

Testing Procedure

Load testing will begin at noon on Saturday, April 4th at Woodgrove Centre. The competition will continue until all of the bridges have been tested. Bridges are tested to failure, so remember to take your pictures early!

The loading platform will be suspended from each bridge deck. Weights will be continually added to the platform until the bridge **collapses** or **deflects more than 50 mm in any direction**. The last weight supported prior to failure will be recorded as the bridge's maximum capacity.

Bridges will be ranked according to their capacity and prizes will be awarded after all testing has been completed.

Building materials are available in construction kits containing approximately 125 Popsicle sticks, glue and instructions.

Cash/Gift Card Prizes Awarded for:

- First, second and third in all four age categories based on capacity.
- First, second, third for most innovative design.
- There will also be prizes awarded for most innovative bridge design.

2020 POPSICLE STICK BRIDGE BUILDING COMPETITION

BROUGHT TO YOU BY...



**ENGINEERS & GEOSCIENTISTS
BRITISH COLUMBIA
&
WOODGROVE CENTRE**

**APRIL 4TH, 2020
NOON-3:30PM
(IN FRONT OF SEPHORA)**

Building kits will be available from January 20th to April 2nd, 2020. Please contact Shannon Summersides to get yours!

ssummersides@heroldengineering.com
250-751-8558

Location

Woodgrove Centre (in front of Sephora) – April 4th, 2020

Contest Format

The contest is open to all interested groups and individuals with the competition divided into four categories:

- Age 8 and Under
- age 9 and 12
- age 13 to 16, and
- age 17 and over

How to Enter

Bring your completed bridge to Woodgrove Centre on April 4th between 11:45AM-2:00PM. Please **do not** bring bridges to the mall prior to the event for storage.

Your Mission

To build a bridge out of Popsicle sticks and glue that:

- MUST BE **LONGER** THAN 500mm
- carries the heaviest load,
- features an innovative design, and
- meets the requirements listed below

Notes on Bridge Construction

The completed bridge is to contain a maximum of **100 popsicle sticks** joined together with **glue**. Cutting the sticks is ok. White glue is suggested, but other glues will also be allowed. Pinning or other connections will result in disqualification.

As shown in the figure below, the bridge must be:

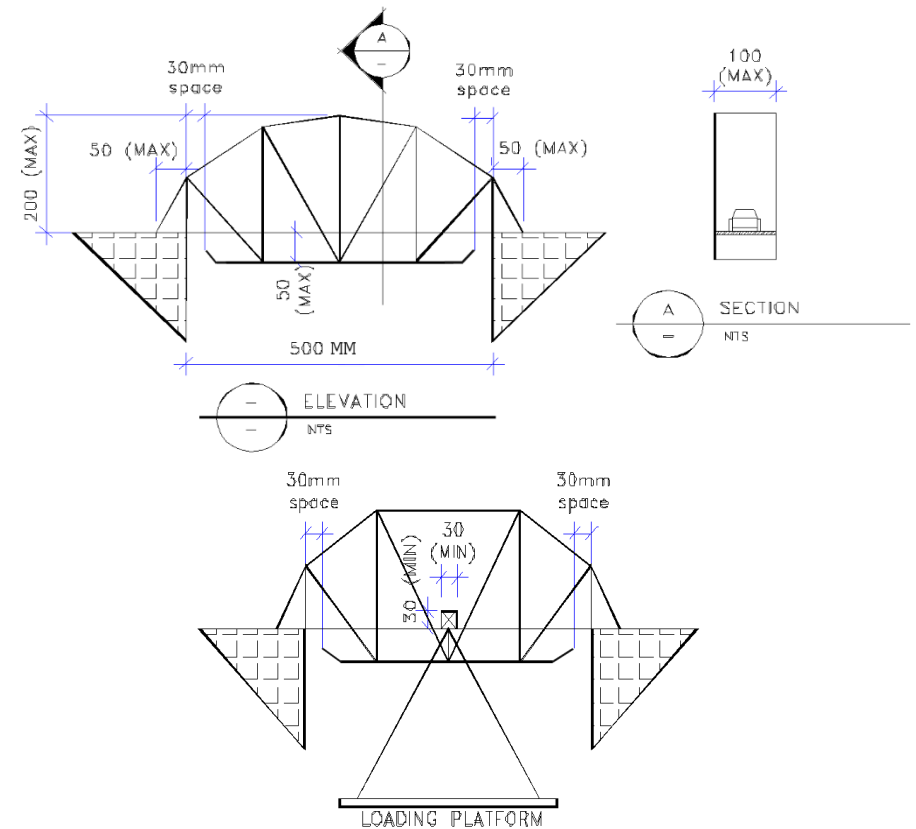
- **Greater than 500 mm** in length
- **At least 50 mm** wide for the entire length
- **Level**; no significant incline or decline in the surface is permitted
- The surface does **not** have to be solid
- **Less than 100 mm** wide
- **Less than 200 mm** high
- Protrude **no more than 50 mm below** the bottom of the bridge deck.
- Be **free from the support** by 30 mm on each side.

These rules are treated as general guidelines. The event is intended to be FUN!

Questions? Email to ssummersides@heroldengineering.com

Bridge Load Testing

The bridge will be loaded via **one** or **two** loading bars. To accommodate the loading bars, **30 mm x 30 mm gaps** must be provided between the vertical members of the bridge – see the figure below. The gaps are to be continuous through the entire width of the bridge and allow the bars to sit directly on the bridge deck.



This event brought to you as part of Engineering and Geoscience Month in BC. For more information on Engineers and what they do, check out:

<http://www.egbc.ca>