engineer's **NOTEBOOK**

Leveraging Professional Relationships

Staying Ahead of the Rapidly Changing Construction Industry By Samuel Harris

oday's challenging and fast-paced construction environment forces engineers to take on many responsibilities in the design workflow. The continual evolution of the construction industry makes it difficult for structural design professionals to stay up-to-date on new construction materials, methods, codes, and design technology.

Many manufacturers and vendors that regularly support structural engineering consultants offer assistance to help overcome the information gap on many construction applications and technology. These valuable services can help save time and allow design professionals to focus on schedule-critical tasks. There is a vast amount of educational content and design tools that construction vendors make available online via educational forums, webinars, and various software applications. Despite having all of these tools at their disposal, only a small fraction of structural engineering professionals take full advantage of them.



Structural engineers must continually review new construction innovations to meet a variety of design requirements. These requirements might include:

- Load capacity
- Compliance with varying load types and serviceability requirements
- Compliance with national and local building code requirements
- Choosing the correct fastening solution for the application
- Cost of materials and cost of installation labor
- Controlling design parameters such as fastener spacing, base material type, and thickness
- Jobsite considerations and challenges
 - o Incorrectly placed or missed fasteners
 - o Contractor installer training
 - o Incorrect installations
 - Environmental considerations
 - o Material availability

A designer often consumes large amounts of time conducting research, attending project meetings, and engaging in dialogue with the owner/architect/contractor to derive the safest and most economical solution. After dedicating countless hours to a project, RFIs and re-design work can further consume time and budget and possibly cause delays. By leveraging the support services of trusted manufactures and vendors, this process can be significantly streamlined.

Everyone in the construction industry is extremely busy these days trying to meet deadlines and support their clients as design and construction roar back

to 2019 levels.



Where to Start

One of the greatest challenges vendors and their engineering departments face is moving beyond being the classification of a vendor to that of a partner. Building material representatives/vendors want to collaborate with engineers to make them more productive and cost-efficient.

Start by identifying your local manufacturer representative. Many representatives have their P.E. license and come from a structural or Civil engineering background. Invite your field representative to meet your design team face-to-face or online so that they can understand your processes and projects. Your field representative can provide the following:

- Design assistance/guidance/quality review
- Customized specification edits
 - RFI assistance to facilitate better design and communication of field fixes
 - On-site project support and hands-on installation training for the installer
 - · Answers to challenging software and code provision questions related to their products

Certain manufacturers have "preferred consultant programs" that offer key structural engineering offices specific benefits such as continuing education, specification modification, design assistance, or job site support. Inquire with your manufacturer's representative if your office qualifies. Other (often free) services provided to engineers might include:

- Jobsite quality reviews
- Inspector training
- Local jurisdiction training
- Anchor installer training
- Cost savings and value engineering recommendations

Other Tools to Leverage

Manufacturer representatives provide valuable support tools to the design community beyond their face-to-face interactions with structural engineers, including:

- Design software Manufacturers provide some of the best-inclass software packages that can instantly reduce design hours.
 Many companies offer simplified versions of their software packages for free that can be useful for the most common design problems.
- Seminars and webinars –
 Continuing education is offered
 online or in-person on vari ous topics; many programs are
 certified by NCSEA to satisfy
 state continuing education
 requirements.
- Engineering-specific online landing pages and websites Online forums such as <u>Ask.Hilti.com</u> are set up expressly to address engineers' and architects' technical questions. These sites post various technical content and provide access to technical data, design guides, and product approvals.
- Engineering call centers and design offices – Most have a central phone number or email for direct access to an engineering department. Many can respond to technical questions within 24 hours.

Benefits/Conclusion

Everyone in the construction industry is extremely busy these days trying to meet deadlines and support their clients as design and construction roar back to 2019 levels. Taking advantage of these services brings value to all parties involved. Structural engineers can confirm that their specification details are up-to-date and communicated correctly to the contractors. Manufacturers can provide design aids and services that save time and prevent costly RFIs. Contractors can work directly with the manufacturers to solve field issues and

better avoid rework by ensuring products are more likely to be installed correctly.

These benefits combine to build a stronger relationship amongst the structural engineer, manufacturer, and contractor. So take the time to reach out to your preferred manufacturers and start this valuable conversation today!•

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