES		TOTAL
	Federal Share 80%	State Share 20%	Federal Share 80%	State Share 20%	
PERSONNEL	$171,240	$42,800	$248,000	$62,000	$524,040
OTHER	$34,400	$8,600	$36,000	$9,000	$88,000
TOTAL	$205,640	$51,400	$284,000	$71,000	$612,040

CHAPTER 7: Geographic Information Systems (GIS)

RESPONSIBLE UNIT: Division of Planning
Transportation Systems Activity Center
GIS Team

PURPOSE AND SCOPE:

- Meet the needs of the Division, Cabinet, other state agencies, and entities outside state government for accurate GIS based electronic maps
- 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
- Analyze graphically and spatially the Cabinet's highway transportation needs.

PROPOSED ACTIVITIES FOR 2006-2007:

- Maintain a seamless statewide transportation GIS base map by using GPS data and electronic plan files to acquire alignment of 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
- Assist in creating new county maps using ESRI® based GIS tools to show all the transportation layers and other pertinent features
- Review 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

PRODUCTS

- GIS Electronic Base Map
- Global Positioning Satellite (GPS) Roadway Centerline Maintenance
- Official Highway Map
- Other Highway Data Maps (i.e., NN, NHS, etc. maps) as needed

DISTRIBUTION OF ESTIMATED COST FOR 2006-2007

PLANNING	FEDERAL SHARE 80%	STATE SHARE 20%	TOTAL
PERSONNEL	$155,800	$38,940	$194,740
OTHER	*$118,400	*$29,600	$148,000
TOTAL	$274,200	$68,540	$342,740

*Includes $100,000 for University of Kentucky (Interns) technical assistance program.

CHAPTER 8: Cartography

RESPONSIBLE UNIT: Division of Planning
Transportation Systems Activity Center
Cartography Team

PURPOSE AND SCOPE:

- Meet the needs of the Division, Cabinet, other state agencies, and entities outside state government for general and special purpose maps
- Create, update, print, and distribute a wide variety of standard cartographic projects in electronic and/or paper format
- Provide digital and/or printed presentations depicting various analyses of transportation data
- Develop procedural and technique standards for digital mapping

PROPOSED ACTIVITIES FOR 2006-2007:

- Continue development of electronic mapping for all city, county, district, 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 planning and 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 and electronic distribution accomplished
- Create reports and exhibits for various Division projects and studies
- Provide mapping and graphic assistance to other Divisions and Departments on request

PRODUCTS

- State Primary Road System Maps
- Functional Classification Maps
- Planning Project Exhibit Maps/Displays
- GIS Analysis of Census, socioeconomic, environmental, land use, and other data

DISTRIBUTION OF ESTIMATED COST FOR 2006-2007

	PLANNING		DISTRICT OFFICES		TOTAL
	Federal Share 80%	State Share 20%	Federal Share 80%	State Share 20%	
PERSONNEL	$144,760	$36,180	$800	$200	$181,940
OTHER	*$210,400	*$52,600	$400	$100	$263,500
TOTAL	$355,160	$88,780	$1,200	$300	$445,440

*Includes $50,000 for the Official State Highway Map printing and $160,000 for assistance in map production.

CHAPTER 9: GPS/HIS 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 Highway Information System (HIS) and Geographic Information System (GIS)
- Continue implementation of 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 2006-2007:

- Work with the Commonwealth Office of Technology (COT) to upgrade the HIS database to the next release of "Highways by EXOR"
- Develop procedures to review, edit, and update Cabinet's base map and HIS database
- Work with Commonwealth Office of Technology and other agencies to:
    - Identify problems to be addressed by Cabinet or vendor
    - Incorporate upgrades into the HIS 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
- Assist with testing, training, report migration, and looking for enhancements with the new Exor

PRODUCTS

- Routines to extract better road information from the GPS files (i.e. vertical grade, horizontal curve)
- Queries and routines for quality control of the database concerning asset items and road information
- Database and GIS application troubleshooting when errors take place
- Database and GIS upgrades.
- Other agency information loaded to HIS database.

DISTRIBUTION OF ESTIMATED COST FOR 2006-2007

PLANNING	FEDERAL SHARE 80%	STATE SHARE 20%	TOTAL
PERSONNEL	$162,920	$40,820	$203,740
OTHER	$26,400	$6,600	$33,000
TOTAL	$189,320	$47,420	$236,740

CHAPTER 10: Global Positioning System (GPS)

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

PURPOSE AND SCOPE:

- Coordinate and perform data collection update 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)
- Acquire road centerline and associated highway attribute data from as-built design files
- Assist in data updates to Highway Information System (HIS) database and roadway alignments using Oracle Spatial

PROPOSED ACTIVITIES FOR 2006-2007:

- Maintain and make updates as needed to roadway centerline data using GPS and GIS technology
- Perform office reviews to verify data meets the required standards and confidence levels established by this Division.
- Incorporate newly acquired centerline data to the existing highway network, which consists of updating and verifying roadway mileage, highway systems data, and use in maintaining and generating data driven maps. These include:
  - County Road Aid Series maps
  - Functional maps
  - Truck maps
  - State system maps
  - Traffic station maps
- Make GIS base map changes as necessitated by changes to the highway network

PRODUCTS

- New roadway centerlines obtained through GPS technology to update both GIS layers and HIS database
- New roadway centerlines obtained from CAD design files to update both GIS layers and HIS database
- New roadway inventory collected in conjunction with GPS'ing new alignment centerlines
- New roadway inventory extracted from CAD design files for updating the HIS database

CHAPTER 10: Global Positioning System (GPS) (continued)

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

DISTRIBUTION OF ESTIMATED COST FOR 2006-2007

PLANNING	FEDERAL SHARE 80%	STATE SHARE 20%	TOTAL
PERSONNEL	$218,200	$54,560	$272,760
OTHER	*$30,400	*$7,600	$38,000
TOTAL	$248,600	$62,160	$310,760

*Includes $10,000 for GPS receiver upgrades

CHAPTER 11: 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 the 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 the Division's web site
- Participate in FHWA annual process review

PROPOSED ACTIVITIES FOR 2006-2007:

- Work with the Commonwealth Office of Technology (COT) and Divisions within the Transportation Cabinet to fully implement the HIS database upgrade to "Highways by EXOR"
- 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, roadway characteristics and system 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 and perform changes required by federal legislation, regulations, policies, and/or guidelines, as needed to the HPMS
- Make updates to the HIS database from data provided by central office, Highway Districts, and Area Development Districts (ADDs).
- Investigate results of HPMS each year and analyze changes in processes to improve output of report

PRODUCTS

- HPMS report Generated and submitted to FHWA
- HPMS submittal data Analyzed and updated
- New roadway centerlines updated into HIS database and GIS layers
- New roadway inventory updated into HIS database and GIS layers
- Reports created concerning information about transportation network stored in HIS database

CHAPTER 11: Highway Information System (continued)

RESPONSIBLE UNIT: Division of Planning
Data Management Activity Center
HIS Team

DISTRIBUTION OF ESTIMATED COST FOR 2006-2007

	PLANNING		DISTRICT OFFICES		TOTAL
	Federal Share 80%	State Share 20%	Federal Share 80%	State Share 20%	
PERSONNEL	$233,720	$58,440	$8,000	$2,000	$302,160
OTHER	*$136,800	*$34,200	$2,400	$600	$174,000
TOTAL	$370,520	$92,640	$10,400	$2,600	$476,160

* Includes $100,000 for upgrades to the HIS/EXOR Database and $23,000 for outsourcing of the FHWA 536 Report

CHAPTER 12: Special Analysis

RESPONSIBLE UNIT: Division of Planning

PURPOSE AND SCOPE: Numerous requests are made throughout the year for activities and information that may not directly relate to an applicable chapter of the work program. These requests vary from information assimilation requests that may require only hours to complete. Technical analyses and reviews and policy review/recommendations may require extensive efforts. Work with the Highway District Offices (HDOs) and Area Development Districts (ADDs) as needed to complete necessary tasks. Other requests may include reviews and recommendations of new policies, editing of existing policies, and procedures that require extensive research and development efforts. This chapter will also include some work for our Highway District Office staff to administer and oversee consultant and local agreements for roadway projects.

Due to the numerous requests for analysis work we have created an Analysis team. The Analysis team has been directly assigned to the Assistant Director. This team will handle high priority analysis and projects for the Division. This team will assist in the implementation of technology software migrations and implementations, and new procedures and processes that are separate and distinct from day to day activities. This team will assist all activity centers and other Divisions at times.

PROPOSED ACTIVITIES FOR 2006-2007: It is anticipated that a large volume of special requests will continue to be received and processed by the Division. One type of request that is increasing in consistency and number is Road User Cost Analysis. This analysis may include comparisons for detour versus non-detour, bituminous pavement or PCC pavement. Kentucky has received great acclaim for using advanced construction techniques, Road user Cost Analysis that determined that the cost of delaying the public and commercial traffic is significant. We will explore computer models to assist in road user cost analysis, such as TSIS, CORSIM, QuickZone, Autoturn, or other simulation software. Census Transportation Planning Package will be released in FY 2005. We will review the new data for use in SUA as well as use for MPO and ADDs.

The Analysis Team will provide assistance and perform the following duties:

- Analysis. Using database & GIS display and analyze highway systems performance including: adequacy ratings, conditions, congestion analysis, and safety.
- HERS analysis
- Assist with project selection scoring from Chapter 5 including data updates, uploads, and maintaining the SQL code and reports as processes change
- Explore addition of unscheduled projects and Project Identification Forms (PIF) to a database
- Environmental footprints/template

CHAPTER 12: Special Analysis (continued)

RESPONSIBLE UNIT: Division of Planning

PROPOSED ACTIVITIES FOR 2006-2007 (continued):

- Review, evaluate, and determine highways evaluation segments used for HPMS & ratings
- Monitor V\SF (ensuring segments are treated consistently for various collection)
- Assist with highway network maintenance including spatial and database changes
- Assist in establishing and documenting procedures for Official Order changes impacting highway re-alignments, additions, deletions, and re-designations
- Provide specialty maps
- Support the division's analytical mapping needs
- Database upgrades, inclusions, and improvements in the following areas:
  - Exor
  - Analyze the application of MAP Capture in data collection
  - Database review. Create data validity checks using database and GIS tools
  - Bridge system (Link to HIS), Traffic information (signals, signs, etc.) incorporated into HIS, migration from ArcInfo to ARC 9
  - Traffic system upgrade linked to Highway Information System
- Assist HDOs in conducting special studies (Highway District Office Planning staff will coordinate the development of private or public agency projects that involve state transportation facilities that may require a contractual agreement.)
- Assist with the development of data collection procedures, training, implementation and tracking
- Special Requests
- Computer model exploration

PRODUCTS

- Needed roadway improvements statewide
- Rank projects in existing Six-Year Highway Plan
- Assistance in migration of HIS database
- Assistance in updating of data for HPMS and congestion analysis
- Road user costs analysis as requested

DISTRIBUTION OF ESTIMATED COST FOR 2006-2007

	PLANNING		DISTRICT OFFICES		TOTAL
	Federal Share 80%	State Share 20%	Federal Share 80%	State Share 20%	
PERSONNEL	$73,960	$18,500	$4,000	$1,000	$97,460
OTHER	*$106,400	*$26,600	$800	$200	$134,000
TOTAL	$180,360	$45,100	$4,800	$1,200	$231,460

*Anticipate $100,000 in special studies utilizing outside resources where in-house staff is not available.

CHAPTER 13: Air Quality Conformity Analysis Program

RESPONSIBLE UNIT: Division of Planning
Modal Programs Activity Center
Air Quality Team

PURPOSE AND SCOPE: Coordinate and perform analyses necessary for Regional Air Quality Conformity Determinations both rural areas and four MPO areas to allow for the timely advancement of projects. Coordinate with Division of Environmental Analysis, Natural Resources and Environmental Protection Cabinet's Division for Air Quality, EPA, FHWA, FTA, local air agencies, local transit agencies, ADDs, MPOs, and KYTC for conformity approvals. Review and comment on the air quality rules, proposed rules, regulations, implementation standards, and guidance that impact transportation conformity. Maintain a working knowledge of EPA's air quality modeling software, as well as, review and comment on air quality model updates. Develop and maintain new modeling methods for rural conformity. Establish and maintain conformity consultation processes, which specifies each agency's roles and responsibilities.

PROPOSED ACTIVITIES FOR 2006-2007:

- Establish or update conformity consultation agreements statewide.
- Review and comment on the guidelines for the 8-Hour Ozone and PM 2.5 Standards, MOBILE Model 6, and air quality regulations/implementation guidance.
- Run the MOBILE Model for all necessary regional air quality conformity analyses.
- Perform regional air quality conformity analysis for Boyd and Christian Counties for the 8-Hour Ozone Standard.
- Perform regional air quality conformity analysis for Boyd County and a portion of Lawrence County for the PM2.5 Fine Particulate Standard.
- Coordinate with the ADDs, MPOs, Division of Environmental Analysis, Natural Resources and Environmental Protection Cabinet's Division for Air Quality, FHWA, FTA, and EPA.
- Division Planning will provide traffic model output in the form of vehicle miles of travel (VMT) and speeds for Christian and Boyd counties as well as provide non-TDM VMT and speeds for Lawrence, Bullitt, and Oldham County. These VMT and speeds will be used to determine conformity of the area's Transportation Plans, STIP, and TIPs.
- Review and comment during the preparation of mobile budgets for the development of the State Implementation Plans (SIPs) for the 8-Hour Ozone and PM2.5 Standards designations, SIP amendments, and budget adjustments.

CHAPTER 13: Air Quality Conformity Analysis Program (continued)

RESPONSIBLE UNIT: Division of Planning
Modal Programs Activity Center
Air Quality Team

PROPOSED ACTIVITIES FOR 2006-2007 (continued):

- Promote and educate the Cabinet, public officials, and general public about air quality, conformity analysis, and federal guidelines.
- Continue to monitor and coordinate various CMAQ projects in the nonattainment and maintenance areas. Projects will include ozone awareness programs, traffic management and operation centers, transit, bicycle/pedestrian, and other programs.
- Spearhead the development, implementation, and maintenance of a Speed and VMT Database Estimation portable computer program that will serve as new data input for calculated speed values to be put in the Highway Information System.
- Attend necessary meetings and conferences to allow the Cabinet to stay abreast of Air Quality issues.

PRODUCTS

- PM 2.5 Regional Conformity Analysis for all non-attainment areas
- Three Air Quality Partner Meetings
- Prioritized list of CMAQ projects
- Assistance with MPO Conformity Analysis

DISTRIBUTION OF ESTIMATED COST FOR 2006-2007

	PLANNING		DISTRICT OFFICES		TOTAL
	Federal Share 80%	**State Share 20%**	**Federal Share 80%**	**State Share 20%**	
PERSONNEL	**$99,800**	**$24,960**	**$4,000**	**$1,000**	**$129,760**
OTHER	***$70,400**	***$17,600**	**$1,600**	**$400**	**$90,000**
TOTAL	**$170,200**	**$42,560**	**$5,600**	**$1,400**	**$219,760**

*Includes $45,000 for KTC Speed Database Programming and $300 for travel

CHAPTER 14: Metropolitan Planning Organizations (Areas over 50,000 Population)

RESPONSIBLE UNIT: Division of Planning

PURPOSE AND SCOPE: Provide technical assistance and coordination to the Metropolitan Planning Organizations (MPOs) for developing and maintaining a continuing, cooperative, and comprehensive (3C) transportation planning process. The results are Transportation Improvement Programs (TIPs), Long Range Transportation Plans (LRTPs), Unified Planning Work Programs (UPWPs), and other studies, plans or programs consistent with the 3C planning requirements for urbanized areas in accordance with the 1997 TEA-21 and SAFETEA-LU federal transportation legislation. This process ensures that KYTC and local transportation projects remain eligible to receive federal funding. The scope of work for the 3C planning process is in accordance with the UPWP, which describes all anticipated urban transportation and transportation-related planning activities to be performed.

PROPOSED ACTIVITIES FOR 2006-2007:

- Provide technical assistance and review of MPO activities and documents.
- Attend technical, policy, and other committee meetings to represent the Cabinet.
- Conduct contract management and oversight for federal funds.
- Ensure consistency between local and state plans and programs, including MPO and state transportation improvement programs, congestion management plans, the Cabinet's Six-Year Highway Plan, MPO Long-Range Transportation Plans, and the Cabinet's Statewide Transportation Plan.
- Assist MPOs in updating and amending TIPs, LRTPs, and PIPs which includes providing fiscal constraint information and ensuring SAFETEA-LU compliance.
- Assist MPOs in preparing and executing a UPWP which includes: consultation on PL formula distribution; preparation of performance and expenditure reports; and processing invoices.
- Participate in MPO certification reviews and address any corrective actions given to the State.
- Approve the MPO's annual self certification to ensure the planning process (including all planning factors and planning emphasis areas) is being conducted according to federal law.
- Coordinate with other transportation modes to obtain input on intermodal issues for the LRTPs.
- Work closely with the MPOs and Highway District Offices (HDOs) to enhance the metropolitan transportation planning process including data collection, analysis, public involvement (including Title VI requirements), and coordination.
- Work with the MPOs and HDOs to prepare, evaluate, and update Project Identification Forms.
- Provide the MPOs, and HDOs with data, training, transportation systems information, tools, and guidance through various methods including regular statewide meetings.
- Provide technical assistance for MPO traffic models.
- Provide special traffic assignments and analyses for the design and implementation of various highway and street projects.

CHAPTER 14: Metropolitan Planning Organizations (continued)
(Areas over 50,000 Population)

RESPONSIBLE UNIT: Division of Planning

PROPOSED ACTIVITIES FOR 2006-2007 (continued):

- Maintain traffic models for the Ashland, Bowling Green, Clarksville/Oak Grove, Owensboro, and Radcliff-Elizabethtown areas and conduct analyses for projects in these areas.
- Coordinate traffic assignments for the other urbanized areas done by the local MPOs (with assistance from this Division) for distribution throughout the Cabinet.
- Coordinate with the Transportation Cabinet's Office of Transportation Delivery on transit and transit planning issues.
- Monitor, coordinate, and assist with programs by the MPO such as Rideshare, Bicycle/Pedestrian, Intelligent Transportation Systems (ITS), Congestion Management, Access Management, CMAQ, TCSP, and others.
- Coordinate with the Transportation Management Areas (TMAs) on the programming and tracking of dedicated STP funded projects.
- Coordinate with MPOs on air quality issues, analysis, and conformity. The MPOs will continue transportation planning activities as outlined in their UPWPs.

Several special planning efforts are expected to be continued or are new this year including:

- Ashland – Travel Demand Model Update and Combined MPO/Rural UPWP
- Cincinnati/Northern Kentucky – Travel Model Conversion and Hands Pike Traffic Study
- Louisville – Taylorsville Road Study and Rehl Road Interchange Traffic Operations Study
- Radcliff/Elizabethtown – Fort Knox Traffic Circulation Study
- Bowling Green – Nashville Road Traffic Circulation Study
- Evansville/Henderson – I-69 Management Team
- Owensboro – Travel Demand Model Update
- Lexington – Downtown Master Plan and Regional Bicycle and Pedestrian Plan

PRODUCTS

- Compliant MPO TIPs, LRTPs, and PIPs
- MPO Self Certifications (participant)
- Compliant MPO UPWPs
- MPO UPWP Contracts and administration
- MPO dedicated STP fund contracts and administration
- Five Statewide Transportation Planning Meetings
- Travel demand forecast model updates for Ashland and Owensboro

CHAPTER 14: Metropolitan Planning Organizations (continued)
(Areas over 50,000 Population)

RESPONSIBLE UNIT: Division of Planning

DISTRIBUTION OF ESTIMATED COST FOR 2006-2007

	PLANNING		DISTRICT OFFICES		TOTAL
	Federal Share 80%	**State Share 20%**	**Federal Share 80%**	**State Share 20%**	
PERSONNEL	**$307,320**	**$76,840**	**$80,000**	**$20,000**	**$484,160**
OTHER	**$82,400**	**$20,600**	**$8,000**	**$2,000**	**$113,000**
TOTAL	**$389,720**	**$97,440**	**$88,000**	**$22,000**	**$597,160**

*See Exhibit 5 on page 9 for PL funds distributed to the MPOs

CHAPTER 15: Small Urban Areas Studies

RESPONSIBLE UNIT: Division of Planning

PURPOSE AND SCOPE: Identify and analyze traffic operational and transportation system deficiencies in small urban areas (5,000 to 50,000 population). The purpose of these studies is to provide transportation professionals with urban transportation needs and information sufficient to determine priorities for the needs. These prioritized transportation needs are used as input to KYTC's Six-Year Plan , Long Range Plan, and the Unscheduled Projects List. Coordination with the Cabinet's Traffic Operations, Environmental Analysis, Design, District Offices, and ADDs is required. The emphasis of this effort will be to provide a timely response to transportation system issues.

PROPOSED ACTIVITIES FOR 2006-2007:

- Complete five to ten Small Urban Area (SUA) Operational Improvement Studies (OIS) to identify low cost operational improvements to relieve congestion in our fast-growing communities through use of the Strategic Planning expertise in the Division. The first five OIS will include Lawrenceburg, Morehead, Bardstown, Campbellsville, and Murray.
- Complete micro-simulation analysis of specific areas of a SUA as needed to determine needs and proposed solutions.
- When future congestion needs cannot be addressed through only the use of operational improvements, a complete Small Urban Area Transportation Study may be scheduled including an updated travel demand model.
- Provide general oversight/guidance, data collection/analysis, and serve on advisory committees with local representatives for providing input to the studies. State road funds are used to fund the contracts with the consultants.
- Receive and respond to project proposals and requests for studies from local governments. Project and prioritize recommendations as appropriate.
- Improve existing models and convert older models to TransCAD. Updated socioeconomic data and modeling techniques.
- Develop procedures to incorporate GIS data and tools in the model development process. Support for MinuTP, TransCAD, and TransModeler will continue.
- Continue training staff in project management, leadership, and model use and development.
- Review the chosen network, and participation in at least 4-6 public and project team meetings.

CHAPTER 15: Small Urban Areas Studies (continued)

RESPONSIBLE UNIT: Division of Planning

PRODUCTS

- Uniform traffic model structure guidelines
- Operational Improvement Studies for three to five small urban areas
- Update of two to four models for traffic forecasting or air quality conformity use

DISTRIBUTION OF ESTIMATED COST FOR 2006-2007

	PLANNING		DISTRICT OFFICES		TOTAL
	Federal Share 80%	**State Share 20%**	**Federal Share 80%**	**State Share 20%**	
PERSONNEL	**$83,960**	**$21,000**	**$88,000**	**$22,000**	**$214,960**
OTHER	***$10,400**	***$2,600**	**$8,000**	**$2,000**	**$23,000**
TOTAL	**$94,360**	**$23,600**	**$96,000**	**$24,000**	**$237,960**

*An additional $400,000 of State Road Funds are identified in the Cabinet's Six-Year Highway Plan (99-341.02) for Urban Transportation Studies for areas with 5,000-50,000 population.

CHAPTER 16: Multimodal Planning and Technical Assistance: Bicycle, Pedestrian, Public Riverports, Freight, Railroad, Ferryboats

RESPONSIBLE UNIT: Division of Planning
Intermodal Branch

PURPOSE AND SCOPE: To collect data, plan, promote, and assist in the development of a multimodal and intermodal transportation system in Kentucky. The programs addressed in this chapter are:

- Pedestrians
- Bicycles
- Public Riverports
- Railroads
- Public Intermodal Freight Facilities
- Ferryboats

PROPOSED PROGRAMS & ACTIVITIES FOR 2006-2007:

Pedestrian and Bicycle Program

- Assist local governments in the development of local bicycle and pedestrian network facilities and plans.
- Promote pedestrian and bicycle safety and facilities, as requested.
- Revise and update the statewide bike-route system and associated maps.
- Answer requests concerning planning and design guidelines regarding pedestrian and bicycle facilities.
- Facilitate the increased use and public education of non-motorized modes of transportation, including developing pedestrian and bicycle facilities. As well as, assist and expand safety programs for using such facilities.
- Review project plans for bicycle and pedestrian facilities, as requested
- Review school site locations for pedestrian and pedestrian access and design, as submitted.
- Complete the development of the Green and Healthy Schools Program
- Coordinate the current research study on ped and bike safety using reflective materials such as Reflexite armbands and increased safety education.

Public Riverports

- Develop a Kentucky Public Riverport Infrastructure Plan. The plan will also identify current and potential commodity markets and then identify both access and operational needs for each of Kentucky's public riverports. The needs will be prioritized and potential funding sources identified. The plan will also identify state-level organizational needs and recommended state legislation to better accommodate waterways as a viable transportation mode.

CHAPTER 16: Multimodal Planning and Technical Assistance: Bicycle, Pedestrian, Public Riverports, Freight, Railroad, Ferryboats (continued)

RESPONSIBLE UNIT: Division of Planning
Intermodal Branch

PROPOSED ACTIVITIES FOR 2006-2007 (continued):

- Locate and map via GIS tools all public riverports in Kentucky. Include information as appropriate in the HIS database.

Railroads

- Railroad GIS Development: Complete the task of developing a statewide mapping and data set using GIS. This GIS layer will have information on active and abandoned lines in addition to rail trail development. This information will be used for transportation planning, transportation project development and economic development project planning.
- Update the 2002 Kentucky Statewide Rail Plan with current information. Make information available on division website.

Public Intermodal Freight Facilities:

- Develop a Kentucky Intermodal Freight Plan. This plan will consist of 2 primary components: Freight Priority Network and a Strategic/Implementation Plan. Identify goals and principles. Determine thresholds for designation of facilities as part of KY Freight Priority Network. Designate facilities such as highways, airports, riverports, public intermodal centers, railroads and private point facilities. Identify deficiencies and needs on Freight Priority Network. Identify solutions and costs. Prioritize and identify funding and timeframe for each solution.
- Identify needs for highway access through the Unscheduled Project List project identification process.
- Provide technical assistance and disseminate information to MPOs, ADDs and project teams regarding freight movement planning and safety.

Ferryboats

- Coordinate the Kentucky Ferryboat program.

PRODUCTS

- 10-20 school site reviews for bicycle and pedestrian access
- Preparations for Freight Conference in 2007
- Railroad GIS layer and database
- Assistance to MPOs, ADDs, HDOs, and others on freight issues

CHAPTER 16: Multimodal Planning and Technical Assistance: Bicycle, Pedestrian, Public Riverports, Freight, Railroad, Ferryboats (continued)

RESPONSIBLE UNIT: Division of Planning
Intermodal Branch

DISTRIBUTION OF ESTIMATED COST FOR 2006-2007

	PLANNING		DISTRICT OFFICES		TOTAL
	Federal Share 80%	State Share 20%	Federal Share 80%	State Share 20%	
PERSONNEL	$141,640	$35,420	$36,000	$9,000	$222,060
OTHER	*$262,400	$65,600	$4,000	$1,000	$333,000
TOTAL	$404,040	$101,020	$40,000	$10,000	$555,060

*Includes $150,000 for the Riverport Infrastructure Plan
*Includes $60,000 to complete the Pedestrian and Bike Reflective Armband Study.
*Includes $7,000 for Bicycle Trail Map printing and distribution.
*Includes $5,000 for KBBC annual meeting.
*Includes $50,000 for University of Kentucky (Interns) technical assistance program

CHAPTER 17: Statewide Congestion, Mobility, and Access Management

RESPONSIBLE UNIT: Division of Planning
Intermodal Branch
Project Prioritization Team
MPO Team
Corridor Studies Team

PURPOSE AND SCOPE: During the normal statewide transportation planning process, traffic congestion is routinely used to select and prioritize projects that are considered for the Six-Year Plan, STIP, the State Long Range Transportation Plan, and Small Urban Area Transportation Studies in addition to the MPO TIP, LRTP, and UPWP documents. Therefore, the primary purpose is to affect the planning methods, strategies and policies used by KYTC and local planning organizations that will lead to a more efficiently planned, multimodal transportation system for Kentucky.

PROPOSED ACTIVITIES FOR 2006-2007:

Congestion and Mobility Management

- Provide expertise as needed in Congestion Management System in conjunction with Division of Traffic Operations, Maintenance, Design or local government.
- Participate in Archived Data Management System research study, which uses data from various ITS operations. Use data for forecast, model calibration, HPMS estimates, and other uses as defined in the study.
- Ensure that ITS Architecture remains an integral component of the MPO planning process.
- Coordinate urban mobility team.
- Investigate use of the Texas Transportation Institute (TTI) review of Kentucky mobility data practices.
- Implement the TTI research by using the travel-time based performance measures in the statewide model and as urban models are updated/developed.
- Continue to apply travel-time measurements in at least one MPO starting with Lexington.
- Continue to co-sponsor and participate in the TTI Urban Mobility Study. Review and distribute findings to MPO staff. Examine findings and investiage ways to apply it to Kentucky data.

Access Management

- Coordinate the Statewide Access Management Task Force in development of the Kentucky Access Management Program. This will include the development of policies, procedures, and training needed to carry out such a program.
- Develop state policy on medians in the project development and permitting processes.
- Assist local governments in the development of local access management programs as part of their land-use planning processes.
- Develop a standard MOU between KYTC and local government that can be used as part of corridor plans and highway design projects to protect access control.

CHAPTER 17: Statewide Congestion, Mobility, and Access Management (continued)

RESPONSIBLE UNIT: Division of Planning
Intermodal Branch
Project Prioritization Team
MPO Team
Corridor Studies Team

PROPOSED ACTIVITIED FOR 2006-2007: (continued)

Land-Use Planning

- Provide training, technical expertise and review to KYTC district/central office staff, ADD planners and MPO planners on specific corridor planning and design applications, as needed. This will include technical assistance on using overlay (land-use) planning and access management techniques as part of highway project development and intersection feasibility and design.
- Provide training through statewide organizations such as KLC, KAPA and KACO to train local officials and planning commission members on the need for improved land-use and transportation coordinated planning.
- Assist in the planning and preparation of the Smart Growth Conference (as part of the Louisville Bridges Project) scheduled for September 2006.

Intersections

- Continue the GIS tracking system for "smart-growth" projects such as access management retrofits, roundabouts, innovative intersection treatments and road diets.
- Provide information and technical assistance on intersection planning, as requested.
- Roundabout Task Force: Complete the development of roundabout feasibility, planning and design guidance for Kentucky.

PRODUCTS

- GIS tracking system for smart growth projects
- Illustrate use of RODEL roundabout software for use in alternative intersection design
- Policies and procedures for implementation of Access Management Program

DISTRIBUTION OF ESTIMATED COST FOR 2006-2007

PLANNING	FEDERAL SHARE 80%	STATE SHARE 20%	TOTAL
PERSONNEL	$96,300	$24,080	$120,380
OTHER	$26,400	$6,600	$33,000
TOTAL	$122,700	$30,680	$153,380

* Includes $15,000 for specialized traffic intersection software and site-based training.

CHAPTER 18: Traffic Data Forecasting

RESPONSIBLE UNIT: Division of Planning
Modal Programs Activity Center

PURPOSE AND SCOPE: To maintain traffic trends, provide current and projected traffic volume estimates, and associated elements such as design hour volumes, directional distribution, composition of traffic, and truck loadings for planning project development, operations, traffic, environmental, and design purposes.

PROPOSED ACTIVITIES FOR 2006-2007:

- Prepare numerous traffic estimates for planning studies, design projects, environmental analysis, and other purposes as needed. Various procedures, including trendline analysis and the use of computerized traffic models (including statewide traffic model and small urban models) will be utilized to determine traffic assignments. Traffic trends will be monitored to assure usage of accurate K-factors, directional factors, and growth rates. Socioeconomic and site data will be reviewed for usage in traffic model analysis and forecasting.
- Monitor and provide quality review for traffic projections provided by the MPOs and planning consultants.
- Administer statewide traffic forecasting contracts and provide quality review for traffic projections made by the consultant.
- Work with KTC to update ESAL Forecasting for Superpave computer program.
- Work with KTC and Pavement Design Branch to evaluate and develop a parallel processing analysis for the AASHTO Pavement Design Guide (due to be complete in FY2008) which will use load spectra to replace ESALs.
- Maintain databases that track traffic forecasts and traffic forecast parameters. Make databases available to other user offices. Maintain the traffic forecasting web page as a tool for other users..
- Maintain and update internal traffic forecasting tools.
- Update and distribute the 2004 Traffic Forecasting Report to users.
- Provide future year forecasting factors and k-factors/d-factors for the Highway Performance Monitoring System (HPMS).
- Work with Equipment/Traffic Management Branch to perform traffic data analysis.
- Utilize $50,000 of this budget estimate will be utilized by the Kentucky Transportation Center for producing ESAL tables, for including 2005 vehicle classification data and for refining the query structure of the viewer.
- Coordinate with the Strategic Planning Branch to insure that traffic forecasting data needs are met as well as other Divisions.
- Participate in the Traffic Model Users Group, which is a peer group for traffic forecasters and traffic modelers composed of members from government, academia, and the private sector.

CHAPTER 18: Traffic Data Forecasting (continued)

RESPONSIBLE UNIT: Division of Planning
Modal Programs Activity Center

PRODUCTS

- Complete 100-150 forecasts as requested (most charged directly to Six-Year Highway Plan projects)
- Updated ESALs table for pavement design
- Three model user group meetings/trainings

DISTRIBUTION OF ESTIMATED COST FOR 2006-2007

PLANNING	FEDERAL SHARE 80%	STATE SHARE 20%	TOTAL
PERSONNEL	*$94,140	*$23,540	$117,680
OTHER	**$134,400	**$33,600	$168,000
TOTAL	$228,540	$57,140	$285,680

* A percentage of Personnel costs are charged to SYP projects for traffic forecast projection.

**Includes $150,000 for outsourced traffic forecast (an additional $600,000 from Non-SPR funds charged to SYP projects is also estimated) and $50,000 for the Kentucky Transportation Center Equivalent Axleload Processing study. FHWA will be notified if a study is initiated using SPR Funds

CHAPTER 19: Statewide Traffic Model

RESPONSIBLE UNIT: Division of Planning

PURPOSE AND SCOPE: To update and maintain the Statewide Traffic Model (KySTM). To collect data on vehicular movement on the highway system through various survey tools. Process and assemble data to aid in determining travel desires for the location of new routes, relocation of existing routes, decisions between alternate route improvements, or as input into KySTM.

PROPOSED ACTIVITIES FOR 2006-2007:

- Initiate validation activities to refine the KySTM utilizing consultant forces.
- Use KySTM model for corridor studies, freight analysis, air quality conformity, system analysis, and special requests.
- Use KySTM model to develop sub-area studies on a county-wide basis for air quality analysis and as a source of data for developing external data for all KYTC and MPO models.
- Work with consultant to provide training in use of new KySTM model.
- Participate in TRB and other organizations that improve the state-of-the art of statewide modeling. This will involve travel to annual TRB meeting.
- Consider developing a tool utility for KySTM to enable better simulation of freight movement by commodity.
- Consider feasibility of simulating Rail and Intermodal flows and develop a tool utility to compliment the KySTM model
- Consider options to conduct a Select Link analysis with the new KySTM model.

PRODUCTS

- Statewide Traffic Model that can be shared with others
- Corridor or other forecasts as requested
- Freight analysis as needed

DISTRIBUTION OF ESTIMATED COST FOR 2006-2007

PLANNING	FEDERAL SHARE 80%	STATE SHARE 20%	TOTAL
PERSONNEL	$59,100	$14,780	$73,880
OTHER	*$47,200	*$11,800	$59,000
TOTAL	$106,300	$26,580	$132,880

*Includes $50,000 for STM maintenance by consultant.

CHAPTER 20: Area Development District Inventory Data Collection Process

RESPONSIBLE UNIT: Division of Planning

PURPOSE AND SCOPE: The Kentucky Transportation Cabinet's (KYTC) network of state maintained highways contains approximately 27,000 miles of road. The Division of Planning is responsible for maintaining a large amount of data on the state highways for various Cabinet and division functions. Currently the highway inventory data can be sourced to several major collection efforts and on going spot collections by Division of Planning central office staff. In the early 1990's district highway office staff performed a detailed inventory on approximately 12,500 miles of State Primary and State Secondary routes. This inventory was performed over a three (3) year period with different data items collected each year. Beginning in 1992, the Area Development Districts (ADD) collected select data items on approximately 15,000 miles of Rural Secondary and Supplemental routes. Since the ADD project in the early 1990's, updates to the inventory database have been made based on Official Orders denoting changes to the highway system. Due to central office staff constraints and the large volume of physical road changes being made that may not be identified from Official Orders, the data maintained by the division needs to be updated to remain effective for planning, programming, and performance monitoring.

Updated and reliable data is very important for both the Division and Cabinet as a whole because many functions are supported and decisions made based upon the information contained within the inventory database. Special analysis projects, federal reports such as HPMS, mapping functions, economic model generation, engineering needs analysis, and general data requests from the various individuals and agencies are all based upon the data maintained under the Division of Planning's purview. Due to the ever increasing need for quality accurate data, the Division will implement an inventory data collection project in conjunction with eight (8) selected ADD offices. These offices were chosen based on past performance on other projects and their general knowledge of the data maintained by the Division.

This project will include a major update of those inventory types that directly impact Volume to Service Flow (VSF) calculations, a key component used in measuring congestion, and may be expanded in the future to include other data types depending on the performance and quality of data we receive from each ADD. The following data types will be collected: Route Log, Lanes, Medians, Shoulders, Auxiliary Lanes, Speed Limit, and Operation Type. Each ADD will be responsible for procuring a vehicle, collection equipment, and providing staff. The Division's Analysis Team will serve as the primary contact for training ADD staff, consultation for project related issues, receiving data submitted by the ADDs, and verifying data quality. Based upon the expectation of large amounts of data being submitted, members from other branches of the Division will be involved in entering the data into the HIS database.

CHAPTER 20: Area Development District Inventory Data Collection Process (continued)

RESPONSIBLE UNIT: Division of Planning

During the final two (2) months of fiscal year 2005-2006, the Analysis Team is expected to complete several key steps to ensure the project's success. An in office training session will be conducted by the Analysis Team staff to acquaint the ADD collection staff with general issues regarding the collection of data to KYTC standards. Following in-office training, Analysis Team members will conduct field training with each individual ADD in order to provide a real world experience of the project expectations. By the beginning of FY 2006-2007, the Division expects the eight selected ADD offices to be in the process of collecting data within the counties that have been assigned based on a priority listing created by the Analysis Team. Each ADD will be responsible for data collection on all state maintained routes within their assigned counties. After the completion of each county, the ADD will submit the data in paper format for initial review by Analysis Team staff. When the Analysis Team determines the data quality is sufficient to meet the Division's needs, a Division staff member will be assigned the task of entering the data into the Exor database. The Division has set a goal for each ADD to complete two to five counties each year. The amount of time required to complete a county will depend on the size and complexity of each county. Therefore, some counties may take several months while other may be completed in a few weeks. The Division envisions the Inventory Data Collection project as an ongoing cycle, so each county to be reviewed and updated as needed.

PROPOSED ACTIVITIES FOR 2006-2007:

Inventory Data Collection Process tasks and desired results:

- Analysis Team to provide office and field training to ADD collection staff (End FY 2006)
- ADDs will collect data on counties based on prioritization list
- ADDs will submit organized and legible paper copies showing all additions and changes to the current KYTC inventory
- Analysis Team staff will review the submitted data for quality and accuracy
- Selected Division of Planning staff will enter ADD submitted data into the Exor database
- Subsequent analysis, model runs, reporting, mapping projects, and general requests will be created or performed using up to date and accurate information.

CHAPTER 20: Area Development District Inventory Data Collection Process (continued)

RESPONSIBLE UNIT: Division of Planning

PROPOSED ACTIVITIES FOR 2006-2007 (continued):

PRODUCTS

- Updated roadway data elements in approximately 40 counties with urban counties updated first
- Updated HIS/HPMS database to improved currency and accuracy of congestion information used for HPMS and systems analyses.

DISTRIBUTION OF ESTIMATED COST FOR 2006-2007

	PLANNING		DISTRICT OFFICES		TOTAL
	Federal Share 80%	State Share 20%	Federal Share 80%	State Share 20%	
PERSONNEL	$31,020	$7,760	$4,000	$1,000	$43,780
OTHER*	$150,400	$37,600	$800	$200	$189,000
TOTAL	$181,420	$45,360	$4,800	$1,200	$232,780

*Includes an estimated $180,000 for outsourced data collection