

28 MITIGATING FUTURE
CLIMATE RISK

36 A SOFTER APPROACH
WORKS WONDERS

44 CHARTING A COURSE
TO RESILIENCE

50 ENERGY AND CARBON IN
GEOTECHNICAL WORKS

GEOSTRATA

SEPTEMBER // OCTOBER 2020

GEOTECHNICS OF
SUSTAINABILITY &
CLIMATE ADAPTION





The Geotechnical-Engineering Report — Vive la Difference!

By John P. Bachner



Imagine, if you will, that Doug Downs, host of the “Digging Down with Doug” late-late-late-night TV talk show, is interviewing the five identical, 50-year-old Clay quintuplets — all male geotechnical engineers who dress identically. After five or six minutes of banal chit-chat, Doug asks, “So, here you are, 50 years old, all doing the same thing and looking the same, too. Is there anything you guys regret?” Speaking for the five, Sanford “Sandy” Clay responds:

SC: Yes, Doug, there is.

DD: And what’s that?

SC: We just don’t get any respect, Doug. We’re treated as though we’re all the same, like... like we’re just commodities. But we’re all so different.

DD: I see. But realistically, you all look the same, dress the same, speak the same, and do the same thing.

SC: Hmm. Well that’s a good point, I guess. But Doug: People shouldn’t judge a book by its cover.

DD: Hey, Sandy. It’s not just the cover we’re talking about here: It’s the cover, the table of contents, the text, the index, and the bibliography. Even the acknowledgments, for cryin’ out loud.

SC: Yeah, well.... Even so.

So, let’s talk about geotechnical-engineering reports, a.k.a. the Clay quintuplets. Lay any five down, and they’ll probably all look the same as they did 90 years ago, except for the covers and the interior layout, which — thanks to the advent of desktop typesetting — can now be justified not just on the left, but on the left *and* right, helping to ensure they all have that “scientific-text” look; i.e., graphic rigor mortis.

And then read them. They all rely on the passive voice, that deadly dull approach to English that banishes

humanity; where things happen without any human involvement; where “borings are advanced,” “samples are taken,” and “tests are conducted.” And let’s not overlook anthropomorphic style, where human accomplishments are credited to inanimate objects; where “analyses reveal,” “results suggest,” and “reports indicate.” For readers who don’t “get” engineering issues, but do get English (or the geotechnical-engineering version thereof) — a readership comprising client representatives in particular — the sameness of so many geotechnical engineers’ approach to report writing cannot help but scream (or at least coherently mumble), “We’re all the same!” And if they’re all the same, why not just ask them to bid? “No matter which one we select, we’re going to get the same thing. They’re commodities.” Or so it seems. And they’ve done it to themselves.

If you’re tired of being a commodity; if you’re tired of being a low-bid provider, you’ll need to change. First, let’s talk about report contents. In addition to the usual stuff, let’s add two elements.

Number one: Definitions, you know, the things you see in every ASTM standard, but which you refuse to put into your reports, because.... Why? I don’t know. But I do have a pretty good inkling about the value of losses that could have been prevented if only a report included definitions. How about the \$1.5 million that could have been saved (along with hundreds of hours of billable time) if only the report included a definition of “generally comply”? And don’t forget the \$1 million loss that would not have occurred had the report included a definition of the firm itself, indicating it was an entity comprising all its officers, staff, board of directors, agents, and so on, thus protecting the two staff members with the limitation of liability that was written only to protect the undefined “firm.” And what about “taboo” terms like certification, inspection, and investigation? How about “intent of

the design” and “occasional site visits”? Remember: If you don’t define your terms, chances are that a trier of fact will, and in a way that will help make the injured party whole.

Number two (and one you *really* won’t like): Acknowledgments, to give your staff a tiny moment in the sun and to impress upon client representatives that it truly takes a firm to develop a geotechnical-engineering-study report. The technical team led by the project manager. The higher-ups who perform the prefinal review. The individuals (in-house or engaged by subcontract) who perform the drilling, plus those who maintain and repair the “iron.” The field representatives who observe and sample. The laboratory personnel who conduct the tests and report the results, as well as those who oversee the lab and lab personnel, and those who keep the lab clean, or try to. And don’t forget the administrative staff without whom the firm would probably fall apart. “We’ll never do this because....” Fill in the blank. And if you’re at a loss to know with what, get in touch: I have a couple of choice suggestions.


So, what else can you do?

Organize the report differently. Use the opening portions of the report to convey the information key readers most want to have and put the other information into easily accessed (via links) appendices, so those who want to read them can.

Stop anthropomorphizing. It dulls the senses because, by eliminating mankind from its presence, it helps prevent the mind’s eye from seeing what occurred. In truth, “This report suggests...” is not as lively (or as accurate) as “This report conveys our suggestions for....” The passive voice is even worse in that respect, and also uses a lot more words (creating many more opportunities for errors to creep in) and encourages ambiguity (something opposing experts love). Would client representatives appreciate a switch to “humancentric” writing? Let a few of the younger ones (less than,

say, 60 years old) read a revised report and ask them. Many folks who’ve made the switch tell me their client representatives love the “new” approach.

By all means, stop justifying copy left and right. It just reinforces how dull and uninviting a graphic design can be. Present your text flush left and ragged right, at least to suggest it’s not dead yet. And here’s another vivifying concept: Color! Not only does it give life to otherwise dull reports, it allows you to make certain warnings that much more obvious. And how about photographs (in color)? Photos of the site or key elements of it? Maybe some drone photos, too. And to put a cherry on top, try presenting your report’s executive summary on video accessible via your firm’s intranet or Vimeo, which you can password protect.

Bottom line: It’s not just about being different. Rather, it’s about using contemporary approaches that are just as professional for the 21st century as the passive-voice, et al. was for the 19th and — unbelievably enough — the 20th, too. And until such time as all your peers do the same as you, you and your firm will no longer be commodities. You’ll be setting the bar... and that will call for another round! 

► **JOHN PHILIP BACHNER** is an independent consultant who has been working with geoprofessionals since 1969. He is the author of more than 250 books, manuals, and guides, many of which he’s focused on professional-liability-loss prevention. He is the author and presenter of “Write Right,” “Hassle-Free Selling for Project Managers,” and other “BackYard Seminars” he has created and presented to some 50,000 geoprofessionals. He is also the creator and staff leader of Fundamentals of Professional Practice (FOPP), a renowned, six-month educational program that boasts more than 2,000 geoprofessional alumni, some 150 or more of whom are today the CEOs of the firms that sent them through the course years before. Members of ASCE and the Geo-Institute of ASCE receive a \$1,000 discount on FOPP tuition. Contact John at john@bachner.com.