

NAU Steel Bridge

Meeting Minutes

Date / Time: February 8, 2017 / 9:30 – 10:15 AM

Meeting Called By: Isaac Block

Present Members: Isaac Block, Ian Connair, Matt Parrish, Taylor Erdmann

Faculty Advisor: Mark Lamer

Shop Drawings:

- No major concerns with the drawings. They seem suitable to guide the welding.

Fabrication

- Don't pre-drill the bolt holes! Wait until the welding is complete to see how the members line up.
- Welding day
 - Do we need to grind the members before the bridge is welded?
 - No, grinding steel gets rid of the oil inside the steel and, consequently, rusting will occur. This is bad for welds.
 - Welding process
 - Have one person manage overall process
 - Have one person be the point of contact for the welders
 - Have 2-3 people for grinding
 - It will be hectic and may take about 6 hrs
 - Aim to start at around 10am
 - The first thing we will do is set up jigs. It is most likely that the weld team will create the jigs according to how they will weld the bridge.
- Drill bits and nuts
 - Get multiple 9/32" stepper bits. These are better for cutting through steel
 - Ask Copper State about bolts. Don't change our minds about what we want. They may be willing to donate bits as well.
 - If we purchase bits through Capstone, we will need to fill out a blue requisition form.
- K-zell
 - Get travel certification to drive down to Phoenix and pick up plates.
- Powder-coating
 - Ask Mark more about this if we decide we want to do this.
 - Will have to ID pieces and send them to get powder-coated.
 - Powder-coating will give a more durable finish.

- It is advisable to get the bridge powder-coated as late as possible so as not to beat up the finish during construction practice.
- We need to design what we want to do.
- Look at the school name specifications on the rules!

T-shirts

- Steel Bridge Team plans to pay for all of the T-shirts.
- Steel Bridge Team is starting to think about the shirt design.

Construction

- Consider optimizing number of builders with construction time during construction practice phase.
- We will need to figure out a place where we can practice.

Other Updates

- We will plan on completing 100% shop drawings within a few days of receiving feedback from Thomas Nelson and Andrew Lamer.
- For 30% design report, we are welcome to include some technical aspects of our project but this will be a lot of work that we don't have to do. It is advised that we don't sacrifice time for more important things on including technical content in our 30% report.