

WHY WE BUILD **FLOATING** BRIDGES ON LAKE WASHINGTON

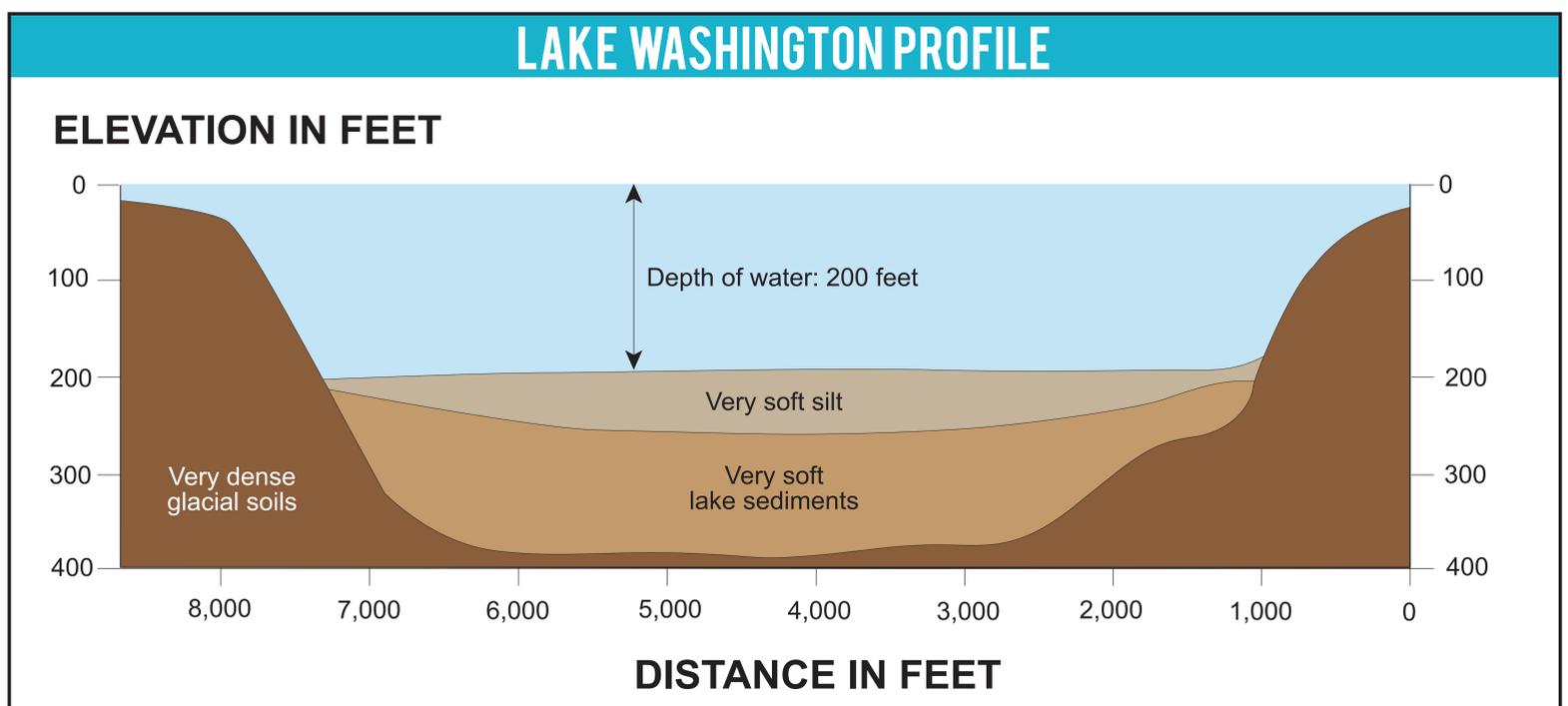
Three of the world's five longest floating bridges are right here on Lake Washington: the one you now stand on, and I-90's eastbound and westbound bridges between Seattle and Mercer Island. (We're not including the old SR 520 floating bridge because it won't be here much longer.)

Why, you may wonder, do we have floating bridges on this lake and not fixed bridges like the Tacoma Narrows or Golden Gate bridges?

GEOLOGY, TOPOGRAPHY FAVOR FLOATING BRIDGES

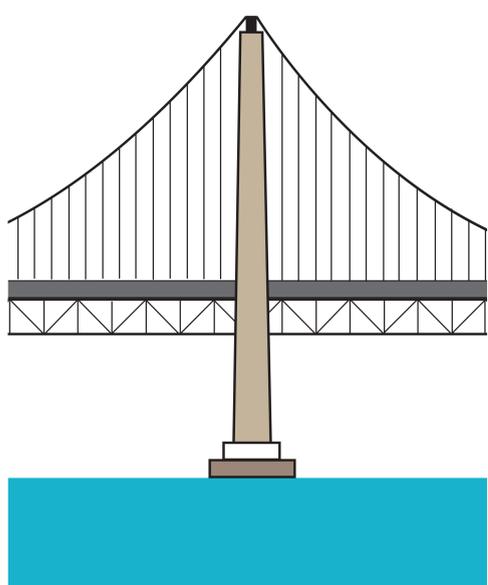
Lake Washington is a deep lake, with depths exceeding 200 feet. What's more, beneath the lake's floor lie thick layers – another 200 feet or so – of soft silt and mousse-like sediment called diatomaceous earth. This prehistoric goo consists of fossilized algae deposited by the Ice Age glacier that carved Lake Washington.

Because of the lake's deep waters and mushy bottom, the foundations for a fixed bridge's support towers would have to be extremely deep to reach dense soils.

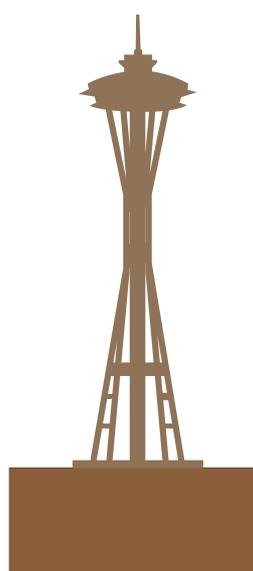


COST, AESTHETICS ALSO SUPPORT FLOATING BRIDGES

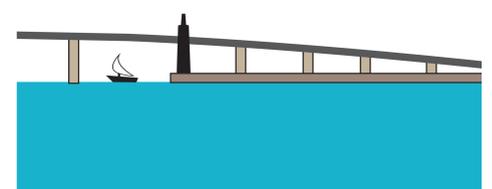
A fixed bridge across Lake Washington would cost more than a floating bridge because of the massive support towers and long roadway spans required. The towers for an SR 520 suspension bridge would have to rise approximately 630 feet above the water – taller than the Space Needle! Such huge structures would block views and be out of character with the surroundings.



Tower height of an SR 520 suspension bridge: 630 ft



Height of Space Needle: 605 ft



Height to top of new bridge's east sentinel: 122.5 ft