



## TRANSPORTATION CABINET

Frankfort, Kentucky 40622  
www.kentucky.gov

**Ernie Fletcher**  
Governor

**Bill Nighbert**  
Secretary

**Crystal Murray Ducker**  
Deputy Secretary

September 10, 2007

Mr. Jose Sepulveda  
Division Administrator  
Federal Highway Administration  
330 West Broadway  
Frankfort KY 40601

Dear Mr. Sepulveda:

Enclosed is the Annual Performance and Expenditure Report for the June 16, 2006 through June 15, 2007 (Fiscal Year 2007) Planning Work Program Project SP-0007 (001) of the Kentucky Transportation Cabinet.

As noted in the expenditures table, \$283,495.90 remains encumbered (remaining to be spent) to the FY 2007 Work Program as of September 10, 2007. A summary of these items is included at the bottom of the expenditures report. We were unable to process all invoices by September 10, 2007, or achieve completion of projects charged to those chapters by June 15, 2007. Therefore, we request an extension of the FY 2007 Work Program until such time as those items are completed. We expect that most, if not all of these items will be completed prior to December 31, 2007. The exception to that is the Madisonville KY 70/Madison Square Drive planning study which is scheduled for completion in June 2009. We will continue to monitor these outstanding encumbrances until they are completed.

We look forward to a timely response on our request to extend the FY 2007 Work Program. If you have any questions, please contact me at 564-7183.

Sincerely,

A handwritten signature in blue ink that reads "Daryl J. Greer".

Daryl J. Greer, P. E.  
Director  
Division of Planning

DJG/CTG

Enclosure

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



**ANNUAL PERFORMANCE AND  
EXPENDITURE REPORT  
FOR  
FISCAL YEAR 2007 ANNUAL WORK PROGRAM  
PROJECT SP 0007 (001)  
JUNE 16, 2006 THROUGH JUNE 15, 2007**

**SEPTEMBER 2007**

## Introduction

The Annual Performance and Expenditure Report is required under 23 CFR 420.117. This document outlines the transportation planning activities conducted by the Kentucky Transportation Cabinet (KYTC) under Planning (Part I) of the SPR work program for the period of June 16, 2006 through June 15, 2007 (Fiscal Year 2007).

Many issues faced the Division of Planning during the period of this work program. Continued downsizing of the Division took place while the workload greatly increased to accommodate KYTC's record letting year. Near unprecedented numbers of analyses, studies and traffic forecasts were initiated during the past year to support the increased lettings. The Division continued to work to increase our utilization of our roadway data management software, Highways by EXOR. Improvements to the quality of the data were made through collection efforts with our Area Development District (ADD) partners, and efficiencies in this program resulted in our ability to collect updated data quicker than was previously expected. Planning continued work with the Kentucky State Police and our ADD partners to maintain the digital base map of roadways and utilize that information to create visual representations of the state highway systems for use by KYTC, other agencies, and the general public. The Division continued efforts at intermodal planning and completed an update of the Statewide Transportation Plan. The Division made great efforts to aid the Cabinet and our MPO partners in making sure our required documents and processes were compliant with SAFETEA-LU and the associated revised regulations promulgated in 23 CFR 450. We worked closely with the Office of Special Programs in the continued transfer of the CMAQ and Bicycle/Pedestrian programs to their office as well as assisting in getting CMAQ, TE, and Safe Routes to School projects into the MPO Transportation Improvement Programs so funding could be authorized.

All these activities occurred while the Division of Planning continued to collect necessary data, manage and report the data as required, respond for requests for data both within and outside the Cabinet, forecast future transportation demands, plan for the transportation needs within the Commonwealth, coordinate with our rural and metropolitan planning partners, address air quality concerns, support project selection for the Six-Year Highway Plan and Statewide Transportation Improvement Program, and address other State and Federal requirements.

Attached are accomplishments for each chapter of the FY 2007 Work Program. Expenditures are summarized at the end of the document showing initial budget, final budget, expenditures, encumbered (remaining to be spent) monies, and unspent funds.

## **ACCOMPLISHMENTS FOR 2006-2007**

### **CHAPTER 1: Personnel Training**

**RESPONSIBLE UNIT:** Division of Planning

The training of personnel was essential to the transportation program in order to keep pace with changing techniques and evaluate new procedures and developments. This was particularly essential to the Cabinet's multimodal/intermodal programs as more and better technical analyses and assistance was required. An effort was made to continue a level of staff training which maintains the integrity of professional career development and improvement of technological skills.

Training for 2006-2007 included conferences/workshops or like training:

- Highway Performance Monitoring System (HPMS)
- Highway Economic Requirements System (HERS)
- EXOR
- TransCAD Traffic Model Training
- ACEC/KYTC/FHWA Partnering Conference
- TRB Committee Meetings
- Traffic Monitoring Guide Training
- Reauthorization conference calls
- Mobility Measures Training
- ArcGIS
- Air Quality Roundtable
- Roundabouts RODEL Software
- Highway Capacity
- Safety Conscious Planning
- Freight Movement
- Rural Transportation Planning
- Federal highway bill provisions
- National Environmental Policy Act
- Access Management
- GIS systems
- Congestion Management Systems
- Road User Cost Analysis
- MPO and Rural Planning
- TTI Mobility
- Title VI and Environmental Justice
- Introduction to Practical Railway Engineering
- KY Statewide Transportation Model

## **ACCOMPLISHMENTS FOR 2006-2007**

### **CHAPTER 1: Personnel Training (continued)**

**RESPONSIBLE UNIT:** Division of Planning

- Projectwise Training
- Transmodeler Training
- Traffic Data Recorder Training for District Traffic Count Personnel
- TRADAS Training
- Making Title VI Work for You
- Scenario Planning
- Roundabout Planning and Design
- Diverging Diamond Interchanges/Techniques
- Smart Growth Conference – Bridging Boundaries: Building Great Communities
- Value Engineering II Course
- JAMAR – Traffic Counting
- TOXIX Air Reduction (STAR) Workshop
- REMI Training
- Webinar: Estimation of Arterial Travel Timesby
- Webinar: Project Level Highway Air Quality Analysis
- TE/CMAQ Training
- Environmental Analysis Tracking System (EATS)
- Model User Group Meetings
- NHI Managing Traffic Incidents and Roadway Emergencies
- NHI Administration and Planning of FHWA Planning and Research Grants
- Travel Demand Forecasting

## ACCOMPLISHMENTS FOR 2006-2007

### CHAPTER 2: **Equipment Management**

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

This team focused on the identification, purchase, repair/maintenance, placement, and operation of various pieces of traffic data collection equipment statewide with the Highway District Offices and within the Division.

- Collected volume and/or classification data on approximately 190 interstate stations across the state.
- Collected data at approximately 350 regularly scheduled volume and/or classification stations to assist District data collection efforts.
- Collected, and submitted quarterly one week of weigh-in-motion (WIM) data at 28 permanent WIM stations including two LTPP sites. The University of Kentucky Transportation Center processes and analyzes our data. Collection of WIM data at portable WIM stations has been limited to that for a research project to determine calibration requirements for permanent and portable WIM sites.
- Periodically calibrated and assessed equipment for adjustments in order to obtain quality data. WIM sites were calibrated before each data collection as part of a research project to insure the accuracy of the collected data.
- Installed and/or repaired permanent vehicle sensors at several high volume locations on I-65 and I-64 in Louisville and I-75 in Lexington.
- Certified, repaired, and maintained 78 Automatic Traffic Recorders (ATR) sites.
- Investigated 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.
- Certified, repaired, and maintained approximately 600 traffic data recorders located in Central Office and across the state at the Districts.
- Inspected, repaired, and maintained 400 permanent vehicle sensor locations.
- Tracked emerging highway projects and produced plans and specifications for new and replacement traffic sensor installations for submittal into construction and pavement rehabilitation and resurfacing contracts.
- Oversaw any outside assistance necessary to assist this team in accomplishing the above tasks. Utilized contractors to help install sensors at various sites across the state. Utilized consultants in high traffic volume areas and to assist selected Districts in performing counts.

## ACCOMPLISHMENTS FOR 2006-2007

### CHAPTER 3: Traffic Data Collection and Processing

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

Working with our Highway District Offices we assigned, processed, analyzed, and provided access to traffic volume and vehicle classification data for highway planning, design, reporting to FHWA, transportation decisions, and various other purposes. This involved 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) provided the basis for factoring short-term counts. Vehicle classification data was assigned, processed, and made available to Cabinet staff for analytical and forecasting purposes.

- Worked with the Highway District Offices to perform approximately 4,500 regularly scheduled short-duration portable machine counts. These counts were approximately one-third of all short-duration traffic count stations in the state and are performed on a three-year cycle.
- Vehicle classification data at approximately 850 stations was collected and processed. The number of classification stations had been increased to 25-30% of all traffic count stations in accordance with the FHWA Traffic Monitoring Guide.
- Reviewed, assigned, processed, analyzed, and distributed data for approximately 350 special count stations that have been requested by the Division of Planning and outside divisions.
- Downloaded, processed, maintained, and analyzed data from 78 permanent ATR stations. Reviewed operation with Equipment Management Team for proper operation, locations, and coverage for possible new ATR station installations.
- Maintained, updated, analyzed, provided quality control and assurance of data, and made data available from approximately 13,500 traffic count stations.
- Updated 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.
- Updated in-house databases to include any new stations or roadway alignment changes. Corrected beginning and ending milepoints to better represent traffic generators.
- Detected, analyzed, and adjusted volume counts while combining and creating additional stations where necessary.
- Continued work to document the entire TMS process.

## ACCOMPLISHMENTS FOR 2006-2007

### CHAPTER 4: Strategic Corridor Planning

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

- Updated and enhanced the evaluation/scoring process to assist in prioritizing projects for inclusion in the Six-Year Highway Plan and the Unscheduled Projects List. This is a data-driven process that scores projects across the state relative to their need for improvement.
- Updated and continued evaluating a “backbone” highway network for the Commonwealth. The goal is to identify those corridors that support the major transportation demands of the state and determine where improvements are needed.
- Completed seven (7) studies during the period of June 16, 2006 to June 15, 2007. This is based on the date the final report was printed for those projects that were completed in-house or the date the final report was submitted by the consultant. The studies completed are as follows:
  - US 231 Scottsville Road , Warren County – Item 03-17.00 – March 2007
  - I-75/KY 14 Interchange Study, Boone County – Item NA – December 2006
  - KY 17 Independence to I-75, Boone/Kenton Counties – Item NA – July 2006 (SPR)
  - Versailles Traffic Congestion Study, Woodford County – Item 07-345.00 – September 2006 (SPR)
  - London to Ashland Corridor Feasibility Study, Various Counties – Item NA – July 2006 (SPR)
  - US 25 Corbin to London, Laurel County – Item 11-8201.00 – July 2006
  - KY 90 Beaumont to Burkesville, Cumberland/Metcalf Counties – Item 08-136.00 – January 2007
- The US 231, I-75/KY 14 Interchange, and KY 90 studies were consultant studies managed by District or Central Office staff. The KY 17, Versailles Traffic Congestion, London to Ashland Corridor, and US 25 studies were managed and all work was done by Central Office staff.
- Continued work on three other studies that are nearing completion:
  - AA Connector, Lewis/Mason/Fleming County, Item 09-178.00 – Central Office in-house study (final draft)
  - KY 441, Bell County, Item 11-110.00, Central Office in-house study (near draft) (SPR)
  - I-69 Eddyville to Henderson, Lyon, Caldwell, Hopkins, Webster, and Henderson Counties, Item 2-69.10, Consultant study



## ACCOMPLISHMENTS FOR 2006-2007

### CHAPTER 4: Strategic Corridor Planning (continued)

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

- Initiated or continued work on six in-house studies that are at various stages of completion. Because of personnel turnover and shortages, some of these studies were not assigned or were inactive during a part of the year. However, they have now all been reinitiated. They include:
  - US 421, Franklin County, Item 5-8109.00
  - US 421, Trimble County, Item 5-147.00
  - KY 76, Russell County, Item 8-8302.00
  - KY 100, Allen and Simpson Counties, Item 3-8303.00
  - US 62, Grayson County, Item 4-8303.00
  - US 431, Logan, Muhlenberg, McLean, and Daviess Counties, Item 2-8106.00

The US 431 study was inactive for a while but has now been reinitiated using consultant services.
- Started work on four other consultant studies just prior to the beginning of the year which are nearing completion. They are:
  - I-264/Manslick Road Interchange, Jefferson County, Item 5-436.00
  - I-64/Gilliland Road Interchange, Jefferson County, Item 5-8200.00
  - KY 155 Taylorsville Road, Jefferson County, No Item Number
  - KY 1819 Billtown Road, Jefferson County, Item 5-8203.00
- Started work on two other consultant studies near the middle of the year which are well on their way to completion. They are:
  - KY 163, Metcalfe County, Item 3-129.00
  - KY 163, Monroe County, Item 3-8310.00

## ACCOMPLISHMENTS FOR 2006-2007

### CHAPTER 4: Strategic Corridor Planning (continued)

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

- Initiated work with consultants on 14 other projects. These include:
  - KY 32, Rowan and Elliott Counties, Item 9-192.00
  - I-64/US 60 Interchange, Carter County, Item 9-8310.00
  - KY 1006 (Fifth Street), Laurel County, Item 11-8304.00
  - Harrodsburg Bypass, Mercer County, Item 7-8344.00
  - US 25, Grant County, Item 6-112.00
  - KY 1501 (Hands Pike), Kenton County, Item 6-8307.00
  - I-69 Henderson to Evansville (Financial Plan), Henderson County, Item 2-68.00
  - US 27/I-75 Connector, Jessamine, Madison, and Fayette Counties, Item 7-249.00
  - Ashland Connector, Boyd County, Item 9-129.00
  - Elrod Road/William Natcher Parkway Interchange, Warren County, Item 3-130.00
  - I-265/Rehl Road Interchange, Jefferson County, No Item Number
  - US 41A in Henderson, Henderson County, Item Number 2-140.00
  - KY 715, Wolfe County, Item 10-8200.00
  - KY 44, Spencer and Bullitt Counties, Item 5-396.00
- Provided funding for Madisonville to complete a study on the KY 70/Madison Square Drive intersection. (SPR)

Many of the studies listed above are large-scale efforts that have included or will include agency coordination and significant public involvement activities. All of the studies have required or will require coordination with the Highway District Offices, MPOs, and Area Development District Offices to assemble the project team, provide input on study issues, assist with scheduling meetings, and review reports. The Area Development District Offices will also develop Environmental Justice reports for many of the studies.

Those projects listed above followed by (SPR) were funded with SPR Work Program funds. In addition, some SPR funding was used for management, oversight, and review of strategic corridor planning activities.

Summarizing, 37 projects have been worked on during the past year, with 7 being completed, 7 others nearing completion, 8 at some intermediate stage, and 15 others getting started.

## ACCOMPLISHMENTS FOR 2006-2007

### CHAPTER 5: Statewide Transportation Planning

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

- Prepared draft guidelines for Project Identification Forms (PIFs). Received and incorporated comments into the guidelines. Distributed guidelines to the ADDs, MPOs, and HDOs.
- Updated PIFs with maps and photos for all High, Medium, and Low Priority Projects by the 15 Area Development Districts and for the High Priority Projects by the MPOs were submitted to Central Office. Reviewed and corrected, as necessary, over 1730 project PIFs during FY 2007. Entered the updated information in the UPL database in preparation for the 2007 Prioritization Cycle.
- Maintained the Unscheduled Project List of over 2300 projects, including the project histories, descriptions, priorities and other data.
- Developed the process and guidelines for the 2007 UPL Prioritization Process.
- Initiated the 2007 Prioritization Process with ADDs and MPOs (Highway District Offices' process continues into FY 2008).
  - High, Medium, and Low Priorities were provided for approximately 2300 Unscheduled Projects at the Regional Level. Rankings were provided at the Local Level.
  - Top Twenty-Five Rankings of UPL projects by will be completed at the Regional Level by July 16 of 2007.
- Responded to inquiries about proposed transportation projects.
- Jointly planned and held five Statewide Transportation Planning Meetings for the 15 Area Development Districts, 12 Highway District Offices and the 9 Metropolitan Planning Organizations. The MPO and Regional Planning Staffs jointly plan the STP meetings.
- Drafted the 2006 Long-Range Statewide Transportation Plan (STP) for the Kentucky Transportation System, which was provided for public review and comment for 30 days. Undertook extensive public involvement to advertise and provide this Draft Plan to the public for review.
- Received and addressed comments on the 2006 Draft STP. Revised the STP as appropriate. The 2006 STP was finalized and adopted by the KYTC on May 18, 2007.
- Researched the additional requirements of SAFETEA-LU federal reauthorization, provided comments on the rule making of revised regulations, and thoroughly reviewed the final rule making on these regulations.
- Prepared Amendment One to the 2006 STP incorporating additional information as needed to fully comply with SAFETEA-LU requirements. Provided the Amendment for public review for the required fifteen-day period ending on June 30, 2007.

## **ACCOMPLISHMENTS FOR 2006-2007**

### **CHAPTER 5: Statewide Transportation Planning (continued)**

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

- Documented all public involvement efforts in regard to the public review period for the Draft 2006 STP and for Amendment One to this document.
- Assisted in the revision of the KYTC Public Involvement Policy for Statewide Transportation Planning.
- Provided training on Public Involvement Plans for the ADDs, MPOs, HDOs, and others utilizing training provided by an outside consultant. Reviewed the revised Public Involvement Plans prepared by the 15 ADDs.
- Title VI Certification Data, Surveys, and Census Data were prepared and collected by 15 Area Development Districts and submitted to the KYTC Office for Business and Occupational Development.
- Drafted and approved the FY 2008 Annual Work Programs/Contracts for 15 Area Development Districts.
- Reviewed and processed 4 Quarterly Reports, invoices, and payments for all 15 Area Development Districts.
- Provided data and information as requested for the KYTC Draft STIP for 2007.
- Reviewed surplus property/right-of-way proposals and school site locations as they relate to long-range transportation needs.
- Assisted with other planning activities as needed such as Small Urban Studies or Environmental Justice Studies (EJ), monitored and reviewed EJ studies prepared by the ADDs.
- Assisted 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.

## ACCOMPLISHMENTS FOR 2006-2007

### CHAPTER 6: Roadway Systems

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

#### State Primary Road System (SPRS):

- Processed a total of 50 official orders.
- Processed 3 electronic changes to the SPRS.
- Provided mileage removed from state maintenance for GASB reporting.

#### Coal Haul Highway System:

- Updated address list and mailed forms in December 2006 (@ 584) and in June 2007 (@ 570).
- Processed 616 routes for the 2006 Coal Haul report.
- Provided ton-miles data to the Governor's Office for Local Development.
- Published Annual Coal Haul Report.
- Provided data to Division of Maintenance for updating Extended Weight Coal Haul Road System.

#### Other:

- Received training on ArcMap and produced county SPRS and Functional Classification Maps.
- Conducted quality control and System checks on SPRS and Functional Classification Maps.
- Updated SPRS listings and Functional Classification as needed.
- Prepared and submitted two applications to the AASHTO Special Committee on US Route Numbering.
- Worked with Planning's Analysis Team to review project identification process, including new alignments, systems changes, and ownership and property issues more quickly, so the digital map is updated, and supporting Official Order documentation is available before, or soon after, projects are finalized.
- Received training in use of the new HIS system.

## ACCOMPLISHMENTS FOR 2006-2007

### CHAPTER 7: **Geographic Information Systems (GIS)**

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

#### GIS Maintenance:

- Assisted in revising standards and scheduling counties for GPS maintenance.
- Performed quality check processes to ADD updates and assured accuracy and correctness of road status by resolution of the GIS road network for 63 counties.
- Prepared a PowerPoint presentation of persistent or common mistakes and presented it to ADD representatives.
- Worked with ADD's planned overall maintenance program.
- Updated various county submittals to HIS.

#### State Highway Map:

- Revamped 2007 map to a new size with new road alignments and classifications.
- Modified and updated 15 city inset maps in Adobe Illustrator.
- Coordinated efforts by Tourism, Creative Services, and KYTC to print Official State Highway map by required date.
- Prepared documentation for the 2007 printing contract.
- Responded to requests from various mapping companies concerning Kentucky road improvements and changes.
- Created new layer for mainline railroads for the 2008 edition.

#### Special Maps:

- Created 2007 Getaway Guide base map for Tourism.
- Created a Project Area Planning Study map of Richmond – Nicholasville connector.
- Made a series of twenty four (24) regional bicycle tour maps, plus legend and state map for KYTC Office of Special Programs.

#### Miscellaneous Projects

- Assisted in creating new SPRS and Functional Classification maps.
- Performed quality checks for newly produced SPRS and Functional Classification maps.
- Participated in Council of Geographic Names Authorities annual conference planning, particularly Bluegrass area field trip of toponymic names and produced accompanying maps.

## ACCOMPLISHMENTS FOR 2006-2007

### CHAPTER 8: Cartography

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

#### Mapping:

- Created more than 70 new county, more than 54 new city maps, and one highway district map of State Primary Road System and Functional Classification.
- Created maps analyzing population characteristics in support of Title VI efforts.
- Developed data for and mapped locations of Drivers License field offices with State Police and Vehicle Enforcement posts and Highway District offices.
- Researched data for and created map series showing interstate construction and population migration for Kentucky, Indiana, and Tennessee.
- Mapped steel bridges in Kentucky. Created map for Homeland Security of bridges in Kentucky with critical national significance.
- Created maps showing VSF and truck percentages on the priority network.
- Updated House and Senate statewide maps showing legislators and their districts.
- Performed annual updates to statewide Kentucky and Tennessee air transportation system maps.
- Updated map for annual certification of Kentucky Economic Development Act counties.
- Updated truck weight classification map for new software and for current data.
- Updated “You are here” maps for Welcome Centers and rest areas.
- Developed and updated map exhibits for the Statewide Transportation Plan.

#### Exhibits for various planning studies:

- Produced maps and exhibits for Murray, Versailles, and Morehead urban area planning studies.
- Produced map for Kentucky Delta Development Highway System.
- Produced maps for Fort Campbell area traffic analysis.

#### Other Special Projects:

- Produced Map for Earth Day showing counties from which employees commute to Frankfort.
- Worked with the Kentucky National Guard on a map showing bridges in the western Kentucky area for their earthquake preparedness field exercise.
- Created legislative district map as requested by highway district staff.
- Performed computer troubleshooting and maintained the computer backup system for Division.

## ACCOMPLISHMENTS FOR 2006-2007

### CHAPTER 9: GPS/HIS Support

**RESPONSIBLE UNIT:** Division of Planning  
Data Management Activity Center  
Development and Support Team

- Created individual asset type GIS layers directly exported from EXOR to replace old individual road asset mapping (e.g. Functional Class, State System, Route Log, etc.) which used a database connection and dynamically segmented an asset table to a measured route layer for mapping purposes.
- Worked with EXOR staff to develop procedure to overwrite the test HIS system with the production HIS system so updated transportation network can be used in testing new tools and procedures.
- Worked with EXOR staff to modify the HIS database to facilitate the use of HIS as the base highway network to support a cabinet wide enterprise system.
- In cooperation with the Office of Technology developed a process for automatically populating other database systems with HIS data to reduce redundant data entry and minimize errors introduced from manual entry.
- Worked with EXOR staff to develop link between new bridge database (PONTIS) and HIS for ease of updates and sharing of data between the two systems.
- Continually developed and ran numerous quality control measures to assure current HIS records and GIS centerline records match assuring all centerlines have correct and full assets assigned. All records not correct were assigned to processor to fix.
- Have conducted many status meetings with EXOR staff through conference calls to assure full implementation of EXOR was occurring. Any issues concerning performance, reliability, and functionality were discussed and a plan of action for a solution provided to proceed.
- Many work sessions were accomplished for the purpose of developing new work processes and procedures as they need to be accomplished in EXOR.
- Reviewed many scripts developed by EXOR to create tables to attempt to match existing tables as defined in the current HIS System. Provided feedback to EXOR as to validity and functionality of the scripts.
- Provided much input to EXOR staff in developing custom tools for KYTC for the purpose of providing better functionality of the EXOR product pertaining to KYTC's needs and updating the states road network.
- Continued development of the GPS Maintenance Process to systematically update the GIS centerlines. Existing routines modified and new routines written for automation of the process and QC.



## **ACCOMPLISHMENTS FOR 2006-2007**

### **CHAPTER 9: GPS/HIS Support (continued)**

**RESPONSIBLE UNIT:** Division of Planning  
Data Management Activity Center  
Development and Support Team

- Assisted with the HPMS annual submittal.
- Provided support for Rating and Scoring of potential Six-Year Highway Plan projects.
- Continued to replace horizontal curve data in database with newly calculated curve from the GIS centerline files.
- Implemented process to update GIS road centerlines with CAD design plans.

## ACCOMPLISHMENTS FOR 2006-2007

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

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

- Prepared and checked 110 of 120 counties for GPS maintenance submittals. New GIS layers were submitted by the Area Development District to update new roads and attributes such as road name, surface type, ownership, to the GIS system.
- Entered 110 of 120 counties into HIS (EXOR) to correctly reflect changes to the road network associated with the GPS maintenance process.
- Continued development of new process to exchange GIS centerline data with Area Development District for the purpose of fixing address ranges of the statewide centerline file to be submitted to KSP for statewide enhanced 911 database and centerlines.
- Delivered 110 GPS Maintenance counties centerline files back to ADD staff to process into the KSP enhanced 911 database.
- Delivered 50 new state road alignments including multiple local roads affected by state road new alignments to ADD staff to process into KSP's enhanced 911 database.
- Mapped 50 new state road alignments and local roads affected by these state road alignments using design files to update EXOR (HIS).
- Reviewed and verified spatial accuracy of the GPS'd alignments and alignments derived from design files.
- Ran weekly quality control error checks to assure all GIS/GPS'd centerlines are correctly reflected in HIS database.
- Provided data to update HIS database with new GPS'd centerline information.
- Ran QC routines to identify attribute changes to the centerline file that was not correctly changed in route description fields in individual asset items of EV, FS, RL, TF, and TW.
- Provided training as needed for new employees by seasoned staff members.
- Completed an update of Jefferson County from LOGIC centerline information.
- Updated Local Key for all 120 counties giving entire transportation road centerline file 100% coverage to sync with KSP address tables in effort to support statewide E911 services.

## ACCOMPLISHMENTS FOR 2006-2007

### CHAPTER 11: Highway Information System

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

- Processed HIS data through the HPMS software to prepare for HPMS submittal.
- Produced the following summary reports for HPMS submittal:
  - Statewide summary
  - Pavement Type
  - Travel Activity
  - Length Totals
  - Travel Totals
  - Urbanized Length Totals
  - Urbanized Travel Totals
- Validated data integrity of all data items questioned to be in error by the HPMS software.
- Incorporated 50 new state road alignments and numerous local roads affected by state road new alignments into HIS (EXOR) assuring network and data was correctly processed, assigned, and attributed.
- Completed 10 counties to support 3 year effort to accomplish EV review project.
- Completed field data review for 25 counties to support EV review project.
- Added over 60 new sample ID's through the EV review and sample adequacy. Approximately 45 dropped through the EV review by being combined and covered by adjacent samples.
- Collected field inventory on approximately 20 new samples.
- Continued statewide Functional Class review as new alignments from Official Orders and GPS Maintenance are added to the network.
- Continued statewide Traffic Station review as new alignments from Official Orders and GPS Maintenance are added to the network.
- Continued statewide State System review as new alignments from Official Orders and GPS Maintenance are added to the network.
- Produced the annual Certified Public Mileage report.
- Produced the annual Vehicle Miles Traveled by functional class report.
- Produced Roadway mileage spreadsheet by functional class and county.
- Produced System Length and Daily Vehicle Travel report and uploaded to Division of Planning website.
- Produced National Highway System (NHS) report and uploaded to the Division of Planning website.
- Produced Governmental Ownership Length report and uploaded to the Division of Planning website.

## **ACCOMPLISHMENTS FOR 2006-2007**

### **CHAPTER 11: Highway Information System (continued)**

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

- Produced Daily Truck Travel report and uploaded to the Division of Planning website.
- Produced Mileage and Daily Vehicle Miles Traveled (DVMT) report and uploaded to the Division of Planning Website.
- Converted monthly extract of all road inventory and systems items to ESRI shapefiles for submittal to the Division of Planning website for downloading by general public and updating of the Interactive mapping program.
- Calculated new horizontal degree of curvature using GPS'd centerlines for remaining 60 counties of state.

## ACCOMPLISHMENTS FOR 2006-2007

### CHAPTER 12: Special Analysis

**RESPONSIBLE UNIT:** Division of Planning

- Modified/Maintained the VIP project scoring system for the SYP and UPL.
- Created environmental footprint maps for planning studies.
- Assisted in updating data impacted by Official Order changes.
- Developed custom queries and GIS files for various analysis and reporting projects within the Division and the Cabinet.
- Assisted in the ongoing development of features for the Federal Highway Administration's HERS-ST model.
- Provided assistance and guidance to each branch within the Division for specialized projects.
- Worked with a software consultant to develop an HIS database query tool, making vast system performance improvements, while making the query tool more intuitive and easier to use.
- Performed various HIS database updates and edit checks. Assisted with database structure changes and other database administrative functions.
- Assisted with finalization of the highway priority network and loaded to HIS.
- Identified critical infrastructure to the Office of Homeland Security.
- Worked with Homeland Security to develop the security element for the Long-Range Statewide Transportation Plan.
- Developed a real-time reporting and mapping tool for the Division of Rural & Secondary roads, eliminating the need for resource intensive paper maps.
- Began implementing the link between HIS and the bridge system (PONTIS), reducing manual updates to both systems, while enhancing data sharing and analytical capabilities. Assisted Bridge Maintenance with bridge locations.
- Modified the highway rating program and generated ratings for more than 12,500 miles of roads classified as State Secondary and above.
- Developed and implemented a project identification process to detect roadway changes to address alignments, systems changes, and ownership and property issues more quickly, so the digital map is updated, and supporting Official Order documentation is available before, or soon after, projects are finalized. Created maps from design plans to support this new process.
- Collected data for newly added HPMS samples in urban areas for four counties.
- Assisted with ongoing enhancements to the HIS database to improve database integrity, system performance, and to enhance analysis and reporting.
- Worked with EXOR staff to modify the HIS database to facilitate the use of HIS as the base highway network to support a cabinet wide enterprise system.
- Developed a process in cooperation with the Office of Technology for automatically populating other database systems with HIS data to reduce redundant data entry and minimize errors introduced from manual entry.

## ACCOMPLISHMENTS FOR 2006-2007

### CHAPTER 13: Air Quality Conformity Analysis Program

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

#### **8-Hour Ozone Conformity Analysis**

**8-Hour Ozone conformity analyses for a new Long Range Plan (Plan) and Transportation Improvement Plan (TIP) for the Ashland Area and amendments to the Plan and TIP for Christian County (Clarksville Area) were completed. Activities included:**

- Worked with FHWA and MPO to schedule and conduct Interagency Consultation (IAC) Meetings.
- Participated with IAC to determine analysis years and planning assumptions.
- For required analysis years, prepared MOBILE6.2 emission model input (including VMT forecasts and average speeds) and worked with IAC to approve transportation and other inputs.
- Ran MOBILE6.2 model to get emission factors and used VMT forecasts to determine emissions for required analysis years.
- Wrote conformity chapters for respective MPO Long Range Transportation Plans and TIPs.
- Coordinated KYTC support letter for FHWA conformity determination.
- Ensured that FHWA conformity determination letter is on file.

#### **8-Hour Ozone Redesignation to Attainment with a Maintenance Plan**

- For required analysis years, prepared transportation data MOBILE6.2 emission model input (including VMT forecasts and average speeds) for Christian County in the Clarksville-Hopkinsville area; Boyd and Lawrence Counties in the Ashland area; and Bullitt and Oldham Counties in the Louisville area.
- Worked with IAC to approve transportation and other inputs. This information was used by the Kentucky Division for Air Quality (DAQ) to prepare the State Implementation Plan (SIP) and associated mobile source emissions “budgets” for the redesignation requests. As a result, Christian County has been redesignated as attainment with a maintenance plan, and the Ashland and Louisville area redesignations are in the final stages of EPA approval.

#### **Fine Particulate (PM2.5) Conformity Analysis**

**Fine Particulate (PM2.5) conformity analyses for all the Kentucky PM2.5 areas (Louisville area, Northern Kentucky/Cincinnati and Ashland/Huntington) were completed. Activities included:**

- Worked with FHWA and MPO to schedule and conduct Interagency Consultation (IAC) Meetings.
- Participated with IAC to determine analysis years and planning assumptions.

## ACCOMPLISHMENTS FOR 2006-2007

### CHAPTER 13: Air Quality Conformity Analysis Program (continued)

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

- For required analysis years, prepared MOBILE6.2 emission model input (including VMT forecasts and average speeds) and worked with IAC to approve transportation and other inputs.
- Ran MOBILE6.2 model to get emission factors and used VMT forecasts to determine emissions for required analysis years.
- Wrote conformity chapters for respective MPO Long Range Transportation Plans and TIPs.
- Ensured that FHWA conformity determination letter is on file.

#### **Fine Particulate (PM2.5) Project Level (Hot Spot) Conformity Analysis. Activities include:**

- Worked with FHWA and EPA to develop process and checklist and standardized documentation for PM2.5 project level conformity.
- Worked with KYTC Division of Environmental Analysis (DEA) to develop KYTC process for meeting PM2.5 project level conformity requirements.
- Worked with KYTC Division of Environmental Analysis to complete PM2.5 project level requirements for all projects (several hundred) that had previously been through NEPA.
- Finalized PM2.5 project level process and rolled out to DEA and consultants.
- Completed PM2.5 project level analysis for the Ohio Rivers Bridges project. This documentation is now used by EPA and FHWA as example documentation.

*Will continue to work with DEA to analyze and complete required documentation for PM2.5 project level requirements for all KYTC six year plan projects.*

#### **Transportation data prepared for the Kentucky Division for Air Quality**

- Prepared VMT forecasts and average speeds for MOBILE6.2 input for Bullitt and Oldham Counties for Louisville Area 8-Hour Ozone conformity analysis and SIP development and the associated mobile source emissions budgets.
- Prepared VMT forecasts and average speeds for MOBILE6.2 input for Boyd and Lawrence Counties for Ashland Area 8-Hour Ozone redesignation to attainment and SIP development and the associated mobile source emissions budgets.
- Prepared VMT forecasts and average speeds for MOBILE6.2 input for Bullitt and Oldham Counties for Louisville Area PM2.5 conformity analysis. Assisted DAQ with development of methodology for determining annual, semi-annual, seasonal, and monthly PM2.5 emissions.

## **ACCOMPLISHMENTS FOR 2006-2007**

### **CHAPTER 13: Air Quality Conformity Analysis Program (continued)**

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

- Updated VMT and speed forecasts for EPA's Visibility Improvement - State and Tribal Association of the Southeast (VISTAS) program to analyze particulate matter air quality and regional haze.

#### **MPO Coordination**

- Worked with KIPDA (Louisville Area), OKI (Northern Kentucky Area), FIVCO (Ashland area), CMCRPC (Clarksville/Oak Grove area), and LFUCG (Lexington) to insure their Travel Demand Models (TDM) are consistent with KYTC VMT and speed forecasts.
- Coordinated, along with FHWA, monthly air quality conference calls.
- Assisted FHWA with hosting second bi-annual air quality roundtable.
- Provided appropriate educational air quality agenda items for quarterly MPO meetings.

#### **Speed Study**

- Guided University of Kentucky effort to expand the recently developed speed study to determine hourly average daily speeds using FHWA's Highway Economic Requirements System (HERS).

#### **Standards Guidelines**

- Updated KYTC's knowledge of conformity regulations through study and discussion with federal partners.
- Reviewed and commented on FHWA/EPA guidelines for 8-Hour Ozone, PM2.5 conformity and PM2.5 project level (hot spot) conformity.
- Worked with FHWA and EPA to develop and standardized documentation for PM2.5 project level conformity.
- Worked with KYTC Division of Environmental Analysis to develop KYTC process for meeting PM2.5 project level conformity requirements.
- Provided status of new regulations, standards and designations to KYTC staff.

#### **CMAQ**

- Assisted with transition of CMAQ program to KYTC Office of Special Programs (OSP)
- Provided emissions reduction analysis for numerous CMAQ applications.
- Assisted OSP with completing CMAQ annual report and procedures for tracking CMAQ funding
- Outreach - Worked with Divison staff, Office of Special Programs, and Office of Public Affairs to coordinate an air quality media campaign designed to encourage folks to bike or walk instead of driving building on the previous years' campaign.



## ACCOMPLISHMENTS FOR 2006-2007

### CHAPTER 13: **Air Quality Conformity Analysis Program (continued)**

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

#### **Air Quality Education and Exploration**

- Worked with small MPOs (Ashland, Owensboro) to implement or improve their outreach programs.
- Represented KYTC on the interagency Earth Day preparations and activities.
- Became active member of newly formed Southeast Diesel Collaborative (SEDC) established to reduce diesel emissions.
- Began work with SDEC to set up diesel retrofit program in Kentucky.

## ACCOMPLISHMENTS FOR 2006-2007

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

**RESPONSIBLE UNIT:** Division of Planning

- Completed the Hardin-Meade County US 31W Access Management Study.
- Participated in the Dixie Fix study team which met throughout the year to review and apply for funding of high priority projects.
- Prepared a draft Consolidated Planning Process document in an effort to streamline the processes of development and amendment of the STIP and MPO TIPs.
- Planned and held five statewide MPO planning meetings.
- Jointly planned and held five statewide planning meetings for the 15 ADDs, 12 Highway District Offices, and 9 MPOs. The MPO and Regional Planning Staffs jointly plan the STP meetings.
- Requested and collected Title VI documentation from the MPOs.
- Coordinated with the MPOs PIF and UPL activities as directed by the Regional planning staff.
- Coordinated PL funding distribution with the MPOs and selected projects for discretionary spending.
- Participated in the development of 9 new or updated TIPs, 33 TIP amendments, and associated conformity approvals (as appropriate) and ensured consistency with state plans and programs.
- Participated in the development of 17 transportation plan amendments, and associated conformity approvals (as appropriate).
- Participated in the Lexington Regional Bike and Pedestrian Plan study which was 75% complete.
- Continued working with the Newtown Pike Extension work group in Lexington and assisted the MPO in preparing an amendment to the transportation plan to account for full project costs.
- Conducted contract administration for over 45 contracts.
- Coordinated with the MPOs various programs such as Rideshare, Bicycle and Pedestrian, ITS, Congestion Management, Access Management, and TCSP.
- Coordinated and tracked dedicated STP funding in TMAs.
- Reviewed and implemented nine MPO work programs.
- Approved nine MPO self certification statements.
- Notified MPOs of planning tools and training available.
- Began an update of the Ashland travel demand model.
- Initiated the Owensboro travel demand model update. Future years model scenarios were initiated and 45% complete.
- Initiated the I-471 study in Northern Kentucky which was 30% complete.
- Initiated the I-75 / KY 14 Interchange study which was 45% complete.

## ACCOMPLISHMENTS FOR 2006-2007

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

**RESPONSIBLE UNIT:** Division of Planning

- Developed Planning Analysis Tool and conducted analysis of MPO procedures and documents to assess SAFETEA-LU compliance status of Kentucky MPOs. In response, 8 MPOs developed revised Participation Plans, TIPs, and Transportation Plans (Clarksville is in the process of revising documents and will be completed in FY 2008).
- Selected consultant, developed scope, and initiated Fort Knox Access Study. The study is approximately 75% complete.
- Selected consultant, developed scope, and initiated Bowling Green Campbell Lane – Nashville Road Circulation Study. The study is 50% complete.
- Transferred CMAQ files and contract administration over to the Office of Special Programs.
- Provided financial forecasts to each MPO to use in developing transportation plans and TIPs.
- Collected and transmitted to FHWA MPO annual performance and expenditure reports.
- Provided a listing of FY 2006 obligated projects to MPOs for their use and publication.
- Attended numerous policy, technical, and other MPO committee meetings representing KYTC.
- Coordinated transit planning issues with the Office of Transportation Delivery.
- Provided MPOs periodic air quality information and analysis.

## **ACCOMPLISHMENTS FOR 2006-2007**

### **CHAPTER 15: Small Urban Areas Studies**

**RESPONSIBLE UNIT:** Division of Planning

The Division of Planning initiated a new approach to Small Urban Area Analysis Studies. In this new approach, we are looking at identifying low-cost, operational improvements that will address many of our safety and congestion issues in the small urban areas (SUA's). We intend to recommend projects that are both fundable and address the areas' needs. Out of 36 small urban areas, we identified five to start the process: Lawrenceburg, Murray, Morehead, Bardstown, and Campbellsville. Lawrenceburg was the initial pilot project. The approach will be similar to that taken with our corridor studies, but abbreviated, so that we can complete studies and make recommendations within an accelerated time frame. This will be accomplished utilizing a multi-disciplinary team approach with representatives from the Central Office, District Highway Staff, Area Development Districts and with additional input and participation from local officials and stakeholders.

The following list the status of these studies:

- Lawrenceburg was the pilot project and was well underway when the Project Manager resigned. Staffing turnover and shortages and other priorities have slowed progress on this study but it is very near completion. As a pilot project, it seemed to be very well accepted by city officials and will recommend several low-cost improvements that can be implemented quickly.
- A draft report has been completed for Bardstown and Murray.
- Morehead and Campbellsville are just getting underway.

As staffing and other priorities allow, additional small urban areas will be selected for study. State funds have been allocated for the Small Urban Area Studies. However, some SPR funding was used for management, oversight, and review of small urban area study activities.

## ACCOMPLISHMENTS FOR 2006-2007

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

**RESPONSIBLE UNIT:** Division of Planning  
Intermodal Branch

#### Pedestrian and Bicycle Program

- Program was transferred to the Office of Special Programs on July 16, 2007. Transferred information and materials needed to continue the program.
- Reviewed several consultant prequalifications for Bikeway Planning.
- Responded to inquiries concerning KYTC's design guidance regarding pedestrian and bicycling facilities and information.

#### Public Riverports

- KYTC Planning staff visited 4 riverports to learn the process and assess needs.
- Selected consultant to develop the Kentucky Public Riverport Infrastructure Plan.
- Assisted the consultants by providing needed information, contacts, and setting up meetings with the public riverports to discuss the study.
- Provided comments and requests for sections of the study that have been submitted.
- Consultants have visited all the ports and documented information and port needs.
- Recommendations regarding where the responsibility for riverports should be in state governments were made.
- Discussion of the priority and funding of public riverports in other states is documented.
- Final report is expected around August 2007.

#### Railroads

- Completed active and abandoned GIS rail layers and made them available for download from the mapping website.
- Updates and corrections continue to be made to GIS rail layers.
- GIS rail-trail information is still incomplete.
- Provided assistance on rail-banking processes for rail-trail development.
- To determine needs, we met with a couple of short line railroads in Kentucky: R.J. Corman and Fredonia Valley Railroads.
- As required by KY law, we requested 2006 Annual Reports from all Railroads operating in Kentucky. We received some and filed them.
- Responsibility of handling crossing complaints was transferred to the Legislative Liaison in the Office of the Secretary.
- Reviewed and commented on proposed legislative action regarding railroads during the 2007 Legislative session.
- Reviewed 13 Rail Systems Planning prequalifications application.

## ACCOMPLISHMENTS FOR 2006-2007

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

**RESPONSIBLE UNIT:** Division of Planning  
Intermodal Branch

#### Ferryboats

- Wrote and administered contracts for state-funded ferry boats.
- Changed the reimbursement to a daily rate to better reflect the need and operational intent of the contract.
- Held the 1st Annual Ferry Boat Operator's Meeting. All contracted ferry services attended. The discussion ranged from insurance vendors or Corps of Engineer inspections. Attendees would like to make this an annual meeting, but move it to January so to combine with legislative session. They also mentioned the overlap with riverport needs.
- Responded to information requests regarding ferries and visited 3 of the state-funded ferries.
- Requested, reviewed, and prioritized applications for Federal Ferry Boat Discretionary Program. Applications and prioritizations were forwarded to the Division of Program Management for federal filing.

#### Intermodal and Freight Facilities

- Developed an Intermodal Freight Plan which included the establishment of a Freight Priority Network with goals for data collection and freight project prioritization.
- Suggested modifications to PIF form to better delineate freight project needs.
- Identified the top 25 manufacturing and distribution centers in the state using an Economic Development GIS database. Analyzed truck access routes to these manufactures using HIS information to document any freight needs. If needs were identified, a PIF was created so that they could follow the UPL processes.
- Provided information as requested to MPOs and ADDs regarding freight issues, including presenting information on the Freight Plan, Truck Parking Grant, and other information at two STP meetings.
- In coordination with KY FHWA, KYTC hosted the 2007 Freight Conference attended by over 80 participants from several states. This was our second biennial event. Presenters from FHWA, Federal and KY Motor Carriers, Wal-Mart, American Trucking Association, and many others added to the success of this conference.
- Worked with WSA to develop KY/CIMS, a commodity information management system, for the state. This computer model links with KY statewide TransCAD transportation demand model to evaluate freight alternatives.
- Administered various contracts, such as the SKED Intermodal Park construction. SKED opened for operations this spring.

## **ACCOMPLISHMENTS FOR 2006-2007**

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

**RESPONSIBLE UNIT:** Division of Planning  
Intermodal Branch

- Updated Kentucky's NHS Connector list. Created new guidelines for inclusion in the system.
- Attended the Talking Freight Webcasts and made available for those interested in attending.
- Participated in conference calls and meetings with regional freight coalitions such as MVFC.
- Toured various intermodal facilities to learn more about them, their needs, and how KYTC can assist.

## ACCOMPLISHMENTS FOR 2006-2007

### CHAPTER 17: Statewide Congestion, Mobility, and Access Management

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

#### Congestion and Mobility Management

- Began creation of Congestion Management Toolbox. A web-based collection of resources. Traffic, Design, Maintenance, Planning, and other specialties are represented on the team.
- Drafted Traffic Impact Analysis standards. These standards are being reviewed by the team and will be published during the next fiscal year.

#### Access Management

- Completed Access Management Classification System. This process was tested in several highway district offices successfully.
- Completed research to determine potential statewide benefits from implementation of a comprehensive access management program. Results of the study can be viewed at [http://www.planning.kytc.ky.gov/modal\\_programs/access\\_files/KTC\\_04\\_05\\_SPR\\_251\\_01\\_1F.pdf](http://www.planning.kytc.ky.gov/modal_programs/access_files/KTC_04_05_SPR_251_01_1F.pdf).
- Provided access management training to local officials and KYTC staff by participating in bi-monthly ADD/MPO meetings and with the KACO organization.
- Participated and provided technical input to the following four access management projects: US 31W (Hardin County), US 53 (Oldham County), US 31E (Nelson County), US231 (Warren County).

#### Land Use

- Reviewed all assigned new school site location proposals to determine if roadway improvements were needed and recommended access management issues that may be desirable.
- Began creation of a GIS database and map to track local land use planning data. The ADD and MPO agencies are providing local information as available. This is expected to become a biennial update. This database is building on one that Economic Development started several years ago.
- Coordinated with the consultants hosting the required *Louisville Bridges “Bridging Boundaries: Building Great Communities” Regional Conference*. This conference presented on topics of smart growth and transportation.



## ACCOMPLISHMENTS FOR 2006-2007

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

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

#### Intersection

- Drafted Turning Lane Warrant requirements.
- Provided roundabout operational analysis or support on approximately 8 projects, including two value engineering studies upon request from Division of Design and Highway District Offices.
- RODEL software was used in addition to other analyzes. Completed KY 17 (Kenton County) intersection analysis study.
- Held overview training on Diverging Diamond Interchange concept to introduce a relatively new intersection management.

## ACCOMPLISHMENTS FOR 2006-2007

### CHAPTER 18: Traffic Data Forecasting

**RESPONSIBLE UNIT:** Division of Planning  
Modal Programs Activity Center

#### Traffic Forecasting Analysis

- Completed 86 forecasts.
- Engineering consultants were used to perform only three or approximately 4% of the forecasts. These forecasts utilized three statewide contracts for large and complex forecast requests. In no case were consultant fees charged to this chapter.

The following is a summary of Traffic Data Forecasting:

Forecasts carried from previous year	23
Forecast requests received	<u>+ 85</u>
Subtotal	108
Forecasts completed by KYTC	- 78
Forecasts completed by Consultants	<u>- 11*</u>
Forecasts carried forward to next year	19 (pending)
Pending forecasts assigned to KYTC	- 14
Pending forecasts assigned to Consultants	<u>- 5</u>

\*In no case were consultant fees charged to this Chapter.

- Processes were reviewed and changes made to optimize the training of the new members.
- Efforts to determine how forecasts are used resulted in efficiencies in the time required to generate estimated single axle loads (ESALs).
- Training resulted in a better understanding of the necessary elements of forecasts, depending on a project's development phase.

#### Traffic Forecasting Data

- Future year factors were provided for the Highway Performance Monitoring System (HPMS).
- K-factors, D-factors, and annual growth factors by functional class were provided based on automatic traffic recorders (ATRs) dispersed throughout the commonwealth.
- K-factors overall continued to decline while traffic growth rates remained positive suggesting peak spreading throughout Kentucky.

## ACCOMPLISHMENTS FOR 2006-2007

### CHAPTER 18: Traffic Data Forecasting (continued)

**RESPONSIBLE UNIT:** Division of Planning  
Modal Programs Activity Center

- The Kentucky Transportation Center (KTC) at the University of Kentucky completed work on updating an ESAL forecasting database for the SuperPave program. Delays in assembling the data led to a delay in the completion of this project to September 2006.
- The AASHTO Pavement Design Guide which will replace ESALs continued to be behind schedule. The Forecasting Section communicated with KTC and the Pavement Design Branch to monitor the progress of the Load Spectra process. Testing and implementation of the guide isn't anticipated until sometime in FY 2008.

#### **Model User's Group**

- Two model user group (MUG) meetings were held:
- July 28, 2006: The meeting rolled out KYTC's Freight plan, a demonstration of Caliper's new TransModeler program and a presentation regarding trends toward activity and land use transportation models.
- October 26, 2006: This meeting was held in Bowling Green and was the first joint meeting with Tennessee. It highlighted Tennessee's model of the Memphis/Shelby County area and Kentucky's Statewide Model update. Started in 2003, the Kentucky model now runs using Caliper's TransCAD program. Caliper also demonstrated their next version of TransCAD, version 5.0.
- Two formal task force meetings pursued our goal to standardize small area models. The first looked at six different formats, two of which were and still are supported by Caliper. The second meeting rolled out the committee's recommendation for one of the interfaces. The cabinet during this time worked to develop a single, statewide network file which consolidated and synchronized information formerly distributed over eight different data bases. Other areas being reviewed were a standard hierarchy of socio-economic data sources.

## **ACCOMPLISHMENTS FOR 2006-2007**

### **CHAPTER 19: Statewide Traffic Model**

**RESPONSIBLE UNIT:** Division of Planning

#### **Statewide Traffic Model Conversion**

- After the initial conversion of our statewide model from the former MinuTP version to TransCAD 4.8 by Wilbur Smith and Associates, necessary refinements in the model's operation were identified. Refinements were completed in September 2006.
- After further review, refinements to the model's method for predicting future traffic was needed. As a result, a contract was initiated to remove unnecessarily short links and to formulate a methodology to estimate future traffic growth. Currently, the contract remains open with an anticipated completion of September 2007.
- Future refinements are being formulated after a detailed review of traffic assignment versus volume counts.
- Two cabinet forecasters also took advantage of TransCAD training by Caliper being conducted at Purdue University.

#### **TransModeler**

- A training session on TransModeler was conducted by Caliper at the University of Kentucky. Consultants were invited to participate.

#### **Statewide Freight Model**

- Developed a contract to create a freight model to understand freight movement.
- Based on a KY's Statewide Traffic TransCAD model for over-the-road freight, other modes were incorporated into a GIS based program that identifies freight movements by commodity as well as mode.
- CIMS, a beta version of the program, was presented at the second annual Freight Conference.
- The goal of the freight model is to assist decision makers in visualizing the movement of commodities through the Commonwealth of Kentucky.

## ACCOMPLISHMENTS FOR 2006-2007

### **CHAPTER 20:**                               **Area Development District Data Collection Process**

**RESPONSIBLE UNIT:**                       Division of Planning

- Developed a data collection process and contracted with the Area Development Districts (ADDs) to update critical data elements for HIS/HPMS.
- Received updated data, critical to HPMS and Kentucky's rating programs, from the ADDs for 37 counties. Reviewed 15 of those counties to ensure ADD staff understood the process, and provided feedback to each ADD on their progress and performance. Data for these 15 counties were entered into HIS and were reflected in the 2006 HPMS submittal.
- Held additional training sessions for two Area Development Districts on the processes of roadway data collection and performed field Q/C reviews.
- Held training for non-Analysis Team Division staff relating to querying the Exor database and creating the needed reports for the data collection effort.
- Developed and tested an automated process for making database changes from field collection efforts. Process to be implemented in FY08.
- Through efficiency gains as noted immediately above, data will be collected in all remaining counties in FY08, resulting in this task being completed in two years as apposed to three in the original plan.

## FY07 Planning Work Program Chapter Expenditures

Title	Chapter	Budget	Current Budget	ENCUMBERED	EXPENDED	TOTAL YTD	% of Budget	BALANCE
Personnel Training	01P	\$563,140.00	\$563,140.00		\$135,410.08	\$135,410.08	24%	\$427,729.92
Equipment Management	02P	\$1,433,840.00	\$1,433,840.00		\$558,917.07	\$558,917.07	39%	\$874,922.93
Traffic Data Collection & Processing	03P	\$2,615,840.00	\$2,615,840.00		\$1,201,744.40	\$1,201,744.40	46%	\$1,414,095.60
Strategic Corridor Planning	04P	\$621,140.00	\$621,140.00	\$60,000.00	\$375,196.19	\$435,196.19	70%	\$185,943.81
Statewide Transportation Planning	05P	\$910,540.00	\$910,540.00		\$768,447.05	\$768,447.05	84%	\$142,092.95
Roadway Systems	06P	\$612,040.00	\$612,040.00		\$347,239.60	\$347,239.60	57%	\$264,800.40
GIS	07P	\$342,740.00	\$342,740.00		\$146,343.39	\$146,343.39	43%	\$196,396.61
Cartography	08P	\$445,440.00	\$445,440.00		\$444,694.17	\$444,694.17	100%	\$745.83
GPS/HIS Support	09P	\$236,740.00	\$236,740.00		\$182,706.58	\$182,706.58	77%	\$54,033.42
GPS	10P	\$310,760.00	\$310,760.00	\$10,000.00	\$241,381.48	\$251,381.48	81%	\$59,378.52
HIS	11P	\$476,160.00	\$476,160.00		\$447,879.85	\$447,879.85	94%	\$28,280.15
Special Analysis	12P	\$231,460.00	\$231,460.00		\$160,553.49	\$160,553.49	69%	\$70,906.51
Air Quality Cont Analysis Program	13P	\$219,760.00	\$219,760.00		\$95,885.18	\$95,885.18	44%	\$123,874.82
MPO	14P	\$597,160.00	\$597,160.00	\$88,809.20	\$395,797.50	\$484,606.70	81%	\$112,553.30
Small Urban Areas Studies	15P	\$237,960.00	\$237,960.00		\$38,218.02	\$38,218.02	16%	\$199,741.98
Multimodal Planning and Tech	16P	\$555,060.00	\$555,060.00	\$36,000.00	\$303,625.59	\$339,625.59	61%	\$215,434.41
Statewide Congestion/Mob/A Mgmt.	17P	\$153,380.00	\$153,380.00		\$77,964.28	\$77,964.28	51%	\$75,415.72
Traffic Data Forecasting	18P	\$285,680.00	\$285,680.00		\$153,486.35	\$153,486.35	54%	\$132,193.65
Statewide Traffic Model	19P	\$132,880.00	\$152,880.00	\$28,989.84	\$122,237.65	\$151,227.49	99%	\$1,652.51
ADD Inventory	20P	\$232,780.00	\$232,780.00	\$59,696.86	\$65,874.17	\$125,571.03	54%	\$107,208.97
TOTAL for FH02		\$11,214,500.00	\$11,234,500.00	\$283,495.90	\$6,263,602.09	\$6,547,097.99	58%	\$4,687,402.01

Requested Accounts move \$20,000.00 from Chapter 14P to Chapter 19P to cover encumbrances

- \* \$60,000.00 Encumbered for Transportation Study - City of Madisonville KY 70/Madison Square Drive
- \* \$10,000.00 Encumbered for Purchase and Buffalo Trace Area Development Districts Roadway Centerline Contracts
- \* \$88,809.20 Encumbered for Corradino (\$27,675.26) and Berrardin (\$61,133.94) Consultants for Outstanding Letter Agreements
- \* \$36,000.00 Encumbered for Consultant for Kentucky Riverport Improvement Project
- \* \$28,989.84 Encumbered for WSA Consultant for Outstanding Letter Agreement
- \* \$59,696.86 Encumbered for Area Development Districts Inventory Contracts

Current as of September 10, 2007