My MATC Experience

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As a MATC intern, I knew there would be an experience coming. When I learned the internship was with Iteris Inc., I was a little concerned. The previous summer, I had a pleasant experience with Olsson Associates in Grand Island and was hoping to work there again. Little did I know that this summer I would be learning and enjoying my job so much more.

Iteris Inc. is unique in that, it not only does transportation engineering consulting, but also has a research and development branch. The three business divisions that make up Iteris Inc. include transportation systems, roadway sensors, and vehicle sensors. I am part of the Transportation Systems Division. The Transportation Systems Division conducts services such as: Intelligent Transportation Systems (ITS), traffic engineering and operations, transportation planning, design and build contracting, process and policy analysis, and much more. The Roadway Sensors division specializes in creating cameras that are able to detect vehicle presence, speed, count and other useful data. The last division is Vehicle Sensors, which specializes in on-board vehicle sensors including a lane departure warning systems that is able to detect if a vehicle leaves its travel lane.

Iteris Inc. is one of the leading transportation engineering consulting firms in the nation. It has over 20 offices across the globe, with its Corporate office in Santa Ana, CA. The Lincoln office is the regional office for the Heartland region, which includes two other offices, Minneapolis, MN and Kansas City, MO. Unlike the previous MATC intern, Jason Duffy, I was unable to travel to California coast to visit the Corporate Office in Santa Ana. I was able, however, to meet the other outstanding transportation engineers from our Kansas City and Minneapolis offices.

Over the course of my internship I was exposed to many aspects of transportation and traffic engineering from signal timings to field counts. I learned how to use software such as Synchro 7, MicroStation, and other programs. In the following paragraphs I will discuss three projects that I had a great deal of involvement in: 148th Waverly Viaduct Study, St. Paul Highway 281 Study, and the University of Kearney Traffic Operations and Circulation Study.

The Waverly Viaduct Study was the project I had the most influence on. The purpose of the study was to determine whether or not a viaduct over 148th Street or 141st Street would benefit the City of Waverly. Through the course of my work I was able to complete many tasks such as pedestrian counts, time runs, crash data calculations, existing memo write ups and more. One of the most important things I learned from this study was how important communication with sub-consultants can be. I was able to attend a meeting with Schemmer and I was able to learn first hand all of the planning and organization that is needed for a project of this magnitude.

The St. Paul Highway 281 Study was another project that I was very involved in. In this project I put together crash reports and figures, collected field measurements, made existing and future models for the corridor using Synchro 7, and attended a public meeting. I was also asked to compile previous studies conducted on four-lane undivided and three-lane roadway segments. I updated and gathered further input on a summary of materials for roadway conversions. While researching these studies, I learned a lot about the safety and capacity numbers for the differing roadway types.

The final project that I was heavily involved in was the University of Kearney Study. This was a very exciting project for me because I had a real impact on the future construction of a major street. My main responsibility for this project was to create a conceptual design for 25th Street on the South side of UNK. During my timeless hours of using MicroStation, I learned about design speeds, storage lengths, and pedestrian crossing issues. My first design was an utter disaster, but from my mistakes I learned how to use centerlines to increase my proficiency. One very important thing I learned from this project is the impact of the public's opinion and the effect of the economy on our profession.

In conclusion, my experience with the MATC program and Iteris Inc. has been very memorable and rewarding. I've learned much more than I had imagined in the short amount of time I have been a part of this team. I have been very fortunate to have worked with a great group of engineers and mentors to help me better understand professional engineering. I joined the MATC program to determine if transportation engineering was the career path I wanted to pursue, and have decided it is. I have enjoyed this experience and am looking forward to continuing my education in transportation engineering.