# Joshua Maus, PE

## Project Director – Traffic Operations

With over 20 years of traffic engineering experience, Josh provides clients with expertise in project management, stakeholder involvement, public outreach, freeway and managed lane analysis, traffic operations analysis, corridor studies, traffic forecasting and modeling, Interstate Access Modification Requests, and benefit-cost analysis. His project management experience includes overseeing day-to-day project activities, coordination with clients and subconsultants, and presenting to large groups of stakeholders. Josh is an effective presenter and has experiencing working with large groups of people representing different interests.

### Areas of Expertise

- Traffic Impact Studies
- Traffic Operations Analysis
- Intersection Analysis
- Roundabout Design & Design Review
- Interchange Concept Design
- Corridor Studies
- Traffic Forecasting & Modeling
- Freeway and Managed Lane Analysis
- Interstate Access Modification Requests
- Benefit-Cost Analysis

### Education

Bachelor of Civil Engineering, University of Minnesota, 2001

### Registration

Professional Engineer: Minnesota #45045

### Continuing Education

MnDOT Project Manager Workshop

MnDOT Project Manager Open House

Synchro and SimTraffic Training Course

Freeway Modeling Workshop

SRF Quality Management Training

### Project Experience

**Sherburne County Highway 10 and CSAH 11 Intersection Study, Minnesota.** Josh served as project manager for this recently completed study for the Highway 10 and CSAH 11 intersection. Key components of the study included identification of traffic issues, concept development and evaluation, traffic forecasts, benefit-cost analysis and identification of next steps.

**Sherburne County Highway 25 Area Study, Minnesota.** Josh served as project manager for this recently completed study for the Highway 25 area in District 3. Josh assisted the Highway 25 Coalition in completing this traffic investigation study In addition to managing the project, Josh played a key role in all stakeholder and public engagement, O-D analysis, travel demand forecasts and concept development and evaluation. This study laid the initial foundation for future steps which included the current land use planning study that the Coalition is now undertaking.

**MnDOT TH 10 Rum River Bridge Replacement and Alternative Analysis, Anoka, Minnesota.** As Lead Traffic Engineer, developed and evaluated geometric concept alternatives, based on traffic forecasts and operations analysis. Contributed traffic analysis for the benefit-cost analysis. Conducted traffic modeling to identify potential operational impacts during construction, both on TH 10 and the local roadway network.

**MnDOT TH 169 Preliminary Design, Elk River, Minnesota.** Lead traffic engineer for predesign of $125 million project: the major freeway bisected the community. Managed all traffic engineering tasks, including forecasting, operations analysis, concept development, and evaluation. Assisted design team in developing cost effective geometric solutions that minimized costs and R/W impacts, while providing maximum operational benefits. Successfully integrated the local system into the overall operational analysis to aid in the preparation of the TMP to allow access to local businesses during construction.

**MnDOT TH 10/TH 23 Interchange Preliminary Design and CATEX, St. Cloud, Minnesota**. Lead Traffic Engineer. Managed the traffic forecasting and operations analysis. Forecasting and operations analysis took into account both regional travel patterns on TH 10 and local commuting traffic on TH 23. Instrumental in developing new concepts for the reconfiguration of the interchange. Final recommended option was a folded diamond to better respond to local travel patterns and increase intersection spacing, concluding in a better operating design.

**City of Dayton I-94/Dayton Parkway Interchange, Minnesota.** Josh assisted the City of Dayton in development of a new interchange on I-94. Josh was the traffic

lead and responsible traffic analysis, corridor analysis, interchange concept development and evaluation. A key component of this project was to reach consensus from MnDOT, Hennepin County, FHWA and the City on the recommended interchange configuration. This was achieved through producing quality work and Josh's ability to explain technical information in a manner that addresses stakeholder's needs and is easy to understand. The use of side-by-side traffic simulation models was an effective too for the public outreach and was essential in reaching consensus from the City Council.

**MnDOT I-94 Albertville to St. Michael Traffic Analysis, Northwest Twin Cities Metro, Minnesota.** Josh served as the project manager and was responsible for the project schedule and budget. He led the traffic forecasting and operations analysis, benefit-cost analysis, concept evaluation, and developed and Interstate Access Modification Request (IAMR). Josh led all stakeholder involvement which included representatives from MnDOT (Metro District and District 3), FHWA, Metropolitan Council, Wright County, City of Albertville, City of St. Michael, City of Monticello, City of Otsego, and the City of Rogers.

**MnDOT I-94 St. Michael to Rogers Traffic Analysis, Northwest Twin Cities Metro, Minnesota.** Josh served as the project manager and was responsible for the project schedule and budget. He led the traffic forecasting and operations analysis, benefit-cost analysis, concept evaluation, and developed an Interstate Access Modification Request (IAMR). Josh led all stakeholder involvement which included representatives from MnDOT (Metro District and District 3), FHWA, Metropolitan Council, Hennepin County, Wright County, City of Albertville, City of Otsego, City of Rogers, and the City of St. Michael.