

Dalgety Bay Monitoring Support Topographic Survey Specification

1. Specification

1.1 Introduction and Preamble

1.1.1 This Specification is for the provision of a digital topographic survey of the study Site at Dalgety Bay, Fife, location as shown on Figure 1 (S23218-S55).

1.1.2 The Site is defined as the combination of Zones 1, 2 and 3 on Figure 2 (S23218-S56a), and sufficient of the Sailing Club site and surrounding coastal area to set the Site in context. The site is a public beach, with public access along a coastal path. Part of the adjacent land is occupied by Dalgety Bay Sailing Club, and the Contractor shall liaise with their representative, David Burnett (07818 401 685) regarding access and works scheduling.

1.1.3 The objectives of the survey are to:

- Undertake an updated, detailed, topographic survey, to permit the evaluation of beach elevation, surface constitution and profile;
- To establish the configuration of the shoreline features including, but not limited to, the Jetty, Slipway and other launching features, as it is suspected that these are not currently positioned as shown on OS base maps; and
- To evaluate and record the beach surface material, especially that between low and high water marks.

1.2 General Provisions

1.2.1 The topographical survey shall be supplied in digital Autocad™ R14 format, as well as paper copies (ideally A3 if the site dimensions/quantity of allow). All digital copies should be properly orientated and fully geo-referenced. All digital data shall be provided on a CD-ROM and emailed to the principal AMEC contact.

1.2.2 The survey shall be referenced to OS co-ordinates. A local grid shall not be used.

1.2.3 The survey shall:

- 1.2.3.1 Show all notable features including, but not limited to, change in gradients, surface types or undergrowth, ditches, manholes, pipes, kerbs (dropped and level), street furniture, mature trees, permanent structures, boundaries, boat launching structures and shoreline structures (e.g. rock armour); and

- 1.2.3.2 Pick up all high and low spots; and
- 1.2.3.3 Include sufficient data points (level and locations) to enable contours to be drawn at 0.25 m height intervals with accuracy; and
- 1.2.3.4 Include at least 50 data points per hectare (level and location).

1.2.4 The survey shall be presented sorted into layers as appropriate to the data points and objectives of the survey.

State of Tide

1.2.5 The Contractor shall note the objectives of the survey stated above, and schedule his survey operations accordingly. The Contractor shall note the tidal range of the Forth estuary, and shall time his operations such that as much of the beach is exposed and surveyed as reasonably practicable. A survey consisting wholly or predominantly of the beach area above or in the vicinity of the High Tide mark shall not satisfy this Specification.

Health, Safety and Environment

1.2.6 The Contractor shall develop his own competent written Safe System of Work for the survey. The Employer does not have any specific observations or records regarding health and safety beyond the following observations:

- 1.2.6.1 It is known that particulate radioactive contamination is occasionally present on the beach, as a result of historical waste disposal practices in the area. The Contractor shall note the public information signs on the Site, and shall ensure that his operatives observe good hygiene practices, do not pick up any article from the beach, and ensure that clothing, equipment and footwear is clean on leaving the Site.
- 1.2.6.2 Several areas of the beach comprise soft muddy sediment, and bogging of personnel is a strong possibility. The Contractor shall ensure the provision of appropriate resources and protocols to mitigate any risk arising from this eventuality.

Public Interface

1.2.7 The survey will eventually contribute to study of the site by the Ministry of Defence and other parties. The Contractor shall note the high profile of the site, regarding paragraph 1.2.6.1 above, and shall ensure that his personnel do not discuss the work in detail if approached by any third party whilst on site. All public enquiries should be directed to the DIO Project Manager, on 01383 648042.

1.3 Detailed Features

The minimum standard of the topographic survey shall meet the requirements of Table 1.1 below:

Table 1.1 Topographic Survey Minimum Requirements

Feature
Site address
OS co-ordinates of site centre (6 figures Easting & Northing).
Site area in hectares.
Boundaries of survey clearly shown with a heavy broken line, set within OS base map if appropriate.
Type of boundaries (internal & external) are shown, e.g. chain-link.
Positions and outlines of all current buildings and their uses if known.
Positions of all manholes, gullies, and their likely use.
Surface finishes or materials, e.g. grass, concrete, asphalt, gravel, sand, mud, fractured or smooth rock.
Bushes and trees (including approximate height & species if known).
Site access(es), public highway(s) and apparent rights of way.
Scale of drawing and scale bar (in metres).
Direction of true north.
Grid of site levels at centres of no more than 20 m, to the nearest 0.01 m AOD.

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