Goal

Our project is to design a bridge that allows the passage of vehicles over a creek. The bridge must be able to support emergency vehicles and must not alter the flow of the creek. Additionally, the area floods annual, so our design will need to accommodate the weather patterns.

Background

The Feenstra family lives on a 6-acre plot of land in Ottawa county. They would like to split the parcel in two and build a new house to better serve their family. However, there is a 14-foot-wide creek separating the two sides of the property. To access the house by car, a bridge needs to be built to allow the creek to be crossed. Additionally, the bridge must be able to carry loads from construction and emergency vehicles in case of an urgent situation.