

**Request for Proposals
for Assistance on the
REGIONAL TRAVEL MODEL
FOR THE LEHIGH VALLEY**

A. Introduction

The Lehigh Valley Planning Commission (LVPC) is seeking a qualified consultant to provide expertise on work tasks described in this Request for Proposals (RFP) for the development, maintenance, operation of and training for the use of the Lehigh Valley Regional Travel Model. The LVPC is the regional planning agency for the Lehigh Valley, Pennsylvania which includes Lehigh and Northampton counties. The Lehigh Valley is comprised of 62 municipalities including the cities of Allentown, Bethlehem and Easton, 27 boroughs and 32 townships.

The LVPC, along with PennDOT and LANta, serves as staff for the Lehigh Valley Transportation Study (LVTS), the metropolitan planning organization (MPO) for the Lehigh Valley. The role of LVTS is to promote transportation plans, programs and policies that are consistent with the Lehigh Valley Transportation Plan in accordance with Federal law. LVTS maintains a continuing, comprehensive and cooperative transportation process consistent with the comprehensively-planned development of the urbanized area in order to be eligible to receive Federal transportation funding. The regional travel model is an important tool for the LVPC's transportation planning and is used in analyses for project planning, project prioritization, long range needs, congestion management, and air quality, to name a few.

The LVPC uses the Cube Voyager modeling platform to perform regional travel model analyses. The software simulates both highway and transit conditions. The model also uses Central, an overriding run management software package, and two post-processing software packages associated with air quality analyses (PPAQ and PPSUITE). EPA's MOBILE 6.2 air quality software is currently used for air quality conformity determinations of Lehigh Valley transportation plans and programs. However, the conversion to the next generation MOVES software is anticipated to occur over the next year. The Lehigh Valley's 730 square miles are divided into 473 traffic analysis zones (TAZs). The LVPC will provide socio-economic inputs through 2040 for the model. The model had last undergone a full calibration to a base year of 2000.

For this RFP, the LVPC will solicit proposals from interested consultants and select the highest ranked respondent. The LVPC has budgeted \$100,000 for this effort.

B. Tasks

Task 1 – Calibration of the Regional Travel Model

The regional travel model will be calibrated to a 2010 base year. The regional highway network has been maintained from past versions of the model. The transit routes must be updated to reflect the Lehigh and Northampton Transportation Authority's (LANta's) new fixed route system (LANtaBus), which was instituted in August 2011. The LVPC will provide a GIS shapefile of the LANtaBus network. 2010 socio-economic inputs by TAZ will also be provided

by the LVPC. Each step of the modeling process (Trip Generation, Trip Distribution, Modal Choice and Assignment) is to be calibrated in accordance with FHWA calibration criteria and guidelines. The model will be calibrated to traffic counts taken along one screenline (Lehigh River crossings), 10 cutlines and external stations. Vehicle miles of travel from PennDOT's Highway Performance Monitoring System (HPMS), commutation data available from the American Community Survey and the Longitudinal Employer Household Dynamics (LEHD) database should also be used as calibration checks.

Task 2 – Travel Projections to 2040

Once calibration of the 2010 base year is achieved, travel projections will be made in 10 year increments to 2040. The LVPC will provide forecasts of socio-economic inputs at the TAZ level and network changes (planned capital improvements) that would impact the travel projections.

Task 3 – Accessibility Application

Presidential Executive Order 12898, “Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations,” was signed on February 11, 1994. The Order requires Federal agencies to achieve environmental justice by identifying and addressing disproportionately high and adverse human health and environmental effects, including the interrelated social and economic effects of their programs, policies and activities on minority populations and low-income populations. On April 15, 1997, the U.S. Department of Transportation (USDOT) issued its Order to Address Environmental Justice in Minority Populations and Low-Income Populations (DOT Order 5610.2) to summarize and expand upon the requirements of Executive Order 12898 on Environmental Justice. On May 2, 2012, USDOT released a revised version, DOT Order 5610.2(a), which updated the original Order.

Consequently, State DOTs and Metropolitan Planning Organizations (MPOs) are responsible for identifying and addressing Environmental Justice issues. Specifically, MPOs must:

- Enhance their analytical capabilities to ensure long range transportation plan and Transportation Improvement Program compliance with Title VI/Environmental Justice;
- Identify residential, employment and transportation patterns of minority and low-income populations to identify and address their needs;
- Evaluate and improve, if necessary, the public involvement process to eliminate participation barriers and engage minority and low-income populations in the transportation decision-making process.

The LVPC seeks a turn-key travel model application which can measure access (e.g. to employment centers and/or transportation hubs) from TAZs that have the populations contained within the Executive Order and compare them to all other TAZs. This comparison will be made between a no-build scenario (i.e., no improvements made to the highway and transit networks) and build scenario (i.e. implementation of a short range and/or long range plan or program). The outputs of this application will be used as part of a regional “Benefits and Burdens” assessment of transportation plans and programs.

Task 4 – Staff Training

The LVPC will require staff training to run the regional travel model. Training shall include (but not be limited to) run management, file naming conventions, identification of input files, network

editing, outputs and running air quality components. Typical training activities may include instruction on:

Run the calibrated regional travel model and provide outputs necessary to support the LVPC's transportation planning work as outlined in the LVPC's Unified Planning Work Program contract with PennDOT.

Provide enhancements to the regional travel model to allow for planning products that are currently unavailable through standard model outputs.

Air quality conformity analyses for major changes to the TIP, long-range transportation plan, or changes to modeling requirements made under Federal/State planning requirements.

Training the LVPC staff in the use of any new procedures developed under this contract, including the EJ analysis application.

C. TYPE OF CONTRACT

If a contract is entered into as a result of this RFP, it will be a one year cost plus fixed fee contract and will contain the provisions attached in the LVPC's standard contract with the Pennsylvania Department of Transportation. Negotiations may be undertaken with the selected contractor whose proposal (as to price and other factors) shows them to be qualified, responsible, and capable of performing the work.

D. OBJECTIVE

General – The objective of this project is to provide assistance to the Lehigh Valley Planning Commission staff in calibrating the regional travel model to a 2010 base year, develop travel projections to 2040, develop an Environmental Justice accessibility application and train LVPC staff in running the regional model and reporting results.

Specific – The consultant should demonstrate specific experiences in each of the areas listed below. The consultant should have an excellent working knowledge of the Cube Voyager modeling software and a working knowledge of the Lehigh Valley, its travel patterns, and the LVPC's travel model.

The consultant should provide three direct examples of closely related completed projects similar to the needs of this request.

E. NATURE AND SCOPE

This is a one year arrangement with direction provided by the LVPC. This project will result in the successful completion of all tasks described. The contractor will be responsible for all deliverables specified.

F. DESCRIPTION OF THE LEHIGH VALLEY TRAVEL MODEL

The Lehigh Valley travel model uses the latest version of the Cube Voyager software and simulates both highway and transit modes. The model also uses Central, an overriding run management software package, and two air quality packages (PPAQ and PPSUITE). The

Lehigh Valley's 730 square miles are divided into 473 traffic analysis zones. The LVPC provides socio-economic inputs for the model. The model uses 2000 as its base year. Its uses include air quality modeling, alternatives analysis modeling, transit forecasting, and land use alternatives modeling,

G. SUBMISSION INSTRUCTIONS

Proposers shall submit an original and two copies of the proposal to:

Lehigh Valley Planning Commission
c/o Joseph L. Gurinko, AICP
Chief Transportation Planner
961 Marcon Boulevard, Suite 310
Allentown, PA 18109
by
Friday, November 2, 2012
5:00 p.m.

H. REQUIRED PROPOSAL ELEMENTS

Proposers shall present a profile to include:

A cover letter identifying the RFP being responded to, that indicates the commitment of the responder in moving forward with the project if selected, whether the proposer's organization or any proposed sub-contractors meet the definition of minority business or women's business enterprise, and signed by a duly authorized representative of the proposer.

A statement as to the location of the Proposer's place of business.

The range of experience performed by the Proposer(s), with particular emphasis on prior experience working on similar projects.

Provide the name of the project manager and key staff to work on the project. The project manager will be our key contact person. Qualifications for key staff must be provided.

Provide a detailed scope of work.

Proposals may cover up to a period of 12 months.

The maximum length of any proposal is 10 pages single spaced, excluding resumes.

Proposers shall submit a minimum of three references familiar with the proposer's work and related to the proposer's business, including the name of the entity, contact person, address and telephone number.

A separate and sealed cost estimate of sufficient level of detail to document expenses by task in the following categories:

- Direct labor for each individual assigned, including hourly rate and number of hours proposed
- Overhead costs
- Fee
- Expenses
- Subcontractor costs (if necessary)
- Total

I. REPORTS AND PROJECT CONTROL

Upon being given a notice to proceed, the successful contractor shall provide monthly status reports on the progress made. Invoices shall be submitted 15 days after each quarter (January 15, April 15, July 15, October 15) for review and payment. The Lehigh Valley Planning Commission will not be liable for any costs incurred by consultants prior to the issuance of a written notice to proceed.

Draft versions of all reports developed under any task shall be forwarded to the LVPC for review prior to being finalized.

J. CONTRACT ARRANGEMENTS

Disadvantaged Business Enterprise (DBE) Policy – It is the policy of the U.S. Department of Transportation that minority-owned and women-owned business enterprises (hereby referred to as DBEs) shall have the opportunity to participate in the performance of contracts financed in whole or in part with Federal funds. The recipient or its subcontractor agrees to ensure that DBEs have the opportunity to participate in the performance of contracts and subcontracts financed in whole or in part with Federal funds provided under this agreement. In this regard, all recipients or subcontractors shall take all necessary and reasonable steps to ensure the DBEs have the opportunity to compete for and perform contracts. Recipients and their subcontractors shall not discriminate on the basis of race, color, national origin or sex in the award and performance of USDOT-assisted contracts.

The contractor agrees to comply with all the requirements imposed by Title VI of the Civil Rights Act of 1964 and the regulations of the USDOT issued there under 49 CFR Part 21. In connection with the performance of the contract, the contractor shall not discriminate against any employee or applicant for employment because of race, color, religion, sex, age, disability or national origin.

K. EVALUATION CRITERIA

Proposal evaluations will be based upon completeness, quality, and the level of detail of the following criteria. All proposals should address the following areas:

- Prior experience using travel models, particularly with the Cube Voyager software
- Prior experience using associated travel model software used in the Lehigh Valley model, i.e. Central, PPAQ, and PPSUITE
- Knowledge of the Lehigh Valley transportation network and its performance, travel habits of Lehigh Valley residents, development patterns, etc.
- Reputation for producing high quality work on time and within budget
- Qualifications, skills, and experience of the personnel that will be assigned to tasks described under this agreement. The consultant shall provide resumes of staff that will work on this contract. The consultant will also designate a staff manager who will assist the LVPC in scoping the tasks, direct the tasks, and coordinate with the LVPC
- Ability to commit appropriate staff on a timely basis to complete the tasks
- Average hourly cost of services

The proposer with the highest ranked proposal, and whose price proposal is acceptable, may be contacted regarding any potential areas to be negotiated, including price. If negotiations are determined not necessary, a contract may be awarded to that entity.

If negotiations are conducted and are not successful with the top-ranked proposer, then negotiations may be conducted with the next highest ranking proposer and so on down the line.

L. NON-AWARD OF CONTRACT

The LVPC reserves the right to reject in whole or in part any and all proposals received as a result of this RFP.

M. RESPONSE DATE

Three copies of all proposals must be submitted to the Lehigh Valley Planning Commission, 961 Marcon Boulevard, Suite 310, Allentown, PA 18109 on or before **5:00 p.m. on Friday, November 2, 2012**, attention Joseph L. Gurinko.