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HAMILTON ENTRANCE OF TORONTO-HAMILTON HIGHWAY

PRESENT ROUTE HAS DANGEROUS CURVES AND BAD GRADES—
TWO ALTERNATIVE ROUTES CALLING FOR BRIDGES AND ONE
REQUIRING FILL—DISCUSSION OF THEIR RELATIVE MERITS.

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At the time construction work was commenced on the Toronto-Hamilton concrete highway, there were certain sections, particularly at the western end, which had not been definitely located. For the section between Burlington and Hamilton it was finally decided to follow what is known as the Plains Road, which lies north of Burlington Bay, about one-eighth to one-quarter of a mile from the shore.

This road enters Hamilton across a deep, wide valley, which forms the end of the bay and the present route is a

narrow, steep and tortuous one, winding down to a low bridge past an old wayside hotel which gives to this part of the road its name—the Valley Inn Road.

On its climb up the western side of the valley the road passes under the Grand Trunk Railway main line tracks to Toronto, and four hundred yards further on it runs over the Grand Trunk Hamilton - London branch and the Canadian Pacific Guelph Junction branch, and comes into the city over what is known as the High Level bridge via York Street.

The plan of this present route is shown on the accompanying map (Fig. 2) and a profile of it on Fig. 5. The total drop in this section is about one hundred feet and in a distance of 4,000 feet there is 3,600 feet on a grade averaging $5\frac{1}{2}$ per cent., being as steep as $11\frac{1}{2}$ per cent. at one point. It has more than 620 degrees of curvature in this distance. At the overhead Grand Trunk Railway crossing there is a sharp reverse curve on a $7\frac{1}{2}$ per cent. grade where a driver has a view ahead of not more than 50 feet. (See Fig. 3.) This view is often still further obstructed by dust and smoke from passing trains, while the noise from them prevents any signals being heard. For traffic such as is expected on the Toronto-Hamilton highway, the whole section, and this spot in

particular, would be dangerous, and in spite of any little local improvements which might be made, it would greatly impair the usefulness and efficiency of the whole scheme as far as Hamilton and the west are concerned, to attempt to utilize the present location.

While only half of the Valley Inn Road lies inside of the city of Hamilton, its improvement is not only of interest to the city in connection with the Toronto-Hamilton highway but the scheme of improvement adopted will have an important bearing on the whole problem of future

entrance routes into the city from the north. So limited and difficult is the approach of Hamilton from this direction that the whole question deserves special attention, and it is very desirable that whatever is now done may be made to work into a general scheme which will ultimately provide for all future needs.

The proposal first submitted by the engineers of the Highway Commission is shown on the map and profile as Route 1. Its principal feature is the large fill and the corresponding heavy cuts. It

would save about 38 feet of the 100-foot drop and improve the curves of the road. The present Grand Trunk Railway overhead crossing would still be utilized and made somewhat less dangerous. There would still be 1,750 feet of 4 per cent. and 1,150 feet of 4.75 per cent. grades; this latter being steeper than the standard maximum grade adopted for the rest of the highway.

Route No. 2 has been developed by the engineers of the Hamilton Bridge Works Co. at the request of the city Board of Control. It involves the building of a high level bridge 1,620 feet long. By it the shortest practicable route is obtained and grades and curves are all but eliminated. Considering only the problem of bringing the



Fig. 1.—Bird's-eye View Showing Proposed Valley Inn Bridges, Hamilton (Route No. 3).