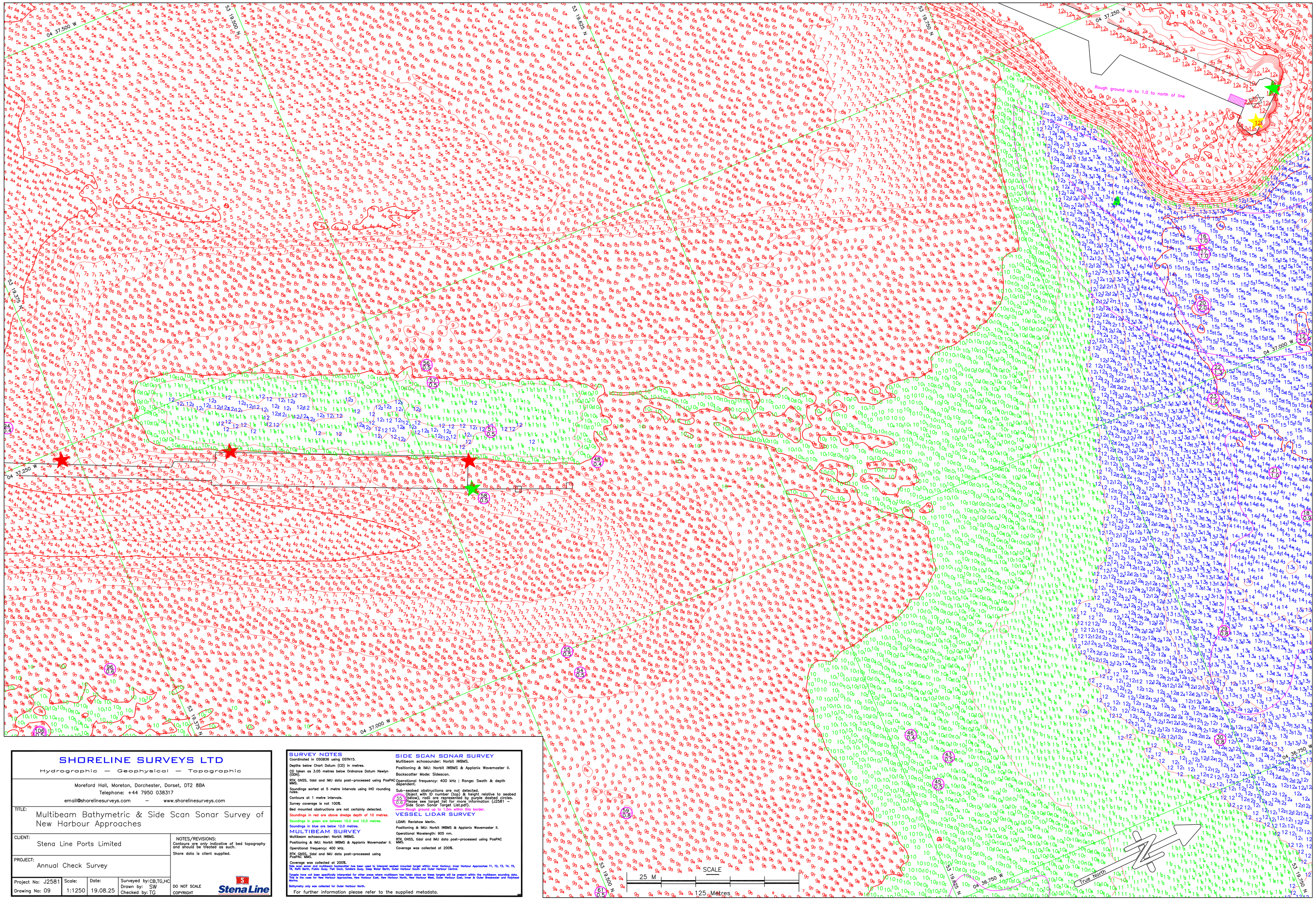

SHORELINE SURVEYS LTD

Hydrographic — Geophysical — Topographic

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TITLE: Multibeam Bathymetric & Side Scan Sonar Survey of New Harbour Approaches

CLIENT: Stena Line Ports Limited

PROJECT: Annual Check Survey

Project No: J2581	Scale:	Date:	Surveyed by:CB,TG,HC
Drawing No: 09	1:1250	19.08.25	Drawn by: SW Checked by: TG

NOTES/REVISIONS:
Contours are only indicative of bed topography and should be treated as such.
Shore data is client supplied.

DO NOT SCALE

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Stena Line

SURVEY NOTES

Coordinated in OSGB36 using OSTN15.

Depths below Chart Datum (CD) in metres.

CD taken as 3.05 metres below Ordnance Datum Newlyn (ODN).

RTK GNSS, tidal and IMU data post-processed using PosPAC MMS.

Soundings sorted at 5 metre intervals using IHO rounding rules.

Contours at 1 metre intervals.

Survey coverage is not 100%.

Bed mounted obstructions are not certainly detected.

Soundings in red are above dredge depth of 10 metres.

Soundings in green are between 10.0 and 12.0 metres.

Soundings in blue are below 12.0 metres.

MULTIBEAM SURVEY

Multibeam echosounder: Norbit iWBMS.

Positioning & IMU: Norbit iWBMS & Applanix Wavemaster II.

Operational frequency: 400 kHz.

RTK GNSS, tidal and IMU data post-processed using PosPAC MMS.

Coverage was collected at 200%.

Side scan sonar and multibeam backscatter has been used to interpret seabed mounted target within Inner Harbour, Inner Harbour Approaches T1, T2, T3, T4, T5, T6, Refit Berth, Public Quay, Fish Dock, Soldiers Quay, Deep Water Berth, Outer Harbour South and Outer Harbour Western.

Targets have not been specifically interpreted for other areas where multibeam has taken place as these targets will be present within the multibeam sounding data. This is the case for New Harbour Approaches, New Harbour East, New Harbour North, New Harbour West, Outer Harbour East, Inner & Outer Breakwater and Holyhead Works.

Bathymetry only was collected for Outer Harbour North.

For further information please refer to the supplied metadata.

SIDE SCAN SONAR SURVEY

Multibeam echosounder: Norbit iWBMS.

Positioning & IMU: Norbit iWBMS & Applanix Wavemaster II.

Backscatter Mode: Sidescan.

Operational frequency: 400 kHz | Range: Swath & depth dependent.

Sub-seabed obstructions are not detected.

56 (0.6) Object with ID number (top) & height relative to seabed (below), radii are represented by purple dashed circles. Please see target list for more information (J2581 – Side Scan Sonar Target List.pdf).

Rough ground up to 1.0m within this border.

VESSEL LIDAR SURVEY

LIDAR: Renishaw Merlin.

Positioning & IMU: Norbit iWBMS & Applanix Wavemaster II.

Operational Wavelength: 905 nm.

RTK GNSS, tidal and IMU data post-processed using PosPAC MMS.

Coverage was collected at 200%.