

C2-02: Schulle Canyon Trail Foot Bridge

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Problem Statement

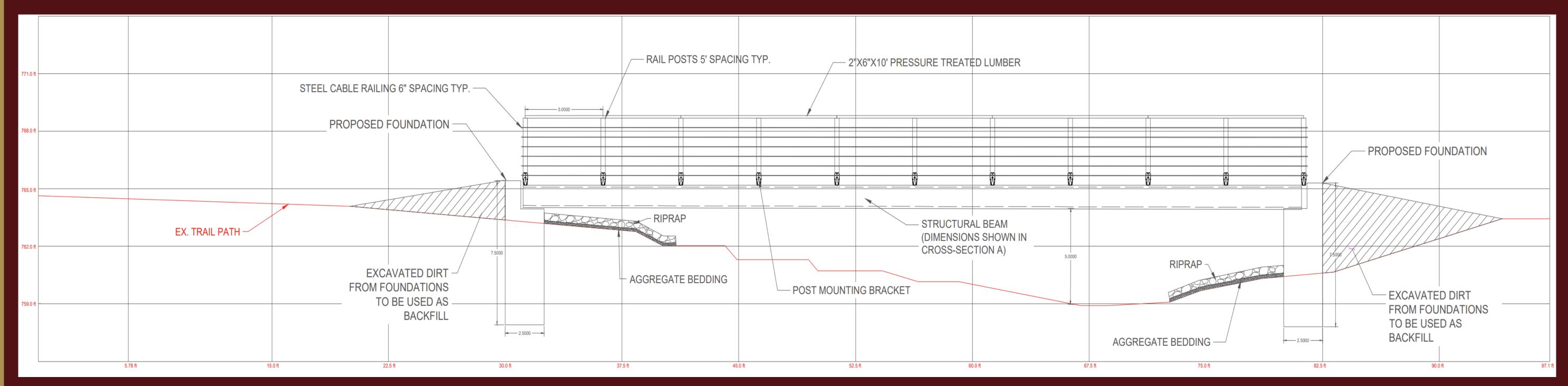
SMGA tasked us with improving the walking trail that crosses a small creek in the local natural area. The current path is a safety hazard during wet conditions.

Sustainability Evaluation

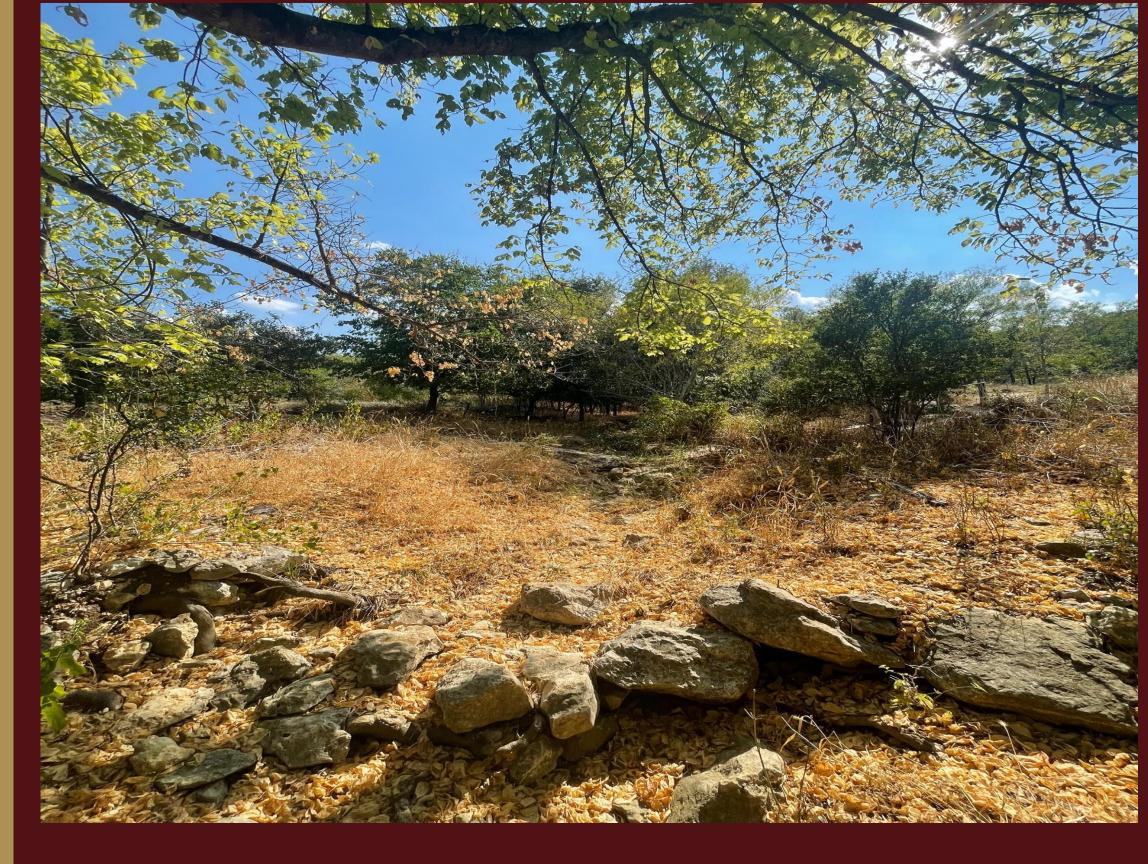
Quality of life was the main objective for sustainability. The trail safety and accessibility will be enhanced through the construction of a trail foot bridge to cross Schulle Canyon Creek.

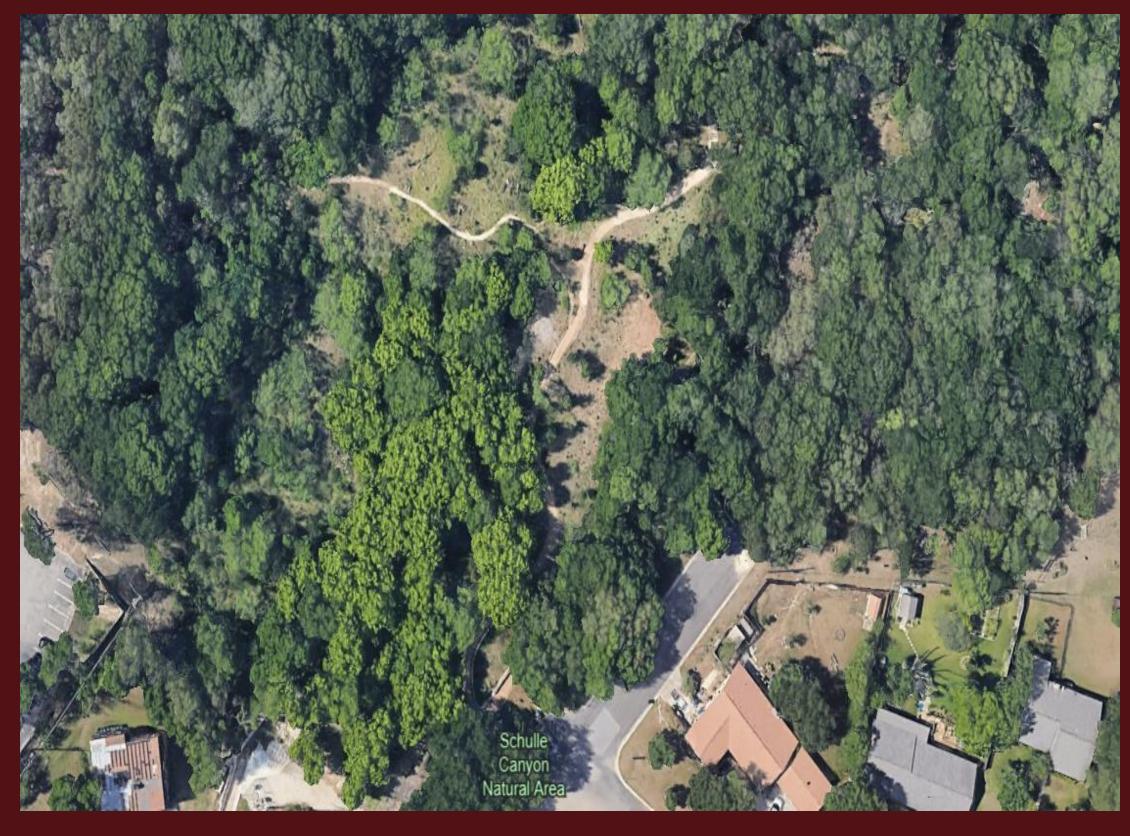
Standards and Codes

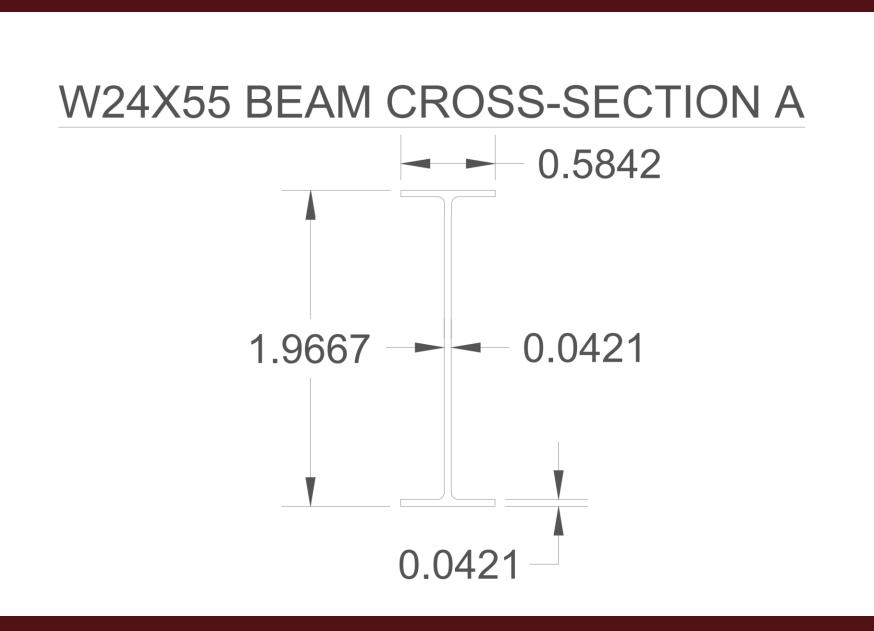
- "Foundation Design Principles and Practices" D.P. Coduto, W.A. Kitch, M. R. Yeung
- AISC Steel Construction Manual 15th Edition
- "2010 ADA Standards for Accessible Design" DOJ
- "Sustainable Trail Bridge Design" USDA
- "Principles of Trail Construction" California State Parks
- Envision Manual 3rd Edition

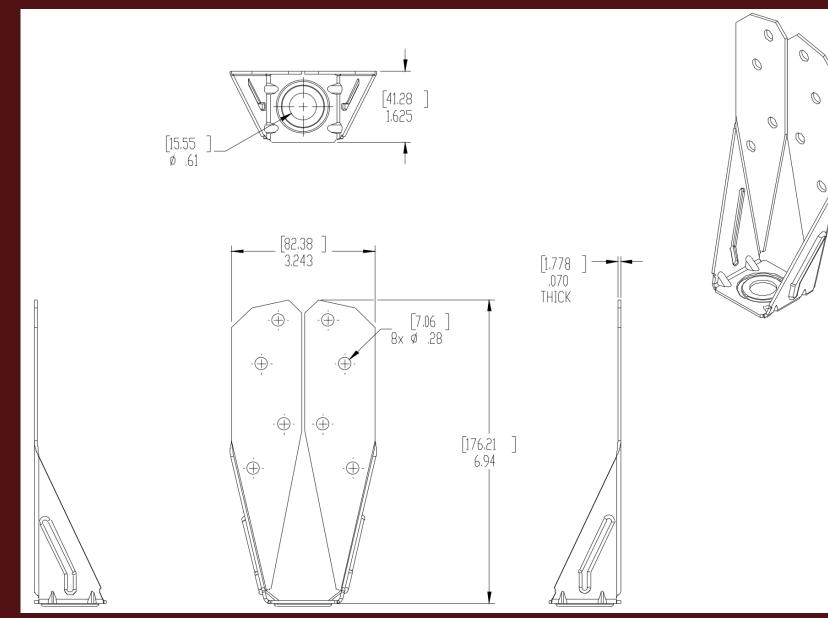


Site Images









Life Cycle Costs

Initial Cost	\$38,512	Years
Analysis Period (Years)	30	
Maintenance Costs	\$1,268	3, 6, 14, 17, 20, 27
Salvage Value, 30 Years	\$5,000	
Rehabilitation Costs	\$4,756	10, 20
NPV	\$48,425	