

Burnside and Ross Island Bridges and Their Relation to Traffic

A Substantial Argument in Favor of the Two Proposed Portland Bridge Measures on the Election Ballot

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TWO BOND issues for Portland bridges will be voted upon at the general election on November Seventh. These bond measures, if enacted, will provide the funds for the construction of the proposed bridges across the Willamette river at Burnside street and in the vicinity of Ross Island. The amounts to be voted upon being \$3,000,000 for the Burnside bridge and \$1,600,000 for the Ross Island bridge. Before the measures were put upon the ballot by the County Commissioners, the matters of the need of bridges and of the cost of the same, as well as the general design, were carefully considered by the City Engineer's office and the estimates were based upon a design made from this office.

While there will be some local benefit derived from the construction of the proposed bridges, virtually the only real problem to be considered is that of facilitating traffic across the Willamette river. That the present bridges are inadequate to accommodate the vehicular traffic during rush hours is apparent to anyone who needs to cross the Willamette river. As it will probably be at least two years before the new bridge can be thrown open to traffic in case the bond issues are approved, the congestion at that time will undoubtedly be considerably greater, as the traffic counts on the bridges show a steady increase from year to year, this being caused partly by the growth of the city and partly by the increase in the number of automobiles in use.

At present the Hawthorne and Broadway bridges carry the bulk of the cross-river traffic, the travel on these two bridges being considerably more than the other three combined. The excessive traffic on the Hawthorne bridge is principally accounted for by the fact that there is no other bridge which can conveniently take the traffic from the district on the East side of the river running south of Hawthorne Avenue, which is also augmented by the fact that the present Burnside bridge has been limited as to traffic on account of the bridge not having been designed for the heavy loads now commonly crossing the bridge. The Burnside bridge is also avoided by many drivers on account of the frequency of the draw opening. That this interferes largely with traffic is shown by the fact that during August, 1922, the Burnside street bridge was closed to traffic on account of draw openings for fifty-three hours, while the Broadway bridge was closed for nine hours.

Although the Broadway bridge carries more vehicular traffic than the Hawthorne bridge, the latter is the most seriously congested of any of the

bridges during the rush hour, this being due principally to the arrangements of the roadways and the width of the same. The Broadway bridge has a wide roadway, while the Hawthorne bridge has a narrow roadway for vehicles between trusses and a single track roadway on each side used jointly by street cars and fast moving vehicles. The congestion is also greatly increased on account of the traffic crossing Front street at grade. Much delay being caused at this point on account of the interurban cars using Front street. The Burnside street bridge at the present time is of comparatively little value for cross-river traffic.

In August, 1922, only 6400 vehicles used this bridge per day, while 15,000 used the Hawthorne bridge and 19,000 the Broadway bridge. This shows conclusively that much of the traffic which normally would use the Burnside street bridge, was averted to the other bridges, as Burnside street bridge offers a direct and convenient connection between the West Side business district, the East Side business district and a large district in the eastern part of the city, as well as being the most direct avenue to the Columbia River Highway. The fact that the present Burnside street bridge carries so much less than its proper share of the traffic is due principally to the following points:

1. The present bridge is not designed for present heavy traffic and the traffic is now restricted to light vehicles and to a limited number of street cars.
2. The roadway is only sufficiently wide for three lines of travel. The street cars being placed on the outside of the roadway leaves only one line of traffic for slow-going vehicles.
3. The grade of the bridge is so low that the draw must be opened for practically all steamers, even at low water, and this results in a great loss of time, as pointed out above.
4. The grade of the bridge approach crosses Front street and First street at grade. This causes considerable congestion, as it is necessary for north and south bound traffic on the West Side to cross the stream of traffic on the bridge.
5. The streets leading to the bridge, both on the East and West sides are only 60 feet in width and are occupied by car tracks.

Practically all of the bad features of the Burnside bridge covered above, are corrected in the proposed design for the new bridge. The bridge of course is designed for heavy traffic loading, which in all probability will not be exceeded in a period of fifty years or more. The roadway proposed on the bridge is 66 feet between curbs, which will easily

accommodate three lines of traffic in either direction, this roadway being wider than any bridge now in use in the city of Portland. The bridge as designed will have a clearance above high water of 40 feet, this being practically the clearance of the Broadway bridge, which will accommodate ordinary river steamers without the necessity of raising the draw span. For ocean going vessels a double Bascule draw span is provided which will operate similar to the present Broadway bridge, except that no trusses will extend above the roadway of the bridge, all of the trusses and machinery being concealed beneath the surface.

The proposed bridge as designed conforms with the water front scheme which was developed in this office about three years ago. This plan, as it affected the Burnside street bridge, contemplated that all interurban railroad lines would come into the city along the water front, the Burnside bridge being elevated above the tracks. This would do away with the grade crossings of the Oregon Electric railway at Front street and Tenth street and the crossing of the Southern Pacific lines at Fourth street. The new bridge would also be elevated above Front street and First street so that traffic going north and south on the West Side could cross Burnside street without interfering with or being stopped by the traffic on the Burnside bridge.

There are at present under way in this city, proceedings for the extension of Sandy Boulevard from its present terminus at 16th street to a connection with East Couch street at East 14th street and East Burnside street at East 13th street; also for the widening of East Burnside street from an extension of Sandy Boulevard to the Burnside bridge, from its present width of 60 feet to a width of 90 feet, and of East Couch street from the Sandy Boulevard extension to East 3d street from its present width of 60 feet to a width of 80 feet. The bridge plans provide for a connection from East Couch street as well as on East Burnside street and this will greatly facilitate traffic reaching the bridge on the East side. On the West Side the bridge proper will extend to 3d street and the plans provide for the widening of the same from its present width of 60 feet to a width of 90 feet, and also a flaring intersection east of Third street so as to provide an easier entrance onto the bridge. There will also be a connection with the Burnside bridge on Second street. It is also proposed to widen Burnside street on the West Side as far west as Washington Street. All

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