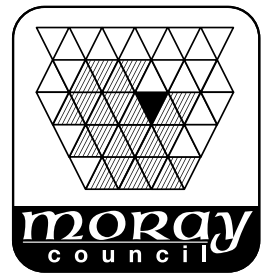




Buckie Harbour Masterplan



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Foreword

Buckie Harbour, on the southern side of the Moray Firth has a rich maritime history that is continually evolving.

Over the years, this vital harbour has served as a vibrant hub for many industries. Home to thriving cargo operations, manufacturing, and ship repair industry. The harbour also has a strong fishing heritage, and serves as a base for marine services, providing berthing, repair, and maintenance support to a range of commercial vessels.

As the offshore industry has evolved, Buckie Harbour has extended its reach to serve the industry, providing essential services, particularly around offshore wind operations and maintenance (O&M).

That journey continues by embracing development, supporting our local industries that have underpinned the harbour and local area for over 100 years.

Buckie is evolving, growing, and becoming a major support facility for the renewables sector, while retaining its seafaring heritage, and supporting the regional economy. Moray Council and Highlands and Islands Enterprise commissioned this masterplan to set out that journey.



Cllr Marc Macrae
Chair of Economic Development and Infrastructure Services







Scope

This Masterplan aims to be a high-level strategic spatial development guidance document for future change within the harbour area. It aims to promote the competitive advantage of the facility for existing and potential future users, while providing the rationale that underpins infrastructure and investment decisions.

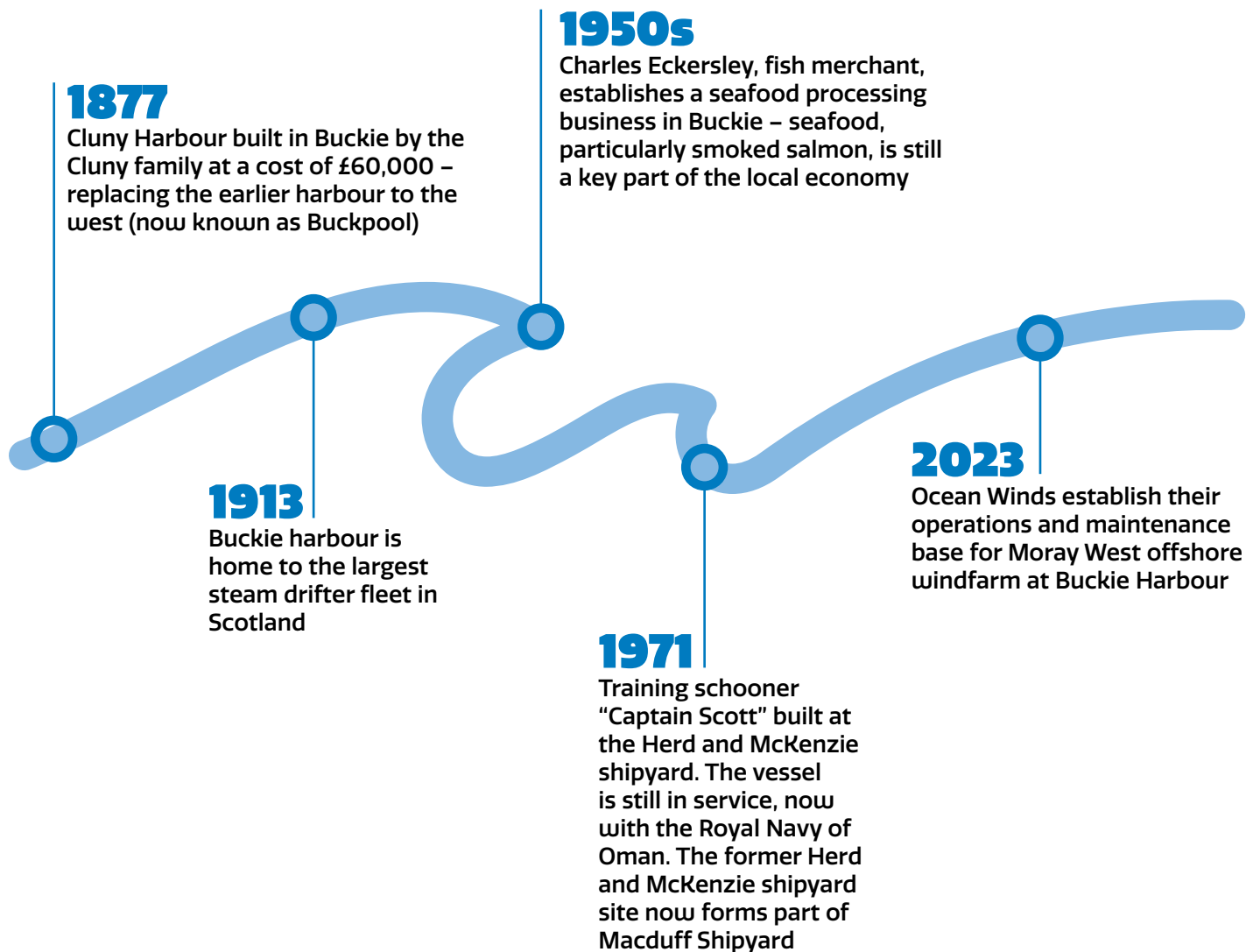
This new **Buckie Harbour Masterplan** is to be considered a source of information for potential development opportunities and follows consultation with key existing and potential stakeholders. Their needs and aspirations give a balanced guide for positive development of Buckie Harbour for all users, existing and new.

The driving and guiding force throughout the Masterplan update has been the input of the harbour stakeholders. Consultation with them has provided a key insight into current and future operations from both the traditional harbour, commercial and renewables sectors.

Buckie Then



Our wave to the history of Buckie Harbour

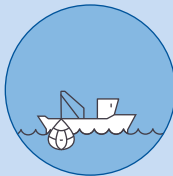


Buckie Now

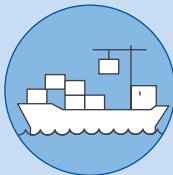
On the south of the Moray Firth coastline, Buckie is well placed for access from Aberdeen, Inverness and the wider Scotland. The harbour is an all-weather port with favourable marine access and transit times into the Moray Firth.

Now with a focus on offshore wind operations and maintenance, Buckie remains a mixed use harbour with strong links to the fishing industry. It's vital to the local and regional economy – supporting the whisky industry and heavy manufacturing alike.

The harbour is a base to many industries operating in and around the port area.



1. Fishing: Buckie has a long-standing tradition as a fishing port, and the fishing industry remains one of the dominant sectors operating in the harbour. The port serves as a base for various fishing vessels, including trawlers, fishing boats, and creel boats, supporting the local fishing fleet and seafood processing businesses.

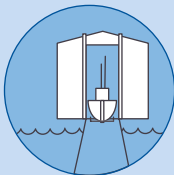


2. Cargo and Freight: Buckie Harbour facilitates the transportation of cargo and freight, serving as a vital link for the import and export of goods for the local and regional economy. Barley for the whisky industry, aggregates and salt are key commodities. The harbour has laydown and storage for cargo, and an on site stevedore service.





3. Offshore and Renewable Energy: With the growing focus on renewable energy, Buckie Harbour has seen an increase in activity related to offshore wind energy projects. A range of crew transfer vessels operate from the harbour, which is also the base for Moray West offshore renewables operations and maintenance facility.



4. Marine Services: The harbour hosts various marine services, with the renowned Macduff Shipyard operating via slipway access at the east of the harbour providing ship build, repair and maintenance facilities. Marine engineering, heavy and skilled component manufacturing are also provided adjacent to the harbour, along with other supply chain businesses and an RNLI Lifeboat station.

Alongside the harbour, the landside areas adjacent to Buckie Harbour include a thriving selection of businesses and amenities. These include shops, restaurants and local businesses which create a vibrant and welcoming atmosphere for residents and visitors.

The landside areas and spaces that surround the harbour incorporate green spaces, industry, and recreational facilities. This reflects Buckie's commitment to environmental conservation and community well-being while providing excellent potential to accommodate future sustainable development.

Skills and Personnel

- Moray offers a well-educated, skilled workforce with a great reputation for customer service, enjoying low staff turnover and high retention rates. The area also has access to an even wider labour pool with 236,000 people within a one hour drive of Elgin. Moray has 85% of its working age population in employment, higher than the Scottish average (80%).
- The area has a track record in military aerospace. RAF Lossiemouth is one of the largest and busiest fast-jet bases in the Royal Air Force and Kinloss Barracks is home to 39 Engineer Regiment. This military presence means that electrical and mechanical engineering skills are highly developed in the local workforce. With the retirement age from the armed forces between 40-55 many seek onward skilled employment in the area. The strengths of engineering skills, and the strategy to diversify the benefits of the oil and gas industry around Scotland, put Moray in a prime position as a great place to invest.
- There are a host of education providers with expertise in engineering and maritime skills through University of the Highlands & Islands (Moray) in Elgin and North East Scotland College in Fraserburgh and Aberdeen.

Transport and Infrastructure

- Buckie, population 9,000, is located on the A98 – 56 miles from Inverness and 63 miles from Aberdeen, with abnormal / heavy load route availability for onward journeys. Centrally located close to a number of offshore wind sites (existing and potential) and on-land windfarm sites. Both Inverness and Aberdeen airports are well served with regional and international flights.
- Moray is a heartland for skilled engineering and fabrication, and the Harbour hosts both Forsyths Fabricators and Macduff Shipyard along with other supply chain organisations.
- The Harbour area presents a number of opportunities for land-based development for the supply chain with sites suitable for laydown, O&M bases, training centres, and small business start ups.

Current vessel access

- Maximum length 86m
- Maximum beam 15m
- Maximum draught 4.5m
- **Harbour is staffed and operational 24/7**
- **Pilotage provided on request**
- **Stevedore and craneage facilities**
- **ISPS compliant port**
- **RNLI lifeboat based in the harbour**
- **Fire service located within Buckie**

Usable Quay

- Basin 1 – 330m
- Basin 2 – 250m (half under lease)
- Basin 3 – 250 (half under lease)
- Basin 4 – 300m
- **Tidal range of 4.8m**





Harbour Development

Offshore Wind

In 2022 Crown Estate Scotland announced the outcome from the ScotWind Leasing application which would see approximately £700 million being invested into the Scottish Offshore renewable sector. Now, 19 sites have been selected with an overall capacity of over 30GW. This will see windfarms spanning over 7000km² and providing numerous jobs to the surrounding Moray Firth area.

It is likely that manufacture and fabrication of the larger components required to supply offshore wind farms in the vicinity will be serviced by the larger ports located in the Cromarty Firth, which may have capability to facilitate Tier 1 and 2 activities. Buckie is ideally placed to support Tier 3 activities such as parts supply, vessel support, diving, lubricants, training and more. Maintenance activities could be carried out using crew transfer vessels (CTVs) to transfer labour, technicians and engineers between the harbour and neighbouring wind farms. This builds on the strong track record already established in relation to O&M for Moray West and other supporting work.

Fishing

In 2023 Scottish vessels landed 501,000 tonnes of sea fish and shellfish with a gross value of £683 million, 323,000 tonnes were landed into Scotland. This is a 27% increase compared with 2019. Fishing remains a significant industry within Buckie. Fish processing and supply companies local to the area make use of the product delivered from local fishermen. Companies including Cluny Fish, Orkney Food Company and Associated Seafoods provide strong financial and economic benefit to the local economy.

□ Data from Scottish Sea Fisheries Statistics 2023





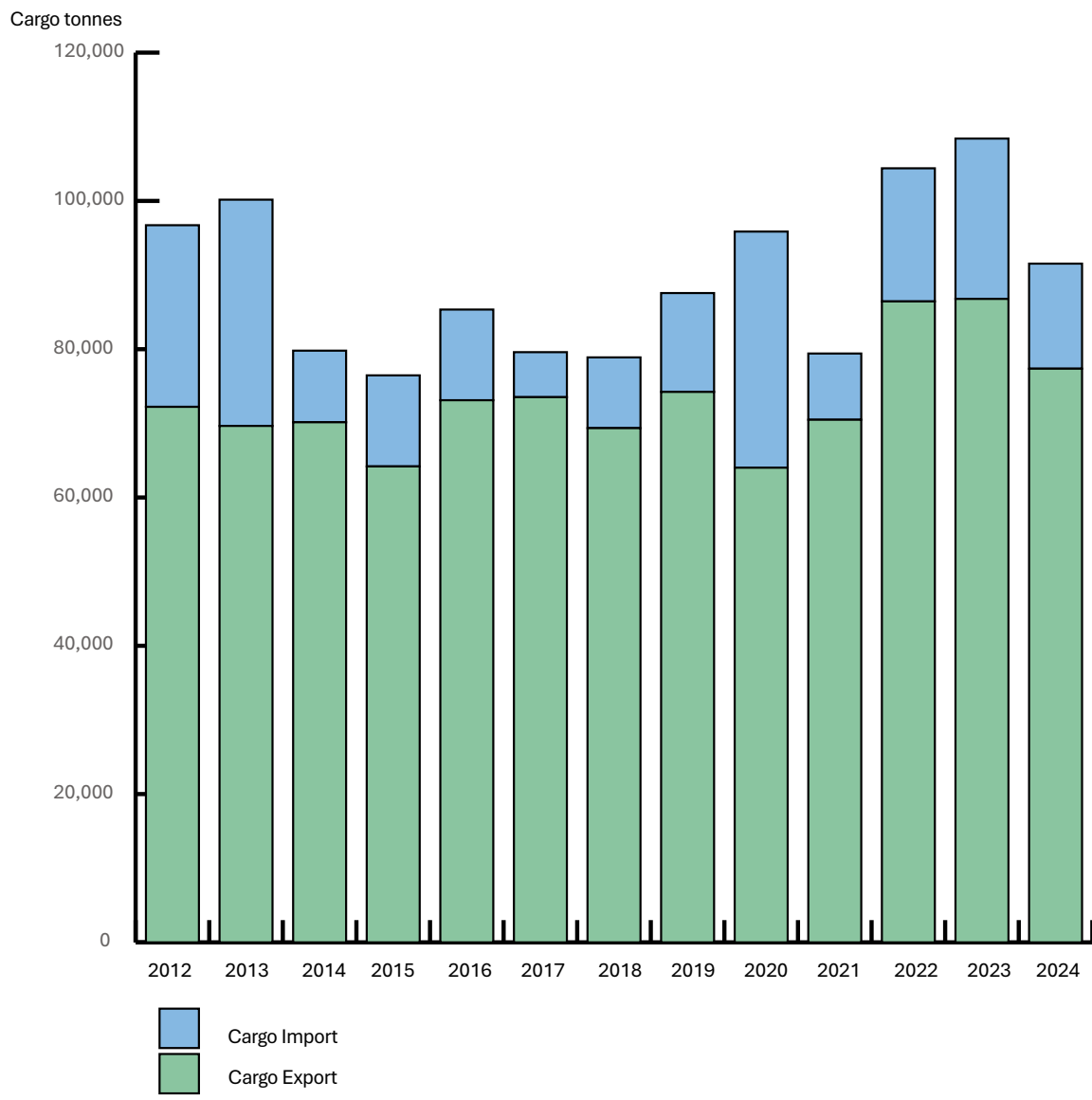
Cargo

Scottish ports handled a total of 59 million tonnes of freight in 2022, primarily in the form of bulk fuel (34 million tonnes). From 1997 to 2002, exports through major Scottish ports witnessed a notable increase, climbing from 61 million tonnes to 68 million tonnes. However, a subsequent decline followed, resulting in a steady decrease to 26 million tonnes by the year 2022, indicating the gradual decline of Scotland as a cargo exporter.

□ Data from Scottish Transport Statistics 2023

Although the cargo industry as a whole has been on the decline in Scotland, Buckie has managed to turn it into a strength within their economy. Cargo remains a key component of harbour activity, consisting of malt/barley, salt, soya, wheat feed, sugar beet, steelwork, timber and aggregates.

Buckie Harbour Cargo Volumes



Shipbuilding

In Scotland, shipbuilding contributed £262 million to the Gross Value Added (GVA) in 2020, accounting for 0.19% of the Scottish economy and 7% of the GVA in the marine sector. Shipbuilding also provided employment for approximately 7,000 individuals, representing 0.26% of total employment in Scotland and 10% of employment within the marine economy. Scotland made up 12% of all shipbuilding enterprises within the UK as of 2020. There has been a steady decline in the revenue earned by Scottish shipbuilding in recent years and as a result employment within this industry has dropped by 7% between 2011 and 2020.

In 2020 64% of all shipbuilding in Scotland was carried out Glasgow, Aberdeenshire, and Fife. This indicates that larger ports have the majority of the revenue in this sector. Consequently, this situation poses challenges for smaller harbours to compete effectively in terms of market share and economic opportunities.

Despite the national trends, Buckie has remained a vibrant location for shipbuilding. Macduff Shipyards have operated a facility in Buckie since 2013. Since then, they have expanded and diversified operations including acquisition of the disused Buckie Shipyard site in 2017, with on-site development and expansion over recent years increasing capacity.

Once predominantly utilised for fishing vessel construction and maintenance, ship building operations at Buckie harbour now include the construction, maintenance and storage of multiple vessel formats. This includes dredging vessels, construction barges, landing crafts for the aquaculture sector, ferries, and Crew Transfer Vessels (CTVs) for the offshore renewables industry.

This industry involves collaboration of several businesses at Buckie during construction, fit out and maintenance operations as well as usage of multiple areas, structures and berths within the harbour.

The shipbuilding industry within Buckie Harbour is growing strongly with the construction and fit out of vessels. There is a strong desire amongst local businesses to expand further with the potential to embrace further opportunities in both the fishing, leisure, offshore and renewables sectors.

Optimisation / expansion of the harbour and facilities in combination with the development of existing disused sites will raise the potential to develop this industry and capture future opportunities for continued growth.

□ Data from Scotland's Marine Economic Statistics 2020





GWO Training

Global Wind Organisation (GWO) training programmes are designed to ensure that individuals working in the wind industry possess the necessary knowledge and skills to carry out their jobs safely and efficiently. These training courses cover a wide range of topics, including basic safety, first aid, fire awareness, manual handling, working at heights, and sea survival, among others.

There is potential for Buckie Harbour to host a training hub, offering courses for Scottish wind industry professionals. There are few GWO training facilities within in Scotland, typically based in Glasgow and none in the nearby area. Offshore renewable investors have expressed that a GWO training facility in close proximity to their sites along the coast would be a very valuable asset in assisting in their operations.

Development of a training hub along the Moray Firth coast would be a valuable resource for the local offshore renewable industry and may lead to the development of close ties between Buckie Harbour and leading offshore renewable investors in the future.

Tourism

A total of 2.2 million cruise passengers used UK ports in 2023, continuing the strong growth profile of this sector, particularly for UK destinations. Each passenger visiting via a UK port adds £70 to the local economy. Buckie is ideally placed close to Speyside, home to over 50% of Scottish whisky distilleries and Moray is home to high profile international brands – including Johnstons of Elgin, and Walkers Shortbread. This makes Buckie an ideal location for accessing the tourism offering of Moray, Speyside and the Cairngorms.

Marine tourism is also a growing sector, particularly in relation to wildlife. The Moray Firth is home to the Scottish Dolphin Centre at Spey Bay, with the Firth not only home to dolphins, but increasingly orca whale sightings.

□ Data from Cruise Britain

Emerging Markets

There are a range of green energy developments emerging:

Green Ammonia: created by combining hydrogen (produced through renewable energy powered electrolysis) with nitrogen (sourced from the air). This provides efficient means of transporting hydrogen for use as a fuel. The green ammonia can also be used for marine fuel, along with its traditional use in the production of agricultural fertilisers and other chemical products.

Green Methanol: created by synthesising green hydrogen with captured carbon dioxide – for example from a biomass power plant. Green methanol is in demand in many industrial applications and can be used for powering engines and fuel cells – including for marine vessels.





Harnessing Opportunities

The harbour benefits from:

- Year round safe haven conditions
- Excellent transport links
- Ability to cater to diverse needs
- A strong supply chain and other local businesses and industries
- A centrally positioned location on the Moray Firth with a relatively short distance to existing and proposed offshore windfarms
- Local workforce opportunities with skilled personnel

Constraints to future growth:

- Overall harbour size limitations constraining vessel length and draft
- Overall capacity
- Need for additional laydown and general purpose space

Developing the harbour will allow the opportunities to be maximised and constraints to be addressed.

Development Opportunities

Renewable and Green Energy

Buckie Harbour has a potential opportunity to establish itself as a hub for supporting the offshore renewables industry in Scotland. The industry has already taken interest in Buckie Harbour with Ocean Winds selecting it as a base for offshore O&M projects in Moray Firth. By enhancing existing facilities, the harbour could improve opportunities within the offshore renewables industry by effectively supporting Crew Transfer Vessel (CTV) operations in an even greater capacity. During the consultation process Ocean Winds representatives noted “further CTV capacity may be useful at Buckie as requirement for the Caledonia wind farm although this is yet to be confirmed”.


Through the expansion of the harbour and storage facilities in its hinterland, it could have a potential opportunity to serve as a valuable base for Service Operation Vessel (SOV) operations and support activities for offshore windfarm development as well as Operation & Maintenance phases.

Tourism and Cruise Vessels

An expanded harbour will provide the facility for the harbour to take in small and medium sized cruise vessels without the need for passengers to be transferred by tender. This will enable the region to capitalise on the growing tourism markets from the cruise sector, and provide easy access to the tourist attractions of Moray and Speyside. Growing the number of cruise vessels accessing the area via Buckie will allow partnership working with local businesses to provide itineraries and tours to enhance the passenger offering.

GWO Training

In addition to marine expansion, the harbour area has a number of shoreside development sites, which could provide an ideal location for GWO training. Putting facilities at the heart of the Moray Firth, in easy access of not just Buckie based offshore organisations but also of those operating across the Moray Firth, bridges the market gap and reduces the need to travel.

A photograph of three offshore wind turbines in the ocean at sunset. The sky is a gradient of orange and yellow, and the water is dark blue. The turbines are silhouetted against the bright sky. The central turbine is the largest and most prominent, with its three blades clearly visible. Two other turbines are visible in the background, one to the left and one to the right, both smaller and further away. The overall scene is serene and highlights renewable energy.

An expanded harbour can create an ideal location for the storage and transport of green fuels – including both green ammonia and e-methanol, fuelling the regional marine sector and enabling the local transport sector to move to green fuel sources.

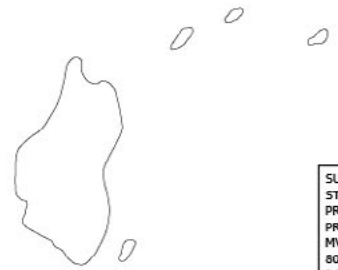


Proposals

At the heart of the future is the creation of additional capacity, allowing for greater numbers of, and a wider range of vessel sizes, to be accommodated in Buckie Harbour. This can be achieved by reordering the eastern part of the existing harbour and expanding the harbour, either to the north or to the west. Buckie has the flexibility to offer a range of development options catering to the needs of the future.

Northern Expansion

- 1,040m usable quay
- 31,750m² of quayside
- Depth of 9m below chart datum
- 180m turning radius in both basin and entrance
- Heavy lift capacity up to 25T/m² on South Quay



SUSPENDED DECK
STEEL TUBULAR P
PRECAST CONCRE
MV ELEMENT FENC
800kg SECONDARY
1.0T - 3.0T PRIMAR
R.C. DECK SLAB W
10T/m² LIFTING C

NORTH BREAKWATER:
R.C. DECK SLAB WIDTH 7m
R.C. PARAPET WAVE WALL WIDTH 3m
TOP OF PARAPET WALL circa +11.30m CD
DREDGE MATERIAL RE-USED FOR CORE FILL
1.0T - 3.0T SECONDARY ROCK ARMOUR
18 cu.m PRECAST CONCRETE PRIMARY ARMOUR UNITS

APPROACH CHANNEL AND NEW NORTH
HARBOUR BASIN DREDGED TO -9.0m CD

SPENDING SLOPE:
R.C. DECK SLAB WIDTH 7m
R.C. PARAPET WAVE WALL WIDTH 3m
TOP OF PARAPET WALL circa +11.30m CD
DREDGE MATERIAL RE-USED FOR CORE FILL
1.0T - 3.0T SECONDARY ROCK ARMOUR
18 cu.m PRECAST CONCRETE PRIMARY ARMOUR UNITS



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S (NORTH AND EAST QUAYS):
CILES AND ROCK SOCKETS @ 6m CRS.
TE PLANKS AND BEAMS
TE COPE BEAM
DERS @ 12m CRS.
Y ARMOUR LAYER
RY ROCK ARMOUR REVETMENT
10TH 30m
APACITY

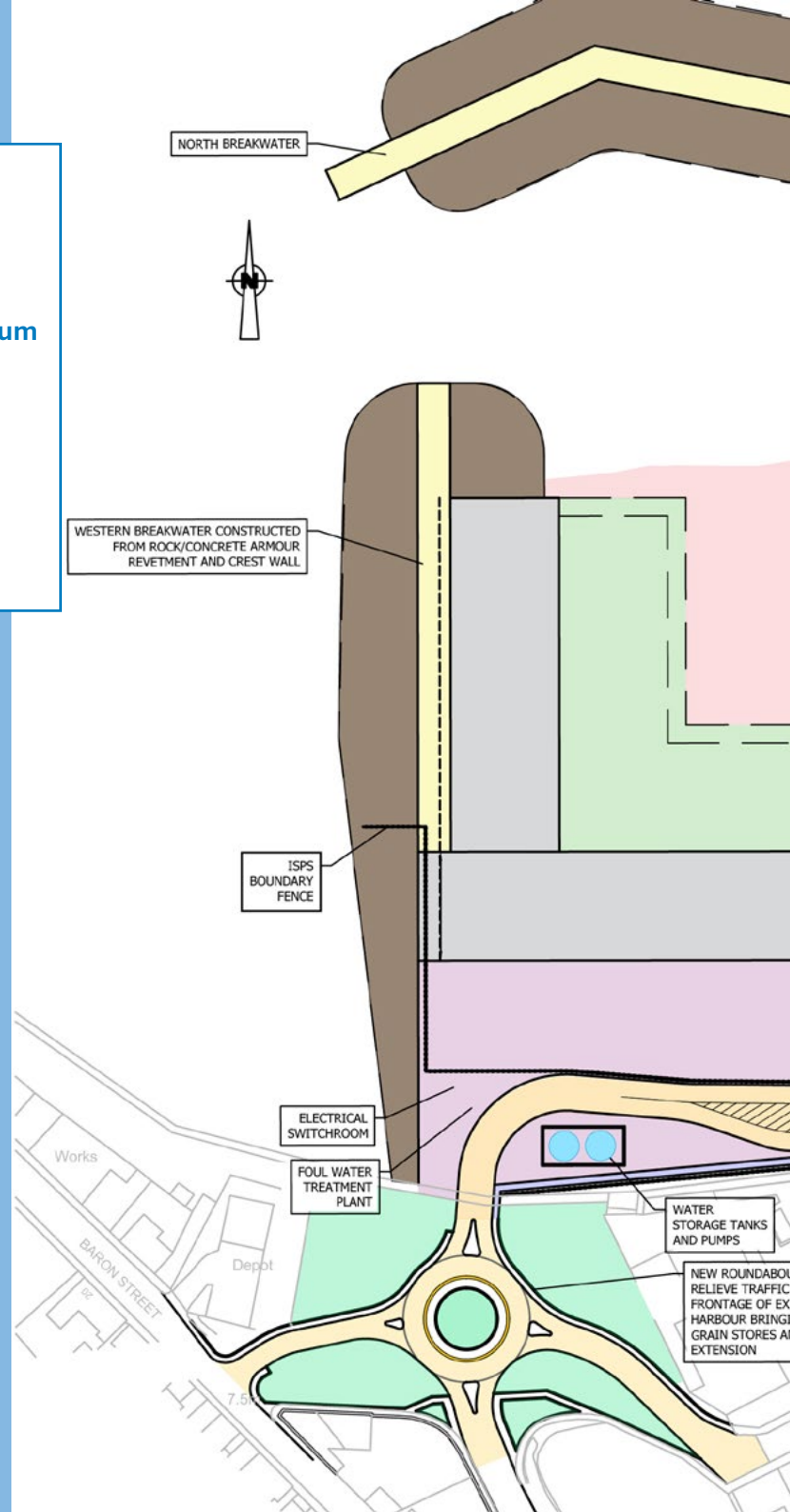
NORTH BREAKWATER/ACCESS ROAD RECLAMATION:
R.C. PARAPET WALL WIDTH 3m
TOP OF PARAPET WALL $\text{circa} +11.30\text{m CD}$
DREDGE MATERIAL RE-USED FOR CORE FILL
1.0T - 3.0T SECONDARY ROCK ARMOUR
18 cu.m PRECAST CONCRETE PRIMARY ARMOUR UNITS

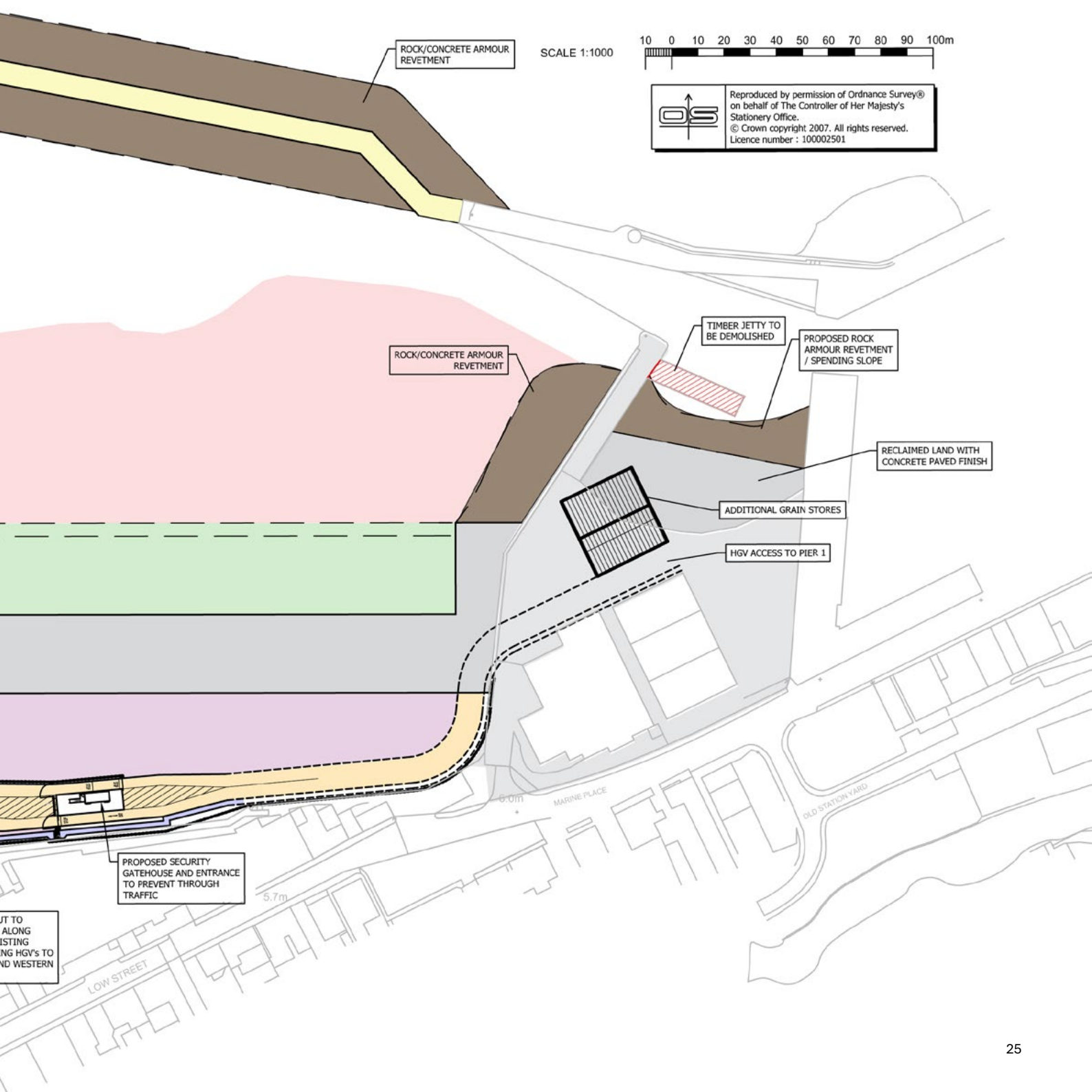
ACCESS ROAD:
8m WIDE ACCESS ROAD
CONSTRUCTED ON RECLAIMED LAND AVOIDING LAND
OWNERSHIP DISPUTE
ACCESS OFF OF REIDHAVEN STREET
SECURITY GATEHOUSE AND STAFF/VISITOR PARKING

SOLID QUAYS (SOUTH QUAY AND WEST PIER):
R.C. DECK SLAB WIDTH 30m
PRECAST CAISSON QUAY WALL CONSTRUCTION
IN-SITU CONCRETE COPE BEAM
YOKOHAMA FENDERS
HEAVY LIFT CAPACITY UP TO 25T/m² (SOUTH QUAY ONLY)

Western Expansion

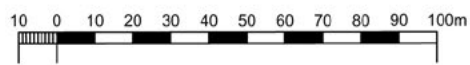
- 445m usable quay
- Dredge depth to 6m below chart datum
- 140m turning radius
- 13,750m² laydown area





ROCK/CONCRETE ARMOUR
REVETMENT

SCALE 1:1000



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ROCK/CONCRETE ARMOUR
REVETMENT

TIMBER JETTY TO
BE DEMOLISHED

PROPOSED ROCK
ARMOUR REVETMENT
/ SPENDING SLOPE

RECLAIMED LAND WITH
CONCRETE PAVED FINISH

ADDITIONAL GRAIN STORES

HGV ACCESS TO PIER 1

PROPOSED SECURITY
GATEHOUSE AND ENTRANCE
TO PREVENT THROUGH
TRAFFIC

OUT TO
ALONG
EXISTING
HIGHWAY TO
WESTERN

LOW STREET

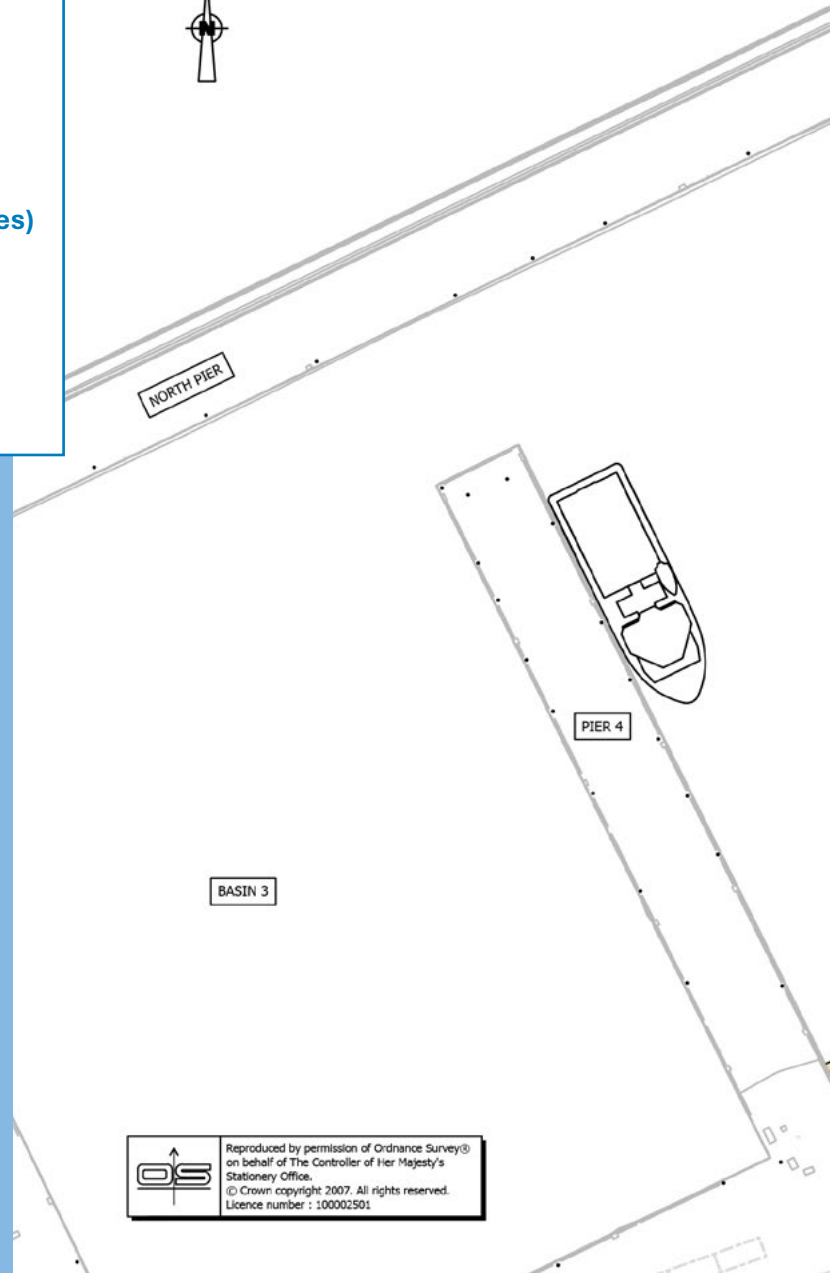
MARINE PLACE


OLD STATION YARD

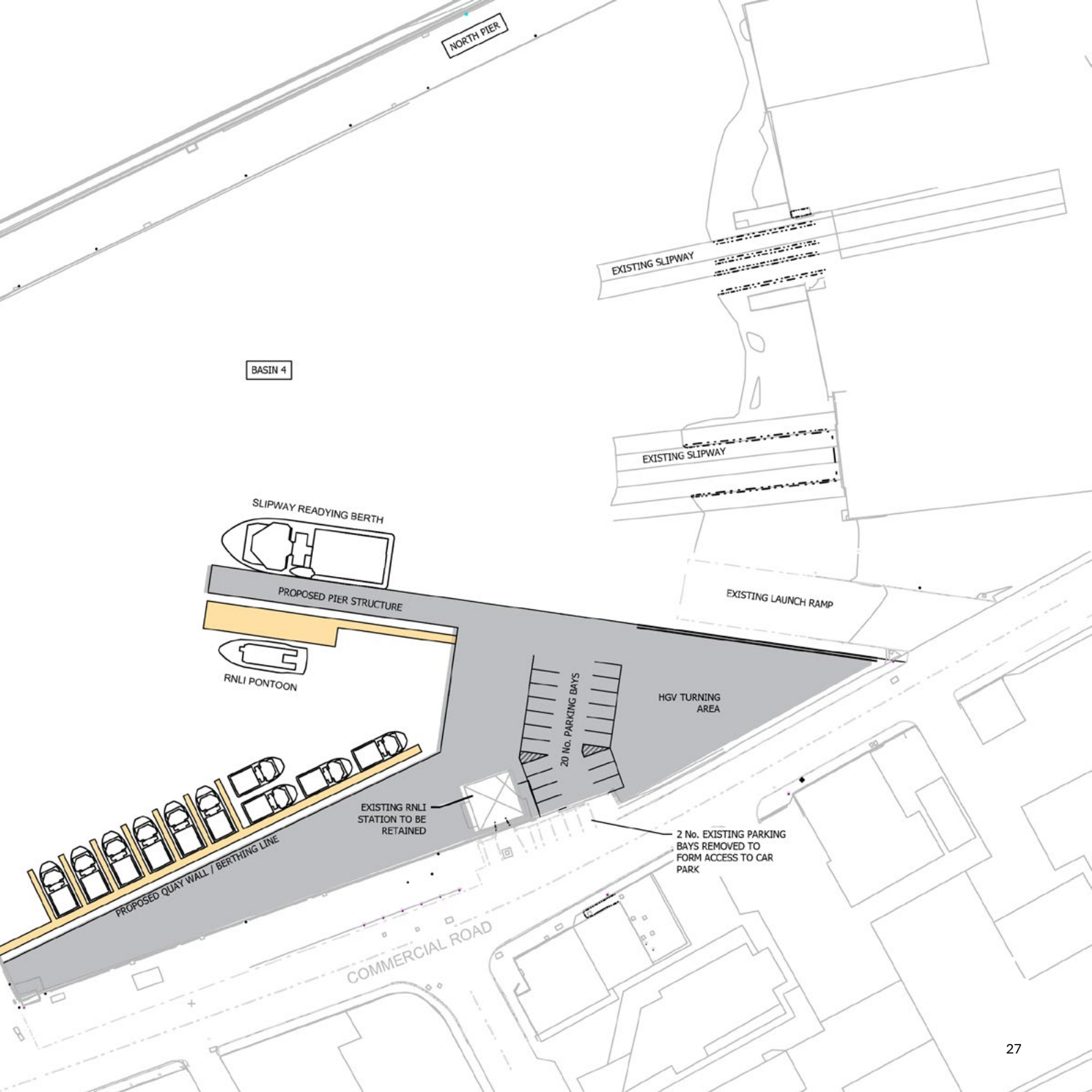
Basin 4 Upgrade

- Slipway readying Berth
- New RNLI pontoon
- Dedicated creel boat berth
- Additional harbour parking (20 spaces)
- HGV turning area

SCALE 1:500



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For more information, including detail
on technical feasibility, or to discuss our
proposals further, please contact:

HarbourDevelopment@moray.gov.uk



Highlands and Islands Enterprise
Iomairt na Gàidhealtachd 's nan Eilean

