2008 MATC Final Report

OLSSON ASSOCIATES

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The way that I see it, there are many ways in life to learn a trade. The trade that I most want to learn is transportation engineering. And this summer I discovered that the fastest way to becoming a transportation engineer is to work with a talented group of engineers who can teach you exactly what it takes to become an engineer.

My summer began working at Olsson Associates just by becoming familiar with the tools of my trade. I spent most of the first week learning to use MicroStation. After I had fully grasped the use of MicroStation, they helped teach me how to use another transportation software called InRoads. Just the training alone made my MATC internship worth it. It was so exciting just to get to take what I have learned in school and put it to use using the same programs that real transportation engineers use.

After I had been introduced to the software, I was brought up to speed on all of Olsson's current railroad projects. At the beginning of the summer I was not very familiar with designing railroads, but with the help of my co-workers I began to develop into an important part of the team right away. The two large projects that I worked on first were called the Wheaton and Lombard Crossovers. I helped with these two track widening projects by creating plan and profile sheets, creating typical sheets, and importing survey data. I have thoroughly enjoyed working on these two projects and I am relieved to say that my last order of business with Olsson will be to see these two colossal projects kicked out the door. As these projects are finishing up I have also been working on several siding extensions, but now with several months of experience I am getting to do some higher level tasks, such as: importing horizontal alignments, designing special ditches, and aiding in the creation of a cost estimate.

The next progression that I made as an intern was to get some experience working in the traffic side of transportation engineering. I got this practice by participating in two different kinds of traffic study. The first traffic study was a parking count. In order to perform the parking study, which took place in downtown Lincoln, a group of interns had to circle a couple city blocks every half hour to check the usage of Lincoln's downtown parking meters. The other traffic study I participated in was an intersection turning movement count. This type of traffic count consisted of sitting by an intersection in a parked car and recording every through and turning movement during the hours of 7 AM - 9 AM, 11 AM - 1 PM, and 4 PM – 6 PM. Even though I only worked in the data collection side of these projects, I still gained valuable experience into what traffic engineers do.

The most exciting project that I have worked on during my internship is a project that I have gotten the opportunity to take the lead on. The project consists of the construction of a sidewalk to replace a railroad crossing. Some of the elements that I have worked on include: creating a conceptual drawing, creating a culvert (which we are using as a pedestrian underpass) with headwalls, and creating vertical and horizontal alignments that are ADA compliant. This project has been very helpful to my development as an engineer and as an added bonus should help me with all the design projects I might encounter in my scholastic future.

My MATC internship has taken some hard work to complete. I would be lying if I said that every day was a walk in the park, and there were times where it seemed like I would never accomplish a task given to me. Yet, all of those times have been overshadowed by the pure excitement that this internship has inspired in my career

choice. I went in to this summer with some lingering doubts as to whether I should become a transportation engineer, but I am coming out of this summer fully confident that transportation engineering is the career field for me.