

Professional Engineers
and Geoscientists of BC
www.apeg.bc.ca

15th ANNUAL ULTIMATE BRIDGE BUILDING CONTEST

Saturday February 25, 2012
Pine Centre Mall at Centre Court

Contest Rules and Guidelines

First Rule is to have fun building your bridge!

Registration:

1. One entry per person (or team).
2. Contestants are encouraged to register in advance to speed up registration on the day of the event. A limited number of registrations can be accepted on the day of the event. Please email or fax your completed registration form to ci@apeg.bc.ca or faxed to (250) 563-1941 by February 20th, 2012. The registration form and additional contest information can be found on our website www.apeg.bc.ca/ci.

Bridge Construction:

1. Bridges must be built using a maximum of 100 standard popsicle sticks and standard all-purpose white glue. No other glues are acceptable (including carpenter's glue). Construction paper or regular weight bond (no cardboard) is permitted on the bridge deck only.
2. The popsicle sticks must be left whole. They cannot be cut or split.
3. The bridge is required to span a 500 mm gap and should be long enough to have a bearing area on both ends beyond 500 mm (i.e. 50 mm excess on either end for a total length of 600 mm). The bridge must incorporate a flat area to attach the loading mechanism (see drawing on next page).
4. A deck capable of supporting a "Hot Wheels" type toy car shall be included in the design. The car must be able to roll across the deck.
5. Bridges will be inspected during registration. Any violations of the rules above will result in disqualification from the prizes; however, the contestants will still be able to test the bridge.
6. Feel free to add some colour to your bridge if you wish.

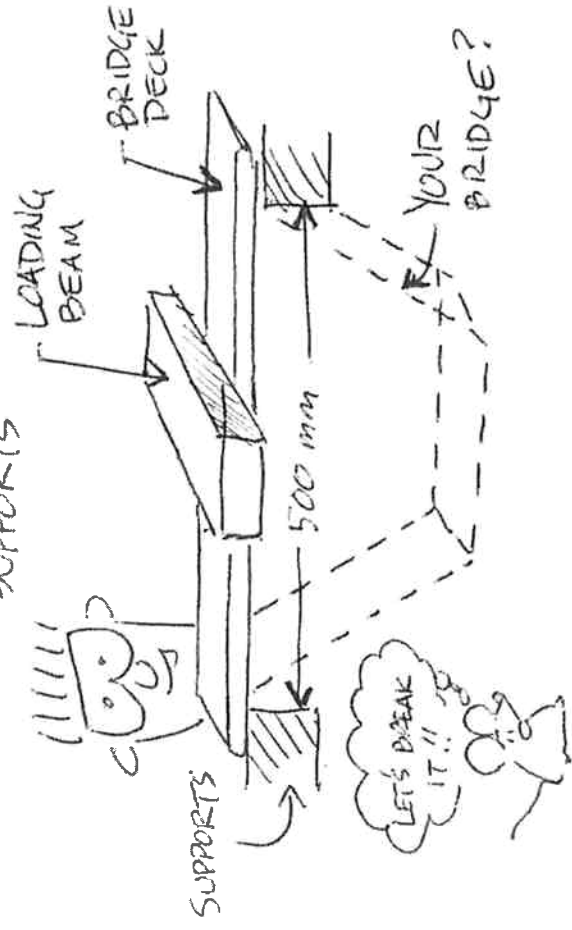
Judging Criteria:

1. Bridges will be judged separately on the basis of aesthetics and the ratio of load carrying capacity to bridge mass.
2. Bridges will be weighed upon registration on the day of the event.
3. There will be 5 categories for the contest: Primary (Grades 1 through 3), Intermediate (Grades 4 through 7), Secondary (Grades 8 through 12), Professional and Open Adult.

Bridge Testing:

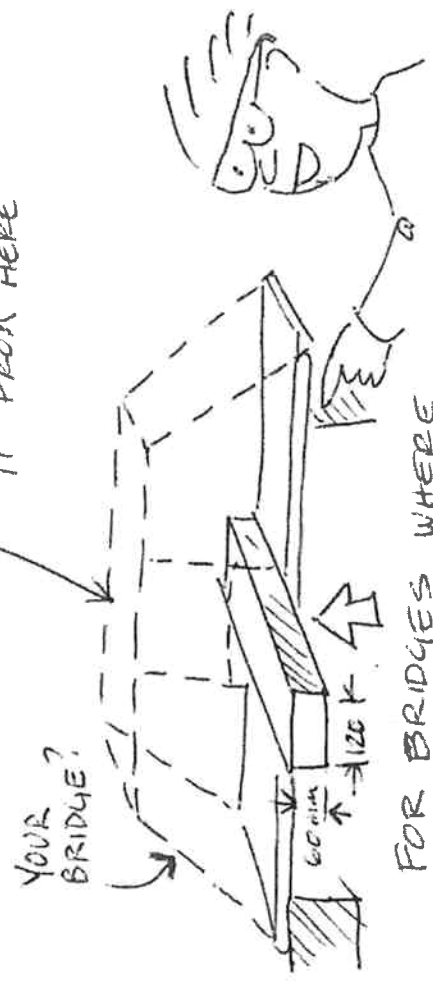
1. Bring your built bridge to the contest.
2. The bridges will be loaded as close as possible to the bridge deck. Sufficient space must be provided for the loading mechanism. Arch or truss-type bridges with the deck below the truss will be loaded on the top unless a minimum 12 cm space is provided through the truss or arch.
3. All contestants and officials within the loading area must wear protective eyewear (provided).
4. The contestant (or parent/adult) will load their own bridge.
5. A strain gauge will record the maximum load that each bridge carries prior to failure.
6. The recorded load will be divided by the bridge's mass to determine the load/mass ratio.
7. The highest load/mass ratio will determine the winners. In the event of a tie (same load/mass ratio) the lighter bridge will win.

MAKE YOUR BRIDGE
SLIGHTLY LONGER
THAN 500 mm SO
IT SITS ON THE
SUPPORTS



TOP DECK STYLE

IF THERE'S NO
ROOM WE'LL LOAD
IT FROM HERE



FOR BRIDGES WHERE
THE DECK IS LOWER THAN
THE STRUCTURE, MAKE SURE
YOU LEAVE ENOUGH ROOM TO
PLACE THE LOADING BEAM.

BOTTOM DECK STYLE