

**Thesis Portfolio**

**Little Ivy Creek Bridge Replacement using  
Accelerated Bridge Construction Methods**  
(Technical Report)

**The Societal Repercussions of Haste in the American Innovation Model**  
(STS Research Paper)

An Undergraduate Thesis

Presented to the Faculty of the School of Engineering and Applied Science  
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Bachelor of Science, School of Engineering

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## Table of Contents

Sociotechnical Synthesis	1
Technical Report Title	2
STS Research Paper Title	56
Thesis Prospectus	79

## **Sociotechnical Synthesis**

This thesis reflects on the speed of innovation in America and the motives behind new development, while taking a look into the technical topic, Accelerated Bridge Construction, specifically represented by a case study of the Florida International University bridge collapse on March 15, 2018. By analyzing America's model for innovation, along with the FIU case study, and comparing it to that of China, this thesis intends to provide a juxtaposition of not only construction in China and the US, but also the difference in values between the two societies. In its capitalistic economy, the US continues to be at the top of global innovation, but lacks in production, rendering this current model inefficient. The thesis explores some of the different societal effects due to rapid/uncontrolled innovation and the emphasis of profit in American technology. It aims to shed light on the detriment caused by a society with a sweet tooth for new shiny things. The thesis also relies on several notable pieces of work and projects which I use to unpack the American standard and provide comparison of recent Chinese and American innovation in construction, more specifically, bridge building.