

## What is “Delegated Design”?

**Executive Summary.** In the traditional design/bid/build world, sometimes a portion of the project is overtly not designed. The final design of this particular part of the work is left to the Contractor (along with the construction of same). It’s not uncommon – it’s called delegated design. It also goes by another name.

**They never finish the design anyway.** No, this is not the place to hear the squawking about “the Engineer never finishes the design, we always have to finish it via RFIs, letters, and submittals. So, isn’t every job a ‘delegated design?’” That’s for another podcast. This article is about when the Designer of Record purposefully leaves out a portion of the design in its entirety (or close to it) and relies on the Contractor to provide the design.

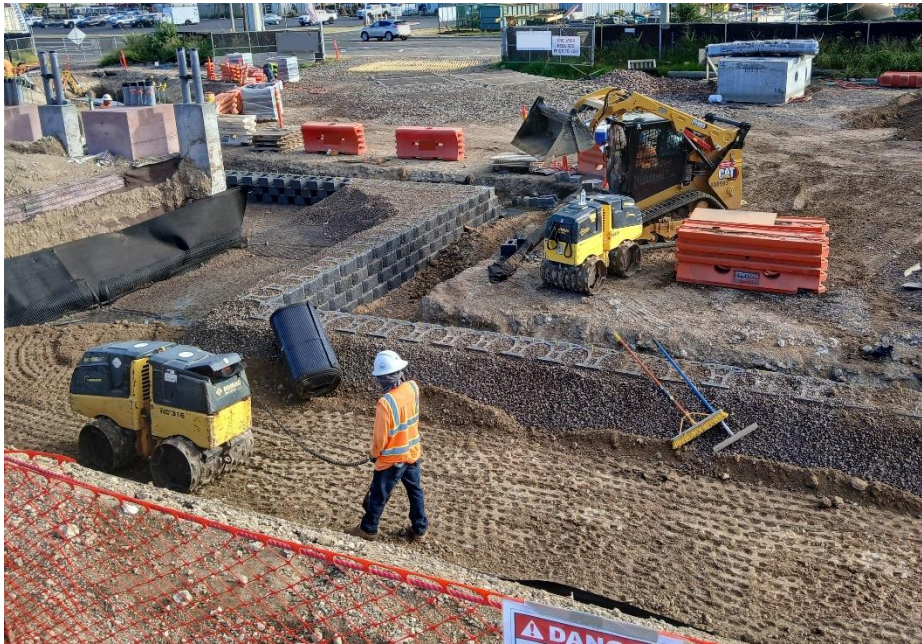
**So, what is “delegated design?”** It seems logical that when a Contractor bids on a job, he or she is simply reading the drawings and specifications and assigning a dollar value to the project to build what is described. However, sometimes an Engineer will leave out from the bid package certain design components, detailed drawings, and detailed specifications, and then mandate that the Contractor provide that in his/her construction services.

**Why do Owners/Engineers go with “delegated design”?** Sometimes there isn’t enough time to complete the design, sometimes the Design Professional does not have enough expertise in a component of the work, or lastly, perhaps a particular component of the work is intimately involved with the Contractor’s means and methods, so a segment of the work is best left to the builder.

**What are some examples?** Some examples include:

- Retaining walls
- Drainage lines
- Fire suppression systems
- Handrails
- Metal stairs and platforms
- Canopy shade systems
- Equipment anchor bolts
- Seismic restraint systems for interior utilities
- Building envelope systems – glass and metal
- Louvers





*This MSE (mechanically stabilized earth) wall was a delegated design portion of the project.*

These items are, generally, items which become a permanent component of the built infrastructure.

**Is “delegated design” the same as “Contractor-designed”?** Not exactly. The items listed immediately above are permanent in nature and, therefore, resist load, and are in

service, for the lifespan of the structure. This was design that was, arguably, supposed to be done by the Engineer/Architect of Record since it becomes part of that permanent facility the Owner purchased.

Contractor-designed *may be* applicable to something that is around forever, but often times this design is activated for use in a *temporary* portion of the work to facilitate the construction. Some examples of contractor-designed work are

- Temporary shoring (sheetpiles, trench boxes, secant/tangent walls)
- Dewatering systems
- Load resisting elements for utility testing (thrust blocks, dunnage, pipe hangers)
- Erection frames for placement of permanent elements (i.e. spreader beams, gantry cranes, tower frames)
- Construction crane foundation design
- Jacking/receiving pits including shaft stability and thrust block design to resist jacking forces of tunneling machines
- Traffic control plans

In theory, the Designer of Record has little to no say in these designs above. The reason the Contractor designs these elements is to protect both the Contractor’s people and their financial interests. A professional engineer’s primary goal is to

protect human life while his insurance provides financial protection to the Contractor.

**My story.** I've been on the Contractor's side and the Owner's side of this. I've also been the Engineer of Record on several Contractor-designed work scopes. Like anything else, there are pros and cons. Mostly pros though!



*This shaft was Contractor-designed – the sheetpile, the walers, and the entry ring.*

I see two major advantages in delegated and contractor-designed packages: (1) they're quicker and (2) they leverage specialized expertise. I once did a Contractor-designed radioactive fiberglass effluent pipeline system (maybe it was actually design/build – but whatever the type of delivery, it was designed under my supervision as the Contractor). This isn't exactly something you see every day, so we were grateful to have found someone to design it for us. It's nice to farm that out to someone who's done that before and had that specialized expertise!

Work safe!