naskis River, which runs into it at a point 53 miles west of Calgary.

Before entering upon a description of the Kananaskis Falls development, the attention of our readers should be called to the reference in *The Canadian Engineer* of June 4th, 1914, to the proposed hydro-electric plant of the Dominion Government at Banff, Alta. The storage possibilities of Lake Minnewanka were outlined therein. During the winter of 1912 the Calgary Power Company entered into an agreement with the Department of the Interior whereby the former was given the right to create a storage at this point. This involved the construction of a dam in Devil's Canyon, the outlet of the lake. The dam is a solid concrete structure about 100 ft. in length

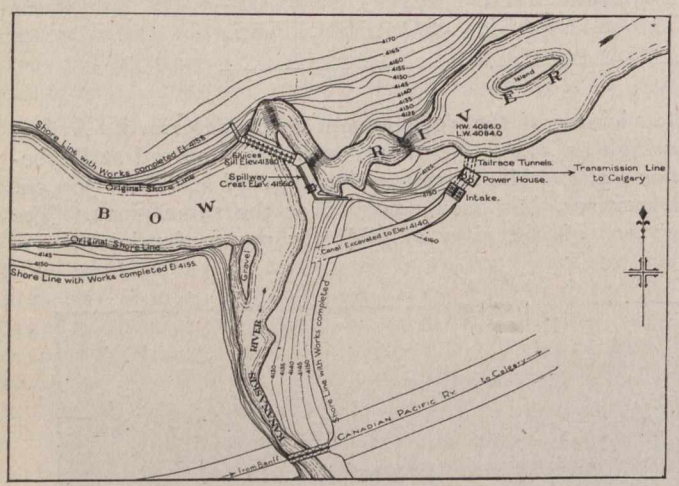

Fig. 2.—General Layout of Power Development.

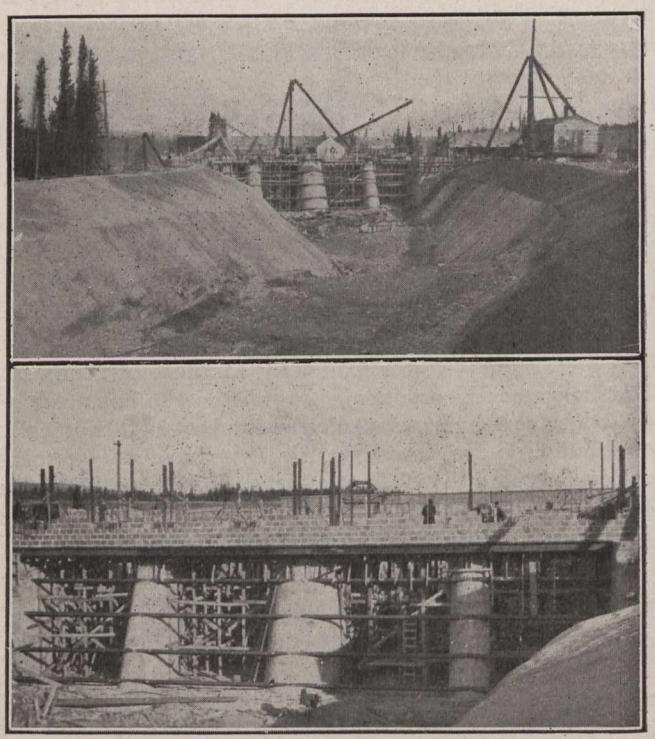

Fig. 3.—Canal and Head Gates Under Construction.

and 55 ft. at its highest point. It is provided with three stop-log sluiceways and a low level sluice controlled by a gate valve, as illustrated in the article previously referred to. The dam was completed in May, 1912, and storage commenced.

Kananaskis Dam.—In the same year the Calgary Power Company was given the right to develop power at Kananaskis Falls, about 2½ miles above the then almost completed Horseshoe Falls plant. A total drop of about 40 ft. existed at that point and, by the use of a dam at the top of the falls a total head of 70 ft. is gained. Surveys of the site were carried out in considerable detail in the late fall of 1912, and designs for the plant were worked out forthwith. The layout shows a dam across the head of the falls immediately below the point at which the Kananaskis empties into the Bow, a canal along the south side of the river, an intake, wheel pit, power house, and tailrace tunnels to deliver the water back to the river below the falls. The arrangement is illustrated in Fig. 2. The dam, construction views of which appear in Fig. 1, has a total length of over 800 ft., including wing walls. It is 57½ ft. in extreme height and has eleven stop-log sluiceways 18 ft. in width and 14 ft. below the spillway level. It will raise the water level about 59 ft., backing it up into the Kananaskis River and necessitating the raising of a two-span bridge of the Canadian Pacific Railway on its line from Banff to Calgary

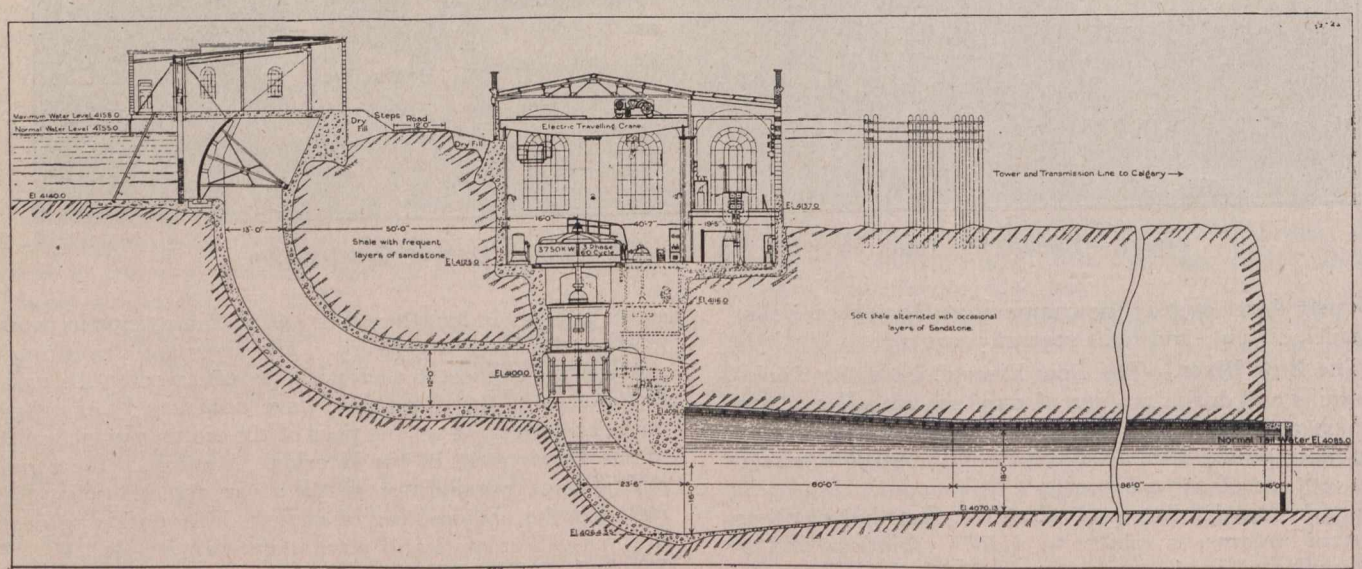

Fig. 4.—General Section of Development.