

What I Did During My MATC Summer Internship

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I had no idea what to expect from the MATC Internship Program. At first, I was disappointed when I found out that I would not be working for a designing firm and I often got discouraged feeling I haven't really learned anything about engineering during the summer. However, I realized that everything I learned during my internship was extremely valuable and I am extremely grateful to have had this opportunity.

My internship was with the Materials Testing Laboratory for the City of Lincoln Public Works and Utilities division. The purpose of the lab is to test construction materials that are being used for roadway construction projects in the city and make sure they meet set specifications. Those materials include concrete, asphalt, soil, and aggregates. I mostly worked with the concrete and aggregates. On a daily basis I would test concrete cylinders. These cylinders had been made by inspectors in the field as concrete was poured, and then brought into the lab the next day. Once the concrete was in the lab, I would remove the concrete from the cylindrical molds and check to make sure they were perpendicular. After a set number of days I would test the concrete in a compression machine to determine the strength of the concrete. I also worked on aggregate gradations. This required passing rock and gravel through a set of sieves and weighing out the amount of material retained on each sieve to determine if the aggregate meet specifications. The aggregate was obtained from concrete and asphalt plants that were providing material to a jobsite on that day.

Before this summer, I never realized how closely the design of a structure is related to the construction process. Although I didn't work in the field, this internship provided me with the amazing opportunity to be able to see a little bit of what goes on in construction. I feel many engineers may not get this viewpoint, but it is an essential part

of engineering. Also, I now have a broader view of the materials side of engineering and how important it is to have building materials of adequate strength and durability.

It was great to be able to learn outside of the classroom setting. One of the most valuable lessons I learned this summer is that something taught in the classroom is not always applied the same way in the real world. That has really challenged me to think, and it will allow me to more critically analyze what I am learning in the classroom.

Although I don't necessarily want to continue on in traffic related engineering, I have been exposed to the materials aspect and it will always be an option for a future career.

Overall, this internship has been one of the most rewarding experiences I have had.