2016 MATC Summer Internship: Olsson Associates

Transportation Team

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When most people wake up to begin their daily routine and drive to work, they do so with a feeling that could be described as less than thrilled. This, however, is not the case for me. Each morning, I wake up feeling excited to get to my internship – which was arranged by the Mid-America Transportation Center - with Olsson Associates' transportation/roadway design team, and to see what challenges the day has in store.

The Olsson office I work at is located in the center of Aksarben Village on S. 67th Street in Omaha. This is a fantastic location, but I quickly learned that even better than the location are the people I get to work with. Mike Golka and Tony Egelhoff are my supervisors, and aside from those two, the team I regularly work with consists of myself and another intern – Dan Gleason. From my very first day, I was greeted with friendly smiles and a willingness to help. They instantly made me feel like a part of the team, and I grow to appreciate that more and more each day.

My work began small, with making corrections to land acquisition and easement documents for a large project to widen Harrison St. from 147th St. to 157th St.

Dan and myself each took a portion of the stack, fixed them, laid claim to a conference room, and began to sort things out.

When that task was complete, I moved on to helping make corrections to the review set of plans for the Harrison St. project. I was very grateful for my previous experience using AutoCAD software. In total, the set numbers around the 350 page mark. This opened my eyes to the complexity of what is involved in getting from concept to pavement. I never imagined the amount of time and effort that goes into planning our roadway infrastructure. It seems as though functional and safe roads and streets are something that nearly everyone takes for granted, as though they just magically appear out of thin air. One thing is certain, however, I will never be able to look at a street the same way after witnessing their design process.

I'm learning a myriad of new vocabulary: K-values, stopping-sight distance, flowlines, warping, P.I.'s, P.T.'s, P.C.'s – and so many more. It was a bit intimidating at first, admittedly, but perhaps what I'm most grateful for is how thoroughly explained all my questions were to me. That truly is where I learned the most valuable things: by simply listening to the people who design our roadways every single day. It was clear that they were there to help me gain a better understanding of the transportation engineering industry, and I was strongly encouraged to ask lots of questions.

After helping to get the Harrison St. plans to their final state, I was given the opportunity to work on a few smaller projects. Most of these were S.I.D. projects from Olsson's land development team. This was another thing I immediately noticed – the level of cooperation between teams is outstanding, and it also reinforced the importance of communication. The first S.I.D. project was for a development in Springfield, NE. I enjoyed these projects, because Mike,

who did the roadway design and modeling, had me creating the plans for them. This gave me a sense of accomplishment – the highlight being the feeling of finishing our portion of the project well under budget. Once again, I was grateful for my past AutoCAD experience. Mike taught me how to use data references to create surface profiles, spot grade information, and roadway plan and profile sheets. We then held meetings with the land development team, where I realized that in order for a successful project, everyone needs to be on the same page. On occasion, Mike and I would have to discuss the option of relocating curb inlets with the land development team in order for the paving process to go better in the field. This was something that I wanted to gain a better understanding of – how the paving is actually done. Upon voicing this to Tony, he said that another project was going to be paved later in the week, and that he would take Dan and myself on a site visit to watch. This was an excellent experience, and gave me the mindset of "How is this actually going to be built?" and "What will work best for the contractor in this situation?" while drawing pavement jointing plans. It also opened my eyes to the amazing technology used to create roadways. Stringless pavers are incredible machines, and getting to see one in action was a very valuable experience.

After the Springfield project, and several other S.I.D. projects, I was given the opportunity to assist another transportation team member, Mark Peters, in calculating quantities for select sub-grade fill that was needed for a project through the sandhills. This project was being done with MicroStation, which I had never used before. However, Mark was very helpful, and taught me to use MicroStation. I'm certainly no expert, but I was grateful for the opportunity to learn the new software, as well as dabble in its various extras, like GeoPack and AutoTurn.

My internship with Olsson Associates has been an amazing experience. I'm very grateful that I will be continuing on with Olsson Associates throughout the upcoming semester, and I look forward to learning new things about transportation engineering every day. Prior to this internship, I was unsure what field of civil engineering I wanted to pursue, but it has undoubtedly convinced me. Transportation engineering is the career path I wish to pursue. The experience and confidence that I gained this summer is something that a classroom simply cannot provide.

THANK YOU, MID-AMERICA TRANSPORTATION CENTER & OLSSON ASSOCIATES.