Hello Lee, thank you for taking the time to answer these questions.

I'm conducting research on behalf of a Dr. Anh D. Chau’s research team. Our project aims to explore how AI could be developed to assist professionals in the construction industry. We're specifically looking at how these applications could help with day-to-day tasks. There are no right or wrong answers – we're interested in your honest thoughts and experiences. Your expertise in the field is what we're here to learn from.

**1. Background Questions**

* Could you briefly describe your role in the construction industry**?** I am an Estimator and Project Manager for an asphalt paving company and asphalt material producer.
* How long have you been working in this field? Since 2008.
* What are the main types of projects you typically work on? Private, Commercial, Municipal, City, Emergency response team for FDOT and smaller contracted FDOT projects.

**2. Current Challenges and Processes**

* Could you walk me through a typical day in your role, focusing on tasks that involve accessing information, decision-making, or following specific processes? My tasks are constantly evolving, daily. Sometimes by the minute. Setting importance for customer needs as well as needs for my workplace. Decisions are based on information that is given to me from my Construction Manager or team, as needed or by request from the entities requesting a quote or bid. They are game time decisions based upon importance of due dates/times. My typical day involves: email responses in a timely manner, billing, scheduling, plan takeoff’s, putting quotes/bids together in our software, customer relationships and job management.
* What are the most challenging or time-consuming aspects of your daily work? How do you handle them? (Follow-up: How do you think AI might help with these challenges?) The most challenging and time consuming part of my job is walking through with customers ( pre and post project) that do not know asphalt paving. It is a lot of information to pass on to someone that has never been in the road building industry. Explaining and meeting their expectations is sometimes difficult. Although I have zero AI experience, I think that a pre-bid construction video or pamphlet littered with expectations and project specific information may be beneficial and AI would most likely be able to “build” that conveyance.
* Are there any repetitive tasks in your work that you find particularly tedious? Can you describe one in detail? (Follow-up: How much time do you estimate you spend on this task?) I honestly do not have anything that is repetitive. Every project is very different. Some days I may have 3 takeoffs but no bids to put together and some days I may have zero takeoffs and 5 bids to put together. Some days may just be site visits all day.
* In your area of work, what are some common issues or mistakes that people often encounter? How are these typically addressed? Is there any possibility that they cannot be discovered and resolved timely? Simply explained, common issues or mistakes would be found in my estimates. I may forget to add trucking or may plug in a wrong number. They happen and hopefully not often. Sometimes they do not get caught until the job is completed and I have to explain to my boss that I made an error and this is what it cost us.
* If you encounter any problems, do you have any online source that you use to trouble shoot it? If so, what do you use? Any social media like Reddit, YouTube etc.? No, there are no online or readily available resources to use to trouble shoot any issues that I may encounter.
* How do you currently handle tasks that require looking up information from company documents, industry standards, or databases? (Follow-up: What challenges do you face in this process?) We, as an entire company, use a cloud-based database called BOX. It contains all company documents, previous bids/quotes, licenses and other paperwork needed to perform our daily work. No real challenges here as long as you know exactly what you are looking for. If you search for something in general, the results will be plentiful and overwhelming. Know what you’re looking for and this task will be simple.
* Can you describe any routine analysis or decision-making processes you perform regularly in your work? (Follow-up: How do you ensure accuracy or consistency in these processes?) Although Engineers are putting these provided plans together for me to quote/bid, they are not always correct. It is my job to analyze that the paving typicals that the Engineers provided are up to industry, project specific or FDOT standard specifications. See next answer…
* How do you stay updated with changes in industry practices, regulations, or company policies? What challenges does this present? The Florida Department of Transportation provides updates to typical and standard practices. They do evolve and/or change and those supplements are provided via email, annual conventions or their website. As a company, we maintain consistent communication and any changes to specifications, regulations or standard operating procedures are conveyed to all, as needed.
* Can you think of any aspects of your work where even small improvements in efficiency or accuracy could lead to significant time or cost savings? I am not quite sure how to answer this question. Do I answer as an Estimator or do I answer it as a Project Manager working on a specific job in the field. As an Estimator, my day changes constantly and things have to re-prioritized so pinpointing any improvements to efficiency would be difficult. Pertaining to the Project Manager side of this question, there is always room for efficiency improvements. Trucks could drive faster, vehicular traffic congestion could be less, our crews could work faster and cleaner or to simply be able to control the weather. Always room to improve!

**3. AI Awareness and Potential Applications**

* Are you familiar with AI or chatbot technologies? If so, how have you encountered them in your work or personal life? I am not familiar with AI.
  + Have you or your company used any AI tools in your work? If yes, could you describe that experience? I have tried chatgpt one time to write a paragraph. It did not change much.
* In what areas of your work do you think AI could be most helpful? Where I think AI could be most impressive is to be able to scan a supplied set of plans and AI would give you the takeoff measurements. This would be so much faster than a point and click method that we all use
* What concerns, if any, do you have about using AI in your industry? For what I do, I do not think that there is a substitution for the human element. However, as long as you verify what Ai is giving you, than I am sure it will be helpful.

**5. Closing Thoughts**

* Based on our discussion, how do you envision AI potentially changing your work in the future? AI could speed up plan reading and takeoffs.
* Do you have any other thoughts or suggestions about integrating AI into the construction industry? As stated above, scan a set of plans and it produces takeoff quantities. This would save so much time and so much money. However, it would almost remove the necessity of the position for a CAD Engineer on one end of the equation. Plan sets still have to be put together.