

The Site Design for a Hotel on Pantops, Charlottesville

(Technical Report)

Safety Showdown:

Divergent Approaches to Construction Site Safety in the United States

(Sociotechnical Research Paper)

An Undergraduate Thesis Portfolio
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by

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Construction is one of the most dangerous industries in the U.S. How may injury risk at construction sites best be reduced?

Developers plan to build a new hotel on a vacant lot in Pantops in Albemarle County, VA. The lot must be designed to optimize parcel use and hotel functionality. The hotel design criteria consist of a 14,000-square-foot footprint, adequate parking, and proper stormwater management. The design must meet all codes from Albemarle County, the Virginia Department of Transportation, and the state of Virginia while meeting the client's wishes.

In the U.S., construction companies, workers, unions, equipment companies, and technology companies compete to determine how construction safety can be improved. All of these groups value worksite safety, but they disagree about how safety is best pursued. While workers and their unions tend to value safety even at a significant cost to productivity, construction, equipment, and technology companies are more sensitive to the productivity costs of high safety standards.