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Room: C

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Presentation title:

CONDITIONS UNDER WHICH THE DOWNSLOPE INTERVAL BETWEEN AVALANCHE PREVENTION BRIDGES CAN BE INCREASED AND CONSIDERATION OF CONSTRUCTION COST SAVINGS

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Summary:

To prevent avalanches, supporting structures in the avalanche starting zones are designed to anchor the snow in its place on slope. One of them which have horizontal bars is called snow bridges. These avalanche prevention bridges are installed as a major structure to prevent avalanches for roads in Japan. According to the current design method, the interval between bridges in the slope direction is proportional to the design snow depth. It means that more bridges are required in regions where snow is not as deep due to shorter slope distances between bridges. This paradox means also construction costs will be higher in regions with less snow. To clarify the range over which the slope distance between avalanche prevention bridges can be increased from the current design value, we conducted field tests and theoretical examinations with related to construction costs of bridges.

