Blueprints or plans of the bridge will be very helpful during the final construction. Four views should be drawn:

1. END VIEW
2. SIDE VIEW
3. ROADBED
4. TOP VIEW

Construction tools:
- Building Board (a THICK sheet of corrugated cardboard)
- Straight Pins, to hold pieces in place as glue dries
- Single Edge Razor Blade, or X-Acto® knife, for cutting
- Waxed Paper, to cover the plan (blueprint) as you build on top of it
- Ruler or other device for measuring
- 15 pieces of wood and a 2/3 oz. bottle of glue
The bridge must be built within these dimensions:

<table>
<thead>
<tr>
<th></th>
<th>Bridge</th>
<th>Roadbed</th>
<th>Optional Underhang</th>
<th>Testing Platform*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length</td>
<td>250 to 300mm</td>
<td>200 to 300mm</td>
<td>Less than 180mm</td>
<td>50mm</td>
</tr>
<tr>
<td>Width</td>
<td>50 to 75mm</td>
<td>50 to 75mm</td>
<td>50 to 75mm</td>
<td>50mm</td>
</tr>
<tr>
<td>Height</td>
<td>Less than 100mm</td>
<td>Less than 50mm</td>
<td>Less than 20mm**</td>
<td>7mm</td>
</tr>
</tbody>
</table>

* Testing Platform will be provided and should be integrated into your bridge (see enclosed sketch for details)

** Included in the overall height of the bridge

Only the provided materials should be used in the construction of the bridge. Wood pieces may be bonded together with glue only at joints, and may not be laminated together in parallel fashion. If two or more strips of wood are placed parallel to each other, they must be at least the thickness of this page apart from each other. Splitting is not allowed. Lamination of wood pieces is allowed for high school students. All bridges must contain a truss design element.

MIDWEST PRODUCTS CO., INC.

Courtesy: 405 S. Indiana St. P.O. Box 504 Hobart, IN 46342

www.midwestproducts.com
4th - 8th Grade Parameter

Sketch of the Testing Platform

(All dimensions in cm)

Note: Figure Not Drawn to Scale

Dimensions of the wooden board:

Length = 50 mm
Width = 50 mm
Height = 7 mm

A wooden board has been provided which can be used as a testing platform. The board should be kept at the center of the roadbed on the bridge. The board has been fixed with a hook to which weight will be attached.
High-School Parameter

Sketch of the Testing Platform

(All dimensions in cm)

Note: Figure Not Drawn to Scale

Dimensions of the wooden board:

Length = 50 mm
Width = 50 mm
Height = 7 mm

A wooden board has been provided which can be used as a testing platform. The board should be kept at the center of the roadbed on the bridge. Load will be applied from above the board.