MY SUMMER INTERNSHIP

May-August 2016

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This year my summer was spent counting cars, meeting influential professionals, and learning valuable skills that will aid me in accomplishing my future goals. During the last three months, I have gained a greater appreciation for the time and effort engineers put forth to see a project from conception and design to construction, and finally to completion. They not only need to be exceptional in math and science, but they must also be able to critically think, problem solve, and effectively communicate with other professionals and the public. After having worked on a variety of projects and participated in company events and meetings, my summer internship has only solidified my desire to pursue a career in civil engineering.

As Felsburg Holt and Ullevig (FHU)'s traffic intern this summer, I was able to participate in numerous projects at various stages of design. From the beginning, FHU saw to include me in as many aspects of the engineering process as possible. This included inviting me to progress meetings with city officials and other professional engineers. One of the most interesting meetings I attended was with officials from the City of Lincoln concerning the proposed elevated roundabout at 14th and Old Cheney in Lincoln, Nebraska. Being able to actively listen to the issues and solutions that were discussed, I gained greater insight into the problem solving that is required when designing major roadway projects. These meetings also gave me the opportunity to begin forming relationships with professionals in the industry.

Another aspect of my summer internship was being able to gain valuable skills and experience in the field of traffic engineering. Even though I was able to work on multiple assignments throughout the Midwest, my most involved project was the Lincoln Street Corridor in Papillion, Nebraska. For this project, FHU was contacted by the City of Papillion to conduct a traffic study along the Lincoln Street Corridor where a future recreation center is planned to be installed. The first step of the process was to collect the existing traffic count data. This involved

sending me and FHU's other summer intern to the site to record all the cars that traveled the roadway during the morning and evening peak hours. In addition to counting cars, we also drew condition diagrams that showed the layout of the existing road. I really appreciated being able to spend time in the field and witness the traffic conditions I would later analyze in the office.

Once the field work was completed, I organized all the data to establish when the peak hour times were and how much traffic was generated during those hours. I then entered these values into Synchro, a traffic software used to model and evaluate roadway projects. Synchro allows engineers to map the entire roadway network being studied as well as manipulate lane configurations, signal timings, pedestrian features, etc. Synchro is definitely the bread and butter of the traffic engineering software, and I gained a lot of practice exploring the program this summer. I also gained experience working with Google Earth and the Highway Capacity Software (HCS). The HCS was used to assess an intersection's level of service, which indicates how well traffic is flowing. All of these programs were relatively new to me at the beginning of the summer. However, now I can say that I can proficiently use each software to critically analyze a project.

Other tasks I completed this summer included coordinating with the one of the company's graphic designers in Colorado and editing final reports to document the process and results of each project. My internship taught me how important it is to document all work completed and to make note of any changes made throughout the project's design. I also realized how essential it is to keep all notes, figures, and calculations neat and organized so anyone can understand the results.

Despite having a wide range of responsibilities, this summer wasn't all about work. One of my favorite memories involved going to lunch with all of the women in the office to celebrate

our new receptionist's first day in the office. I also had the opportunity to attend a LOCATE (an organization for traffic engineers) event where we went putt-putt golfing. It was such a benefit to be able to ask other successful engineers what their advice was for pursuing my professional goals. Lastly, I attended the company's annual summer outing which was held on the shores of the Platte River. All of these events helped me form a more personal relationship with all of my coworkers, and I am extremely grateful to them for helping me feel like a part of their family.

Overall, my time at FHU has consisted of learning essential skills, interacting with a variety of professional engineers, and creating fond memories. I have gained experience working with multiple traffic programs as well as developed a greater understanding of what a future in transportation would consist of. I am thankful for this internship in preparing me for a successful future in the field of civil engineering.