

The same have a diameter of not less than half an inch, and if properly coated with paint, should last as long as the steel pipe.

LIFE OF SUBMERGED MAINS

The life of a flexible cast-iron submerged main under the Narrows of Burrard Inlet, has proven to be about 15 years at the First Narrows, owing to the corrosive action of the salt water and the cutting effect of the sand and gravel wash at the mouth of Capilano Creek, carried backward and forward over the pipes by the swift current of the Narrows.

As the conditions at the Second Narrows are slightly different there is not sufficient data to form an opinion as to the life of the pipes here.

GENERAL

In designing pipe lines a factor of safety of four has been adopted for the strength of pipes against static pressure in the supply mains, but in some cases this strength has been exceeded, where the question of durability and other considerations form important factors.

The nature of the soil in which the pipes are embedded, along both Capilano and Seymour Creeks, is chiefly glacial clay, sand, gravel and boulders. Throughout the city it is somewhat similar, except in a few places soft sandstone and hardpan beds are encountered.

Dredging operations have been started at the First Narrows of Burrard Inlet to widen out this channel to improve navigation. It is proposed to widen the channel along the northerly side for a width of about 800 feet, with a depth over the dredged area of 30 feet at low water. The two new 18-inch submerged mains will be placed about 300 feet easterly from the last main hauled, and will cross the newly dredged bottom. After these pipes have been put into use, the six old pipes will then be removed as dredging operations are carried forward over this other section. The renewal of these pipes will be gone ahead with as soon as the dredging is finished, but instead of using 12-inch pipes as formerly it is proposed to use pipes with a diameter of 18 inches.

The supply main along Capilano Creek, with the exception of a short section at each end and a section adjoining the canyon tunnel are laid along a public highway, through the Municipality of North Vancouver.

The Seymour Creek supply system from the intake down to the Second Narrows, with the exception of a short section at the lower end, extends along a private right-of-way 66 feet in width, with extra land at the intakes and at the Second Narrows, all owned by the city.