



**MATC Summer Internship 2015**

**City of Lincoln- Engineering Services**

**MID-AMERICA  
TRANSPORTATION CENTER**

**Nho Vo**

My 2005 summer internship with City of Lincoln has enhanced my education and my experiences in the field of civil engineering. This is one of my most fulfilled summers due to the fact that I had the opportunity to see how the construction environment is and to meet new people. What I've learned in the field is valuable because it might not be available from anywhere else. The university equipped me with the tools to do things, and these people showed me how to use those tools. The knowledge that I learned from them was never unnecessary; some day they will help me design better roads, better structures... etc.

Interning at City of Lincoln is one of the best things I have done. I got to do both office work and field work. I began my day at 8:00 AM. I either dropped off my car and drove the city truck to the construction site, or went into my cubical and did in-office work. Most of the time, I worked with the project inspector to make sure things were working according to the plan, and that they were keeping up with the schedule. Since the project that I was involved in, *the 56<sup>th</sup> Street Widening Project*, is a federally funded project, there are a lot more regulations and rules that we have to follow. An example of this is, before concrete was poured, I had to make sure it passed the air test and other conditions such as strength, temperature, and many more. The device that I used to measure the air test is called Concrete Air Meter; the percentage of air must be within the allowable range. If the air test passed, the next step was to make 4 x 8 cylinders. The cylinders were placed close to the new concrete structure to simulate that structure. The next day, I picked up the cylinders and dropped them off at the City of Lincoln lab to perform three-day, seven-day, and twenty-eight-day compression strength tests. If the air test failed, the concrete company could add chemical substances that create air bubbles when

reacting with concrete. While working on the air test, I asked my inspector: “*Why are we required to perform the air test?*” He told me that it was necessarily because the air affects the lifespans of the structure. The structure might not last as long as expected if the air level was above or below the required range. I found this to be very interesting because I never knew what air does to the structure until I interned at City of Lincoln.

Working with the city has exposed myself to SiteManager and Masterwork. SiteManager and Masterwork are computer programs that I used to do daily work reports, change order, pay items, and much more. Using these programs, we can keep track of the work progress and view lab results such as 4 x 8 cylinder compression strength. As an intern at City of Lincoln, I had a chance to go to a training session at the Nebraska Department of Roads to train on SiteManager, and had the project inspector help me enter and check data in case I missed something.

Another valuable experience that I gained while interning at the City was attending weekly meetings. Weekly meetings were held at 10:00 AM every Tuesday with the project manager, city engineer, project inspector, contractors, and the interns. I had a chance to listen to contractors report the current work situations, inspector reporting problems encountered during construction, and also new approaches in solving these problems. Sometimes, things don't go according to plan; since the project that I was involved with is outdoors, the weather has a big impact on the work schedule. I saw project managers and contractors work hard to manage the time spent working around the rain.

The experience that I appreciate the most was meeting new people and learning new things every day from them. As an intern, I have talked with different people from construction workers to project managers and to city engineers. They have taught me from their work experiences, which I can never learn from anywhere else. Many of them showed me technical skills, about which they said, *"This is the best way to do it."* They all knew that I was there to learn so they guided me through the things they did, and whenever I had questions, they answered in a good manner.

Lastly, thank you Mid-America Transportation Center, and thank you City of Lincoln for giving me the opportunities to learn and gain valuable experiences. As a civil engineering student specializing in transportation, my goals have been fulfilled by these opportunities. Someday, the experiences that I gained will become a tool for me to achieve my goals.

The logo for the Mid-America Transportation Center is a stylized, abstract graphic in shades of pink and red. It features a large, rounded shape at the top that tapers into several curved, overlapping lines that suggest a road or a path curving into the distance. The overall impression is one of movement and connectivity.

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