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Contour Canal System

To Follow 310ft. Line Across Country

£500 MN. ENGINEERING PROJECT SUGGESTED

DEVELOPMENT of a one-level inland waterway linking the major Ports and industrial centres in England is advocated by Mr. J. F. Pownall, a Birmingham civil engineer. Mr. Pownall has recently been seeking support for his project among Merseyside lighterage concerns.

The scheme is based principally on the fact that the 310ft. contour could link London, Bristol, Southampton, Birmingham, Manchester, Leeds and Newcastle. Existing canals would form branches to a canal excavated along this contour line. Mr. Pownall proposes provisionally that the "Grand Contour Canal" should be 100ft. wide at the top, 17ft. deep and with a clear headway of 25ft. Vertical-lift locks would be needed at the termini, the tanks of which would admit vessels within the dimensions of 250ft. long by 35ft. wide and 14ft. draft. Nine locks of this size would be needed to connect with low-level waterways.

The longest principal route runs from the Tyne lift near Newcastle to Hertford, whence access to London docks is made by way of the Lee Navigation, greatly enlarged. The first part contours along the foothills on the east side of the Pennines, and then crosses the range from Airedale to Ribblesdale by a six-mile tunnel. The route skirts Manchester and later passes north of the Black Country, but throws off a branch to Birmingham near the village of Drayton Bassett, near where also would be an earth aqueduct across the Tame valley, the longest aqueduct in the entire system.

POINT-TO-POINT CONNECTIONS

The route to Bristol, in the last mile, tunnels under Kingswood to reach a terminal lift, which descends to join the tidal Avon. An intersecting cross route runs from Leicester and Nottingham to Southampton. In addition to these, there are numerous branches, so that in all a great variety of point-to-point connections is established.

Quoting the Merseyside-Midlands link as an example, Mr. Pownall says that the existing waterways already contribute to a large part of the route in the shape of 10 miles of the Manchester Ship Canal and 20 miles of the Weaver Navigation.

The Weaver Navigation, linking the Mersey with North Cheshire, requires only some minor works to take barges of up to 400 tons. All that is now needed is the promotion of that portion of the "Grand Contour Canal" system from a Midland point to join the Weaver at Winsford.

Mr. Pownall's description of his project goes on: "From a terminal basin at the 310ft. level two miles north of Wolverhampton. the new canal, 100ft. wide, would proceed via Gnosall to Market Drayton, widening out Telford's great cutting at Tyrley, and continuing along the contour to Alsagar, so completing a reach of 45 miles on a single level without locks."

A basin at Alsagar would pick up important Potteries traffic. The route would then descend by three barge lifts with two intervening level reaches to the Weaver at Winford. Liverpool would be reached in 93 miles from Wolverhampton.

BRIDGE CONSTRUCTION

This canal would require the excavation of 12 mn. cub. yd. of earth, the construction of 11 railway bridges, 11 main road bridges, 30 country road bridges, and 35 swing-bridges for lesser lanes.

Mr. Pownall estimates that works, land, compensation, contingencies and Parliamentary and other expenses, would total about £12 mn. and that the whole work could be finished in about two years. Direct revenue would come from canal tolls. Pre-war estimates of the total capital cost of the "Grand Contour Canal" system, but excluding works for water supply, were about £150 mn.; at the present day, the sum would be nearer £500 mn.

Mr. Pownall claims a number of unique advantages for his canal system. Besides its main purpose as a form of inland transport it would serve as a "water grid," supplying fresh water where it was needed, water for irrigation in agricultural areas and taking off flood water. It is by stressing these other potentialities of the scheme that Mr. Pownall hopes to obtain Parliamentary approval for the Merseyside-Midlands link.