

**From:** Leo Schlosberg [mailto:leo@caryconcrete.com]  
**Sent:** Monday, November 03, 2014 11:37 AM  
**To:** Morton, Leviticus  
**Subject:** Maybe a favor?

Levi,

I am contemplating writing a proposal having to do with knowledge management. I am interested in your experience if you are now on the build side (vs the estimating side). My specific interest is to what extent have you found things to be more complicated than schooling might have indicated? I can elaborate but there is no point unless 1) you are not simply estimating these days and 2) you are willing to write or speak to me on this.

If you want context, you can look at my early thoughts on this issue. [http://caryconcrete.com/index.php?page=writings\\_industry](http://caryconcrete.com/index.php?page=writings_industry)

Leo

-----  
Leo Schlosberg cell: 847-226-0930 office: 815-338-2301 [www.caryconcrete.com](http://www.caryconcrete.com)

---

## RE: Maybe a favor?

1 message **Leo Schlosberg** <leo@caryconcrete.com>

---

**Morton, Leviticus** <lmorton@walshgroup.com>  
To: Leo Schlosberg <leo@caryconcrete.com>

Mon, Jan 5, 2015 at 3:51 PM

Leo –

Sorry this took so long – I decided to take my time and really reflect on everything. As with the construction industry itself, the topic of knowledge management is very complex as it applies to construction and can be taken down many avenues. It has been difficult to really outline all that I want to tell you. My initial thoughts are very much centered around two points you delivered in a conversation we had at the Schiffers' house a couple of years ago (both of which also appear in your presentation) – Every construction project is a prototype, and, more importantly, it is impossible to fully understand the complexities of any project, much less an individual trade or even a specific task. As this second point is part of the underlying theme of your presentation, I figured I'd outline the development of my understanding of the subject before moving onto other parts of my professional development.

If you remember our conversation, I was quite skeptical of this point. I was fresh blood at that time used to cramming useless facts and figures into my brain at maximum flow. I understood that there was a special language in the field with numerous techniques and mediums, and I thought that once you got that general grasp of the major trades – Concrete, Steel, Masonry, Finishes, Specialties, etc. – The rest would come naturally. I mean, how tough could it be? There are industry standards and everything.

Ignorance is bliss, am I right?

Things went pretty much according to plan throughout my time in our main office working estimating and marketing. Everything made sense, everything had an explanation, and everything seemed to be nice and organized. Then I hit the field and realized that everything was perfect because it was all theory. Application is a much different story. Not too far into my first job, I was surprised to run into constructability issues that perplexed even my senior superintendent and senior PM. In some situations our architect had omitted details or previous details were not applicable as new systems had been approved post design. One specific instance involved an approved roofing change (to standing seam metal roofing – cost benefit, go figure). This created an issue as we uncovered we had insufficient details at the interfaces with the roofing system, fascia, soffit, and building system. This was a large issue as this building was to have an above average rating for air barrier and building insulation.

The entire time I was in estimating, I was practicing building everything in my head. It was a useful tool I learned in <https://mail.google.com/mail/u/0?ik=5224cf0a5a&view=pt&search=all&permthid=thread-f%3A1483773006508749778%7Cmsg-f%3A14894966639...> 1/3

the beginning, and certainly aided in my understanding of various building systems. One problem, however, is that you can only build what you see on the page or in the specs. If you've never built it in real life and never seen it, how are you supposed to know you're missing something? How was I supposed to know whether a double pane window comes as an assembled unit or is assembled on site? Does it need an additional bead of sealant upon installation? The sealant isn't shown in the details. Precast storm pipe is pretty easy, right? Just pair up the ends and connect it to the manholes. Or, have the manholes pre-cut to receive the pipe and hope everything lines up right. Oh yeah, and make sure to fill and grout the opening to create a water-tight enclosure. That wasn't in the plans and specs?

Which brings me back to the problem at hand. The designer (or rather, the design) doesn't know everything – and they shouldn't have to – but sometimes they literally don't know anything (because they didn't design it). And that's where you really run into trouble when you assume you will have to know everything. There are so many options and so many solutions. The standard industry practice when you hit a major problem with no solid direction is to frantically boil a ten gallon pot of information pasta, have everyone grab a handful, and throw it at the walls and ceiling of the office trailer. Whatever sticks the best with the lowest amount of effort at the best cost is usually what we frame and redline into our drawings. Senior management is the best at flinging pasta, but as long as you've got something to throw with, you always have the ability to find the best solution. Anyways, to get away from analogy, I was surprised at how freeform and chaotic the process of finding a solution with basically no starting point was. That's not to say that our final selections weren't reliable, proven, and up to code, but for example, there's hundreds of ways to ensure a seal between roof and fascia. Multiply that by the number of field decisions you have to make throughout the lifespan of a project and you've got one heck of a ride. Instead of leading a horse, I found myself riding a bull and holding on for dear life.

The concept of knowledge management as you outlined in your presentation is certainly an intriguing one – the ability to, in essence, pick out the stickiest noodles from the bunch with little effort so that your starting point is much further along and at a much more civil point in the process of conflict resolution.

As a 'newbie,' though, the biggest problem that I've found is not finding the information I don't have, it's *finding out* what information I don't have. It may take me days, weeks, or months to research a specific solution, but as long as I know I need it, I know I can get it. If I don't know I need a specific piece of information for a process I'm preparing for, I won't know until after I've made the mistake of not having it. And while this is a problem experienced more oftGen by the inexperienced, it is something we all encounter on a regular basis. This, in my opinion, is where the current hurdle with knowledge management lies. Cataloguing and databasing information is all fine and dandy, but how do we express an issue we don't understand to a system or service? How is this system going to fully comprehend all of the potential complexities? How is the information we don't know we need going to find its way to us?

And more importantly to me as a GC, how does this system mitigate risk to the user?

I've passed this on to a couple of co-workers and am waiting for their response. Let me know if you have any questions, need me to expand, or would like to lead me in a different direction.

Thanks,

**Levi Morton, LEED AP BD+C**

**The Walsh Group**

Project Engineer

C: 931.588.1342

Marshall: 270.776.9306