

ESSEX BORDER INTERCEPTING SEWER

AT a meeting of the Essex Border Utilities Commission held last Friday afternoon at Windsor, Ont., the contract for the East Intercepting Sewer was awarded to Merlo, Merlo & Ray, of Walkerville, Ont. The tender was awarded at cost plus a sliding scale fee. The cost prices tendered by the various bidders were as follows:—

Merlo, Merlo & Ray, Walkerville, \$108,642.80; Standard Construction Co., Toronto, \$118,224.90; F. F. Fry, Toronto, \$119,220.40; Dominion Construction Co., Toronto, \$119,835.90; McKendrick & Black, Detroit, \$131,192.55; Wells & Gray, Ford City, \$135,067.40; McLaughlin Bros., Ottawa, \$136,862.80; Donnelly & Stevens, Cleveland, \$155,293.00; Bate, McMahon & Co., Ottawa, \$161,847.40; Nicholson & Gerou, Toronto, \$169,228.75.

The sliding scale fee system used in this award follows the plan recently adopted by the United States War Department with some of its contracts, and it is also said to be similar to the plan proposed for adoption by the Halifax Relief Commission and by the United States Shipping Board.

The specifications calling for tenders read as follows:

"The lowest capable and reliable bidder to receive a fee of \$12,000, which fee will be increased by twenty-five per cent. of any amount by which the actual cost is less than the agreed upon estimate of cost, and which will be decreased by ten per cent. of any amount by which the actual cost exceeds the agreed estimate.

"Under this plan, the contractor will be allowed rentals for machinery and equipment between limits to be announced, the rental to be determined by the engineer from a consideration of the capacity and usefulness.

"In general, all expenses incurred on the site of the work would be paid the contractor, but no salary or allowance to a president, general manager or general superintendent who devoted only part time to the work."

The East Sewage Interceptor will be 12,340 ft. in length, the work including manholes, measuring chambers, regulating chambers, force main and other structures. It will be constructed in the municipalities of Ford City, Walkerville and Windsor. The Essex Border Utilities Commission will finance the work and will pay the \$12,000 fee in instalments. The agreed estimate of \$108,642.80 submitted by Merlo, Merlo & Ray, is supposed to be the actual cost of the work as calculated by that firm. A certified cheque of \$1,000 was required with each tender. The successful bidder must file a surety of \$10,000.

The work includes 33,860 cubic yards of excavation (estimated), of which 21,300 cubic yards is in trenches between 18 ft. and 24 feet deep, 12,000 cubic yards between 12 ft. and 18 ft., 540 cubic yards between 8 ft. and 12 ft., 10 cubic yards less than 8 ft., and 10 cubic yards over 24 ft.

The contract includes furnishing materials for and laying 1,060 ft. 15-inch vitrified sewer pipe; 1,310 ft., 18-inch; 1,530 ft., 20-inch; 2,540 ft., 24-inch; 1,960 ft., 27-inch; and 3,640 ft., 33-inch pipe. The contract also includes the supply of 48 sets of manhole castings and 229 ft. of 20-inch reinforced concrete force main, measuring chamber at Ford City, measuring chamber at Walkerville, three regulating chambers and various house connections.

It is estimated that 720 square yards of asphalt block pavement will have to be cut and replaced, 170 square

yards of concrete pavement and 2,850 square yards of sidewalk.

The Commission is not committed to vitrified pipe for the 27-inch and 33-inch portions of the sewer. It is also considering brick, reinforced concrete pipe, vitrified segment block, concrete segment block and monolithic concrete.

The sewer begins at Palette Road, Ford City, and extends westerly through Walkerville to Parent Avenue, Windsor. It crosses under the Grand Trunk Railway at Victoria Road, Walkerville, and makes three crossings under existing sewers. The elevation at Palette Road is 575.57. The elevation at the west main regulator and pumping station, which will be at Victoria Road, Walkerville, is approximately 564. A 20-inch force main there connects the interceptor to the Windsor sewer at an elevation of approximately 577.39, the elevation at Parent Avenue being about 574.46; these elevations referring to sewer inverts.

CANADA'S SHIPBUILDING EFFORT

IN a pamphlet entitled "Canada's War Effort, 1914-18," issued by the Director of Public Information,

Ottawa, the following table appears showing the number of ships that have been launched in Canada since January 1st, 1918, or will be launched before December 31st, 1918:—

STEEL VESSELS					WOOD VESSELS					
Atlantic Coast shipyards	Great Lakes shipyards	Pacific Coast shipyards	Total	Dead weight carrying capa- city (approx.)	Atlantic Coast shipyards	Great Lakes shipyards	Pacific Coast shipyards	Total	Dead weight carrying capa- city (approx.)	
Built to order of Imperial Munitions Board	5	18	11	34	179,800	14	4	27	45	138,600
Built to order of Dept. of Marine	4	4	3	11	48,000	..	..	..	..	.....
Built under private con- tract	8	5	1	14	62,400	..	..	8	8	17,800
Total	—	—	—	—	—	—	—	—	—	—
	5	27	14	59	290,200	14	4	35	53	156,400
Grand total: Ships									112	
Tonnage (approx. deadweight carrying capacity)									446,600	

N.B.—The above figures do not include a large number of small craft of less than 1,000 tons, at present building, such as trawlers, drifters, small schooners, etc.

In connection with a government shipbuilding program, 20 ships with a gross tonnage of 55,000 are at present under construction. These are being built under contracts entered into by the Department of Marine. Seven will be delivered during 1918, the remainder in the following year.

The Department of the Naval Service, since the outbreak of the war, has placed contracts in Canada on behalf of various governments for the following vessels: A number of submarines for the Imperial Government, as well as several submarines for the Italian and Russian Governments; about 550 motor submarine-chasers for the Imperial Government; about 36 motor submarine-chasers for the French Government; a number of steel lighters, shipped in "knock-down" form, for the use of the Imperial Government in Mesopotamia; and a large number of trawlers and drifters for the Imperial Government.