

numerous exigencies attending work of this nature, particular attention was devoted to the design and construction of mechanical details, and as a result, the greater part of the plant was built and assembled especially for the work. The advisability of the extreme care taken in this procedure was evidenced later in the successful continuity of operations, and the entire absence of delays due to lack of equipment, materials, etc.

This scow, shown in Fig. 4, was also equipped with four sets of specially designed and patented thribble blocks and four powerful winches, used for manipulating the pipe sections.

The concreting scow, whose dimensions were 100 feet by 28 feet by 8 feet, is shown at work in Fig. 5. It was furnished with a derrick, an 8 by 12 hoist, a 1-yard clam, a 1-yard mixer, bins for sand and broken stone, and a tower, as illustrated, extending 40 feet above the floor of the scow for supporting the elevating bucket, tremie-pipe, etc. The arrangement of this concreting equipment is also illustrated in Fig. 12.

The pile-driving scow was 54 feet by 24 feet by 8 feet in height. It was equipped with an 8 by 12 hoist, a 6-inch pump for jetting, and two sets of leads. It was capable of driving piles singly, in bents of two with cap, or in sets of six, as illustrated in Fig. 10. Each set of leads, 55 feet in height, had a follower 45 feet long. Attached to the base of the follower was a patent pile holder with a capacity for six 9-inch steel piles to be driven together. After driving, this holder could be readily released and hoisted to be attached to another set. It will

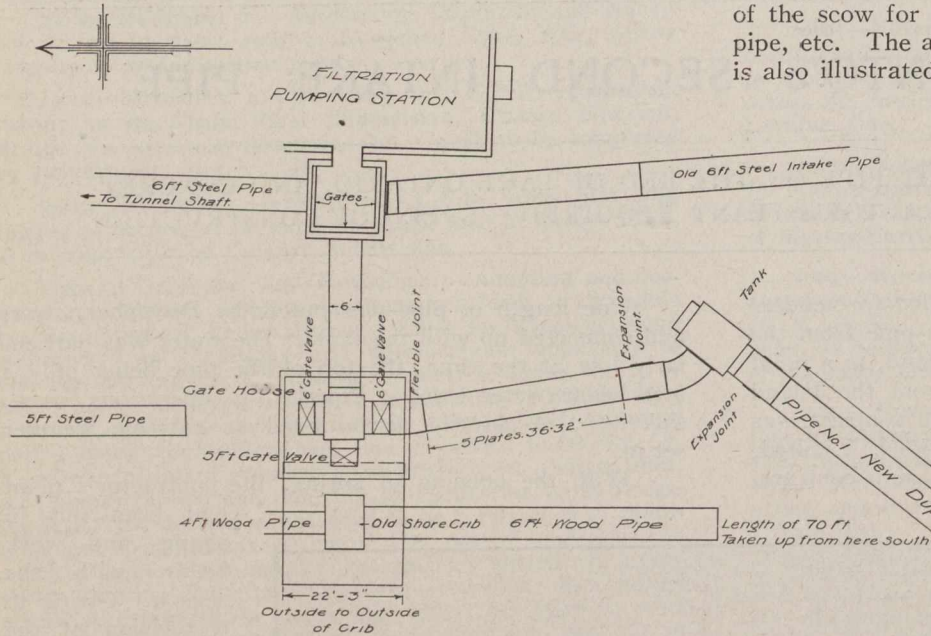


Fig. 2.—General Plan of Island Shore Connections, Showing Location of Old and New Intake Pipe.

The excavating scow, one of the parts of plant built especially for this work, is 100 feet long, 30 feet wide, and 8 feet high. It is equipped with two 8 by 12 hoists, operating two 1¼-yard clamshell buckets. One distinguishing feature is the installation of two 6 by 8 independent swinging engines. The booms used were 65 feet in length, and either derrick had a working capacity of 20 tons.

Another scow, used principally for deep water work, especially in connection with the placing of the crib at the end of the pipe line, and for the towing and placing of pipe sections, was also 100 feet by 30 feet by 8 feet. It was equipped with a steel derrick of 25 tons capacity, a 65-foot boom, a 9 by 12 hoist, and an 8 by 8 independent swinging engine. It had a clam of 1½ yards capacity.

be noted that the length of the follower was sufficient to ensure its top, and, therefore the driving hammer being always above water.

The air scow was 30 feet by 18 feet by 5 feet. It was equipped with a hand derrick, jetting pump, and a 6-inch centrifugal pump directly connected to two separate engines. This pump served to remove the sand from in and around joints of the pipe sections when they were being connected up, the diver employing the suction pipe for this purpose whenever necessary in making his connections.

One important feature of these five scows was that each was equipped with an air compressor by means of which the divers were furnished with air.

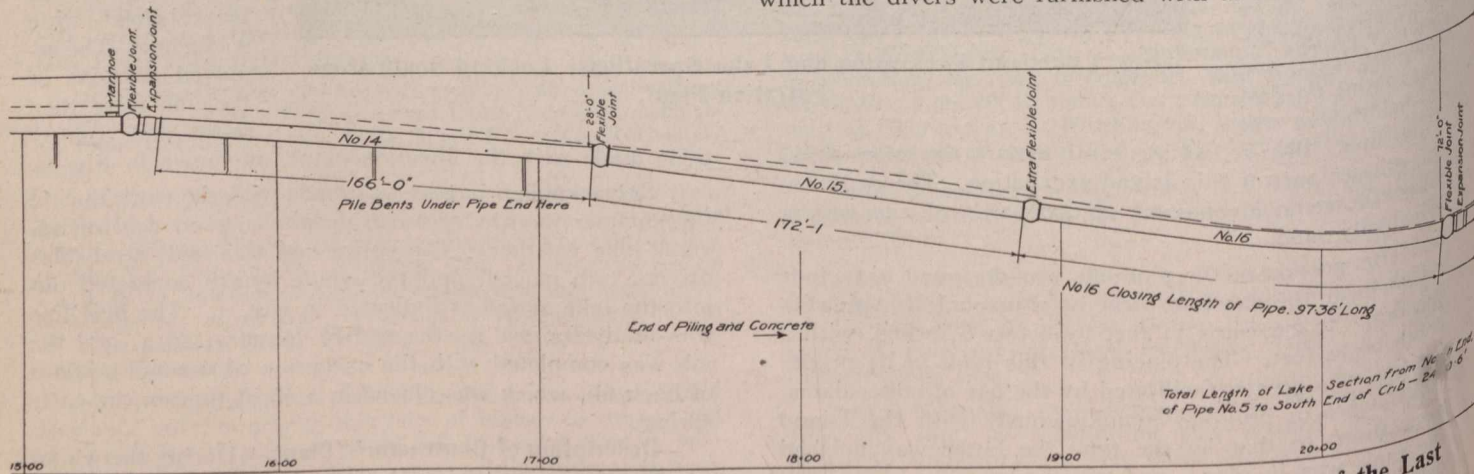


Fig. 3.—Profile of the Last