



ARROL
Marina
CONSULTANCY

CAPABILITY PRESENTATION

V.11

WWW.ARROL.COM



Skills Summary

T: +44 7982 819 391
E: consult@arrol.com
www.arrol.com

- 36 years of marina and waterfront development experience as a consultant, designer, developer, investor, and manager across 41 countries.
- 17 years of experience in dredging, marine civil engineering, harbour works & vessel operations.
- Experienced in the practicalities of waterfront development & regeneration.
- Expert in the design and marketing of superyacht facilities and events.
- Has worked as a contractor, manager, and marina investor.
- Has a reputation for giving very clear and concise advice.
- Experienced and cost effective in the role of client's representative and/or lead consultant.
- Experienced in claims preparation and arbitration.
- Author of the  **Marina** MANUAL

Education & Employment Summary

- Educated at Oundle School, and the University of Manchester Institute of Science & Technology. Bachelor of Science degree in civil engineering.
- Chartered Civil Engineer (CEng), and Fellow of the Institution of Civil Engineers (FICE) of Great Britain.
- 1971 – 1988: Civil engineering and dredging industry. Included 9 years with Royal Bos Kalis Westminster (the world's largest dredging company), and 6 years as Managing Director of Dredgework Services.
- 1988 – 2004: Managing Director of the marinas division of Camper & Nicholsons (established 1782).
- 2005 – 2007: Director of Island Global Yachting (a Dubai World company).
- 2008 – date: Principal of Arrol Marina Consultancy.

This Presentation

- Marina assignments by country.
- Featured marina projects.
- Urban waterfront regeneration projects.
- Marina buildings.
- Concept designs.
- Yachting & Superyachts.
- Boatyard operations.
- Marina expertise.
- Civil engineering expertise.
- Marina management.

Some of the work featured in this presentation was undertaken by Eng. Arrol prior to the formation of Arrol Marina Consultancy. Some photos are included for general illustrative purposes only and are library photos, not photos taken by Eng. Arrol.

Marina assignments by country

- Antigua
- Argentina
- Bangladesh
- Belgium
- Bermuda
- China
- Cyprus
- Dominican Republic
- Egypt
- Finland
- France
- Germany
- Gibraltar
- Greece
- Grenada
- India
- Indonesia
- Ireland
- Italy
- Kuwait
- Lebanon
- Malta
- Mauritius
- Montenegro
- Oman
- Philippines
- Portugal
- Qatar
- Russia
- Sardinia
- Saudi Arabia
- Singapore
- Sri Lanka
- St Lucia
- Trinidad & Tobago
- Turkey
- Thailand
- United Arab Emirates
- United Kingdom
- Uruguay
- USA

Featured marina projects

- Marina management contracts.
- Dubai Festival City.
- Palm Jumeirah, Dubai.
- VIP Berths, Dubai Creek.
- Bander Al Rowdha, Oman.
- Deira Island, Dubai.
- St Peter's Basin, UK.
- Grand Harbour Marina, Malta.
- Gosport Marina, UK.
- Port Louis, Grenada.
- Port Takola, Thailand.
- Port City Colombo, Sri Lanka
- Gateway of India, Mumbai
- Port Gocek, Turkey.
- Pafos, Cyprus.
- St Petersburg River Yacht Club, Russia.
- The Wave Muscat.
- The Pearl Qatar.
- Loano Marina, Italy.
- Sestri Levante, Italy.
- St Petersburg Yacht Club, Russia.
- The Camper & Nicholsons portfolio, UK
- Mauritius Marinas Study.
- Royal Yachts, Oman.

Marina management contracts



Bangor - UK



Dubai Festival City - UAE



Port Gocek - Turkey



Lagos - Portugal



Bander Al Rowdha - Oman



Grand Harbour Marina - Malta



Kilrush Creek - Ireland

During the period
1988 – 2007.

Dubai Festival City



2004 – 2007: Concept & detailed design, tendering, and delivery, followed by management under contract.

Palm Jumeirah, Dubai



2005 – 2007: Concept design, technical studies (e.g. finite element analysis of deep water moorings), design development, financial projections, market analyses, and procurement.

VIP Berths Dubai Creek



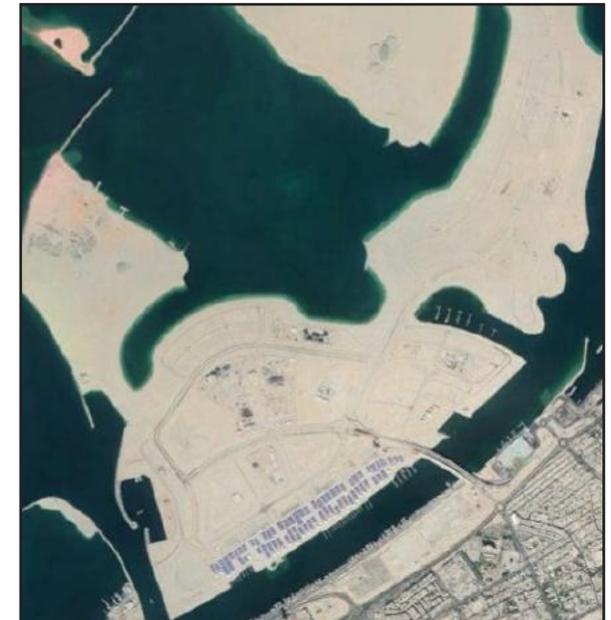
2006 – 2007: Concept design and design development, procurement, and installation.

Marina Bander Al Rowdha - Oman



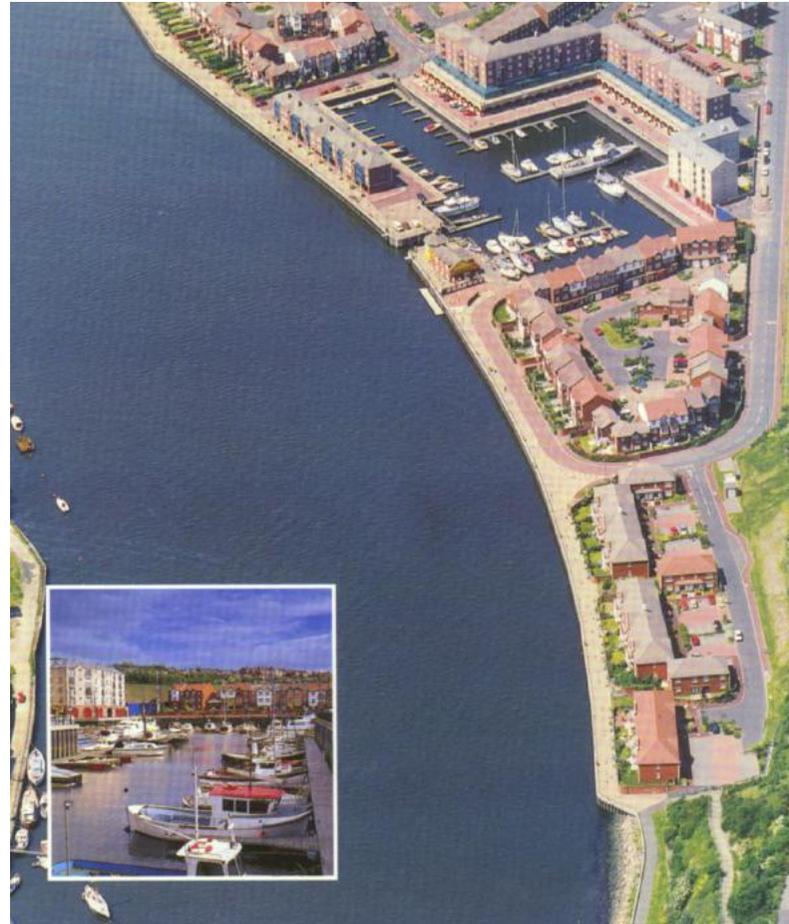
2005 – 2007: Management under contract. Produced re-development and expansion masterplan.

Deira Island - Dubai



2018 – 2019: 4 Marinas comprising more than 300 pontoons and 30 gangways built and installed in 8 months.

St. Peter's Basin - UK



1999 – 2001: Marina
consultant & commissioning
manager.

Grand Harbour Marina - Malta



The marina was opened in 2005 by Her Majesty Queen Elizabeth II



1999 – 2006: Promoter, major shareholder/investor, lead designer, and managing director; international marketing; technical studies. Achieved Bureau Veritas classification on superyacht moorings. Company taken to an IPO in 2006.

Gosport Marina - UK



1994 – 2001: Modernised and doubled the size of one of the UK's oldest marinas. Lease negotiation with the Crown, planning & consents, sale of apartment site to a developer, all marina & civil engineering specifications, construction management, commissioning & operations management.

Port Louis - Grenada



2002 – 2006: Project initially known as Port George. Contract negotiator & concept designer. Led EIA and hurricane study. Later became an investor.

Port Louis - Grenada



2002 – 2006: Project initially known as Port George. Contract negotiator & concept designer. Led EIA and hurricane study. Later became an investor.

Port Takola - Thailand



2009 - 2016: Marina development and operations consultant for 55HA Marina and mixed use project near Krabi.

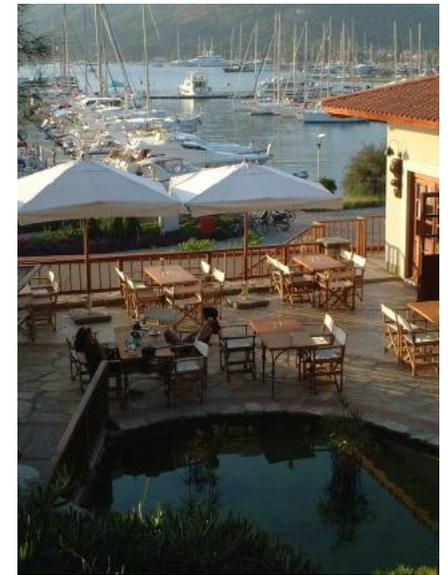
Port Takola - Thailand



2009 - 2016: Marina development and operations consultant for 55HA Marina and mixed use project near Krabi.

Port Gocek - Turkey

“The most beautiful marina in the eastern Mediterranean”.



1999 – 2004: Part-design, commissioning, and marina management under contract.

Pafos Marina - Cyprus



2004 – 2009: Marina consultant to a consortium during their successful tender bid.

St Petersburg River Yacht Club - Russia



2009 – date: Marina, marine works, and operations consultant. Design includes a sailing academy, automated dry-stack boat storage, and boatyard.

The Wave Muscat



2005: Marina design review consultant.

The Pearl Qatar



2005: Marina design review consultant.

Loano Marina - Italy



1994: Financial appraisal.

Sestri Levante - Italy



1994: Concepts for a marina.

St Petersburg Yacht Club - Russia



Marina redevelopment
consultant to UK architects
for client GAZPROM

The Camper & Nicholsons portfolio.



Conwy



Neyland



Penarth



Gosport



Amble

1988 – 1992: Portfolio
Managing Director.

Mauritius Marina Development Study



2012: Detailed study of the coastline of Mauritius and preparation of a report on the development of marinas, yachting, and waterfront real estate.

Royal Yachts - Oman



2014: Manufacture and installation of 5m wide pontoons for His Majesty the Ruler of the Sultanate of Oman.

Port City Colombo - Sri Lanka



2020-2021: Detailed project report covering marina and marina real estate, boatyard and management options. A 270HA project.

Gateway of India - Mumbai



2019: Embarkation jetty for yachtsmen and customers of the harbour's floating restaurants.

Urban waterfront regeneration projects

Featured examples:

- Cottonera Waterfront, Malta.
- Prince's & Victoria Docks, India.
- Penarth Marina, Wales.
- St Petersburg River Yacht Club, Russia.
- Puerto Madero, Argentina.
- St. George Marina, Lebanon
- Jeddah Central, Saudi Arabia

Cottonera Waterfront - Malta



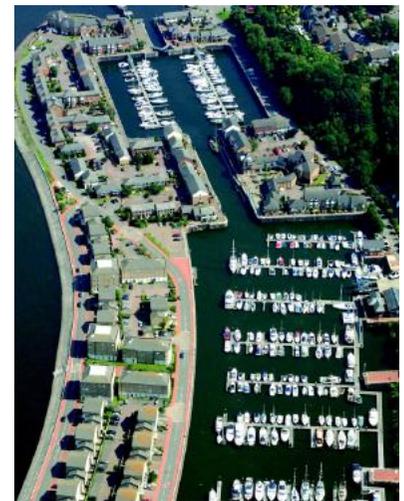
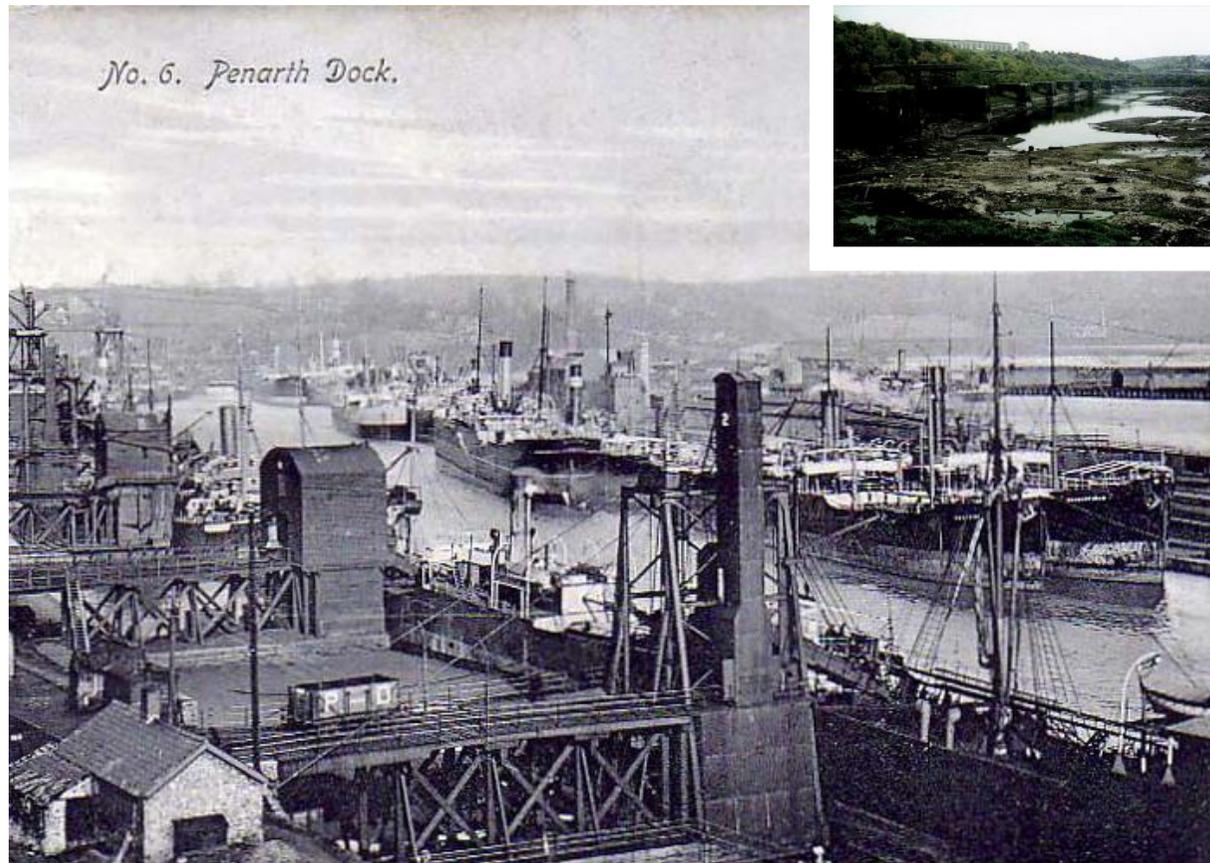
2001 – 2004: Identified & conceived lease and refurbishment of the Treasury building (built 1542) for Grand Harbour Marina.

Prince's & Victoria Docks - India



2007 – 2012: This mixed-use urban waterfront re-generation project in Mumbai was conceived by ARROL on behalf of a heritage organisation wishing to save the docks from destruction.

Penarth Marina - Wales



1988 – 1992: Marina development and operations located at what was once the world's largest coal exporting dock. The yacht lock handles the 12.5m tidal range which is the second greatest in the world.

St Petersburg River Yacht Club - Russia.



2009 – 2012: The site of the old St Petersburg Imperial Yacht Club, this facility is due for total regeneration. Acted as consultant for the marina and yachting facilities design studies.

Puerto Madero – Argentina



1996 – 1998: Located in the centre of Buenos Aires, Puerto Madero has been at the centre of a mega urban regeneration project.

Designed and tendered the marina installation.
Contributed to the design of the floating yacht club.

St. George Marina – Lebanon



2002 - 2004: Preliminary designs for the marina and yacht club. Review of breakwater over-topping criteria with a view to reducing crest height.

JEDDAH CENTRAL – Saudi Arabia



2020: Jury member
assessing masterplan
proposals from international
consultants

Other regeneration projects

- Morgan's Point, Bermuda.
- St Peter's Basin, Newcastle-upon-Tyne, England.
- Royal Clarence Yard, Portsmouth Harbour, England.
- Albert Dock, Liverpool, England.
- Portishead Dock, England.
- Conwy, Wales.
- Exmouth Dock, England.
- Burry Port, Wales.
- Gun Wharf, Gibraltar.



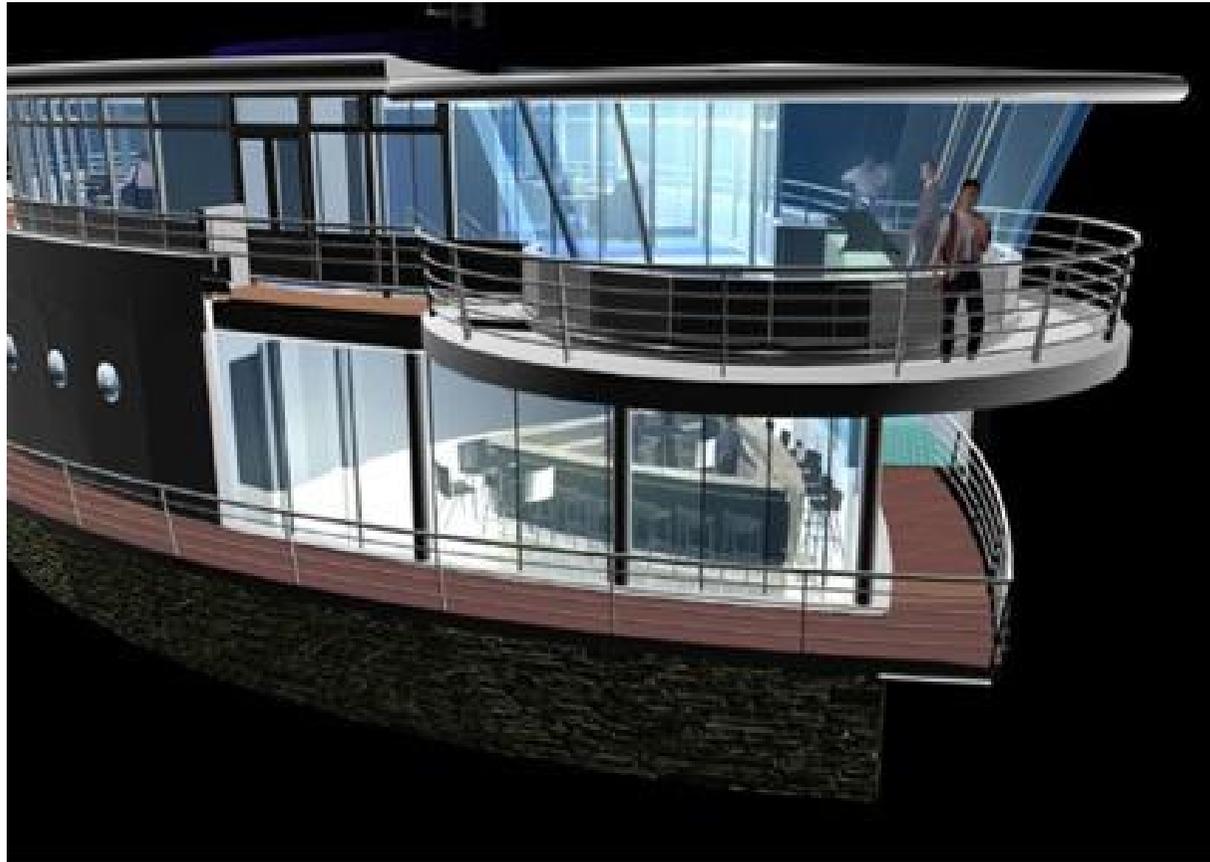
Marina buildings

The word “Capitainerie” comes from the French language and is widely used to refer to the 24/7 administrative and control centre of the marina, often incorporating a yacht club. This is the key marina building.

Whether for facilities ashore or afloat, ARROL has skills for combining an appreciation of operational functions and needs with appropriate design.

For each of the following buildings, the concept design and the specification was by ARROL.

Gosport Marina - UK



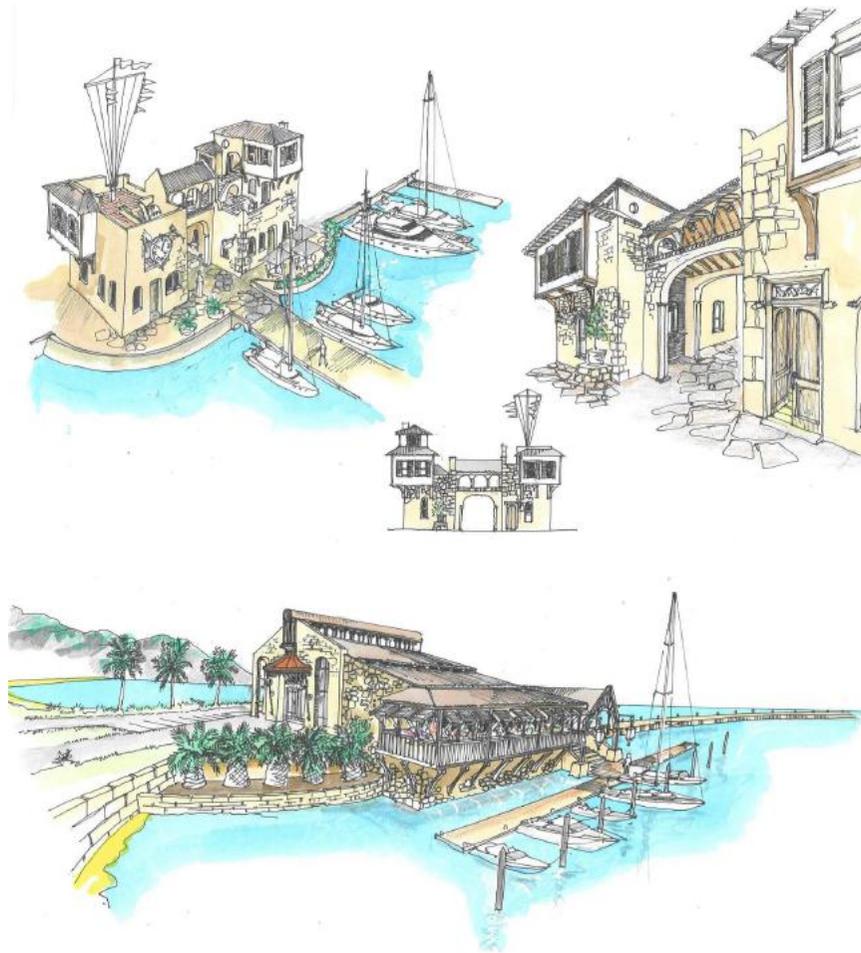
2001 – 2002: RIBA
competition award
winning design. Prepared
competition criteria
& adjudicated 120 entries.

Palm Jumeirah, Dubai



2006: Concept design and design development to enable architect to prepare renderings.

Gocek - Turkey



2008: Capitainerie and yacht club with restaurant. Concept design translated to sketches by architect.

Grand Harbour Marina - Malta



2002 – 2004: This building, the Treasury, dates from 1542. Identified the potential, leased the building, and concept designed the renovation.

St Petersburg River Yacht Club - Russia



2009: Working with architects to define the marina's needs and integrate them with the iconic hotel and public waterfront.

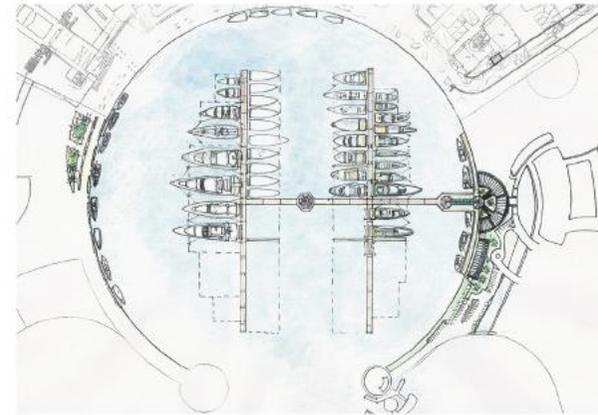
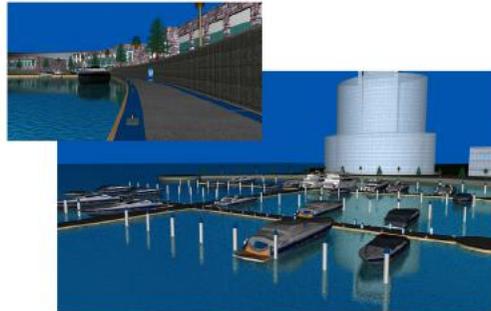
Concept Designs

Examples from:

- Dubai Festival City.
- Palm Jumeirah, Dubai.
- Bander Al Rowdha, Oman.
- Marina village, Oman.
- Marina village, Middle East.
- Port George, Grenada.
- Project “X”, Kuwait
- Watson Island, Miami.
- Port Chiberta, France.

In each case the principle marina elements were conceived by ARROL.

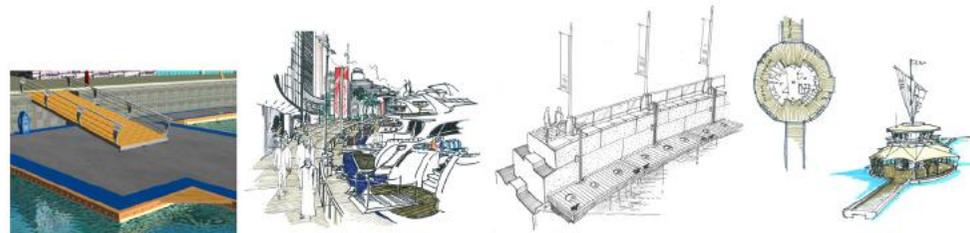
Dubai Festival City



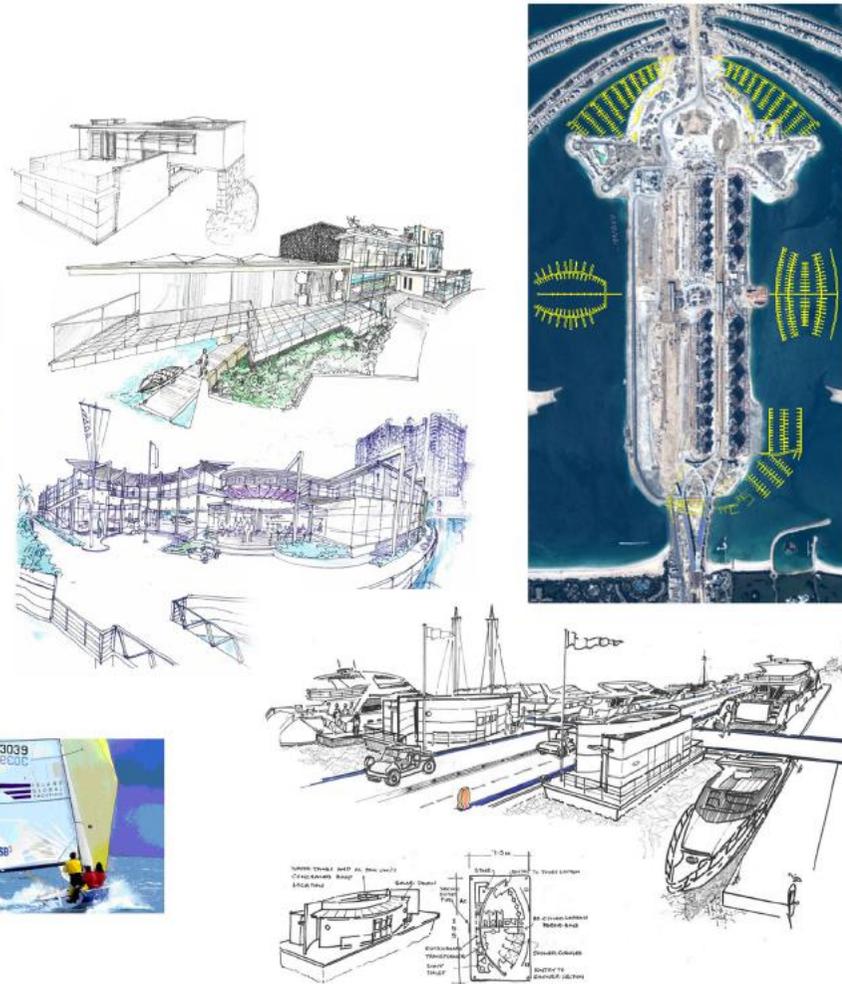
DUBAI FESTIVAL CITY DUBAI - UAE

The Festival Marina is located within a 240m diameter basin at the heart of the project, surrounded by the shopping centre and the Intercon, Crown Plaza and Four Seasons hotels. Berths are provided for yachts of 15m - 35m.

December 2006



Palm Jumeirah, Dubai



PALM JUMEIRAH
DUBAI - UAE

The Palm Jumeirah will have a number of marinas, and a small boatyard, totalling in all about 2000 berths.

December 2006



Bander Al Rowdha - Oman

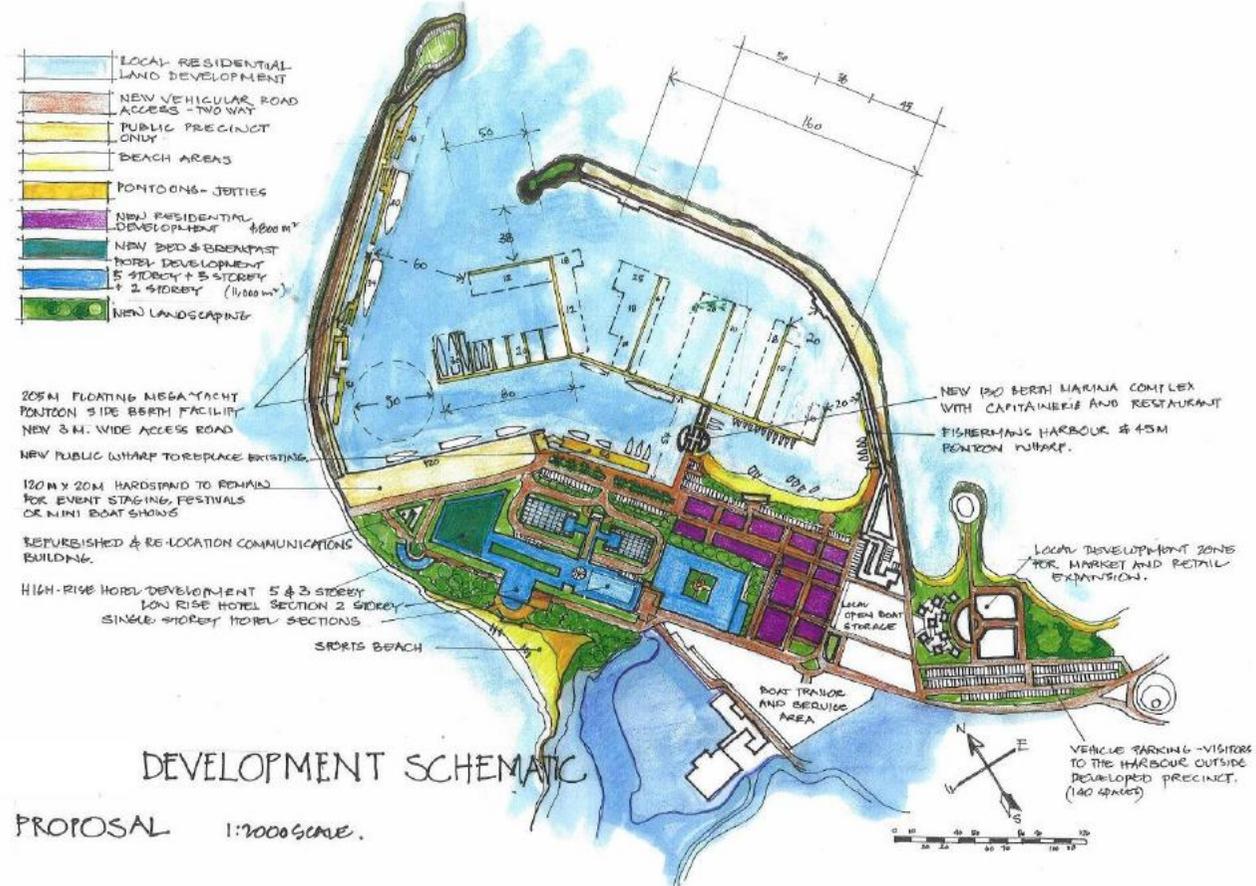


**MARINA BANDER AL ROWDHA
MUSCAT - OMAN**

Built in the late 1990s, the marina has about 140 berths and a small boatyard. IGY proposes to extend the marina to the south, increasing its capacity fourfold and to develop the waterfront with high quality commercial and residential buildings.

December 2006

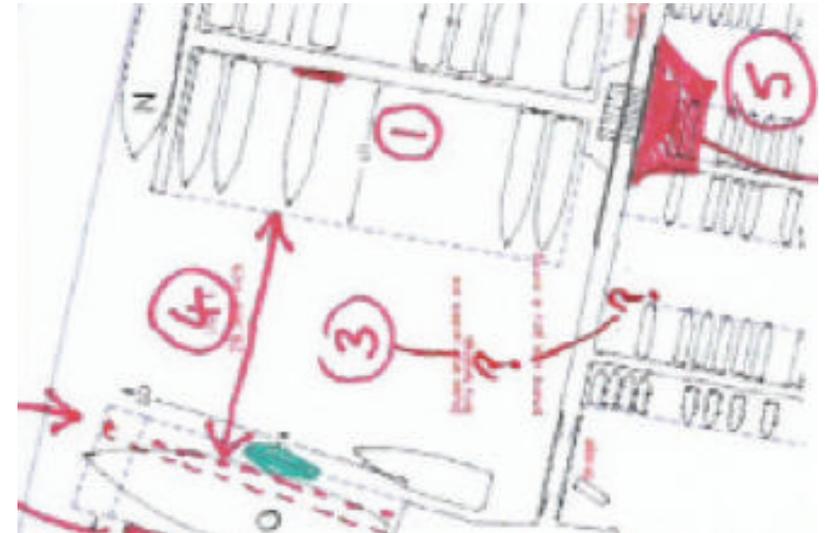
Marina village - Oman



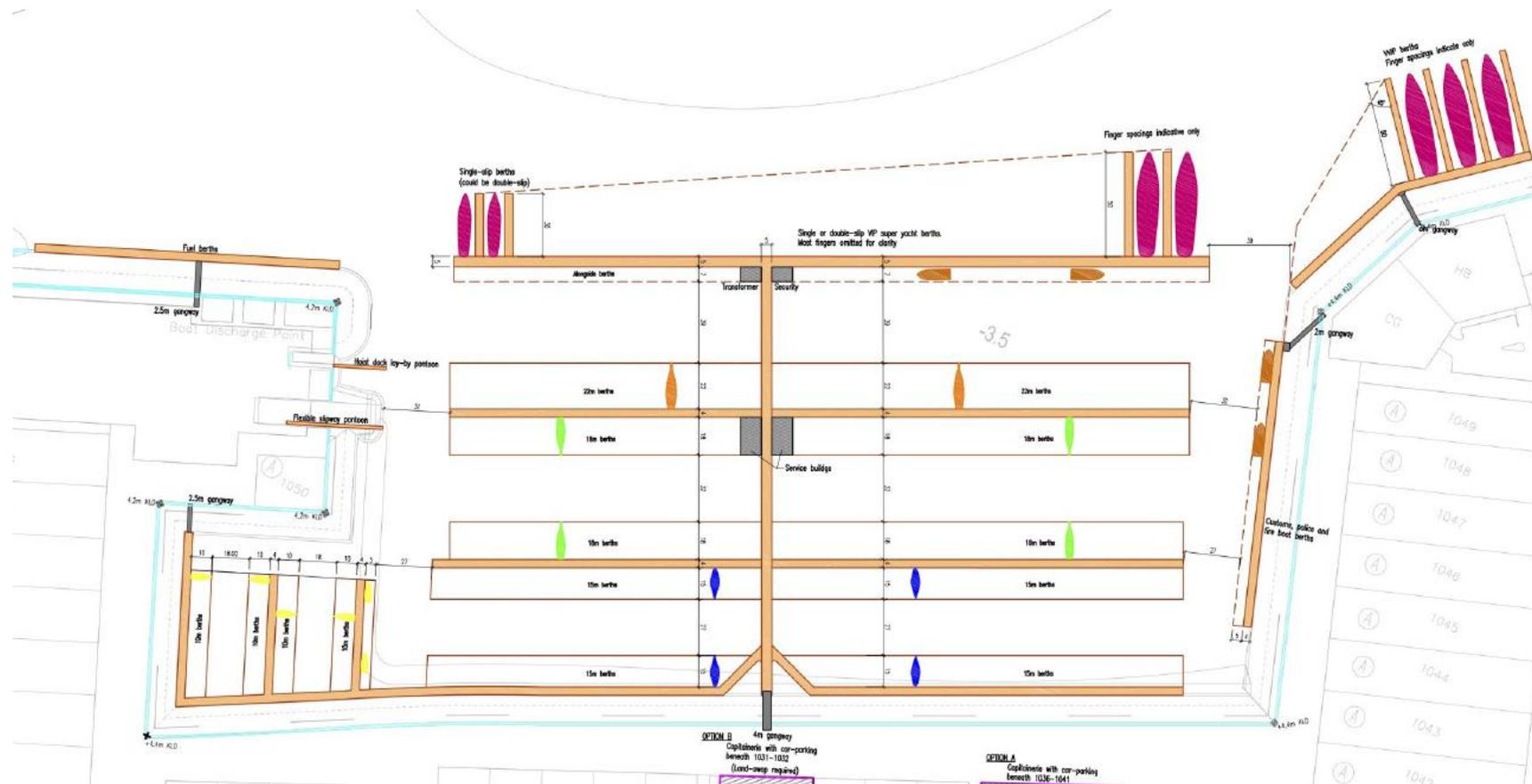
Marina village Middle East



Port George - Grenada



Project "X" - Kuwait



Watson Island - Miami



Port Chiberta - France



Yachting & Superyachts

Yachting and other maritime events have a major impact upon the success of a marina and waterfront project. An animated harbour adds value to the real estate.

Case study:

In the late 1990s ARROL was co-founder and director of Portsmouth Harbour Events Co Ltd, a public/private sector, not-for-profit company which sought to raise the social and economic profile of the harbour.

Within just a couple of years the company was instrumental in bringing a large number of well-known events to the harbour, including:

- Tall Ships Race 2002 (finish).
- Times Clipper Round the World Race 2001 (finish).
- BT Global Challenge (finish).
- RORC IR 2000 championship.
- International Festival of the Sea 2001.
- Mini-Transat qualifier 2001.

Many leading yachting organisations have since made the harbour their home port, the most notable being the HQ for the British challenger for the 2015 and 2021 series of the America's Cup.





A yacht club, with its numerous sailing and social activities, animates and adds value to the whole waterfront and the waterspace. (Above images are for general illustration purposes only.)

Case study:

Superyacht berths and events differentiate a project and add value. ARROL incorporated superyacht berths in both these projects.



GRAND HARBOUR MARINA
MALTA



Port George
Maritime Community, St. George's, Grenada, West Indies
12° - 02.7' North, 61° - 45.0' West

Boatyard operations



Experience of yacht yard design and operations.



Experience of ship repair on slipways, dry-docks, & floating dry-docks, in Nigeria and the UK.

Marina expertise

- Site appraisal.
- Imaginative concept design & master-planning.
- Wet-berthing & moorings.
- Dry-berthing.
- Yacht yard & other support facilities.
- Contract documents & construction supervision.
- Operations management & administration.
- Specialist legal documentation.

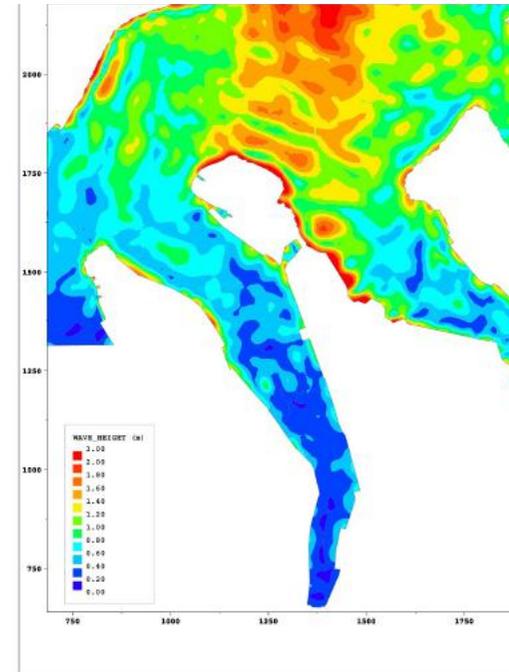


Figure 4 Predicted significant wave heights - 50 year return period, $H_s=5.4m$, $Dir=48^\circ N$, $T_p=13.0s$

Experienced at collaborating with architects, engineers, regeneration agencies, property developers, planners & lawyers.

- Managed third-party marinas in 5 countries.
- Been a promoter and an investor.
- Commissioned and marketed new marinas.
- Undertaken assignments in 41 countries.
- Familiar with the super-yacht sector.
- Yachting events & clubs.
- International marketing & berth sales.
- Director of two of the world's leading marina businesses.

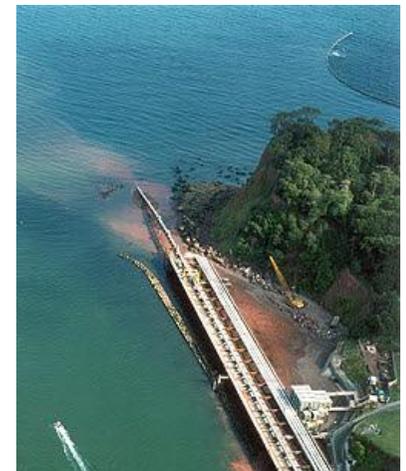


The ownership of the above logos is acknowledged

Civil engineering expertise

17 years experience in the fields of:

- Dredging & land reclamation.
- Environmental criteria & impact assessment.
- Urban waterfront engineering.
- Harbour layouts, wave climate and siltation.
- Quays, jetties, & ship moorings.
- Pipeline crossings & outfalls.
- Beaches, breakwaters & seawalls.
- Locks & other water control devices.
- Tenders, conditions of contract, & legal issues.
- Ship ownership & operations.
- Operation of support craft & fast boats.



- Marine civil engineering with both dry plant and floating plant; working with multi-national workforces.
- Quay walls, breakwaters, revetments and jetties; marine piling; land and marine site investigation.
- Pipeline trenching, pipe-pulling, & trench backfilling.
- Dredging, land reclamation & beach replenishment; environmental clean-up.



The ownership of the above logo is acknowledged

- Construction project and cargo logistics.
- Crew boats and passenger ferries.



- Environmental clean-up; rock blasting and rock placing; hydrographic surveying; diver support and crane barge operations; marine mineral recovery.
- Sector-gate and mitre-gate locks, and tidal flap-gates.
- Operation of many types of dredger, crane barges, hopper barges, tugs and high speed passenger craft.
- Estimating, preparation of contract documents, tendering, measurement, and claims management; alternative dispute resolution and arbitrations.



Marina management

ARROL has extensive international marina management experience. As well as being the author of The Marina Manual, he is the author of a widely used Marina Management Agreement.

Marina Management Agreement

MARINA MANAGEMENT AGREEMENT

This Marina Management Agreement (the "Agreement") dated _____ is made between:

[1] _____ a limited liability company organized under the laws of _____ with registered office at _____ being the owner of the marina the subject of this Agreement, including its permitted successors and assigns ("the Owner") of the first Part; and

[2] _____ a limited liability company organized under the laws of _____ with registered office at _____ (the "Manager") of the second Part;

jointly referred to as the "Parties".

WHEREAS

(a) The Owner has (or will have) legal ownership and operational control over the marina and the harbor described herein;

(b) The Manager is experienced in the commissioning, marketing, management and operation of marinas;

(c) The Owner wishes the Manager to provide management services to the marina and to the harbor; and

(d) For convenience of administration, the Manager and the Owner desire to enter into this Marina Management Agreement.

NOW IT IS HEREBY AGREED AS FOLLOWS:

- Definitions
- "Accounting Year" means a calendar year ending on 31st December.
- "Auditor" means the public certified accountant or firm of accountants appointed by the Owner to audit the accounts of the Marina at the end of each Accounting Year.
- "Bank Account" means the bank account into which all revenue of the Marina shall be received and from which all expenses of the Marina shall be paid.
- "Business Plan" means a report prepared by Manager which contains the customary business planning items such as management strategy, Gross Receipt projections and Normal Operating Expenses projections, marketing plan, investment proposals, pricing policy, staffing arrangements and salaries, and market analyses for the Marina.

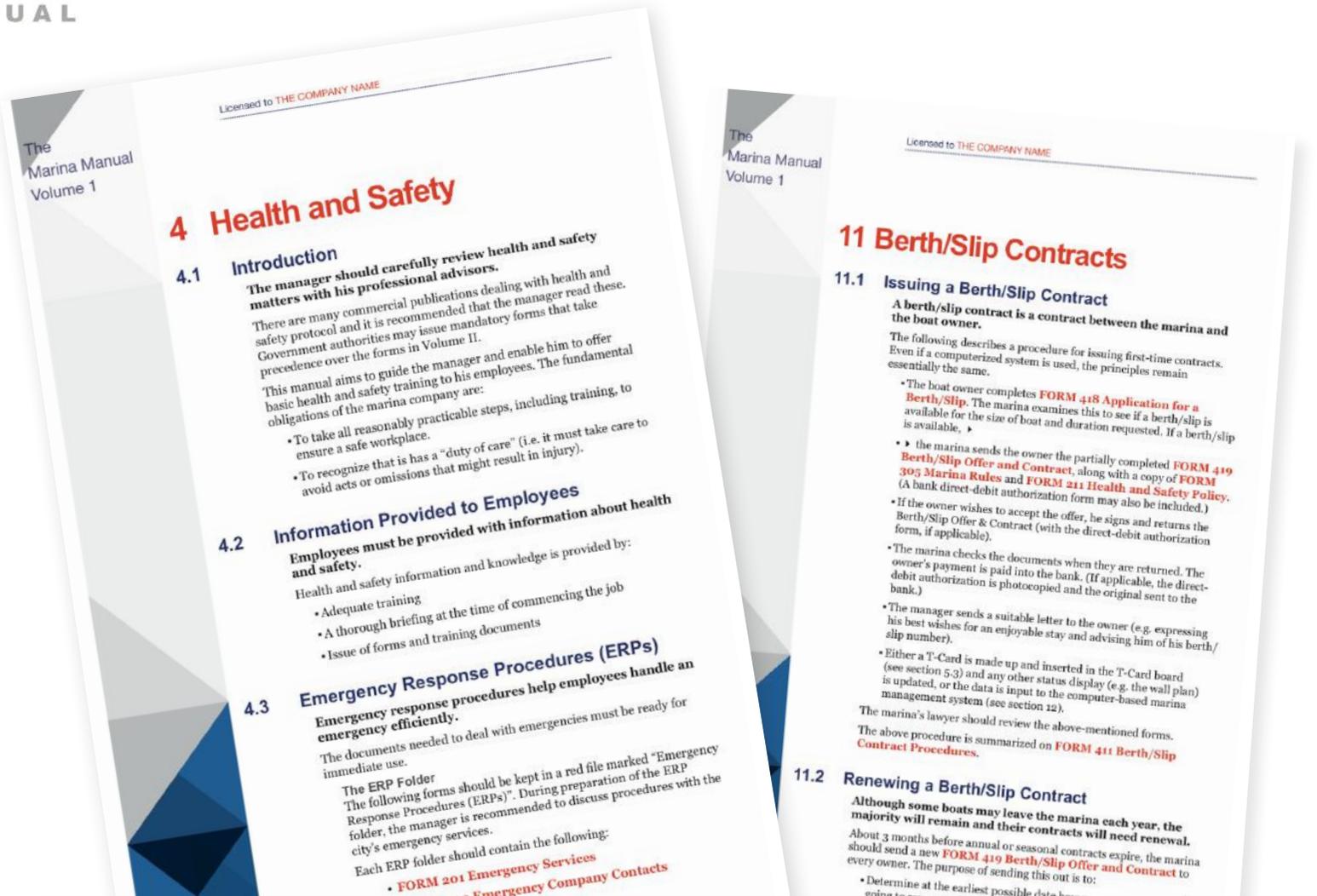
The Marina Manual

Profit & Loss

CASE: 2.1 DATE: 11-Nov-18

	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7	Yr 8	Yr 9	Yr 10	Notes
	Build	Open									
SALES											
Berthing & storage ashore											
Long-term superyacht berths - sale premiums	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Long-term superyacht berths - annual service charges	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Long-term standard berths - sale premiums	8.0	27.0	62.0	67.0	70.0	0.0	0.0	0.0	0.0	0.0	
Long-term standard berths - annual service charges	0.0	1.1	2.1	3.0	3.9	4.1	4.2	4.3	4.4	4.4	
Superyacht berths - annual rentals	2.2	4.8	7.9	11.1	14.9	19.6	19.9	16.3	16.3	16.6	
Standard berths - annual rentals	10.4	22.8	37.6	53.4	70.4	73.9	78.4	76.9	78.4	78.4	
Dinghy docks	0.0	0.1	0.2	0.3	0.5	0.5	0.5	0.5	0.5	0.5	
Visitor & short-term berthing allow	1.0	3.0	5.0	7.0	9.0	10.0	10.0	10.0	10.0	10.0	32
Seasonal dry-storage	3.0	3.0	7.0	9.0	10.0	10.0	10.0	10.0	10.0	10.0	33
Full-time dry-storage	0.0	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.0	4.0	
Miscellaneous	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	08.0	64.0	124.0	153.0	191.0	177.1	179.1	121.9	121.9	123.0	
Rentals & other											
Rent of marina commercial units	1,000	1,000	1.0	2.0	2.0	3.0	3.0	3.0	3.0	3.0	
Rent of yard commercial units	1,000	2,000	0.0	0.0	1.0	2.0	2.0	2.0	2.0	2.0	
Net profit on 10No. 20m berths with linked synchronous accommodation	0.0	0.0	40.0	40.0	40.0	40.0	40.0	40.0	0.0	0.0	11
Advertising space	0.1	0.2	0.4	0.5	0.6	0.7	0.8	0.8	0.8	0.8	
Yacht store rental	0.0	0.2	0.4	0.6	0.8	1.0	1.0	1.0	1.0	1.0	
Miscellaneous	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	1.1	2.4	4.4	4.6	4.6	4.6	4.6	4.6	4.6	4.6	
Utility sales											
Electricity to berths	0.0	1.0	1.0	2.0	3.0	3.0	3.0	3.0	3.0	3.0	
Water to berths	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17
	0.0	1.0	1.0	2.0	3.0	3.0	3.0	3.0	3.0	3.0	
Fuel sales											
Petrol	0.0	0.0	0.5	1.0	2.0	3.0	3.0	3.0	3.0	3.0	38
Diesel	0.0	2.0	7.0	12.0	16.0	16.0	16.0	16.0	16.0	16.0	38
	0.0	2.0	7.0	14.0	19.0	19.0	19.0	19.0	19.0	19.0	
Technical Services (Boatyard)											
Slipways:											
Lift, wash-off & relaunch	2.0	3.0	4.0	7.0	8.8	8.8	8.8	8.8	8.8	8.8	34
Store-gear repairs	0.0	0.5	1.0	1.5	2.0	2.5	3.0	3.0	3.0	3.0	
	2.0	3.5	5.0	8.5	10.8	11.3	11.8	11.8	11.8	11.8	
Repairs & servicing:											
Underway painting	2.0	5.0	7.0	9.0	11.0	11.0	11.0	11.0	11.0	11.0	35
Repairs & servicing generally	5.0	15.0	20.0	25.0	35.0	35.0	35.0	35.0	35.0	35.0	36
	7.0	20.0	27.0	34.0	46.0	46.0	46.0	46.0	46.0	46.0	
Total Sales	81.5	124.0	255.0	308.0	362.0	290.0	302.0	224.0	224.0	226.0	

A two-volume A –Z of marina administration & operations.



THANK-YOU



Grand Harbour Marina - Malta