

5. Alternative Routes (cont'd)

(a) Re-estimate on 27½ foot with locks similar to Welland - the cost would be over \$300,000,000.

No saving in time of transit over projected St. Lawrence route, although 400 miles shorter - outflanks important traffic centres on Lakes Ontario and Erie.

(b) American routes Lake Erie to Lake Ontario.

La Salle - Lewiston - \$125,000,000 in 1925

Tonawanda - Olcott.

Buffalo - Olcott.

Not important in view of prospective early completion of Welland.

(c) Lake Ontario to the Atlantic.(1) Oswego-Hudson Ship Canal.

Route Oswego River-Lake Oneida-Frankfort, along Mohawk River to Schenectady - Norman's Hill to tidal Hudson a short distance below Albany - New York.

Low level project 19 locks from Lake Ontario at elev. 245.5 up to 379 thence down to tidal Hudson.

Crossings for 80 highways and 3 railways.

Estimated capacity 80,000,000 tons in 210 days.

Cost of 25 foot project with 30 foot locks \$517,200,000.

Estimated U.S. traffic 15,500,000 tons showing saving of \$22,500,000 plus \$8,500,000 on Canadian grain in bond.

Annual costs stated at \$30,360,000 (exclusive of Hudson River improvements) - No Power developments. Some doubt as to adequacy of Water supply on height of land section east of Lake Oneida.

(2) St. Lawrence Waterway.(a) International Joint Commission Report 1921

25 foot channel - 30 foot locks and 1,434,000 H.P.

on International Section \$252,728,000

Subsequent deepening of channel
to 30 feet

\$ 17,986,180

\$270,714,280

From Lake Ontario at Elevation 245.5 to Montreal Harbour at elevation 18.7 - 7 Lifts and 2 guard locks each 860' x 80' x 30' on sills.

Canal	32 miles.
Dredged Channel	12.5 "
Natural "	136. "
	<u>180.5</u>

Power development on National Section separated from Navigation and costs not included.

(b) Joint Board of Engineers Report 1926.(1) Main alterations:

- i. International section - more complete Power development
- ii. Soulange Section - scheme for Power included and better arrangements made for navigation.
- iii. Lachine Section - new alignment to ensure minimum interference with land and water traffic of Montreal.
- iv. Increased but more reliable unit costs.
- v. Proposals for co-ordinated improvements of upper lake channels.