



PROFESSIONAL SERVICES PROCUREMENT BULLETIN 2006-07 STATEWIDE MODELING

COUNTY	Statewide
ROUTE	N/A
DISTRICT	Statewide
ITEM NO	N/A
PROJECT DESCRIPTION	Consulting services are needed to perform various travel demand modeling tasks involving development, refinement, or use of small urban area models, county-level models, the statewide model, and MPO model enhancements. Consultant services will also be utilized to refine current modeling procedures through the incorporation of additional data sources and innovative modeling methodologies.
PROJECT MANAGER	Scott Thomson, P.E. and Amy Thomas, P.E.
USER DIVISION	Division of Planning
APPROXIMATE FEE	\$500,000 per consultant with up to three consultants being selected. Each project will vary between approximately \$25,000 to \$150,000, including no more than a 15% operating margin . Project assignments will be made on a rotational basis. Work is anticipated in five categories, and the approximate amount in each category will be as follows: Air Quality Models: \$100,000 Small Urban Area Models: \$150,000 Statewide Modeling: \$200,000 MPO Model Enhancements: \$150,000 Innovative Modeling Methodologies: \$100,000
PURPOSE AND NEED	To develop traffic demand models to support air quality conformity analyses, small urban area planning applications, traffic forecasting, corridor studies, and other special planning studies.
METHOD OF DESIGN	The selected consultant will use a standardized user interface and file structure in the development of models.

SCOPE Selected consultants must possess the expertise and capacity to be able to perform at least one of the travel demand modeling tasks listed below:

1. *County Level Modeling*—Use the Kentucky Statewide Model, abbreviated data collection techniques, and transferable model parameters to develop sub area models for selected counties within Kentucky. These models would provide a basis for supporting KYTC's air quality conformity analysis being performed in multiple counties throughout the state.
2. *Small Urban Area Modeling*—Develop or update small urban area models for selected urban plan development purposes, traffic forecasting for preconstruction activities on major projects and micro-simulation models for operational studies.
3. *Statewide Modeling*—Maintain and improve the Kentucky Statewide Traffic Model. The statewide model was converted to Trans CAD 4.8 in 2005. The consultant must be familiar with model calibration and validation, long distance travel modeling, and other unique features of statewide modeling.
4. *MPO Model Enhancements*—Edit or enhance existing MPO models in cooperation with MPO model project project managers. Create sub area travel demand or micro simulation models from MPO models to support Cabinet and MPO activities.
5. *Innovative Modeling Methodologies*—Develop new modeling methodologies for the applications listed above by incorporating new techniques and new data sources such as freight modeling.

The table below list the approximate number of studies and cost per study.

Category	# Studies	Fee Per Study	Category Total Fee
Air Quality Models	3	\$33,333	\$100,000
Small Urban Area Models	3	\$50,000	\$150,000
Statewide Modeling	3	\$66,667	\$200,000
MPO Model Enhancements	3	\$50,000	\$150,000
Innovative Modeling Methodologies	4	\$25,000	\$100,000
Total			\$700,000

ADDITIONAL
INFORMATION

Selected consultants must have the capacity to work in both the MINUTP and Trans CAD software formats. Capacity to work with the Cabinet's Highway Information System (HIS) database and GIS capability are also required.

The County Level Modeling task and the Small Urban Area Modeling task are expected to be similar in approaches to existing practice although innovative approaches are encouraged. Reports of these tasks are available upon request.

It is expected that frequent coordination between the consultant and the Transportation Cabinet's user division will be necessary for each project.

Air Quality Models, Small Urban Area Models, Statewide Modeling, MPO Model Enhancements and Innovative Modeling Methodologies are activities that are related and/or covered by the Cabinet's prequalification

SPECIAL
INSTRUCTIONS

Please note the new guidelines for responding to project bulletins should be used. [Instructions Response to Kentucky Transportation Cabinet.pdf](#)

PREQUALIFICATION REQUIREMENTS

MULTIMODAL

- Urban Transportation Studies
- Traffic Forecasting

PROJECT SCHEDULE & MILESTONES

RESPONSE DATE	May 3, 2006 4:30 p.m. (Frankfort Time)
SELECTION COMMITTEE DATE MEETING	May 24, 2006
TENTATIVE DEADLINE FOR CONSULTANT FEE PROPOSAL	June 7, 2006
CONTRACT NEGOTIATIONS	June 28, 2006
NOTICE TO PROCEED	July 12, 2006
COMPLETION OF SERVICES	June 30, 2008
AIR QUALITY MODELS	Three Months
SMALL URBAN AREA MODELS	Nine Months
STATEWIDE MODELING	Twelve to Eighteen Months
MPO MODEL ENHANCEMENTS	Twelve Months
INNOVATIVE MODELING METHODOLOGIES	Twelve Months

The selected consultant is expected to meet the scheduled milestone dates.

EVALUATION FACTORS

1. Relative experience of consultant personnel assigned to project team with travel demand modeling projects for KYTC and/or for federal, local or other state governmental schedule. (10 points)
2. Capacity to comply with project schedule. (10 points)
3. Past record of performance on project of similar type and complexity. (10 points)
4. Project approach and proposed procedures to accomplish the services for this project. (10 points)
5. Consultant's Kentucky office where work is to be performed. (2 points)

75% - 100% of work accomplished in Kentucky offices - 2 points

26% - 74% of work accomplished in Kentucky offices - 1 point

0% - 25% of work accomplished in Kentucky offices - 0 points

SELECTION COMMITTEE MEMBERS

1. David Hamilton, User Division
2. Amy Thomas, User Division
3. Michael Calebs, Secretary's Pool
4. David Waldner, Secretary's Pool
5. Howard Cruse, Governor's Pool