



Construction
Expect the Unexpected
PNWS 2019





Agenda

1. The engineer did not engineer that?
2. RFIs, what is the question?
3. Concrete fever!
4. Communication & Schedule



The engineer did not engineer that?

1. The owner hires an engineer to design the project.
2. The owner hires a contractor to build the project.
3. The contractor hires an engineer to design the project.







The engineer did not engineer that?

What deferred submittals does the project include?

When do the deferred submittals need to be complete?

Track in schedule

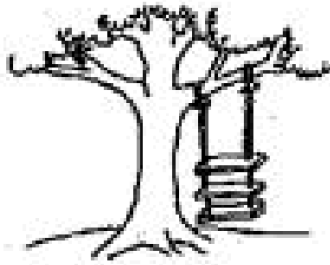


RFIs, what is the question?

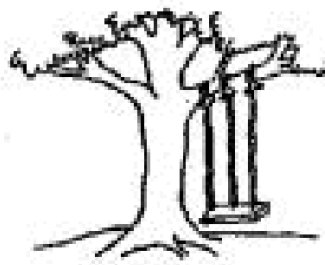
Clear question

Discuss the question, show the problem

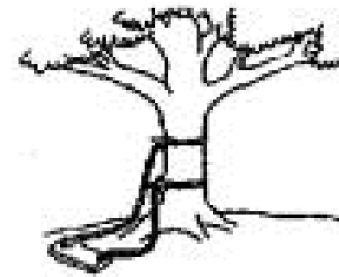
Schedule impacts



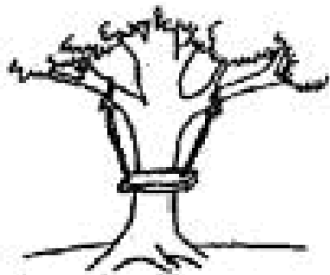
**As proposed
by the project
sponsor.**



**As specified
in the project
request.**



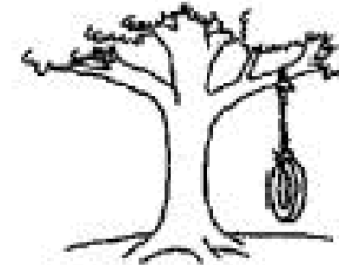
**As designed
by the senior
architect.**



**As produced
by the
engineers.**

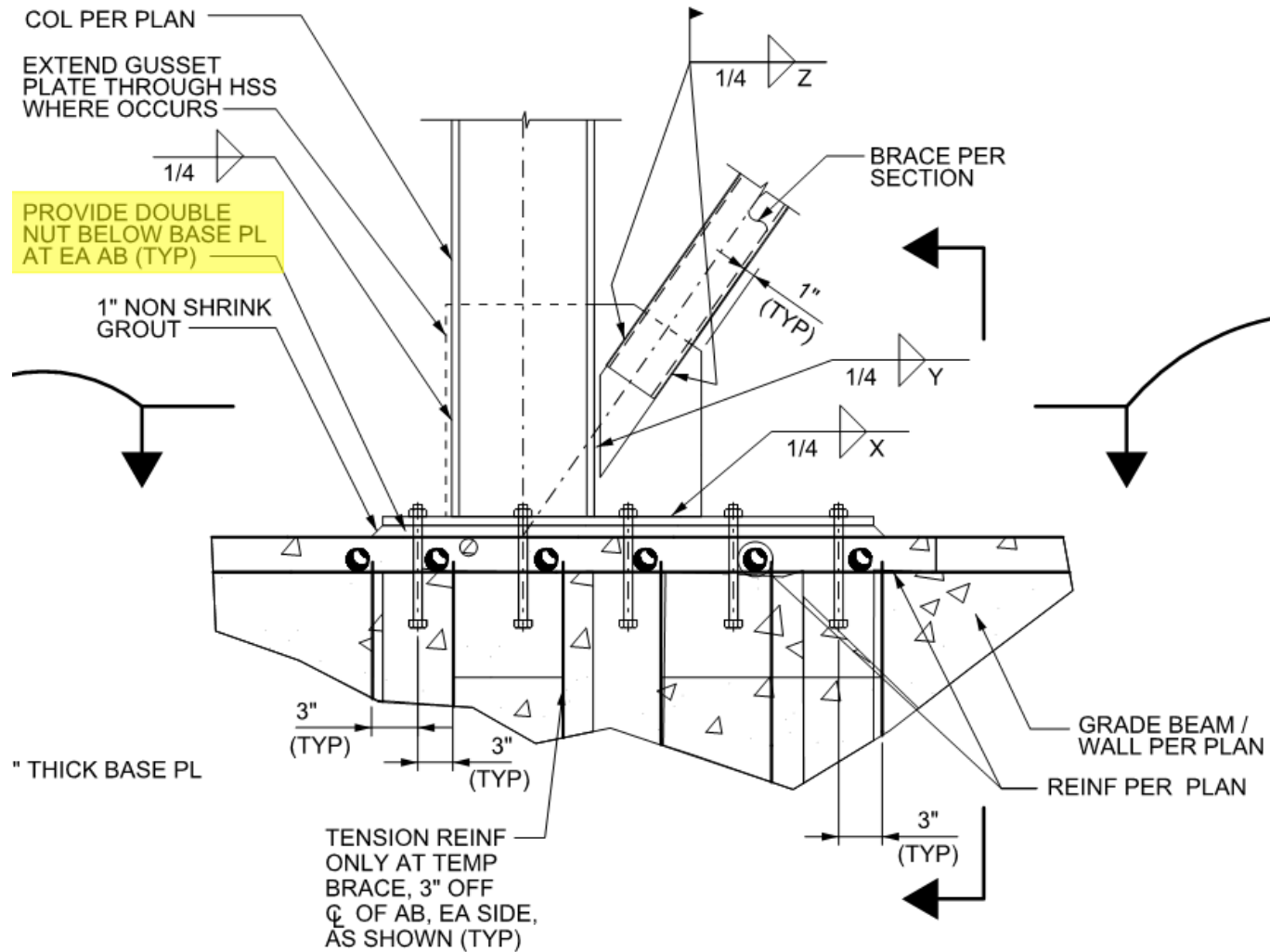


**As installed at
the user's
site.**

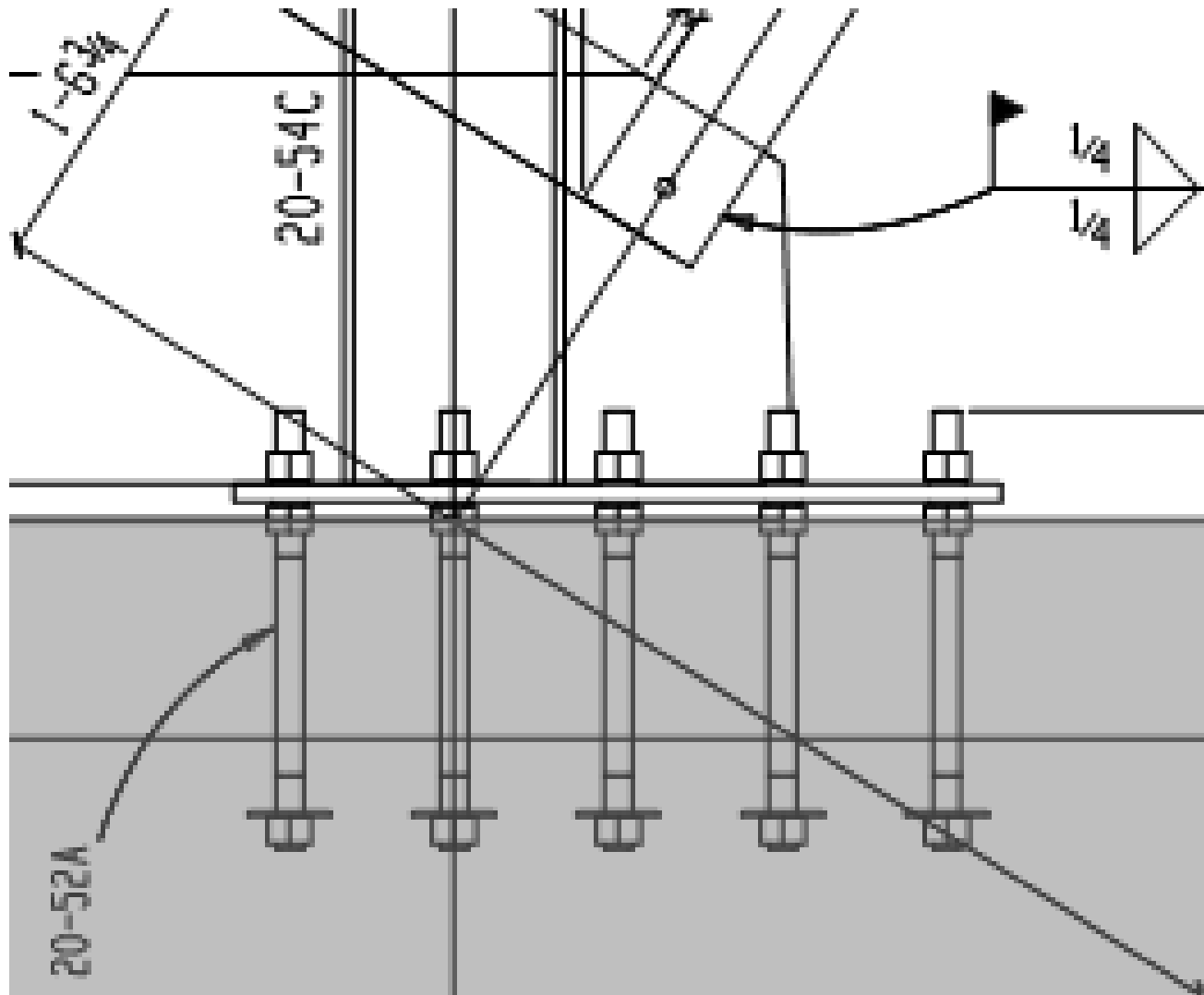


**What the
customer
really wanted.**

The design drawing



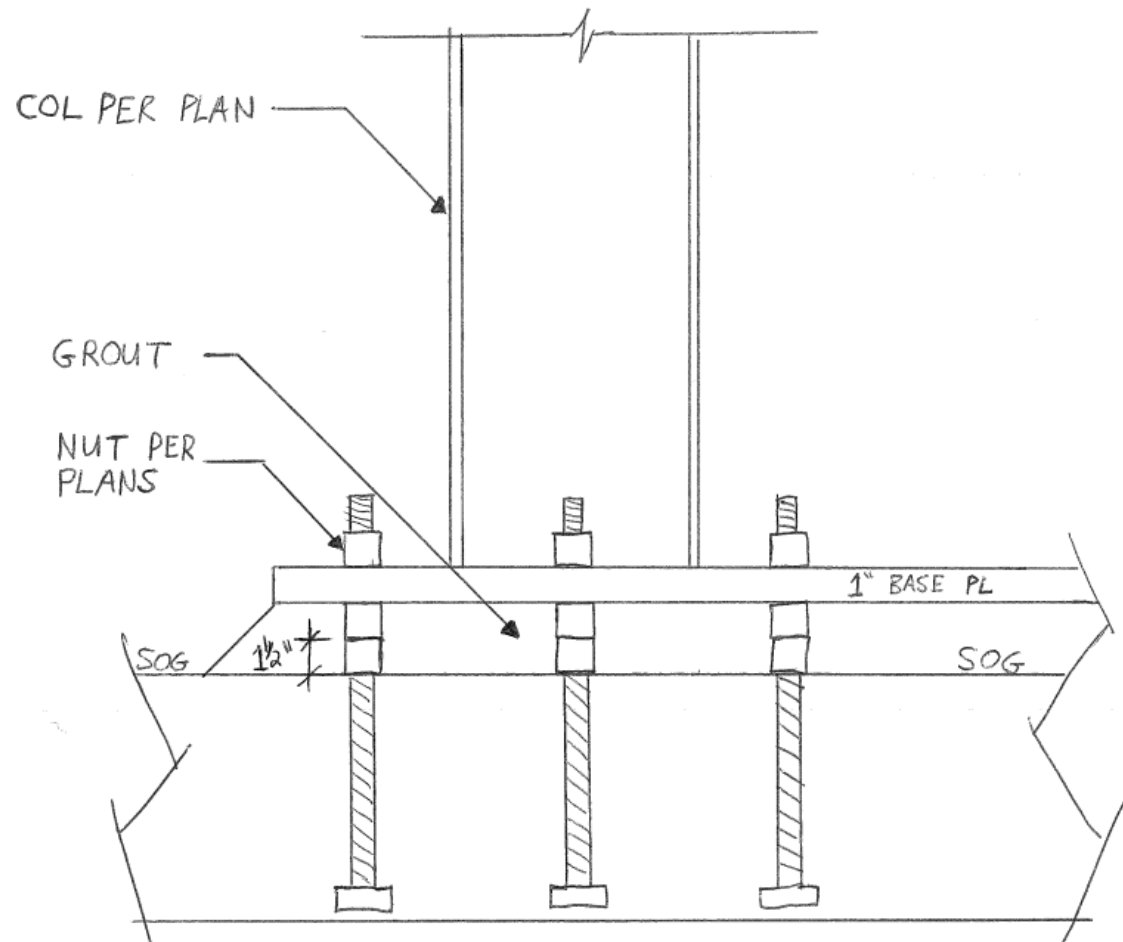
The design drawing



The shop drawing



RFI#500 SKETCH



The RFI



RFIs, what is the question?

Clear question

Discuss the question, show the problem

Schedule impacts

People want to help!

Don't throw spears! Unless...



Concrete fever!

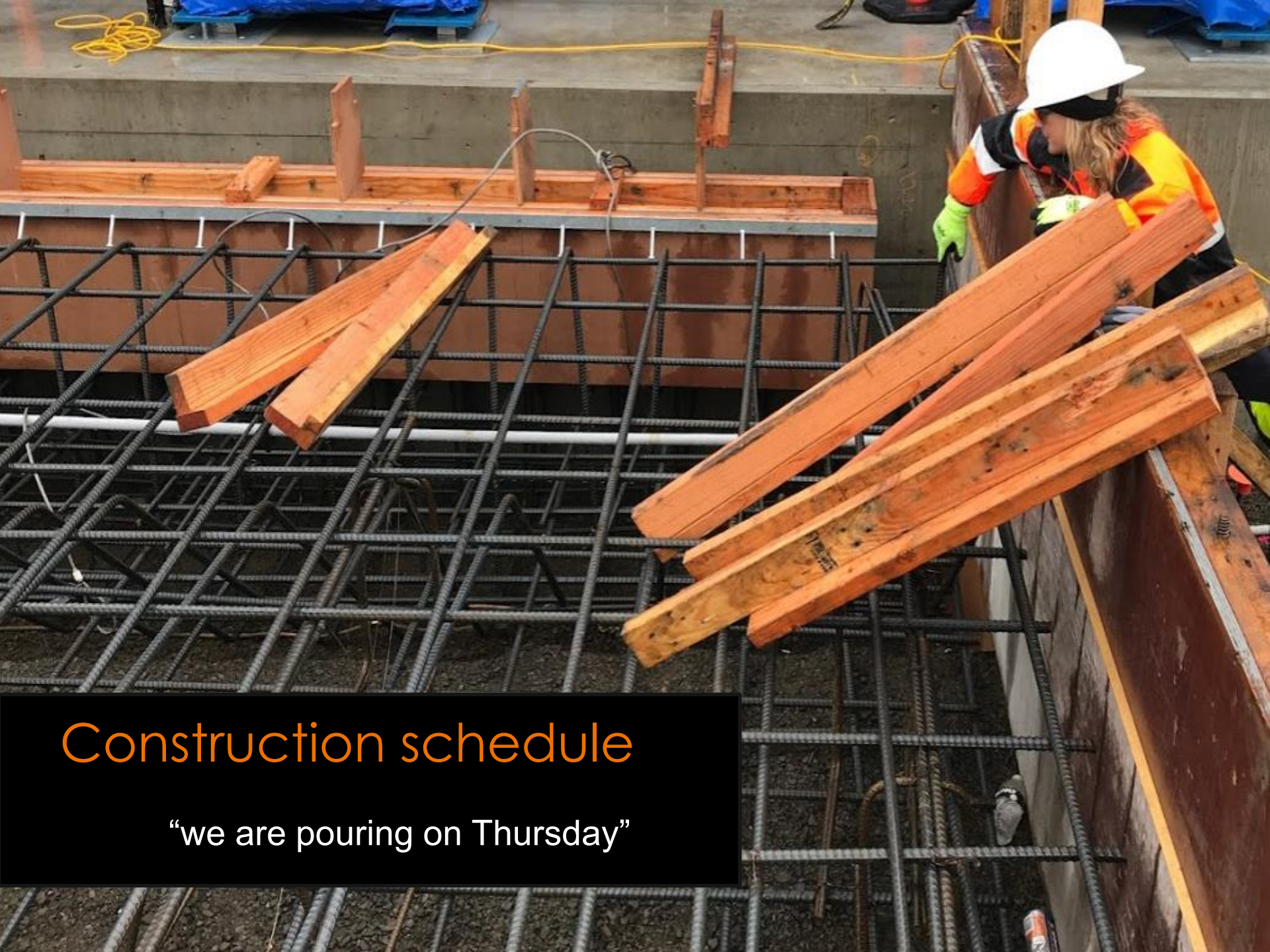
“An overexuberant or excitable state of mind that overcomes certain construction personnel at either the notion of the concrete arriving to a project or the physical arrival of the concrete truck for the placement.

Individuals will lose all focus as far as the attention to detail for the final adjustments and checks prior to the concrete pour. As a consequence, critical mistakes are made and the quality of the placement suffers due to this fever.”

- Jessica Graybill,
Construction Quality



Before you place concrete you must...



Construction schedule

“we are pouring on Thursday”











Lessons learned



What should be in the schedule?



Who should actively use the schedule?



How should this be communicated?



Discussion

Matt Perkins, PE
matthew.perkins@stantec.com