

PORT OF ST. HELIER: DEVELOPMENT ~~1985~~

Lodged au Greffe on 28th May, 1985 by
the Harbours and Airport Committee.



STATES OF JERSEY

STATES GREFFE

PROPOSITION

THE STATES are asked to decide whether they are of opinion -

to approve, in principle, the development of an outer harbour at St. Helier Harbour to provide two roll-on/roll-off ferry berths and associated facilities.

HARBOURS AND AIRPORT COMMITTEE

NOTE: The Finance and Economics Committee is satisfied that, for the future security of Ro-Ro shipping services, the only practical development is to provide additional Ro-Ro berths at St. Helier outside the existing harbour and therefore supports the general principle of the scheme proposed. However, before any allocation of funds the Committee intends to hold further discussions with the Harbours and Airport Committee to ensure that the scheme in detail gives the best value for money and that the funding of the capital servicing charges is to be provided for with the best interests of the community in mind. The Committee would propose to continue to monitor these aspects throughout the planning and implementation of the scheme. It will also be necessary to review the timing of the scheme in the light of the availability of finance and the pressures on the construction industry.

ST. HELIER HARBOUR
PASSENGER AND ROLL-ON/ROLL-OFF FACILITIES

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REPORT

PRESENT POSITION AND PROBLEMS

The harbour at St. Helier has been developed over the last 300 years or so in response to the needs of the Island coupled with changes in trade and ship design. The period of greatest development occurred during the mid 1800's, when the Albert Pier and Victoria Pier were built, followed soon after by the construction of the Elizabeth Castle Breakwater and the widening of the New North Quay. These developments changed what was, until then, a small harbour giving little shelter and few facilities, into the port we know today. There have, of course, been developments in the harbour since, but these have been relatively minor in their impact on the shipping of goods and people to and from the Island, with the possible exception of the construction of the Ro-Ro ramps during the 1970's, reflecting a change of emphasis in the carriage of cargo and passengers on short sea routes.

The harbour is still essentially a Victorian fabric, mainly constructed before the advent of the internal combustion engine and the present day operators are attempting to handle such 20th century technology as hydrofoils and containerisation within it. The harbour meets these demands placed on it in spite of great practical difficulties. When the major part of the harbour was built, ships were generally small and powered by sail and were able to use the berths and quays now occupied exclusively by pleasure yachts. Ships over the last 50 years or so have grown considerably, have become more complex, and their activities are now confined to a relatively small part of the main harbour where the existing facilities permit them to continue trading to the Island, albeit with some difficulty. St. Helier Harbour has always suffered from the major disadvantage of being short of deep water and this shortcoming is made worse by the large rise and fall of tide experienced in the Channel Islands area. Some dredging and modification to the Albert Pier at the turn of the century eased this problem to some extent, but it is still a fact today that the arrival and departure times of large ships using the port of St. Helier are, to a large extent, governed by the state of tide. This situation is unlikely to change even if new berths are constructed, due to the relatively shallow approach to the eastern side of St. Aubin's Bay where the harbour is situated.

Prior to the 1960's, vessels operating the passenger services to the Island were built for the trade, being relatively short in length, of shallow draft and having a hull strong enough to ground during the periods of low water and were thus able to cater for the physical characteristics of the ports in the Channel Islands and, in particular, St. Helier Harbour. Shipping companies are now unwilling to construct and operate such ships as, in present conditions with high fuel and labour costs, they are uneconomic. The recent trend has been to acquire the largest second-hand vessels available which can be accommodated in St. Helier Harbour. These vessels are not necessarily ideal for the route but are a compromise between the size of vessel that the company would wish to operate and that which can be accommodated in St. Helier. The need to make these compromises has resulted in the ships having their passenger accommodation extensively modified in order to carry sufficient passengers and has given rise to considerable criticism of the level of comfort available on these vessels. The vessels are both longer (up to 108 metres), draw more water than their predecessors (up from 3.8 metres to 4.7 metres), and often require more room within which to manoeuvre. The extra length has been accommodated by permitting the vessels to occupy two berths, although this resulted in difficulties in berthing other vessels within the limited facilities available. The problems arising from the increase in draft are, however, not so easily accommodated and have resulted in a further narrowing of the slot times within which the vessels may lie in the harbour without taking the ground. Information recently received from an independent shipping company not presently involved with services to and from the Island, suggests that the number of suitable car/passenger Ro-Ro vessels presently available in Europe under 112 metres in length is limited to 23, none of which has been built since 1977 and includes vessels already over 20 years old, whereas if the harbour could accommodate vessels of up to 130 metres, the number of suitable vessels of this type increases to 58, and includes the most recently built vessels used on cross-Channel routes. (See Appendices 1a and 1b).

These problems, whilst being difficult enough to accommodate in recent years, are going to be heightened during the 1985 season due to the increased activity resulting from the additional Ro-Ro capacity being placed on the Channel Islands/United Kingdom route, following the alterations of the Sealink schedules and the commencement of the service provided by Channel Island Ferries. Generally

speaking, vessels of the size currently operating these routes can only be accommodated on a regular basis between the hours of 06.00-10.00 in the morning and 18.00-22.00 in the evening. During 1984, in the peak season, two vessels occupied Number 5 Berth in the morning and one in the evening. During the same peak period in 1985, two vessels will occupy morning slots and four during the evening; the first arriving at a scheduled time of 17.45 and the last at 22.15. It will obviously be essential to ensure the quick and efficient turn-around of these ships as, in some cases, the time allowed on the ramp is as little as 30 minutes, during which time up to 1,000 passengers and their cars will have to be discharged. The inadequate facilities in the port are, therefore, going to be stretched to the limit in trying to cater for the demands being placed on them, even when the overall conditions are going to be at their best, that is to say, when there will be no adverse weather and no mechanical breakdowns of the vessels, or serious traffic congestion on the quays themselves. It is inevitable therefore that, from time to time when conditions are not ideal, considerable delays and inconvenience will be experienced by those persons using these services.

The facilities for the passengers on the shore are equally inadequate and fall far below the now accustomed standard elsewhere. It is of interest to note that the covered areas set aside for passenger use at the airport have a floor area of approximately 125,000 square feet in order to cope with a throughput of 1.5 million passengers per year, whereas the harbour at St. Helier can offer only approximately 18,000 square feet to cater for a passenger throughput of approximately 1 million. The problems faced at the airport in the provision of facilities for passengers are, however, not exactly similar to those at the harbour. For example, passengers travelling by plane usually arrive at the airport in groups of 100 or so at intervals of at least 15-20 minutes; whereas up to 1,200 sea passengers can arrive on a ferry from the United Kingdom and be deposited onto the quay within the space of 20 minutes or so. The logistical problems, therefore, in providing for baggage handling facilities and suitable areas for passengers to congregate and proceed to coaches and taxis are significantly greater at the harbour.

With the present narrow Albert Pier, the passenger buildings have, of necessity, to be long and narrow and cannot be made larger due to the additional demands of quay space for the provision of coach and car parking, together with the

compounds for the cars and freight being loaded and discharged from the ferries. At present, due to the shortage of covered accommodation, passengers arriving from the United Kingdom do not pass through a building at all and must collect their baggage in the open from small lorries parked in the congested area near to the ship. Whilst this might be acceptable in fine weather it is obviously not so in the rain. There are 11 coach parking bays which often have to try and satisfy a demand exceeding 25 and there is very little allocation of space for pre-booked taxis and for rank cabs. Public parking is restricted to 8 or 9 spaces, each having a time limit of 20 minutes.

In order to try and accommodate the Ro-Ro freight and cars more satisfactorily, a section of the roadway in front of the old abattoir has been barriered off to permit vehicles to park in the only available space at the head of the New North Quay. This space is inadequate for the demand, being sufficient only for the immediate needs of loading and discharging of the vessels and, as a result, there is congestion in the whole of the port area caused by heavy vehicles being parked in areas set aside for other purposes. Some additional parking areas have been identified for use in 1985, within the Weighbridge Island Site in an area which once housed the J.M.T. workshops. However, this park is far from ideal as vehicles coming from the Albert Pier have to negotiate two lanes of heavy traffic before gaining access to it and then circulate the whole of the Weighbridge Island Site before re-gaining access to the Albert Pier.

In addition to the ferries operating to the United Kingdom, the port has to accommodate numerous small ferries carrying passengers and cars to the Continent. The arrival times of these vessels often coincide with the larger ships which add to the congestion on the quay. It is not generally possible to alter the times of arrival because in addition to the understandable reluctance of shipping companies to convey passengers in and out of the port at unpopular hours such as during mid-day or late at night, tidal restrictions in St. Helier and in the ports on the French coast would, in most cases, make significant changes impossible.

St. Helier Harbour, therefore, suffers from two major shortcomings:

1. The absence of berths large enough and deep enough to cater for the size of ship which ship owners believe to be economic for the service;

2. The severe shortage of land on which to construct adequate passenger facilities and provide the very large parking areas adjacent to these berths needed for the Ro-Ro cars and freight, together with servicing areas for coaches, taxis, public parking, etc.

FUTURE TRENDS

For an Island, transport links in terms of their cost, capacity, frequency and overall standard are of critical importance. In this, the port facilities available play a key role. For example, costs are influenced by the nature of the vessels that can operate to and from the Island. Restrictions on the length and draft of the vessels that can be used, to which the previous sections of this report have referred, are, therefore, a matter of concern if, thereby, the vessels most suited to the Island's freight and passenger requirements in the future cannot be accommodated.

The level of traffic and its seasonality make it difficult to support investment in new ships built specifically to fit the existing harbour. For this reason, to secure shipping services at reasonable cost, the Island has to be concerned that its port facilities are capable of accommodating existing vessels in operation on cross-Channel or similar routes, or new vessels that those investing in them can be confident would also be suited to those routes if the need should arise.

Clearly the requirements for the future in terms of harbour facilities should also depend on the likely trends in traffic by type and volume. While the importance of lift-on/lift-off freight movements will remain for the foreseeable future in accounting for the lion's share of container traffic and general cargo, there is every indication from traffic developments elsewhere in Western Europe that there will be growing demands placed on the Ro-Ro services:

1. Visitors to the Island - while the trend in transport costs would suggest that for foot passengers, air travel from south coast airports will become relatively more attractive in the future than sea travel, the nature of the expected development of Jersey tourism would suggest that an increasing proportion of visitors will wish to bring a car with them. The emphasis on a quality

product with up-market appeal to United Kingdom and continental residents, reflected in a growing demand for good quality self-catering accommodation, can be expected to lead to the attraction to the Island of visitors who, research has shown, use their car for holiday travel to a relatively high degree. Particularly is this so in respect of visitors from the continent.

2. Island residents - there will be a continuing demand for travel to the United Kingdom and to the continent and as far as the former is concerned, the improvement in the standard of service can be expected to lead to a higher proportion of local residents using the shipping services, rather than travel by air, so that they can take their own car (particularly having regard to the high cost of car hire in the United Kingdom).
3. Freight - there is changing emphasis of Island agricultural production and, in the future, the industry will rely more heavily on temperature-controlled transport to ensure that the newer range of crops are transported in such a way that quality is maintained, and in this context the transport of produce on Ro-Ro vessels has increasing appeal. Companies in the United Kingdom supplying the Island who gear their exporting activities to the use of Ro-Ro freight transport to Europe will tend to look for similar arrangements in respect of the Island. Particularly is this so where the companies concerned require a relatively high degree of independent control over the transport arrangements, and where speed is of the essence; for example, the supply of foodstuffs, etc.

There is no evidence to support the view that Jersey can fail to respond to the trend towards Ro-Ro transport without some cost to the community. For these trends to be responded to, it is important for the security of shipping services, and for their provision at least cost, that there should be the most suitable harbour facilities available that can be afforded.

Should it be decided that any increase in the number of non-"J" registered cars should be limited by the application

of a policy of vehicle restraint - and the Committee is conscious of the requirement placed on it by the States in this respect in May 1978 - this will not detract from the need for new harbour facilities. With the relatively high cost of transport to and from the Island bearing adversely on Island residents both as consumers and as producers, the interests of the Island will be well served if more cost-effective Ro-Ro shipping services can be accommodated. The need to provide for greater security of service is also a factor to which regard should be had. Therefore, even should there be a limited growth of traffic in prospect, whether of visitor cars or freight, there are benefits to be obtained if the Island is able to widen its service options through an ability to accommodate larger Ro-Ro vessels.

Reference has been made above to the development in demand for Ro-Ro services. Even should attention be focused on vessels carrying passengers alone, the need for improved passenger handling facilities should be undisputed if the Island is to attract tourists with a quality product appeal. The attractions of a quality environment and quality tourist accommodation will be lessened considerably if the first impressions remain those of today for those arriving by sea. The provision of improved passenger handling facilities and the greater separation of passenger and freight traffic is not possible with the present restricted area available on the Albert Pier. Additional facilities are required that will call for the extension of the land area west of the Albert Pier, and the erection of suitable buildings to accommodate continental and United Kingdom passenger traffic.

The extension of Ro-Ro freight traffic needs to be handled in such a way as to place the least pressure on the Island's already congested road system. To do so, as much of the traffic as is possible should be handled within the harbour area. The time of arrival of Ro-Ro vessels may not always be most suitable for the distribution of freight, and an area adjacent to the harbour on which to permit vehicles to park, for containers to be unloaded etc., is urgently required.

SOLUTIONS

Successive Harbours and Airport Committees have, in recent years, sought solutions to the problems as they arose and some improvements have been made. It is clear, however, that only a radical reconstruction programme for the port will in any way serve the long-term needs of the

Island. Accordingly, the Harbours and Airport Committee has considered a number of alternatives which have included the modifying of the existing structure and also the construction of new berths to the west of the existing harbour.

Modifying the inner harbour

Modifying the existing harbour to permit larger vessels to enter would be costly, both in financial and environmental terms and would satisfy only some of the needs. For example, at an estimated cost of approximately £6 million, it would be possible to accommodate vessels of up to a length of 118 metres. This size of vessel is now considered by some shipping companies to be the smallest economically viable unit on cross-Channel routes, being about 10 metres longer than the "Earl Granville". However, most of the vessels presently being constructed for cross-Channel routes are approximately 130 metres in length and the economic advantages of modifying the existing harbour for vessels smaller than this would, therefore, likely be short lived. Environmentally, the impact of the necessary modifications would be considerable. The Pier-head would have to be widened; the area between the South Pier and the Victoria Pier extensively dredged, and large piles or "dolphins" would have to be constructed along the length of the South Pier to prevent the larger vessels being driven broadside by the wind onto the foundations of the Pier. It would also be necessary to blast and dredge a large sump in Number 5 Berth to allow the vessels to lie afloat. This should not be lightly undertaken following recent experience elsewhere in the harbour where considerable damage was done to the quay structure as a result of similar dredging.

Whilst the above mentioned alterations to the port would permit larger vessels to enter, the masters of the Sealink ships presently using the port have expressed fears about the safety of manoeuvring larger vessels in the confined space of the harbour and have suggested that it would be necessary, in many cases, for some of the berths on the Victoria Pier to be vacated before it would be safe to enter. A further serious drawback for this scheme would be the great difficulty in maintaining the operational viability of the port whilst the changes were being effected.

For all the foregoing reasons, the Harbours and Airport Committee does not recommend this option.

New berths

In 1980, when the new land reclamation site was being tank tested in the Wimpey Hydraulic Laboratory to ascertain the effect on tidal movements in St. Aubin's Bay, the then Harbours and Airport Committee took the opportunity to test the effect of constructing new berths immediately to the west of the Albert Pier. This proposed site is considered to be the best available and would be recommended irrespective of plans for other developments in the area, such as the possible provision of new marinas, etc. The tests determined the optimum overall size of the project, giving as much space as possible for ships to manoeuvre in and, at the same time, allowing the present tidal flow to continue between Elizabeth Castle and the shore, which the model tests had indicated was essential to ensure that the sand on the West Park beach was not eroded.

During the intervening period, further work has been undertaken to design this proposed extension to St. Helier Harbour and the scheme which is now recommended incorporates two new Ro-Ro berths together with the necessary linkspans and gangway facilities to enable passengers and vehicles to gain access to the shore. The berths will accommodate 130 metre length ships and will have sumps dredged to a depth of minus 6 metres. (See sketch and plans - **Appendices IIa, IIb and IIIc**).

The Harbours and Airport Committee recommends that two new berths be constructed to provide the necessary insurance in the case of one of the installations being put out of action by accidental damage or for reasons of essential maintenance. It must also be recognised that in due course the size of vessel using these berths will be such as to prevent them entering the main harbour and thereby denying them access to the existing ramps. For this reason it is planned to transfer the vehicle ramp purchased in 1979 and sited at the end of the Albert Pier to one of the new berths which will give a significant saving in the cost of the new scheme.

Furthermore, due to the shallow approaches to the Port of St. Helier and the very large rise and fall of tide, the available slot times during which vessels may enter or leave the harbour will not be greatly extended by the provision of the new berths. Therefore, in order to provide the flexibility in arrival times necessary for the efficient operation of

competing ferry services and to cope with adverse weather conditions, tidal variations, mechanical breakdowns, etc, two berths will be needed. Recognition of the latter requirements resulted in the second ramp being installed in the existing harbour in 1979. It is also of interest to note that as from April 1985 it has been necessary to berth two large Ro-Ro/passenger vessels simultaneously on the Albert Pier as a result of the revised Sealink services to Portsmouth and Weymouth.

The area of beach between the new berths and the Albert Pier will remain undeveloped to provide the essential spending beach to reduce wave action in the new berths arising from waves being generated as a result of strong southerly winds. It will be possible, however, to use this beach from time to time for vessels to dry out and undertake bottom inspections, etc.

Sufficient land will be created near the new berths using Resources Recovery Board material in the area immediately south of the new reclamation site to allow the construction of a new and suitably large passenger building to cater for the needs of the travelling public, together with the attendant car parks, coach parks, etc. Being sited immediately adjacent to the new land reclamation area west of the Albert Pier, the opportunity will be taken to provide the large vehicle compounds necessary for the efficient operation of a freight Ro-Ro service, together with breakdown sheds within which the larger loads can be broken down into small packets and distributed around the Island in smaller vehicles.

The individual costs for the new berths, passenger buildings and dredging, which will include some widening and deepening of the channel to a point beyond the end of Elizabeth Castle Breakwater, are shown in Appendix III. In addition, it is estimated that a further £650,000 should be set aside for professional fees; of this amount £300,000 will be needed to prepare designs and draw up contracts, with the remaining £350,000 covering the costs of supervision.

As a result of moving the larger passenger vessels out of the inner harbour, it will be possible to improve substantially the facilities and amenities for the smaller craft, such as the hydrofoils. For example, it would be possible to construct a pontoon similar to that used in St. Malo and to moor it in the position presently occupied by the

older of the Ro-Ro ramps at Number 5 Berth and to give access to the shore by means of a covered ramp which would include baggage conveyors. This possibility, however, is not to be considered as part of the present proposition.

BENEFITS ARISING FROM THE PROPOSED DEVELOPMENT

Harbour development plans

Investment in harbour facilities described in the previous section, at an estimated cost of £14 - £15 million, will bring the following benefits for the Island:

1. Security of shipping services - the investment in a new harbour area providing for a 20 per cent increase in the length of ship that can be accommodated will give companies interested in providing shipping services to and from the Island more options in seeking to acquire vessels suitable for the route. The improved facilities, therefore, will add to the opportunity for existing operators to develop their services and (as importantly) make the Island more attractive to other shipping companies should they be required to provide services in place of or in addition to those that might be provided by the existing operators. For example, an improvement in the shipping services to and from the continent might, in the future, support shipping operations using vessels that also operate between St. Malo and the United Kingdom, but this possibility could well be frustrated if the present harbour facilities remain unchanged;

It is unlikely that any shipping operator would consider Jersey separate from Guernsey in seeking to provide services to and from the United Kingdom, or vice versa, if a viable service is to be structured. In this respect it is worthy of note that it is Jersey that presently places a limit on the vessels that can be used. The facilities proposed serve essentially to bring Jersey more into line with what Guernsey can already offer;

2. The removal of the Ro-Ro vessels from the main harbour to the proposed new harbour area would enable necessary improvements in facilities used

by passenger vessels operating between the Islands and France. With the increase in Ro-Ro freight and private car traffic expected in the future, and with an expansion of the occasions when both the ramps in the main harbour will be occupied by the larger vessels used for the United Kingdom services, the position of the French services will become increasingly unsatisfactory;

3. Improved passenger handling facilities for both continental and United Kingdom traffic - facilities that are desperately needed if the Island is to secure its future as a successful tourist destination based on higher spending visitors attracted by the quality of what Jersey has to offer;
4. Improved freight handling facilities providing for more effective and lower cost operations and avoidance of present inter-mingling of freight and passenger traffic;
5. Removal of container traffic from the Island's roads, and particularly within the town area, due to the ability to park and to load/unload containers adjacent to the Ro-Ro terminal.

Finance

With an estimated total cost of some £14-15 million, the annual capital charge incurred as a result of the planned investment, assuming an average 10 per cent rate of interest and capital repayments over 30 years, would be some £1.5 million a year. In considering how this should be recovered, it should be recognised that harbour improvements undertaken within the Member States of the E.E.C. benefit from financial assistance, either obtained from National Governments or from E.E.C. funds made available to assist with investment in the infrastructure of Member States. Grant aid, and assistance through low interest rate loans, is offered reflecting the benefit that such investment is believed to bring to the community at large.

If the financing of the proposed scheme were to be recovered in full from harbour users, it could have a particularly adverse impact on growers, and the latter might argue with some reason that they were given assurances at the time of the Common Market debate that they would not

be put at any disadvantage as a result of the Island not being a full member of the E.E.C.

Some part of the cost of the investment proposed can be expected to be recovered from traffic growth but the policies of the States, designed to restrict the pace of development and, in particular, the number of visitors to be accommodated in the Island, will limit the opportunities in this direction. To some extent, additional income can be expected to accrue from those who will benefit from the new facilities to be provided; for example, through additional rental income in respect of the buildings to be provided on the reclaimed land. But for the most part, the investment cost will need to be recovered either from a general increase in harbour dues or through a contribution from the community at large. The present application of harbour dues according to tonnage would mean that particular items of high weight and low value would bear a disproportionate share of the burden if harbour dues are increased pro rata (ie: by some 50 per cent) to recover the additional investment cost - adding, for example, to the cost of construction in the Island. Thus, while the Committee will take every possible step to maximise the income of the harbour at a reasonable level of due, it must be assumed that investment in the proposed harbour facilities, required to provide greater security of shipping services for the Island, will need to be financed in large part by the community out of tax revenues.

APPENDIX Ia.

Suitable Car/Passenger Vessels of less than 112 metres overall

<u>Name</u>	<u>Flag</u>	<u>Built</u>	<u>Knots</u>	<u>GRT</u>	<u>NRT</u>	<u>DWT</u>	<u>Length</u>	<u>DRAFT</u>	<u>PAX</u>	<u>Berths</u>	<u>Cars</u>	<u>Lorries</u>	<u>Location</u>	<u>Owners</u>
Agadir	Germany	1969	20.0	3777	2109	920	108.0	4.5	460	349	156	14	Spain	Comanar
Botnia Express	Finland	1972	17.0	4152	1880	1118	108.7	4.6	1200	236	225	23	Finland	Foreningsbanken
Cuidad de la laguna	Spain	1967	19.0	4212	1862	1199	101.6	4.2	1042	168	200	24	Spain	Trasmediterranea
Corbiere	Bahamas	1970	17.5	4371	2125	1100	108.7	4.6	1000	239	225	20	U.K.	Brittany Ferries
Cornouailles	France	1977	19.0	3382	1578	1662	109.7	4.3	500	242	200	37	France	Brittany Ferries
Earl Godwin	U.K.	1966	19.0	3999	1611	1064	99.2	4.4	1000	38	185	17	U.K.	Sealink
Earl Granville	U.K.	1973	19.0	4658	1982	900	108.7	4.8	1200	195	200	32	U.K.	Sealink
Earl William	U.K.	1964	18.0	3765	1836	928	99.5	4.4	1000	152	150	20	U.K.	Sealink
Lion	U.K.	1967	20.5	3987	1024	1412	111.1	4.3	1200	28	176	25	U.K.	European Ferries (ex P & O)
Manx Viking	U.K.	1976	17.0	3589	1423	2338	101.6	4.6	750	-	192	25	U.K.	Sealink
Norwave	U.K.	1965	16.0	3540	1544	1914	108.8	5.0	235	187	265	24	U.K.	North Sea Ferries
Norwind	Dutch	1966	16.0	3692	1661	1984	108.8	5.1	235	187	265	24	U.K.	North Sea Ferries
Panther	U.K.	1972	20.0	4048	1441	910	104.6	4.4	1500	61	200	20	U.K.	European Ferries (ex P & O)
SOL Olympia	Cyprus	1967	22.0	5149	2504	852	110.8	4.8	1200	454	220	16	Italy	SOL Line
Sveno Marina	Sweden	1974	17.5	3415	1447	1000	109.5	4.5	444	232	155	31	Sweden	Sveno Line
Teistin	Denmark	1969	18.0	2430	1003	790	92.7	4.2	800	20	120	16	Denmark	Strandfaraskip Landsins
Terje Vigen	Norway	1965	19.0	3824	1823	1030	99.5	4.2	940	366	150	33	Norway	Dano Linien
Tiger	U.K.	1972	20.0	4048	1441	910	104.6	4.4	1500	63	220	20	U.K.	P & O Ferries
Tintoretto	Italy	1966	18.0	2712	1490	708	100.0	4.3	868	214	150	12	Italy	Adriatica
Tiziano	Italy	1970	16.0	3512	1847	767	101.0	4.0	900	308	100	10	Italy	Adriatica
Valencay	France	1965	18.0	3433	977	668	104.9	4.0	1200	16	155	24	Laid Up	SNCF
Villa de Agaete	Spain	1970	19.0	4274	1922	1160	101.6	4.0	1042	168	180	20	Spain	Trasmediterranea
Wasa Express	Finland	1972	17.0	4239	1880	960	108.7	4.6	1200	328	225	23	Finland	Vaasanlaivat

Total number of vessels = 23

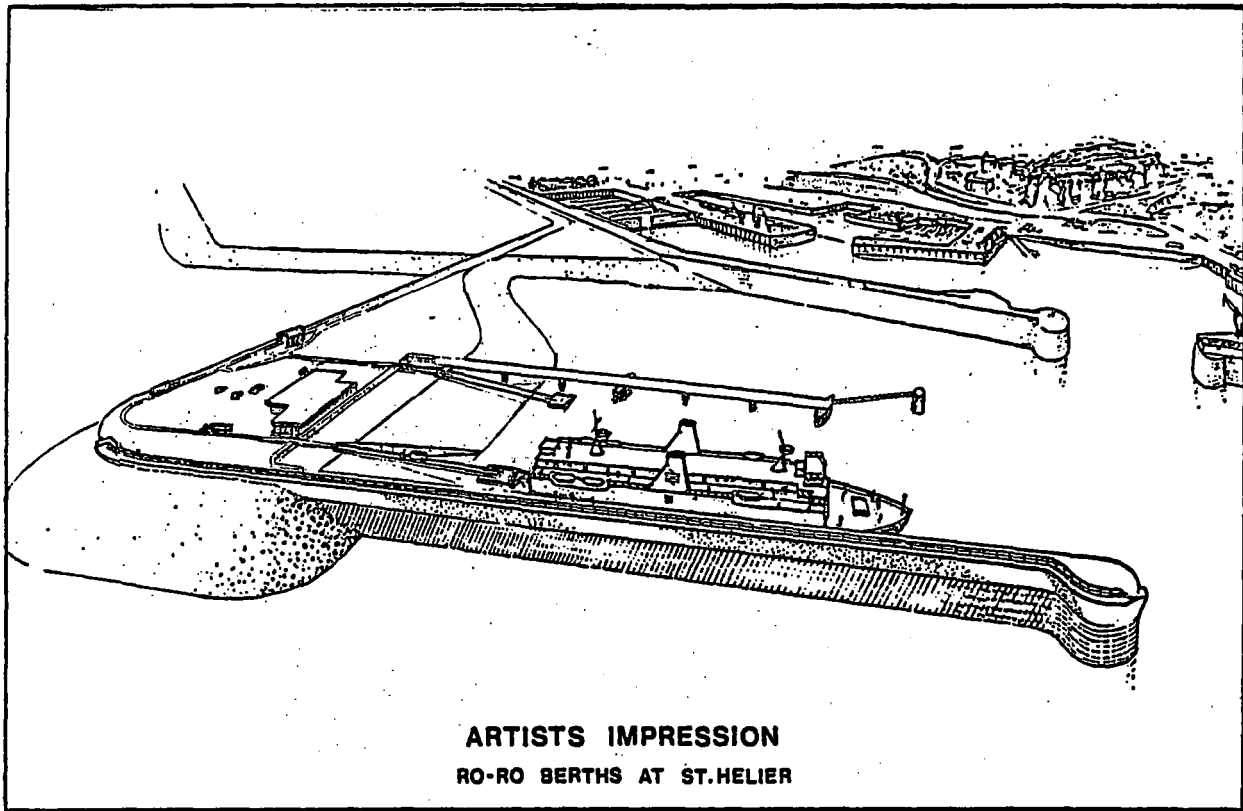
APPENDIX 1b.

Suitable Car/Passenger Vessels of less than 130 metres overall but greater than 112 metres

Name	Flag	Built	Knots	GRT	NRT	DWT	Length	DRAFT	PAX	Berths	Cars	Lorries	Location	Owners
Ailso Princess	U.K.	1971	19.0	3909	1279	913	112.5	3.7	1200	69	200	28	U.K.	Sealink
Antrim Princess	U.K.	1967	19.0	3630	1309	879	112.5	3.7	1200	70	155	28	U.K.	Sealink
Armorique	France	1972	20.0	5732	3036	1168	116.5	4.3	600	414	150	15	U.K.	Brittany Ferries
Bolette	Norway	1974	18.0	5286	2487	1161	116.5	4.8	1400	386	300	30	Norway	F. Olsen
Chartres	France	1974	20.0	4590	1647	1189	115.4	4.2	1400	40	240	30	U.K.	Sealink
Connacht	Ireland	1978	20.0	6812	3250	1373	122.0	4.8	1500	510	350	39	U.K.	B & I Line
Cornica Serena	Panama	1974	21.5	4774	2153	1321	118.7	4.8	1200	106	400	26	France	Corsica Ferries
Djursland	Denmark	1974	21.0	4371	2273	1465	118.6	5.0	1750	114	370	25	Denmark	-
Europafarjan	Sweden	1971	19.5	5790	2875	1819	122.7	5.2	1400	120	250	27	Sweden	Stena Line
Free Enterprise IV	U.K.	1969	21.0	5049	1945	1132	117.5	4.3	1200	68	280	-	U.K.	Townsend Thoresen
Free Enterprise V	U.K.	1969	21.0	5044	1977	1296	117.5	4.3	1200	68	280	-	U.K.	Townsend Thoresen
Free Enterprise VI	U.K.	1972	21.0	4981	1890	1170	117.5	4.3	1200	68	320	-	U.K.	Townsend Thoresen
Free Enterprise VII	U.K.	1973	21.0	4981	1892	1166	117.5	4.3	1200	68	320	-	U.K.	Townsend Thoresen
Free Enterprise VIII	U.K.	1974	20.5	5169	2058	1292	123.6	4.4	1200	99	350	-	U.K.	Townsend Thoresen
Colting Syd	Denmark	1974	19.5	3743	2002	1300	115.0	4.4	800	24	145	23	Denmark	Nordish Faergefast
Cotland	Sweden	1973	21.0	6642	3002	1472	123.9	5.0	1747	379	300	27	Sweden	-
Hongist	U.K.	1972	19.5	5596	2008	1014	117.3	4.0	1400	46	217	25	U.K.	Sealink
Horsa	U.K.	1972	19.5	5496	2008	1014	118.1	4.0	1400	46	217	25	U.K.	Sealink
Innisfallen	Ireland	1969	18.0	4849	2408	906	118.2	4.4	1200	278	223	27	U.K.	B & I Line
Leinster	Ireland	1981	20.0	6808	3320	1310	122.0	4.8	1500	534	326	39	U.K.	B & I Line
Mette Mojs	Denmark	1975	20.5	4948	2380	1560	115.4	4.9	1500	64	420	28	Denmark	Molslinien
Prince Laurent	Belgium	1974	22.0	5052	2407	1052	118.0	4.3	1300	148	170	28	U.K.	Sealink

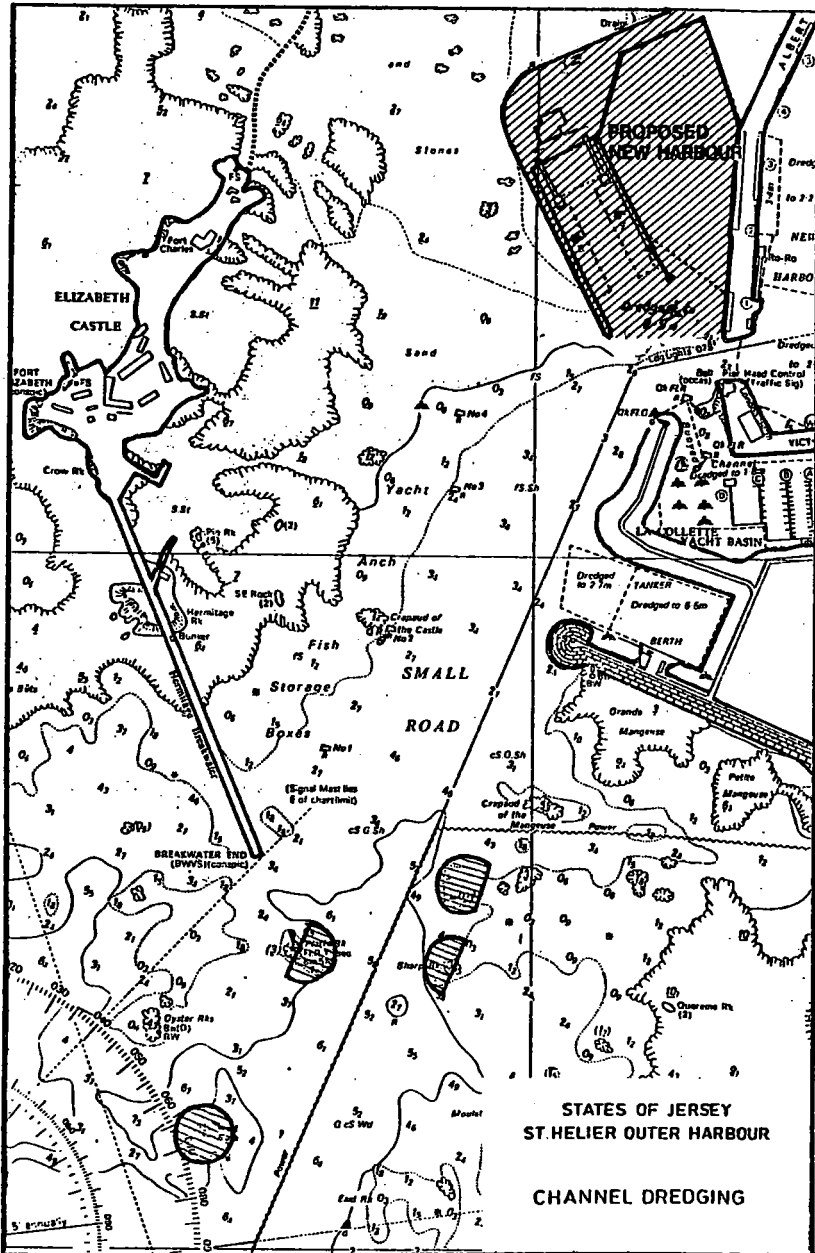
Prince of Brittany	France	1970	21.5	5475	2976	1348	119.6	4.8	1060	547	210	22	U.K.	Brittany Ferries
Prins Albert	Belgium	1978	22.0	6112	3683	1270	118.4	4.5	1400	144	250	37	U.K.	Sealink
Prinz Hamlet	Germany	1973	22.0	5830	3037	1109	118.7	5.0	1100	572	225	37	Germany	DFDS
Quiberon	France	1975	22.0	7927	4230	1700	129.0	4.9	1140	768	252	30	U.K.	Brittany Ferries
Reine Astrid	Belgium	1975	18.5	5440	2760	1520	120.0	5.3	1200	156	500	44	U.K.	Sealink
Roi Baudouin	Belgium	1974	20.0	6524	3285	2325	125.0	5.5	1800	105	425	51	U.K.	Sealink
St. Anselm	U.K.	1980	19.5	7405	3659	-	129.6	5.0	1400	-	310	-	U.K.	Sealink
St. Christopher	U.K.	1981	19.5	7399	3655	-	129.6	5.0	1400	-	310	-	U.K.	Sealink
St. David	U.K.	1981	19.5	7197	3544	-	129.6	4.8	1000	-	306	-	U.K.	Sealink
Saint Patrick II	Ireland	1973	20.5	7984	3233	1893	125.6	5.2	1100	778	290	31	Ireland	Irish Continental
Slena Normandica	-	1975	18.5	5607	2987	1520	120.0	5.3	1200	156	500	44	U.K.	Sealink
The Viking	Finland	1974	21.0	4371	2273	1453	118.5	5.0	1500	114	370	25	U.K.	Sally-Viking
Tregastel	Yug.	1971	20.0	3999	1979	1524	118.0	5.0	1500	228	350	35	U.K.	Brittany Ferries

Total Number of Vessels = 35

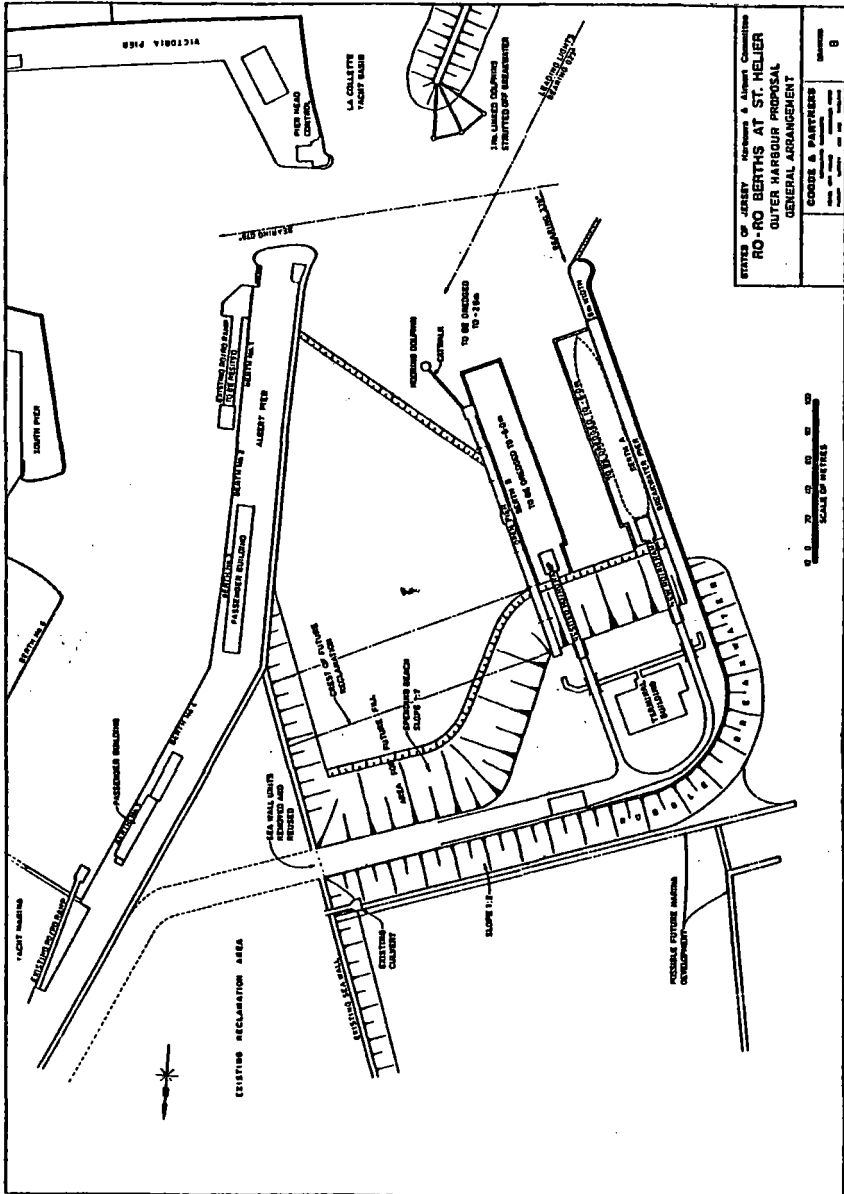


ARTISTS IMPRESSION
RO-RO BERTHS AT ST.HELIER

APPENDIX Hb.



APPENDIX IIc.



APPENDIX III.

Description	Cost
1. Rock blasting, including pre-split and approach channel	£1,190,000
2. Dredging combined rock and soft	£700,000
3. New breakwater (berth number 1)	£5,240,000
4. New pier (berth number 2)	£1,500,000
5. Linkspan and bankseats	£1,024,000
6. Rubble breakwater	£846,000
7. Granular fill and stone face to spending beaches	£1,374,000
8. Surfacing roads and car parks	£261,000
9. Passenger building and services	£735,000
10. Ladders, lighting, bollards, etc.	£250,000
11. Fenders - La Collette breakwater	£300,000
12. Transferring linkspan	£200,000
13. Surfacing access road	£150,000
14. Contingencies.	<u>£275,000</u>
	£14,045,000
Fees: preparation of design and tender documents	£300,000
Supervision of contract	<u>£350,000</u>
TOTAL	<u>£14,695,000</u>

APPENDIX IVa.

Passenger/Vehicle arrivals from United Kingdom

	1979			1980			1981		
	Passengers	Vehicles		Passengers	Vehicles		Passengers	Vehicles	
		Private	Commercial		Private	Commercial		Private	Commercial
January	3,244	1,948	650	2,386	1,286	474	2,495	914	391
February	3,547	772	488	3,992	1,532	573	3,992	812	466
March	9,478	1,353	602	13,700	1,789	601	10,212	1,510	550
April	18,048	2,479	590	19,417	2,404	612	15,502	2,577	533
May	24,030	3,274	626	27,104	3,098	542	26,900	3,136	564
June	26,795	4,697	614	31,669	4,721	615	26,664	3,949	564
July	37,417	6,236	660	40,213	5,803	660	37,212	5,983	612
August	41,741	6,210	659	45,767	6,041	568	44,469	6,304	580
September	33,185	4,102	636	34,038	3,856	569	30,990	3,684	550
October	21,440	2,173	660	24,222	2,257	648	19,918	2,160	581
November	9,972	1,237	594	10,939	1,244	526	9,047	1,178	569
December	4,240	1,001	437	4,401	1,001	437	3,904	855	479
TOTALS	233,137	35,482	7,216	257,848	35,032	6,825	231,305	33,132	6,439

	1982			1983			1984		
	Passengers	Vehicles		Passengers	Vehicles		Passengers	Vehicles	
		Private	Commercial		Private	Commercial		Private	Commercial
January	2,147	938	341	2,690	1,015	487	2,191	1,069	505
February	3,714	1,185	520	3,495	1,120	513	3,290	1,290	532
March	10,498	2,029	687	11,652	2,550	646	8,980	2,275	673
April	15,214	2,577	647	14,654	2,927	598	14,464	3,383	634
May	21,197	2,957	588	21,605	3,713	613	23,575	3,482	613
June	26,955	3,901	672	31,882	4,705	639	31,790	4,958	709
July	37,451	5,796	618	45,034	6,116	650	41,740	5,798	538
August	41,800	5,912	539	47,184	5,872	618	45,197	5,872	689
September	34,618	3,819	604	35,135	3,755	625	33,735	3,647	572
October	16,976	2,031	643	16,854	2,175	598	15,749	2,382	659
November	8,747	1,231	595	8,022	1,377	621	6,392	1,263	661
December	3,590	988	479	3,403	1,024	465	3,076	910	515
TOTALS	222,907	33,364	6,933	241,610	36,349	7,073	230,179	36,329	7,300

APPENDIX IVb.

Passenger/Vehicle arrivals from the Continent

	1979			1980			1981		
	Passengers	Vehicles		Passengers	Vehicles		Passengers	Vehicles	
		Private	Commercial		Private	Commercial		Private	Commercial
January	2,906	52	1	1,180	80	7	419	102	11
February	2,196	125	23	2,478	736	19	2,008	173	20
March	3,865	864	15	4,516	301	18	3,464	359	30
April	32,194	1,042	20	21,848	825	39	14,989	790	35
May	37,719	559	27	45,867	607	29	30,297	621	52
June	50,851	1,000	27	41,182	951	12	34,224	714	53
July	44,584	1,473	30	40,565	1,293	4	35,045	1,297	47
August	53,003	1,511	29	40,185	1,516	-	45,401	1,667	34
September	39,639	1,091	29	32,696	1,029	-	31,309	1,232	37
October	12,979	594	32	8,618	539	36	7,198	617	37
November	3,842	239	6	2,723	298	21	1,942	348	27
December	1,842	172	-	1,196	185	29	1,271	204	32
TOTALS	285,620	8,722	239	243,054	8,360	214	207,567	8,124,	415

	1982			1983			1984		
	Passengers	Vehicles		Passengers	Vehicles		Passengers	Vehicles	
		Private	Commercial		Private	Commercial		Private	Commercial
January	337	88	9	361	98	6	298	76	2
February	1,636	266	22	1,412	236	13	913	207	12
March	3,351	453	30	3,542	542	25	3,349	291	21
April	18,237	924	37	14,387	803	22	18,485	776	29
May	31,024	841	33	26,695	702	41	25,575	1,004	30
June	33,374	985	44	32,338	828	14	36,958	996	31
July	35,577	1,401	48	31,298	1,373	-	33,234	1,470	34
August	42,627	1,620	45	41,381	1,557	29	41,474	1,685	34
September	28,252	1,200	43	22,250	1,149	37	22,331	1,250	38
October	8,377	600	31	9,348	645	24	6,786	632	29
November	2,021	265	28	2,245	298	31	2,499	295	34
December	1,013	196	31	942	209	26	1,330	228	20
TOTALS	205,826	8,839	401	186,199	8,440	268	193,232	8,910	314

APPENDIX IVc.

Sea Freight - United Kingdom/Jersey/United Kingdom

	1981		1982		1983		1984	
	FREIGHT		FREIGHT		FREIGHT		FREIGHT	
	(Metric Tonnes)		(Metric Tonnes)		(Metric Tonnes)		(Metric Tonnes)	
	<u>IN</u>	<u>OUT</u>	<u>IN</u>	<u>OUT</u>	<u>IN</u>	<u>OUT</u>	<u>IN</u>	<u>OUT</u>
January	29,853	6,698	29,283	4,072	28,863	5,006	30,824	4,511
February	33,408	4,014	29,531	5,554	30,674	4,375	35,831	3,875
March	30,764	4,893	33,959	4,366	31,201	5,463	35,224	4,820
April	27,727	2,157	31,389	3,423	28,404	3,183	29,781	3,765
May	29,519	6,570	32,033	11,574	28,657	8,087	31,308	6,975
June	22,486	19,956	31,767	21,339	31,038	26,818	30,688	24,933
July	34,630	10,476	32,785	5,732	29,402	5,510	28,553	5,198
August	21,993	3,184	26,019	3,683	29,070	3,188	29,659	3,522
September	26,664	3,677	25,696	4,269	28,672	4,383	33,899	3,817
October	29,956	3,114	33,177	2,557	26,509	3,029	27,212	2,401
November	28,570	2,289	31,805	2,781	30,869	2,702	33,554	3,128
December	30,721	1,918	27,857	4,017	28,407	4,274	29,470	5,116
TOTAL	346,286	68,946	365,301	73,367	351,766	76,018	376,003	72,061