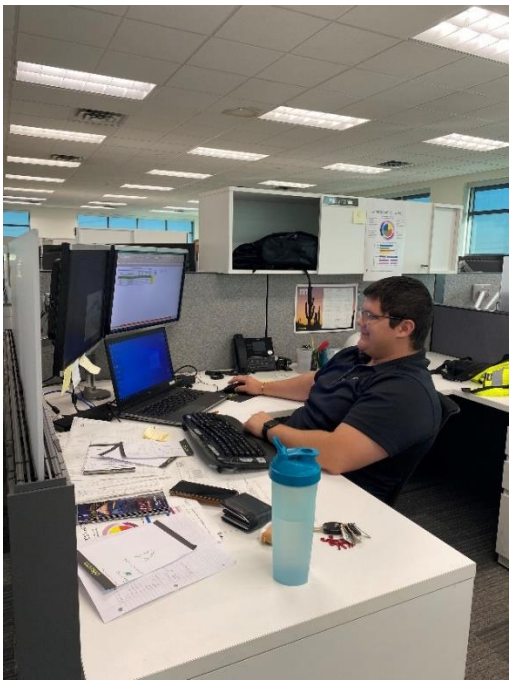
Mathew Alvarado



Internship Experience at Olsson

Hello, my name is Mathew Alvarado, I am originally from Heavener, Oklahoma, but went to high school at Poteau high in Poteau, Oklahoma. After high school I attended the University of Oklahoma to pursue a degree in Civil Engineering.

I interned with Olsson over the 2022 Summer. This was a great experience as I got to work and see the development of many projects. One major project I got to work on was a small bridge replacement on a county road Southwest of Sand Springs and South of the Keystone Lake. This small project made me realize the amount of work that went into the design plans for roadway projects. There were two major things I did on this project that brought this into perspective. First, I had to create erosion control sheets that would be used on the final design plans. The second thing I had to do was call all the utility companies that may have utilities on the project. These small tasks showed me the time and effort it takes to complete any project. The project I worked on was tiny but a great starter project.

Working at Olsson was a great experience. I learned a ton about the design world and what it takes to complete jobs. A key component to all that knowledge learned was all the people in the office. Everyone was super nice and willing to help when I needed.

Oscar Bernal

Internship Experience at Olsson

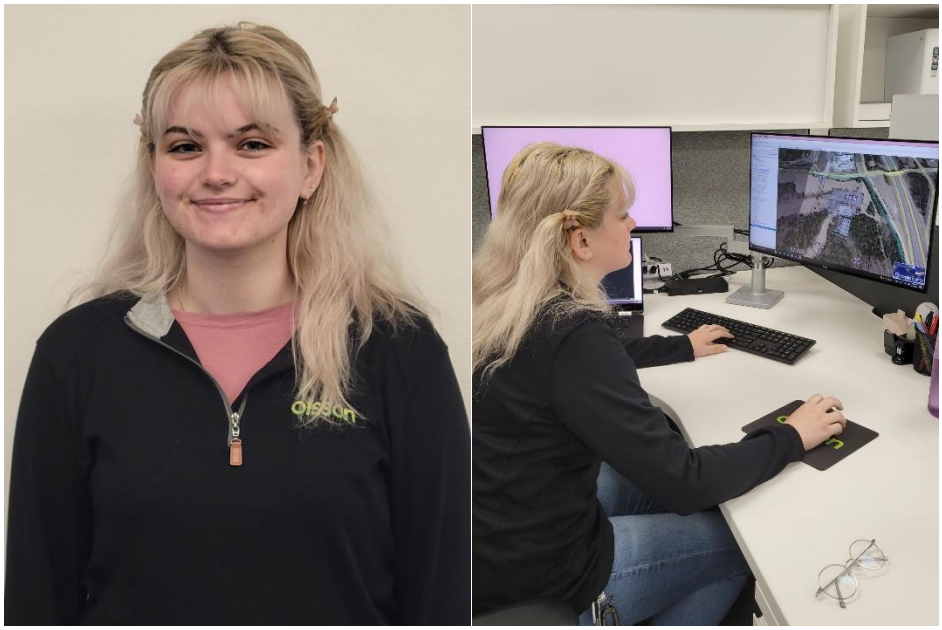
My name is Oscar Bernal and I currently work as an intern for the Tulsa General Civil for the 2022 school year. While not at Olsson, I am currently studying Civil Engineering at Oklahoma State University with an estimated graduation date of May 2023. At Oklahoma State, I am focusing my classwork on structural and site development courses. Structural classes have been the most rewarding due to the completed outcome of projects being larger and more tangible compared to other civil engineering disciplines. After completing my bachelor's degree, I plan to pursue either a post-graduate degree in Structural Engineering or a master's in business administration.

During my time at Olsson, I was assigned to numerous projects, but the most memorable has been the VanTrust Commerce Center in North Tulsa, OK. The VanTrust project allowed me to use knowledge gained from university courses and put it into a practical application. Combined with university knowledge and previous employment experience, senior engineers made me feel my opinions and ideas were always taken into consideration. The VanTrust project was my introduction to many different tools that Olsson uses for design and analysis and is still my reference for many future projects while working at Olsson. Introduction to AutoCAD was taught at Oklahoma State, but the course was built as an intro level class which provide the fundamentals of AutoCAD, so Olsson built up on my AutoCAD skills and trained me in more advanced drafting techniques by utilizing Civil3D. Olsson provided me the training and patience to learn HydroGraphs, pipe networks, and Grading techniques. Olsson also showed me different aspects of the engineering business such as business development and interpersonal communication between Olsson, contractors, sub-contractors, and city officials.

Working at Olsson has been a fantastic experience, mainly because of the culture and accountability that is expected from interns. I am given project deadlines and expectations of timelines for the week, and while they are not unreasonable, I am held to the same expectation as my peers which makes me feel valued as an equal. With unpredictable and always changing city codes, Olsson provides the knowledge and guidance needed to navigate complex regulations established by local and state municipalities. The senior engineers I work with have a plethora of knowledge from various disciplines and are always willing to assist in navigating obscure and unpredictable situations. Senior engineers are always available to help each team member continue to grow on their strengths, while identifying potential areas of growth.

Overall, I had a fantastic and knowledgeable summer interning for Olsson. My background has been in the field working for concrete subcontractors, so working in the office on construction design was extremely rewarding and fulfilling. Seeing preliminary conceptual design meetings eventually become 100% completed construction documents is gratifying for both Olsson and the client. I am grateful for Olsson because the company has taught the value of so much about the industry, as well as efficient critical thinking and how it relates to an unpredictable and everchanging construction environment.

Sydney Brinkley



Internship experience at Olsson

I am Sydney Brinkley and I worked as a geotechnical engineering intern during the summer of 2022. I attend the University of Oklahoma and am pursuing a bachelor's degree in Architectural Engineering. I attended Westmoore High School, I have always been interested in my science and math classes, so it just made sense to me to become an engineer; it's always been the dream. When COVID-19 broke out during my sophomore year in college, I felt like the virus was stealing valuable time and experience from me and my peers. I was nervous that my skills would not be enough to become a good engineer. That all changed after I interviewed at Olsson. After taking a class in soil mechanics I became more interested in the Geotech side of my degree. When I saw Olsson had an opportunity in Geotech I jumped at the chance and got the position. Even though I had no idea what to really expect I was excited to start my first "big girl job". As I reflect about my time, I have been met with nothing but support and encouragement from my mentors and team.

Working for Olsson has been an opportunity to learn and grow as an engineer. I have received training in gINT, AutoCAD, and Microsoft Office. Technical skills that are so useful and important to me and my career. My supervising engineers are patient and kind when teaching me. They always make sure to check in and make sure I am doing okay and progressing. Besides the office experience I have also had opportunities to go into the field with our drill team. Being in the field has been a highlight of my time here at Olsson because it offers a hands-on experience that is hard to achieve in a classroom/office

setting. The drill team was incredibly willing to teach me and answer my many questions. I am grateful for my mentors and all things they have taught me and allowed me to do.

With the drill team, I got the chance to work on a project that involved taking core sample of asphalt and soil samples underneath the pavement. Hot days in the field may not be everyone's cup of tea but I learned so much from my time working out there. I am heavily involved in this project both in the field and in the office, from logging and bagging samples in the field to working on the calculations and Geotech report. This has all been incredibly exciting and gives me a real perspective of what the career in engineering looks like as well as well as teaching me so many things!

As I begin Senior year, I feel more capable than ever because of the support from my team here at Olsson. I will be continuing my internship throughout the school year, and I am looking forward to continuing growing and learning. One of my favorite things about working here is that there is something I can learn from everyone around me. I would like to say a thank you to everyone in OKC Field Office for giving me back my confidence in engineering and the constant support, you guys are truly the best.

Jack Ferrante

Internship Experience at Olsson

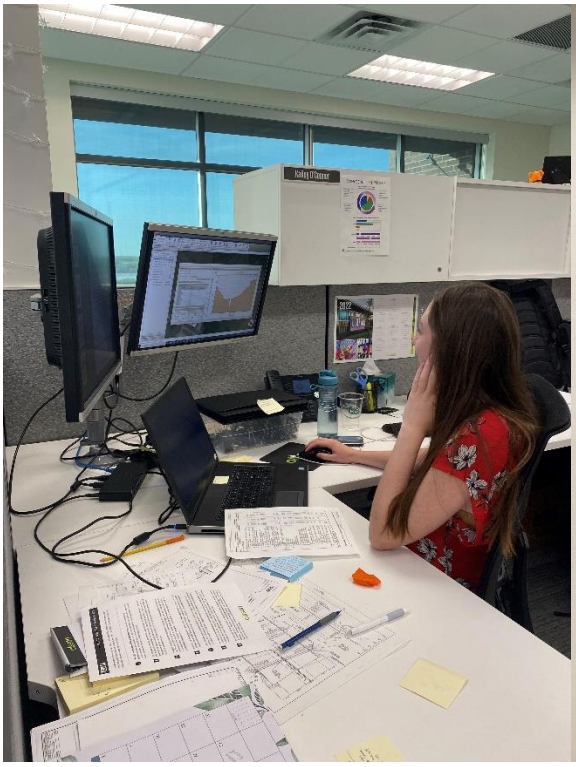
My name is Jack Ferrante and I worked as a General Civil intern in Olsson's Tulsa office during the summer of 2022. I currently attend the Milwaukee School of Engineering, where I am pursuing my bachelors and master's in Civil Engineering with a specialty in water resources and environmental engineering. I will receive both degrees in May of 2023. Some of my favorite classes I have taken so far are hydrology, geohydrology and slope stability. My hometown of Skiatook, Oklahoma is home to Skiatook Lake. Skiatook lake is manmade. From a young age my family would visit the spillway of the dam that created the lake to fish, and we would drive over the dam whenever we would visit Tulsa, getting a great view of the lake. As I got older my coaches would take us to the dam and make us run up and down it. I was always interested in how the dam was built and how a pile of dirt could create such a large lake, that interest is what made me decide to pursue Civil Engineering. When I was younger, I appreciated the dam for the recreation and beauty of the lake it created, after my studies I now appreciate it for its ability to help control flooding and mitigate droughts. Skiatook lake had a positive impact on my community. After I graduate, I would like to design other projects that have that same impact on other communities.

I have had three previous internships, all with the same general contractor. This summer with Olsson was an amazing experience that blew my other internships out of the water. Working with the team felt like working with a real team, everyone would always be working together towards the same goal. In school you learn concepts and how they work in theory, this summer I got to learn how projects are designed and organized in the real world. I had the pleasure of working on a wide variety of projects, from subdivision developments to hospital utilities. Along the way I was able to use some of the skills I

had developed in my other internships, but I had the opportunity to develop many more. One of the biggest areas I was able to improve on was my CAD skills. In school I took some CAD classes, but I wasn't confident in my ability coming into this internship. This summer I used Civil3D almost daily on a wide variety of tasks. The whole team was very knowledgeable and were always willing to answer my questions. Olsson sets their projects up in a unique way, learning about things such as plot style versus plotting by color got me thinking about the most efficient ways to design a project. I was also able to attend meetings that give me insight into the relationships between client, engineering firm and regulators. One thing I had learned at my other internships is that to understand what is really going on, you need to understand the financials. Everyone on the team was happy to explain to me what different statistics, such as utilization and net billing multipliers, meant. The team emphasized mentorship, and even hosted trainings on topics such as grading.

Overall, this internship surpassed all my expectations and was a great experience. There was not a single day where I was not given the opportunity to grow in all facets of my professional life. I am grateful to the entire Tulsa General Civil team for the time they spent with me, and for the knowledge they shared.

Kailey O'Connor



Internship Experience at Olsson

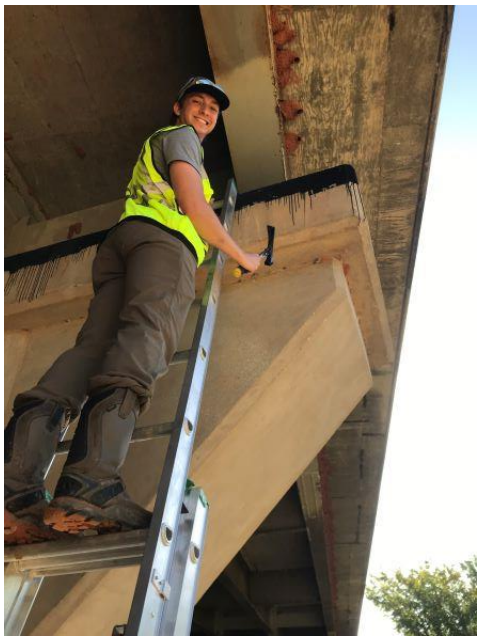
My name is Kailey O'Connor, and I worked as an intern on the transportation team at Olsson this summer. I am currently attending Oklahoma State University in Stillwater, Oklahoma as a Junior expected to graduate in May of 2024. I am majoring in Biosystems Engineering with an emphasis on the Environment and Natural Resources. I grew up in Oklahoma City and went to high school at Mount St. Mary. I have always had an interest in sustainability, especially in the construction aspect. I am interested in working with water in the future, so I was excited to join Olsson's team and work in drainage over the summer.

Working at Olsson was a great experience. I was able to learn so much about the industry and Olsson as a company. Being a student with only two years of classes, I was able to take in a lot of hands-on engineering experience. One of the topics I was able to learn a lot about was drainage. The project that I spent the most time working on was doing drainage work on the Turner Turnpike. I delineated all the drainage areas using Google Earth and contours. I then calculated the peak flow rates using the Rational Method in Excel. After that, I

created an existing drainage map in Open Roads using new survey that we had received. The last step I completed for this project was modeling the structures in HY-8. This allowed me to pull all the information and calculations together to run analysis to see if the drainage structures would be sufficient or not. The most challenging part of the project was not having all the survey available. I was able to go back and look at old As-builts from the 50's, which was actually pretty cool. It was interesting to be able to see how far we have come with modeling and the technology we are now able to use. Over the summer, I was able to drive on the Turner Turnpike to go to Tulsa a few times. Being able to see the roads I was working on was very exciting. I am glad that I was able to work on a project that I will one day be able to use in the future. Though I am just an intern, I felt Olsson gave me a lot of hands-on experience that will be applicable in the future. I was also able to work on bridge hydraulics for some bridges on the Turner and on I-35. For these projects, I received training in GeoHECRAS. I cut cross sections and modeled the bridges as well. I then was able to run analysis. I really enjoyed learning and using this software.

Coming into the internship and still having two years left in engineering school, I was not sure how much I would be able to contribute to real projects. Thanks to the amazing people at the Oklahoma City office who patiently answered my questions and helped me learn, I felt like I was still able to successfully help on projects. I only had experience in Solidworks, but by the end of the summer, I feel familiar with Open Roads, HY-8, and GeoHECRAS. Throughout my time here, I was also able to work a little bit in MicroStation and look at submittals. This helped me understand how plans are put together, and what Olsson provides to clients. I learned so much about the industry as a whole, and I am very grateful for the summer of experience that Olsson gave me.

Joseph Pitzer



Internship Experience at Olsson

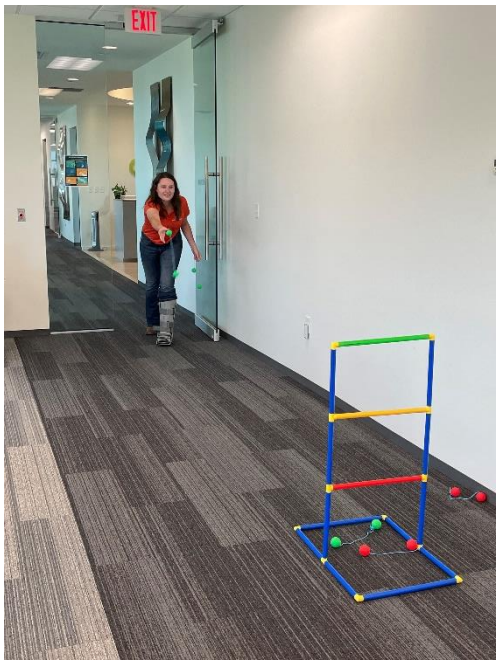
Hello, my name is Joseph Pitzer, and I worked at Olsson as a bridge intern during the summer of 2022. I am a student at the University of Oklahoma and am currently pursuing my bachelor's degree in civil engineering, as well as my master's degree with a focus on structural engineering. I arrived at Olsson with a basic understanding of AutoCAD, and some engineering experience with a previous company. Beyond that, I didn't know how the engineering consulting world truly worked. However, at the end of my internship, I left with experience in many different softwares, including MicroStation, OpenRoads, Civil 3D, Revit, and Risa3D, as well as experience on how to write reports and field notes.

During the Summer, I got to work in both the office and in the field. In the office, I worked with softwares, like MicroStation and AutoCAD Civil 3D, on different roadway projects across the state. Outside of the office, I worked mostly on the Turner Turnpike, where I performed bridge inspections. This consisted of travelling to bridge sites, taking photos of the bridge, and taking note of anything that would affect the structural integrity of the bridge. I also performed storm water management and pollution plan (SWPPP) inspections at Pointe Vista, a development on Lake Texoma, on a biweekly basis. On this project, I inspected the sediment control and monitored erosion. Afterwards, I would put together a report and send it to the client.

I'm extremely grateful that I was able to have the position that I did. Personally, I couldn't imagine a job where I didn't get to be outside on a regular basis. I feel like Olsson gave

me opportunities that I wouldn't find anywhere else. Olsson also gave me a broad exposure to all types of fields within civil engineering, and I'm glad that I was able to be a part of all of them.

Ryleigh Woody



Internship Experience at Olsson

My name is Ryleigh Woody and I have been the Oklahoma City general civil teams' intern for the past couple months. I am a sophomore civil engineering student at Oklahoma State University. I am also minoring in construction engineering technology. I plan to continue my internship through the first semester of school. The two projects I worked on most were a couple of different Scooters Coffees and the Life Church main campus project.

The Scooters Coffee projects I worked on gave me insight to how a project is worked all the way through on a smaller scale. I was able to work on the projects from set up all the way to submitting them to the owner and the city. This was great as I was able to gain experience in working with each part of a project.

The Life Church main campus expansion is a much larger project to work on. It has given me the ability to work on more specific aspects of a project. Some of the things I have most recently have been working on the utilities, pipe networks, and some of the basic line work of the sidewalks and roads. Working on the utilities and pipe networks has shown me the big impact projects can have on surrounding areas. The line work has taught me how many small details go into big projects.

Overall interning at Olsson has made me realize that I have picked the correct career path for me. I have enjoyed everything that I have done for Olsson and have learned so much about what actually goes on in a civil engineering firm.

Felipe Piedra

Internship Experience at Olsson

Degree: Pursuing Bachelor of Science in Architectural Engineering

I was given the opportunity to intern with Olsson this past summer of 2022. I have been working in the field lab found in the southside of Oklahoma City. I am set to graduate in Fall 2022 from the University of Oklahoma and will continue to work part-time as an intern until then. I have been working alongside field lab technicians, engineers, drill technicians and construction materials technicians to provide accurate testing results as requested from the clients.

During this internship I was sent out with the drill team to see the process of how the soil is extracted from the ground and to see how and which tools are used. I have been working alongside another engineering student that has been working directly with the engineer as she does not work in the lab. We relay what we learn to each other when given the time and it has been a great experience working with her and the engineers.

While working at Olsson I have used soil mechanics concepts to complete testing requested by clients consisting of proctor tests, moisture tests, finding the plastic index of soils, and sieve analysis. I had to follow ASTM code that I learned in class to perform these soil tests, so it was great being able to see how it is applied in the industry. I have also dealt with or seen testing with varied materials like asphalt and concrete testing that has allowed me to find the maximum compressive strength. I want to thank the lab technicians, engineers, and office workers for making this internship a great experience. This internship with Olsson has allowed me to get a better understanding of the geotechnical industry and I am grateful for the opportunity.