

Date 11/17/25



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Good morning everyone and happy Monday. Hope everyone had a good weekend. Below is the information for this week for steel bridge.

Meetings This Week

- 11/18: Club meeting @6pm in 1249 engineering hall, design work: Working on assigned tasks
- 11/20: Club meeting @6pm in 1249 Engineering Hall, design work continued
- **11/23: Social** will be working on the bridge on Sunday starting at **noon** in room M1051. We will be going out for dinner afterwards.

Upcoming Deadlines

- **QUANTITIES; DUE DECEMBER FIRST**

Design Tasks/Meetings

- Continue to work on assigned tasks from meeting

Fabrication Tasks/Meetings

- Work on getting training done at Team Lab

Construction Tasks/Meetings

- None

Social Meetings

- 11/23: Social, workday on bridge and grabbing food after. Noon in room M1051

ASCE Meetings

- 11/17: Meeting @6pm EHall1610, GEI Consultants: GEI does all things civil/environmental/geotechnical so there will be a little something for everyone! Food will be provided.

Bridge of the week!!! Øresund Bridge/tunnel Denmark→Sweden

Ya that's right it is a bridge and a tunnel. The Øresund Bridge is the kind of project that feels like the engineers were showing off, but in the best possible way. It starts as a massive steel cable-stayed bridge with a 490-meter main span, carrying both cars on the upper deck and high-speed trains underneath (even better than self-driving cars) meaning the deck must be stiff enough for rail loads but light enough to survive the brutal Baltic winds. The steel box-girder deck was prefabricated in huge segments and lifted into place with floating cranes, then fine-tuned so the whole thing stays stable even in 120-mph gusts and under heavy dynamic train loading. But just when the structure is hitting its stride, it suddenly disappears into an underwater tunnel. That wasn't an aesthetic choice—Copenhagen's airport is directly in line with the bridge, so instead of building sky-scraping towers, they created an entire artificial island, Peberholm, to serve as a transition platform. From there, the roadway and tracks dive into a 4-kilometer immersed tunnel made from giant steel-reinforced concrete elements that were floated out, sunk, and precision-aligned on the seabed. The real engineering flex is making the flexible steel bridge, the rigid tunnel, and the man-made island all behave like one continuous system without introducing nasty stresses or rail misalignment. It's part bridge, part tunnel, part island, and 100% civil-engineering swagger.

