

(iii) The approaches on the south side impair St. Mary's Bay, while the causeways on the northern side cut off large areas of Shoal and Ngataringa Bays and prejudice their possible development.

(iv) The northern approach does not lead directly to the future centre of gravity of the North Shore population, though favourably located to serve the needs of the Borough of Devonport, which in 1929 was by far the most populous of the North Shore boroughs. The Devonport Borough Council, however, fears that a bridge will prejudicially affect the local passenger ferry service, and considers that, because of the greater travelling distance involved, it will be of little value to Devonport residents. We do not subscribe to this view.

These objections, we consider, can be overcome by altering the alignment of the bridge and its approaches as follows: while retaining the position of the northern abutment in the position chosen by the 1929 Commission on Stokes Point, Northcote, it is recommended that the axis of the bridge be swung 12° to the west, thereby becoming more nearly normal to the direction of maximum currents and thus facilitating navigation for large ships. On this alignment the southern abutment would be located on a reclamation at the west end of St. Mary's Bay boat harbour below Point Erin Park and close to the foot of the cliffs. In this position the bridge would clear by an adequate margin the roadway formed along the St. Mary's Bay breakwater. The existing reclamation, now used as an area for hauling out yachts and other small craft, would be widened to accommodate the road approach and toll-collection facilities. This would necessitate the provision of another hauling-out area at St. Mary's Bay or elsewhere, which, however, would present no difficulty. One branch of the approach would turn eastward to connect with Fanshawe Street, by means of a waterfront road skirting the cliffs. In this position the road approaches would not impair the boat harbour. Furthermore, we consider that a waterfront road in this location would be a civic amenity and would form the first stage of a future continuous highway, by-passing built-up areas and linking with the future northern highway to Whenuapai.

Large quantities of spoil will be required to form the southern approach along the foreshore of St. Mary's Bay and to reclaim an area at the western end of the boat harbour adjacent to the southern abutment of the bridge, where the approach has to be widened to accommodate toll-collection facilities. The best means of obtaining this spoil would be to dredge it from the bed of the boat harbour. The consequent deepening and enlargement of the mooring-space would be very advantageous. Dredging by itself can be a comparatively expensive process, but if combined with reclamation in the manner we suggest the cost becomes quite reasonable. We have dealt at some length with the subject of the boat harbour because we regard it as a very valuable civic asset. Such an opportunity to carry out dual-purpose dredging seldom occurs, and we recommend this instance as one that should not be lost.

A second branch of the approach would connect with the foot of Curran Street and Sarsfield Street, providing useful direct access to existing arterial streets leading to the higher levels of the city and to its north-western and western suburbs. A point of importance is that, while the airport remains at Whenuapai (which may be for many years), the route via Curran Street and the Great North Road would provide direct and easy access from the North Shore to the airport.

Still another point in favour of the alignment we have chosen may be mentioned as of possible future importance. Should the traffic volume of the distant future warrant duplication of the bridge, the second structure could be sited close to and parallel with the original structure and its southern terminal could be sited on the top of the cliff fronting Point Erin Park about 60 ft. above sea-level. In this position, by means of a simple variation of the gradient proposed for the original structure, the new bridge would give easy and direct connection with existing city streets on the higher levels, while the original structure would continue to distribute traffic to and from the low-level