

Grand Valley Metropolitan Council REQUEST FOR PROPOSAL

1. Summary and Background

The Grand Valley Metropolitan Council (GVMC), the designated Metropolitan Planning Organization (MPO) is currently accepting proposals from firms interested in being selected to upgrade and enhance the current travel demand forecasting model for the Grand Rapids Urbanized Area and its surroundings. The GVMC transportation planning area is designated as a Transportation Management Area (TMA). GVMC planning area includes all of Kent County and the eastern part of Ottawa County. ([click here for attached map.](#)) The GVMC intends to select one firm to provide services as outlined below. The GVMC receives federal and state grant funding and other funding from local participating governmental units.

2. Proposal Guidelines

This Request for Proposal represents the requirements for an open and competitive process. Proposals will be accepted until 5 pm EST February 9, 2017. Any proposals received after this date and time will be returned to the sender. All proposals must be signed by an official agent or representative of the company submitting the proposal.

If the organization submitting a proposal must outsource or contract any work to meet the requirements contained herein, this must be clearly stated in the proposal. Additionally, all costs included in proposals must be all-inclusive to include any outsourced or contracted work. Any proposals which call for outsourcing or contracting work must include a name and description of the organizations being contracted.

All costs must be itemized to include an explanation of all fees and costs. Contract terms and conditions will be negotiated upon selection of the winning bidder for this RFP. All contractual terms and conditions will be subject to review by GVMC's Legal Consultant and will include scope, budget, schedule, and other necessary items pertaining to the project.

3. Project Purpose and Description

The purpose of this project is as follows:

- Review existing GVMC Travel Demand Model structure
- Develop a 4-step travel demand model that includes capabilities and participation of GVMC staff as described in the project scope
- Develop an interface in TransCAD 7.0 that will run each model step independently
- Develop interfaces for Performance Measures analyses
- Provide technical training to GVMC and MDOT staff

4. Project Scope

Task 1: Review the listed current model structure and processes and make recommendations for update to be made by GVMC staff.

- 1.1. Review the current highway network and TAZs for connectivity or boundary issues. Recommend updates or areas for improvement to GVMC staff.

- 1.2. Recommend any additional attributes for the highway network and TAZs.
- 1.3. Review MDOT's capacity calculation methodology and recommend changes or new methodology to determine roadway capacities and/or speeds for the revised model.
- 1.4. Advise GVMC on entering and processing traffic count data to make it more useful for model calibration.
- 1.5. Recommend potential screen line/cutline locations to assist in model calibration/validation. Focus model calibration on Percent Root Mean Square Error (%RMSE) by functional class and volume group, with screen line/cutline methodology and r-squared measures as secondary measures.

Task 2: Process the GVMC regional data from the MI Travel Counts III (MTC III) household travel survey.

- 2.1. Recommend methodologies for the following and incorporate them into the travel demand model after acceptance of methodology by GVMC staff:
 - 2.1.1. Developing additional trip purposes based on area characteristics, GVMC needs, and analysis of the MTC III data;
 - 2.1.2. Creating a new trip generation methodology (including trip rates for each trip purpose in trip production and trip attraction equations for each trip purpose);
 - 2.1.3. Updating and calibrating the trip distribution friction factors or equations for each trip purpose using the trip length frequency developed from the MTC III survey data. Discuss the possibility of shifting away from a gravity approach to destination choice for specific trip purposes.

Task 3: Develop a time-of-day (TOD) analysis approach with 4 time periods (AM, PM, Mid-day, and Night), and incorporate it into a travel demand model that properly deals with TOD-based skims.

Task 4: Develop a mode choice process that meets the needs of the GVMC area

- 4.1. Develop a sensible, logit-based mode choice model component, which should include all available modes in the GVMC region, including drive alone, shared ride modes, and non-motorized modes, such as a walk and bike mode and incorporate it into the travel demand model.
- 4.2. Recommend a transit path building component methodology for GVMC staff to develop a transit network for transit skimming and assignment.
- 4.3. Calibrate the mode choice constants to match the mode share targets derived from the MTC III data, transit ridership data and transit on-board survey.

Task 5: Recommend a commercial truck model component methodology and incorporate it into the travel demand model.

Task 6: Develop an interface w/ TransCAD 7.0 that will run each model step separately as well as together. Work with GVMC to determine the most useful interface design to meet staff needs.

Task 7: Special tools/procedures: In consultation with GVMC staff, develop a set of desired performance measure and analytical tools for post process analyses. Create reporting options for the different model outputs. These tools & reports will be created by a GISDK macro that is embedded and integrated within the model stream.

Task 8: Calibrate and validate each step of the model and each component, documenting the results with the goal of meeting or exceeding the calibration and validation standards adopted by MDOT.

Task 9: Develop the updated TransCAD model in such a manner that it will be “simulation-ready.” This means that travel demand estimates for the peak periods will serve as a good starting point for a TransModeler microsimulation effort for most subareas of the network. Furthermore, the geographic accuracy of the network will be at a high enough level to create accurate lane-level networks that are required by TransModeler.

Task 10: Provide training throughout the model update process at logical milestones for GVMC and MDOT staffs. Provide separate GISDK course/training for GVMC and MDOT. Jointly determine with GVMC and MDOT when the two types of training will occur.

Task 11: Provide technical reports documenting the development process and methodology for each of the above items.

5. Request for Proposal and Project Timeline

Request for Proposal Timeline

All proposals in response to this RFP are due no later than 5 pm EST February 9, 2017. Evaluation of proposals will be conducted from February 10, 2017 until February 13, 2017. If additional information or discussions are needed with any consultants during this one week window, the consultants will be notified.

The selection decision for the winning bidder will be made no later than February 17, 2017. Upon notification, the contract negotiation with the winning consultant will begin immediately. Contract negotiations will be completed by February 24, 2017.

Project Timeline

Project initiation phase must be completed by March 6, 2017.

Project planning phase(s) must be completed by March 17, 2017. Project planning phase will determine the timeline/schedule for the remaining phases of the project. The project should be completed on or before June 30, 2018.

6. Budget

All proposals must include proposed costs, **not to exceed \$200,000.00**, to complete the tasks described in the project scope. Pricing should be listed for each task.

7. Bidder Qualifications

Bidders should provide the following items as part of their proposal for consideration:

- Description of experience in developing travel demand model
- List of how many full time, part time, and contractor staff in your organization
- Examples of 3 or more travel demand models completed in the past years
- Testimonials from past clients on travel demand modelling work
- Anticipated resources you will assign to this project (total number, role, title, experience)
- Timeframe for completion of the project
- Project management methodology

8. Proposal Evaluation Criteria

GVMC will evaluate all proposals based on the following criteria. To ensure consideration for this Request for Proposal, your proposal should be complete and include all of the following criteria:

- Overall proposal suitability: proposed work must meet the scope and needs included herein and be presented in a clear and organized manner
- Organizational Experience: Consultants will be evaluated on their experience and cost as it pertains to the scope of this project
- Previous work: Consultants will be evaluated on examples of their work pertaining to the project scope and testimonials and references
- Value and cost: Consultants will be evaluated on the cost of their solution(s) based on the work to be performed in accordance with the scope of this project
- Technical expertise and experience: Consultants must provide descriptions and documentation of staff technical expertise and experience

Each consultant/bidder must submit 5 copies of their proposal to the address below by February 9, 2017 at 5 pm EST.

Submit to: Grand Valley Metropolitan Council
678 Front Ave NW, Suite 200
Grand Rapids, Michigan 49504.

To Attention of: Abed Itani

If you have any questions regarding this RFP, please contact Abed Itani by phone at 616.776.7606 or email itania@gvmc.org.

9. Title VI Disclaimer

The Grand Valley Metropolitan Council, in accordance with Title VI of the Civil Rights Act of 1964, 78 Stat. 252, 42 U.S.C 2000d to 2000d-4 and Title 49, Code of Federal Regulations, Department of Transportation, Subtitle A, Office the Secretary, Part 21, Nondiscrimination in Federally assisted programs of the Department of Transportation issued pursuant to such Act, hereby notifies all bidders that it will affirmatively ensure that in any contract entered into pursuant to this advertisement, minority business enterprises will be afforded full opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, or national origin in consideration for an award.