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Baltic Quay – A marine centre of excellence and skill?

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1 Introduction

There exists proposals to redevelop Baltic Wharf [ref 1]. These proposals are mostly based around housing, with the boat-yard considerably reduced in size, and of questionable long term viability. There exists an alternative that builds on the current unique facilities to create a centre of marine excellence and skill that would continue the town's long association with the sea, and create the potential for 100's of highly skilled and well paid jobs that would bring significant benefit to the local economy as well as contributing to the essential strategic goal of moving to a sustainable and resilient economic future.

The following alternative proposals have been developed after discussions with a range of organisations including the Local Enterprise Partnership, British Marine Federation, Maritime UK (South West) , South Devon College, Dart Harbour & Navigation Authority, Salcombe Harbour Authority, Totnes Town Council, South Hams District Council and many other local organisations, businesses and individuals. It is their knowledge, expertise, imagination and support that has resulted in the following preliminary proposals.

Further, as result of these proposals, SHDC has now commissioned an economic study of the potential of the marine sector across the district and how this relates to these proposals for Baltic Wharf. The report is due sometime in August.

Just some of the reasons why it is widely believed that the Baltic Wharf boat-yard has potential as a centre of maritime excellence are listed below. These are developed further in section 2 – The Opportunity.

1. The changing nature and growth of the marine sector in the South West;
2. The opportunities arising from the Celtic Sea Floating Offshore Wind initiatives;
3. The proximity to South Devon College at Noss Marina (8 miles down river);
4. The Freeport developments at South Yard and Langage;
5. The proximity to the facilities of Totnes (a 0.5 mile walk away);
6. Sufficiently removed from the town to limit possible nuisance from industrial activity;
7. The existing large undercover facilities;
8. Good road access for the deliver of large vessels and structures (pontoons etc);
9. Deep (3.6+m MHWS) water navigation to the Quay with a 60m LOA turning bay;
10. Established range of maritime businesses;
11. Spacious site allowing maneuverability, large craneage and outside storage.

Taken together, these advantages represent a real opportunity to create something of real long-term value for the town, and the district as a whole.

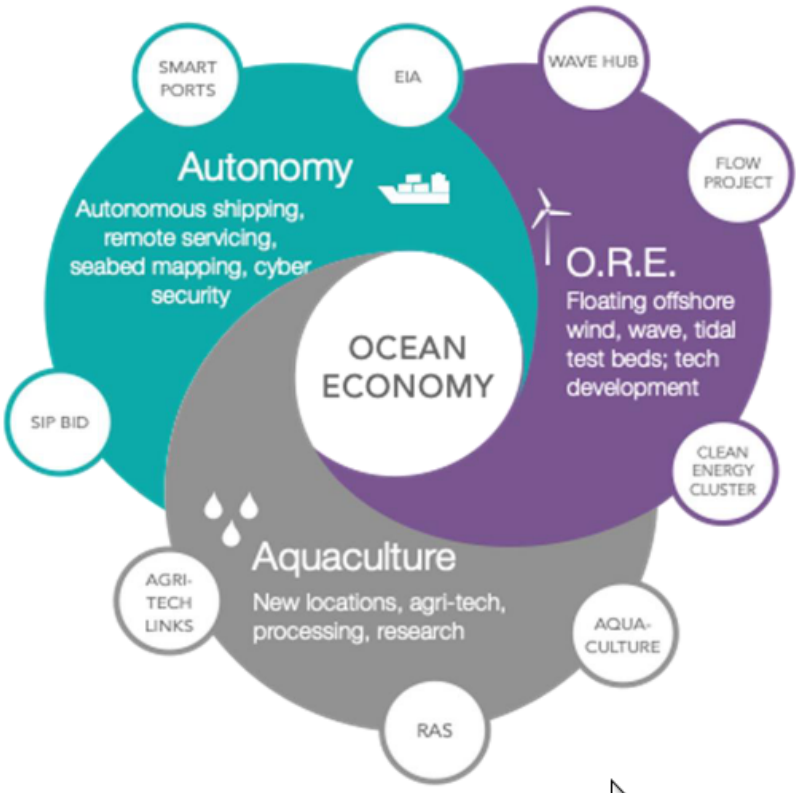
The suggested future for Baltic Wharf concentrates on the boat-yard, but also contain some reference to the remaining area of the site. While the site overall has been permissioned for mixed development the residential aspect of this mix could and possibly should be considered to have already been delivered along Baltic Way. It is therefore proposed that the remainder of the site should be largely for business use and in particular for those related to the marine sector. It is believed that these suggestions are inline with the detail of the policies in the Joint Local Plan(JLP) (eg. DEV14, TTV21), as well as its clear ambitions and spirit as supported by the Supplementary Planning Document.

2 The Opportunity

It is the confluence of many factors that creates the opportunity to make Baltic Wharf in Totnes a center of marine excellence and skill, as outlined in the Introduction. The potential exists to bring 100's of highly skilled jobs to the town of Totnes and the South Hams and thereby continuing the town's long association with the marine industries sector and the marine environment.

2.1 The South West Marine Industries Market Environment

The SW Ocean economy is summarised in a diagram © MaritimeUK SW:



2.1.1 Global Economy

The OECD Global Ocean Economy 2030 report predicts that the ocean economy will reach US$3 trillion by 2030 (more than 2.7% of global GDP), with growth driven by global trade and marine resource extraction. Offshore wind is predicted to be one of the biggest areas of growth (contributing 8% of ocean economy GVA by 2030) and is also one in which the SW has real potential to exploit.

2.1.2 UK Economy

The Foresight report estimates that the Ocean Economy currently contributes around £47 billion GVA to the UK economy and employs more than 500,000 people, and addresses the importance of emerging global markets, which offer significant opportunity for both established marine industries, and new technologies that can be applied in a marine context. Of particular relevance for the UK's South Coast cluster are:

- offshore renewable energy,
- high-tech marine products and services,
- marine leisure, manufacturing and decarbonisation

2.1.3 South West Economy

The in depth analysis undertaken by Wavehill on behalf of the Marine South West cluster estimated the sub sectoral GVA contribution of businesses in the cluster geography to the UK wide total, as a proxy of the market share (although it is difficult to account for industry activity that is undertaken in a region, when larger companies have multiple sites and are registered in one place (often London)).

The primary sub sectoral markets for the technologies identified and their share of UK wide total GVA are:

Marine manufacturing	20%
Marine Transport	15%
Port activity	8%
Offshore renewables	7.5%
Marine environmental technologies	7.3%

The marine sector punches well above its weight in GVA terms so its growth can make a significant contribution to local productivity, which across Devon as a whole is well below the national average.

The average job in the Marine industry generates £65,000 in GVA, significantly above the UK-wide level of £50,800, while sub sectors such as Offshore Renewable Energy are even more productive with GVA per job of £72,200.

It is anticipated that "there will be more work than all our SW ports can deal with" to support the growth in ORE sub-sector. The Regen study for Heart of the South LEP [ref 10] looks at the opportunity from Floating Wind for Devon and Somerset. While Appledore in North Devon is suitable for larger design and construction projects, there is a clear opportunity for smaller sites like Baltic Wharf, to work in partnership and on smaller projects.

A report has been commissioned by SHDC to assess the current and future potential of the marine sector across the district. It will provide an assessment of:

- The size of the current market and its likely growth;
- The particular areas of current growth;
- Projected areas of growth;
- The range of facilities available in the area;
- Gaps in those facilities;

2.2 The Location

Baltic Wharf is at the Southerly end of Totnes at the head of the navigable and beautiful River Dart. Its location has many advantages:

- Well buoyed channel from Dartmouth to Totnes for vessels up to 60m LOA and draft up to 3.5m MHWS;
- Long sheltered quay frontage with turning bay for vessels up to 60m LOA;
- Good straight road access for large loads (not available anywhere else on the Dart and of strategic importance);
- Proximity to railway station and easy access to Devon Expressway, both of which provide good connections to the urban centres of Plymouth and Exeter, and the proposed Freeport sites;
- Proximity to Totnes town centre and all its facilities, but on the edge of the town and removed from residential properties, allowing industrial activity without causing nuisance. To the north of the town and above the two bridges is the thriving Babbage business estate, which enjoys similar advantages;
- Just 8 miles from South Devon College Marine Academy;
- Next to existing marine technology company Valeport.
- Visible from the Longmarsh public space across the river providing a continuous source of interest and spectacle for residents and visitors;

2.3 Current Businesses

Baltic Wharf has a number of established marine businesses as tenants:

Business	Employees (full)	Employees (part)
Baltic Wharf Ltd	5	2
Baltic Yacht Brokers	1	
Clara Boat Company Ltd	3	
Ocean Covers & Upholstery	2	
New Wave Marine	1	1
L R Rigging	3	1
Baltic Wharf Repairs Ltd	4	1
R Cann & Son	7	
Ian Bowles Boatwright		1
Totals	*26*	*6*

Many independent off-site contractors also provide service to vessels at Baltic Wharf.

2.4 Potential Activities and Industries

The following is a preliminary list of potential business, industrial and educational activities that the Baltic Wharf site could support. Many of the opportunities arise from the challenges of climate change and it is important that the development forms part of the vital plans to build a local sustainable and carbon neutral economy.

2.4.1 General Service and Repair

As indicated above, the current tenants provide a range of different repair and maintenance services for different kinds of vessels, including wooden boats. All these business have high demand and would be able to expand and flourish given the right environment. There are some gaps in the offering (eg: Marine Electronics, Sail Loft, etc) that if filled would make Baltic Wharf a one-stop-shop.

By providing facilities for the charter market there is an opportunity to eliminate the seasonality of the demand for service and repair. Many charter yachts plan to complete their service programme in late September in preparation for leaving the UK and crossing to the Caribbean for the charter season in October, when the hurricane season is over. The unique facilities of Baltic Wharf are ideally suited to this growing market.

Increasingly modern vessels use integrated onboard systems, that can include the power plant. Maintenance requires diagnostics that requires the vessels to visit a suitably qualified and equipped yard, and not just a visit from an engineer. There exists a business opportunity to provide this form of service.

An increasing fleet of Offshore Renewable Energy (ORE) support vessels requiring maintenance and repair represents a real opportunity for the yard.

There is a shortage of large scale repair facilities:

- Much of the local fishing fleet needs to go to Falmouth for repairs with all the attendant fuel costs and the consequential fossil fuel environmental costs.
- The Premier Noss Marina provides some repair facilities, but they are limited and expect vessels to be ashore for limited periods. The business focus is providing secure berthing facilities. The same is true of the other yards on the Dart and along the coast.

2.4.2 Boat Building

The yard has a boat builder, but there is huge potential to enhance this activity given the undercover facilities, the skill mix of the businesses at the yard and its launch facilities that could be improved for larger vessels.

The growth in Offshore Renewable Energy (ORE) will require a huge number of offshore work-boats. Full life-cycle support; build followed by maintenance and repair followed by recycling (see below). The opportunity to work with the Harland and Wolff yard in Appledore, North Devon.

2.4.3 Clean Marine

The electrification of commercial and leisure vessels is gathering momentum. As well as new vessels there is an increasing market for the retrofitting of electric motors, batteries and supporting systems into existing craft. There already are electric trawlers working from Brixham.

Hydrogen fuel-cell technology is also being applied to power vessels [ref 11].

These developments represent an enormous opportunity for businesses based at Baltic Wharf.

2.4.4 Celtic Sea – Floating Offshore Wind

The Crown Estate (who manage the seabed around the UK) have published a prospectus which states that 3GW of floating wind in the Celtic Sea by 2030 (4GW by 2035) could create at least 1,500 primary jobs, 9,600 broader jobs and £900m of economic benefit.
There is huge potential for the Baltic Wharf site to contribute to this project in a variety of ways, including manufacture, maintenance and end-of-life management. See the Regen study [ref 10].

2.4.5 Marine Composite Recycling

There is increasing concern over how to deal with vessels and other structures (eg wind turbine blades) that have reached the end of their useful life and have been constructed using composite materials. Many end up abandoned or deliberately sunk. These objects are not inert, unlike a wooden or steel vessel, and leak damaging contaminates into the environment as they degrade. This is not an issue confined to the marine sector (many road vehicles use composites, aerospace, etc).
For the marine sector alone, the issue is not trivial with an expected 2% of the current fleet expected to reach end of life in any one year.

There is therefore an opportunity for the site to utilise its ability to receive vessels and to dismantle and render the composite material ready for recycling. The use of the river, as per the next section, would mean limited road traffic. A corollary would be a range of equipment available for second-use.

2.4.6 Short Sea Shipping

Short sea shipping is the use of tidal waterways and coastal seaways to transport goods. The proximity of Baltic Wharf to main transport infrastructure, like Devon Expressway and the main-line railway opens the possibility for it to become a hub. Sea-freight is by far the most efficient delivery method and with the arrival of zero-emission cargo ships [ref 9] short sea shipping becomes increasingly important.

By way of a very simple example: a 60m x 10m lighter/barge will have a loading capacity of about 1,500 tonnes. If this is delivered on an ebb tide to Dartmouth the energy/fuel consumption would be minimal. Assuming a 15 tonne average road delivery weight, this would potentially remove 100 large vehicle movements a day along the A381 and have a significant eCO2 reduction benefit.

There is the potential for Totnes to become a hub connecting to a local Short Sea Shipping network, with Baltic Wharf at its centre. To maximise this potential would need infrastructure investment, but on a smaller scale there is still great scope to develop businesses around this green approach to the delivery of goods. Connection of Baltic Wharf to a local Magway [ref 8] ?!

2.4.7 Smart Sound - Plymouth

The Smart Sound (in Plymouth Sound) [ref 6] is a project that provides a hi-tech digital proving ground for technologies like autonomous systems, environmental sensor technologies, alternative propulsion, advanced manufacturing and cybersecurity. It is coordinated through the Marine Business Technology Centre, and is a partnership of five organizations.

While the environment provides a variety of challenges in terms of depths and sea-condition, the range needed to develop autonomous short sea shipping vessels would be completed by extending in part to the river Dart. This would then become an important opportunity for the Baltic Wharf site, which already has as a neighbour Valeport, an important manufacture of hydrographic sensors.

2.4.8 South Devon College (SDC) Maritime Academy

SDC has a wide range of marine related course and attracts students from across the country and beyond. Part of the course work often includes work experience and a cluster of marine businesses with a range of disciplines would be of enormous benefit to the College, as well as being of equal benefit to the businesses.

2.4.9 Power Generation

The sheds have a roof area of about 4,500sq m, half of which (~2,250 sq m) faces SE and is ideal for PV panels and could generate, assuming 150W per sq m, about 330kW of power or, in terms of total energy: 205 MWh per year. This could be used by on-site activities and/or fed to local homes and businesses. According to OFGEN, an average home consumes 2.9MWh, so this could power most of the homes on Baltic Way (~90).

2.5 Freeport

The Freeport will include a Green Hydrogen generating plant [ref 12] which will initially have a modest 10MW capacity, but is expected to scale as demand increases. As part of the plan for the Langage and other Freeport sites there will be engagement with the Celtic Sea – FLOW opportunity [ref 11] which will also provide green energy for hydrogen production, and this will inevitably benefit peripheral sites like Baltic Wharf. The availability of green hydrogen to power vessels using fuel-cell technology will create an opportunity that would work alongside the other Clean Marine ambitions for the industry and which Baltic Wharf has the potential to be part of.

2.6 Hotel

The town of Totnes has limited visitor accommodation capacity, the Royal Seven Stars being the only hotel, supplemented by some Bed and Breakfasts. There is a need to establish demand and how this might increase alongside a thriving maritime centre at Baltic Wharf. The ATMOS project includes a hotel in its plans.

Potential benefits to Totnes and the surrounding area and to Baltic Wharf for its visitors and users, possibly including conferencing facilities. This could be part of a more diverse development including some care beds, assisted living and affordable social rent.

2.7 Indirect benefits to Totnes

Aside from the direct economic benefits to the district from the delivery of a centre providing highly skilled and well paid employment, it will also contribute to the wellbeing of the town and to tourism. A thriving and working boatyard and marine centre is always a source of spectacle. Steamer Quay and the Longmarsh public space facility, on the other side of the river, are currently greatly enhanced by the continuous drama that is a working boatyard. It is therefore an important public asset that is part of the definition and character of the town and people's enjoyment of it.

3 Next Steps

3.1 Evidence

There is a clear opportunity to develop Baltic Wharf as a Marine Centre. However, to attract the investment needed the business case needs to be further developed and it needs to be backed by evidence. SHDC has commissioned a report on the economic potential of the marine sector in the area broadly defined by the South Hams. This will go along way towards providing the evidential foundations needed.

The detail of the business case will be developed over the next few months as part of discussions with the many stakeholders and potential investors, with a view to a detailed plan being brought forward by the end of the year. Clearly this means a delay of a few months but it is hoped that TQ9 and Acorn will recognise the value and importance of this approach and will work with us to achieve the best possible outcome for Totnes and the district as a whole.

3.2 Investors

The following is a provisional and incomplete list of possible sources of investment in Baltic Wharf.

Private	
Premier Marinas	Investors in Noss Marina. Owned by the Welcome Trust.
MDL Marinas	Investors in Dartside Marina.
Yacht Haven	Investors in Plymouth.
Boatfolk Marinas	No current presence in Devon. Recent merger of Dean and Reddyhoff, and Quay Marinas.
Harland and Wolff	Recent acquisition: Appledore Shipyard in North Devon.
Valeport	Hydrographic sensors with offices next to Baltic Wharf
Local Marine Business	Current tenants, plus many local contractors and marine related businesses.
Venture Capital	There are many that specialise in the marine sector (eg. Marine Capital). and investment has grown from
Members of British Marine Federation	Members looking to be part of a centre of marine enterprise from father afield.
Society of Maritime Industries Members	Larger marine engineering companies
Public	
Local Enterprise Partnership	As part of the FLOW initiative. Also European Regional Development Fund (ERDF) until autumn 2022.
South Hams District Council	Consistent with Corporate Strategy, funding via Public Works Loan Board. Shared Prosperity Fund. Economic development earmarked reserves.

Appendix A – Facilities

The facilities that are required to be retained are recorded in the images below and show how they are essential to the viability and functioning of the boat-yard. There were approximately 240 boats in the yard (counted on 16 Jan 2022) when these pictures were taken. The packing density is as high as is reasonable as illustrated in image 5.

Of the 240 boats, 42 were under cover in the sheds. Many were being worked on by owners.

Image 1 - Whole BY looking North.

Image 2 – Whole BY looking South.

Image 3 – Area of Proposed BY.

Image 4 – Area to be ‘developed’.

Image 5 – Packing density

Image 6 – Boats being worked on.

The facilities illustrated are required to be retained by the outline planning permission and are unique on the South Coast.

Current Boat Yard Facilities

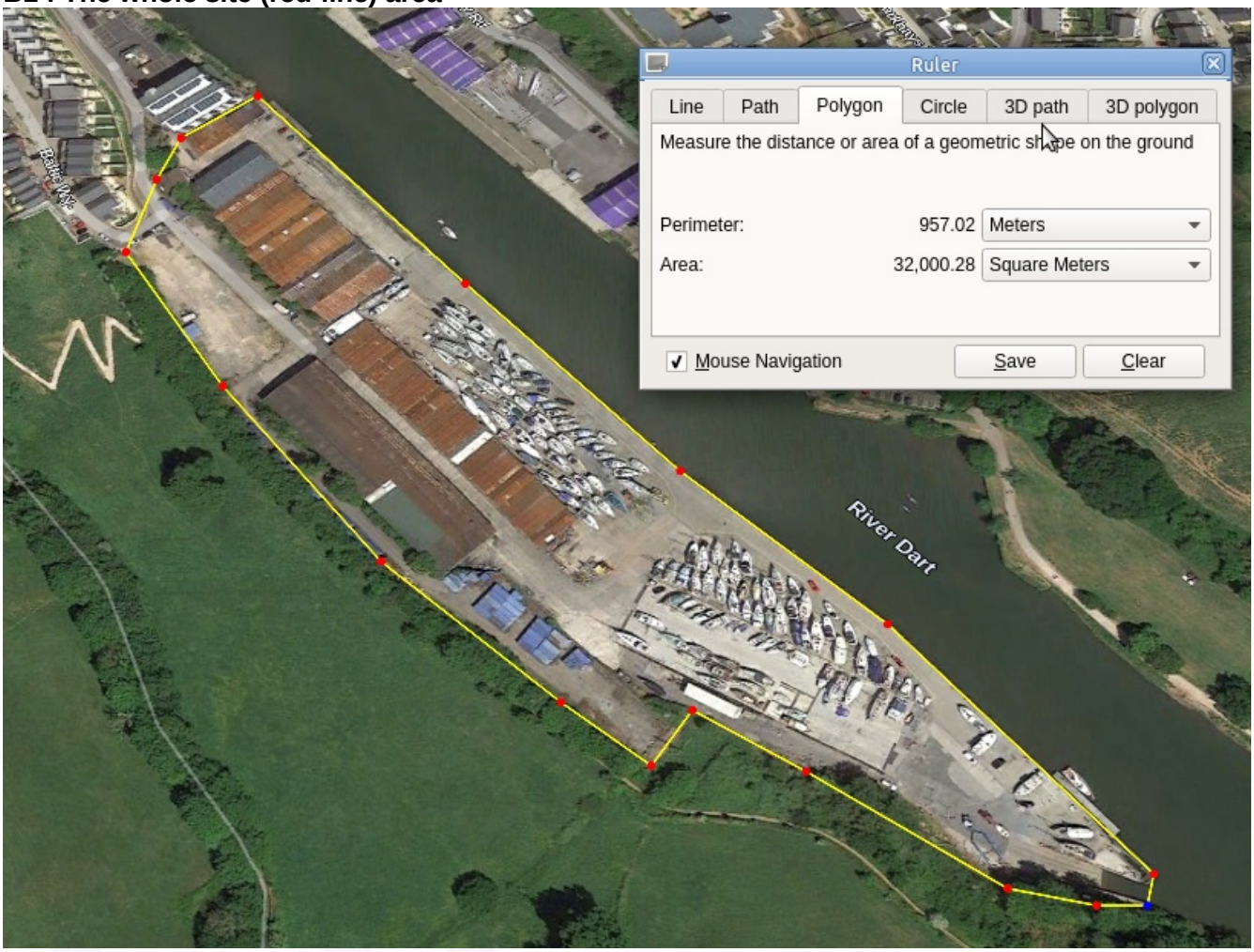
The Areas and Usage

Location / Use	Appendix Refs	Current (sq m)
Site boundary (red line)	B1	32,000
Core boatyard (see also Totals row)	B2,B4	23,000
Workshop space (high single-storey)	B6,B7	4,500
Office space (two storey)	B6,B7	4,500
Outside boat storage		8,600
Lifting, travel-hoist avenue, access	B3	3,800
Other areas (eg: self-storage)		4,800
Totals		***23,000***

Appendix B – Area measurements

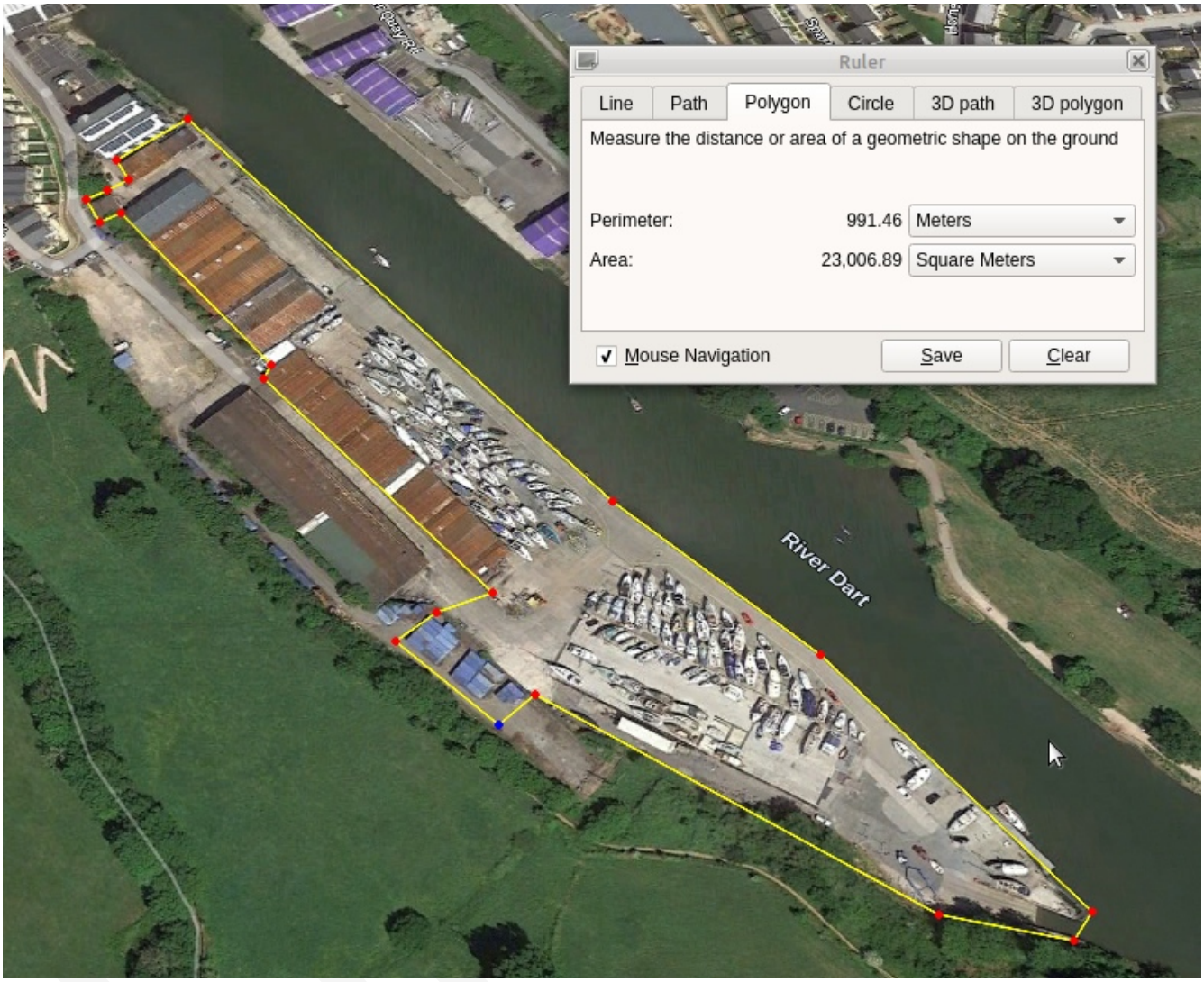
All measurements have been made using Google Earth Pro.

B1 : The whole site (red-line) area



B2: Current Core Boatyard – 23,000 sq m

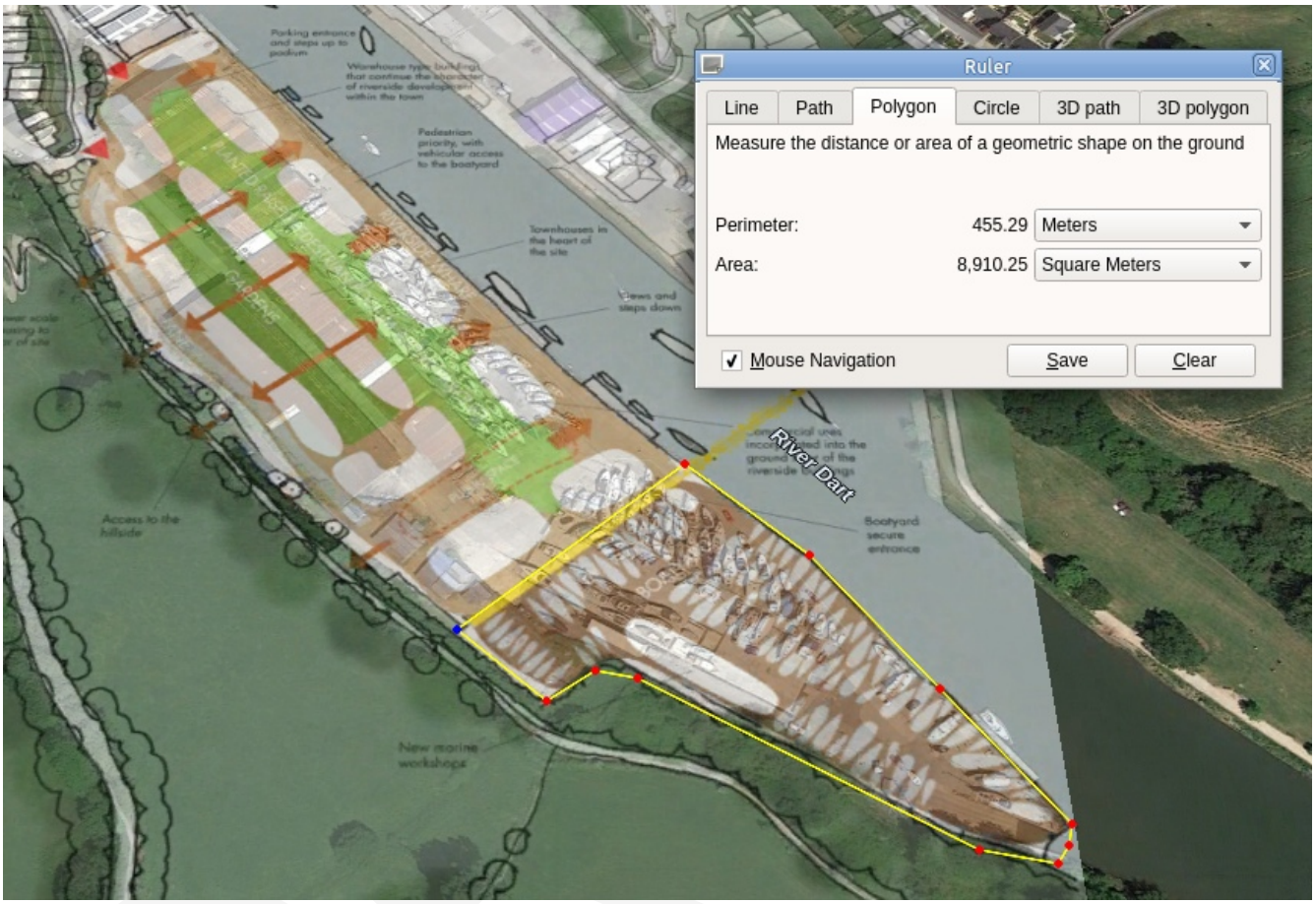
Note: this does not take account of blast-bay facilities in upper shed and land to the south-east of self-storage.



B3: Current Work Space – 3,800 sq m

B4: Propose Boatyard, about 9000 sq m

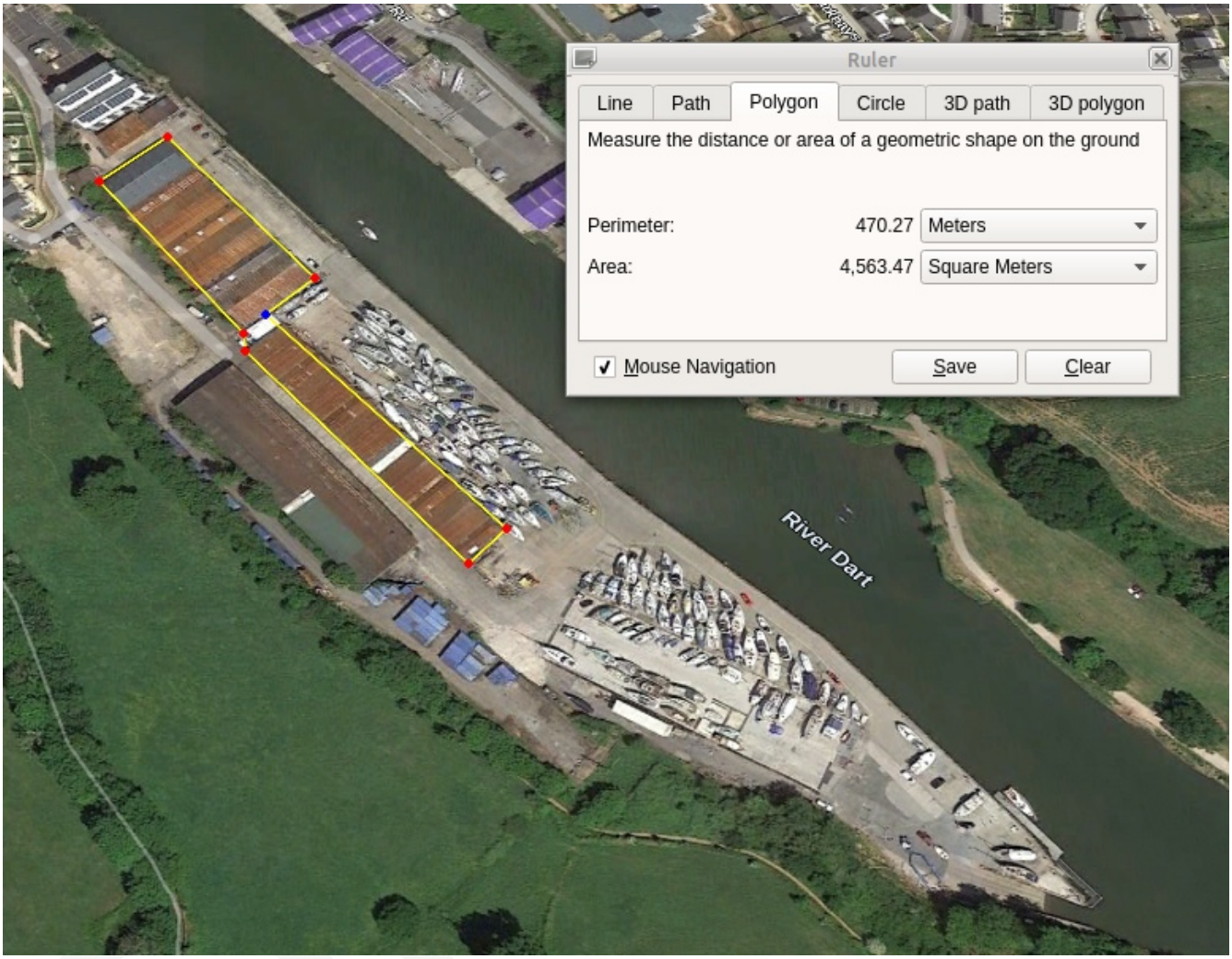
Allocation appears to be less than 9000 sq m



B5: Sketch of propose reduced boat-yard (9000 sq m)
Unlike A3 above, not as layer on Google Earth.

Notes:
The illustration shows the packing necessary, the lack of any access or space to maneuver boats and the narrowness of the avenues which are mostly not wide enough for the travel-hoist (5m).

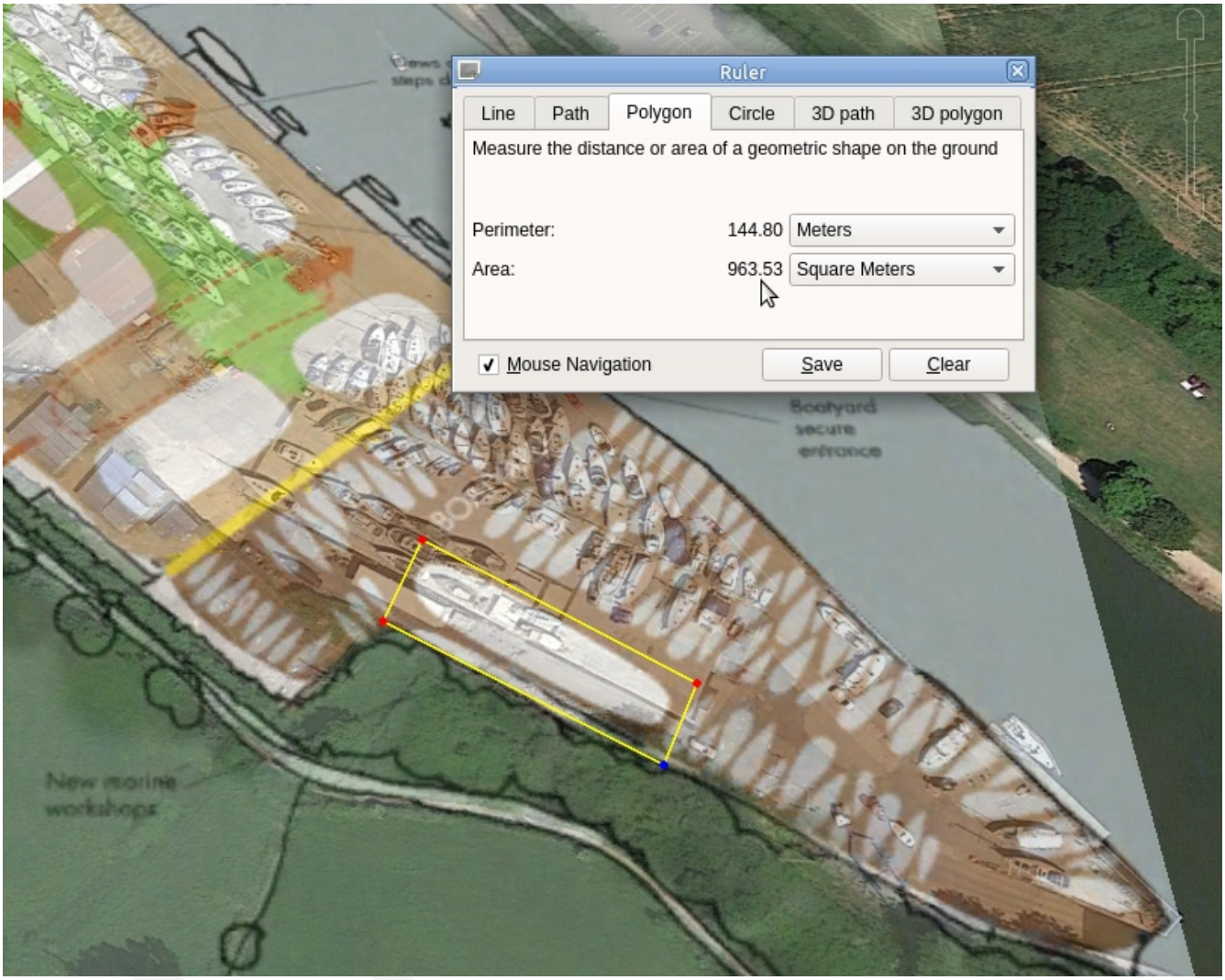
B6: Current workshop space available.
This does not take account of the upper space, which is occasionally used by tenants of the boatyard and has huge potential to expand the activities of the yard.



B7: Proposed workshop area (1000 sq m)

Allocation appears to be less than 1000 sq m

The proposed sheds will not be able to accommodate vessels of any size. Probable max LOA of ~12m.



B8 – Proposed Non-storage area

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