

# OLATHE TRAFFIC MODEL

## Recommended Practices for Use in Transportation Studies

### RECOMMENDED PRACTICES

The Olathe Traffic Model (OTM) has can been made available to different public and private entities for use in various transportation studies. As the results of these studies may influence policy decisions within the City of Olathe, it is imperative that the OTM be used in a consistent manner. Therefore we recommend that the following techniques be used to estimate future traffic volumes for use in transportation studies.

### Estimating Future Traffic Volumes

The OTM is a tool that can be used to estimate future traffic volumes either on a stretch of roadway or at an intersection, however these volumes are most applicable when compared to the calibrated current-year model as opposed to using them as stand-alone projections. **Use of future volume projections, without adjustments, should be avoided whenever possible.** The following steps are recommended for estimating future traffic volumes.

1. Select the intersections and/or roadway sections where future traffic projections are desired.
2. Collect actual count data, by movement, during the P.M. peak hour at these locations. These volumes should not be estimated with the model.
3. Using the OTM, estimate the traffic volumes at the selected intersections and/or roadway sections for the calibrated model and the future model.
4. Calculate the "growth" in traffic from the model by subtracting the calibrated model traffic volumes from the future model traffic volumes. Due to anomalies in the model, this "growth" in traffic should then be assessed to determine if it is reasonable and to ensure that no unrealistic travel patterns have developed. This assessment should be based on experience with the model combined with a familiarity of the general travel patterns in the area.
5. Add the "growth" in traffic calculated in Step 4 to the existing traffic counts. This value becomes the estimate for future traffic volumes.

Additional steps are needed when the OTM is used for transportation impact studies. These additional steps are needed to compare alternative land uses and to perform a detailed analysis at driveways and minor roads that may not be included in the OTM.

6. Identify the Traffic Analysis Zones (TAZ's) which will be involved in a detailed analysis. These TAZ's will typically include the zone where a new development has been proposed as well as adjacent zones in which significant development is anticipated. City staff should identify the TAZ's to be included in a detailed analysis.
7. Calculate the "growth" in traffic associated with each of the selected TAZ's using the "Select Zone" feature of TModel2. This growth in traffic from the selected TAZ's should be subtracted from the overall "growth" calculated in Step 4. The resultant becomes the growth in "background" traffic.
8. Manually estimate and assign the trips generated by the select zones. This task would reflect the alternative land use and/or include the assignment of traffic through streets and driveways not included in the OTM.

9. Calculate the future year traffic volumes by adding the growth in background traffic (calculated in Step 7) and the hand-assigned select zone traffic volumes (from Step 8) to the existing traffic counts.