Project Status Report: CEEn-2017CPST-009: HSS Triangular Section Evaluation

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1) Summary of technical/non-technical challenges encountered

- Designing fixtures.
  - We are trying to design a fixture that can be used for multiple tests to reduce time between tests.
  - How to appropriately apply a swivel head to portray a true pinned condition.
- Torsion
  - Our calculations have determined that the machine we have available won't produce enough torque to break the samples.
- Determine the amount of total length needed for each shape.

2) Team approaches/resolutions to overcome challenges

- We met with Dr. Jensen to refine our previous fixture designs.
- Dave Anderson and Dr. Jensen are preparing a larger torsion machine that will apply appropriate force to break the samples.
- We have determined the lengths needed for each test and now know the total length that needs to be run before cut.

3) Status of challenge resolutions & potential project impacts

- After our meeting to discuss lab equipment capacities, we now understand the capabilities of the existing torsion machine and are making adjustments as mentioned above.

4) Project Status & Summary

- FEA has begun and is on schedule to be completed by February 15th.
- Order has been submitted to ATP containing length needed for each shape.
- End fixture designs will be submitted to ATP on January 31st.