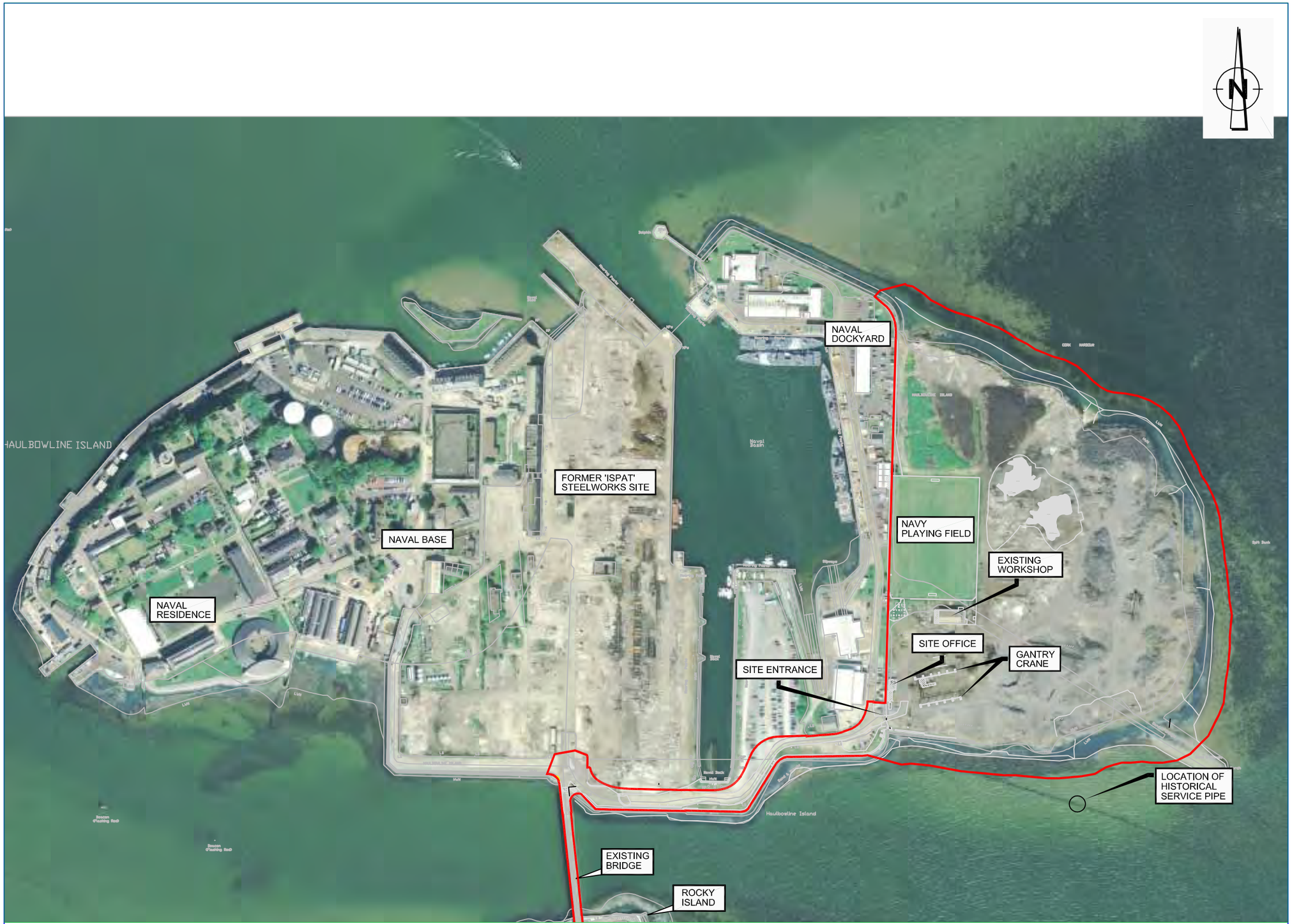

Title

SITE LAYOUT MAP

Figure 2

File Ref : MCE0734 Figure 2
Date : April 2013 Rev : F01

East Tip Remediation Project

EAST TIP REMEDIATION PROJECT

RPS

2 PROJECT DESCRIPTION

2.1 GENERAL

It is proposed to remediate the site and then convert it into a public amenity area. In order to achieve these objectives the following works and measures are proposed:

- Removal of existing structures and scrap from the site;
- Regrading of the site to a profile suitable for landscaping;
- Construction of an engineered capping system over the surface of the East Tip;
- Construction of a Perimeter Engineered Structure (PES) around the perimeter of the East Tip in order to reduce and control the flow of seawater through the site and leachate out of the site;
- Installation of drainage measures across the site. This will include a wetlands area to provide attenuation and also a beneficial ecological habitat;
- Upgrading the access road on Haulbowline Island between the bridge and the entrance to the East Tip;
- Improving the pathways from the public road (L2545) to and along the access road to the East Tip; and
- Development of a recreational public park and a new playing pitch.

A plan showing an outline of the proposed measures is given as **Figure 3**.

2.2 REMEDIATION MEASURES AND SUPPORTING INFRASTRUCTURE

The proposed remediation measures were informed by a Detailed Quantitative Risk Assessment (DQRA) which assessed the risk posed to groundwater, the marine waters of Cork Harbour and human health from the wastes at the site. The DQRA recommended in particular the installation of a capping system and a perimeter engineered structure (a copy of the DQRA is contained within Appendix A of Volume 3: EIS Appendices).

The engineered capping system will comprise a topsoil and subsoil layer to support vegetation; a geosynthetic sub-surface drainage layer; a barrier layer of natural or geosynthetic materials and a regulation layer to facilitate construction of the capping system.

The PES will consist of a berm or wedge of engineered fill around the perimeter of the East Tip which will have a maximum permeability of 1×10^{-5} m/s as recommended in the DQRA. The majority of the PES will have to be constructed in the foreshore except along the western boundary of the site adjoining the Navy where the PES will be constructed within the waste. The engineered cap will be tied into the PES.

Rock armour will be placed on the foreshore side of the PES to provide protection against long term coastal erosion. The top level of the PES has been selected, cognisant of projected sea level rises due to climate change, to minimise any future flood risk. A typical cross-section of the PES is shown as **Figure 4**.

The option of re-using processed slag from the site in the construction of the PES will be considered at detailed design stage.

The surface water drainage system will incorporate a number of 'Sustainable Urban Drainage Systems' (SUDS) including French drains, swales, contour drains and a wetland area. The drainage system will be designed for a 1 in 2 year short duration high intensity storm or a 1 in 100 year return period storm. Surface water will discharge to the Cork Harbour area by diffuse drainage with the majority of the drainage directed via the proposed wetlands initially.

The road upgrade will involve the provision of 2 x 2-lane carriageways from the access bridge on Haulbowline Island, one leading to the East Tip and one leading to the Naval Dockyard. The roads will be separated by a security fence and footpaths will be provided.

A new footpath will be provided from the existing public car park on the mainland to the southern end of the access bridge to Haulbowline Island. This footpath will link up with a new footpath which will also be provided between the entrance to the National Maritime College of Ireland (NCMI) and the start of the private access road to Haulbowline Island using development contributions received from the Irish Maritime and Energy Resource Centre (IMERC) in relation to the development of the Beaufort Building.

The various remediation measures proposed will generally not incorporate active systems and therefore the proposed remediation solution will have low long-term energy and maintenance requirements.

2.3 DEVELOPMENT OF AMENITY AREA

An outline Landscape Masterplan has been prepared for the development of the site as a public amenity. The development will include:

- New entrance features in steelwork with park name and reflecting the history of the island
- Refurbished existing vehicular entrance with existing street lighting;
- Public walkways laid out in resin bound gravel surfaces that reflect the stone shoreline;
- Main car park for approximately 54 spaces (including 4 mobility impaired spaces and bicycle spaces) laid out in asphalt with concrete kerbs;
- Area set aside for future overflow car park set in reinforced grass;
- A surface water and wetland area to consist of wet grassland species;
- Native and ornamental tree, shrub and hedge planting;
- Wildlife viewpoints located at the south of the island to permit controlled viewing access to the shoreline;
- Bird enhancement area to attract roosting birds;
- Football/GAA pitch located at the west side of the East Tip, which will be fenced off with access only from the Naval Base; and
- Security fencing along the western boundary of the East Tip (adjacent to Naval Dockyard) and around the playing pitch.

It is anticipated that it will take the landscaping of the site approximately 5 years to establish. A photomontage showing an impression of how the facility will appear after development of the proposed amenity and landscaping is provided as **Figure 5**.