Bridge Types

Factors to Consider in Selecting Bridge Type

• Geography
  – Gorge
  – River
  – Falls

• Loading
  – Vertical load from freight trains
  – Longitudinal load from braking and traction of trains

• Aesthetics
  – Unobtrusive to view
  – Visually pleasing
Bridge Types

- **Trestle**
  - Short spans supported by frames
  - Commonly used by railroad in 19th and early 20th centuries
  - Constructed of wrought iron, steel, or timber
Bridge Types

Proposed Trestle Bridge

- Girder spans supported by tower bents
- Steel construction
Bridge Types

- **Truss**
  - System of straight, connected elements used to resist load
  - Commonly seen as through truss or deck truss
  - Popular in 19th and early 20th centuries
  - Constructed of wrought iron, steel, or timber
Bridge Types

Proposed Truss Bridge

• Two-Span Continuous Deck Truss
• One Pier at Mid-Span
• Steel Construction
• Arch
  – Transfers load through arched element as horizontal thrust at abutments
  – Oldest bridge form
  – Constructed from stone, concrete, or steel
Bridge Types

Proposed Arch Bridge

- Spandrel-Braced Arch
- Abutments on Gorge Walls
- Steel Construction
Bridge Types

• Do you have any questions or comments on the bridge types selected for consideration?