

MATC Internship with The Schemmer Associates



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This summer I was very fortunate to have an internship with The Schemmer Associates. Through this experience, I have gained invaluable knowledge and skills in the field of transportation engineering. During my internship, I was assigned to work on several different projects that the company was working on. These projects allowed me to experience different phases of roadway planning and design. Having the opportunity to work on these projects, I gained valuable experience by learning first-hand the scope of what goes into the transportation planning and designing process.

Schemmer is a private consulting firm that was founded in 1959 with headquarters in Omaha. It has since expanded to have offices located in Lincoln, Council Bluffs, Tulsa, and Oklahoma City. Schemmer offers services in the areas of architecture, engineering, and other field services. For my internship, I was located at the Omaha office. While there, I worked directly with a small group of other transportation engineers. By working within a smaller group, I got to know the other engineers on a more personal level and they were able to take the time to show me the ropes of the engineering business.

On my first day of work, I drove out to Central City, Nebraska to be a part of a three-day traffic study for the city. Having this opportunity, I was able to see first-hand how they count traffic and then use those numbers to compare the different options. After this comparison, it comes down to choosing the best option for diverting traffic and constructing alternate routes. Doing the traffic study was a good experience because I now have a better understanding of how data is collected and evaluated in order to determine how new roads will affect traffic in a community.

Once I was back in the Omaha office, I began to learn the basics of the Microstation program. Learning to use Microstation was the best part of the internship because it is the

program that almost all transportation engineers use in the design and planning process. Learning Microstation is something that will be extremely useful and valuable in the future as I continue in my career as a transportation engineer.

After gaining a better understanding of Microstation, I began to work on various highway and interstate projects. My tasks were to work on different interstate and highway projects that Schemmer was contracted for by the Nebraska Department of Roads. Some of the projects that I worked on were Highway 30 from Schuyler to Rogers, Highway 79 by Agnew, Interstate 80 from Brule to Ogallala, and Highway 2 by Whitman. During these projects, I helped in the plans by calculating wetland impacts, and calculating quantities, alignments, and drainage flumes. In addition, I assisted with creating title pages, typical cross sections, and plan and profile sheets for the plan in hands. For these projects, I helped to make public displays and posters for the public meetings and presentations.

Along with working in the office, I occasionally worked with the survey team when they needed help. On the survey team, I went to the survey site where I staked and graded things like roads, parking lots, houses, and land developments. Additionally, I got to do topographic surveys while out on the survey crew. This was an important experience because when out on the survey, I could see first-hand what was happening out in the field. I was able to observe how the roads are graded and paved so I could have a better understanding of what I was looking at and doing on the computer screen.

Overall my internship experience at Schemmer has been a very rewarding one. I was extremely lucky to be able to work for a supervisor and group of engineers who took time out of their busy work days to show me how to use the computer programs as well as teach me the

procedures and norms of the transportation industry. During this internship I was able to learn a lot about how the engineering industry works.