

1.0 Introduction

- 1.1 This Technical Note has been prepared on behalf Matthews (Sussex) Limited and should be read in conjunction with the original Flood Risk Assessment produced by Motion and issued on the 13th of June 2017, which considered the raising of an existing bund, as well as the filling of an existing depression.
- 1.2 The latest proposals are to reprofile the practice area and include the following:
- » A new modelled outfield at the centre of the site;
 - » A new practice Tee
 - » Remodelled right side of Tee with two new bunkers; and
 - » A New 18th Tee.
- 1.3 The total import of materials onto site to complete the proposed reprofiling total circa 45,000m³.
- 1.4 The proposed reprofiling plan can be seen in **Appendix A**, and the Topographical Survey supplied within the drawing package prepared by Weller Design Ltd. Drawing number 820.01 in **Appendix B**.

2.0 Flood Risk

- 2.1 Motion has reviewed the various Environment Agency (EA) maps and the entirety of the site has been designated as flood zone 3b due to tidal actions and the close proximity of the sea and the River Arun to the southern and eastern border of the site.

Fluvial Flooding

- 2.2 The development site lies within the catchment of the River Arun, and is therefore susceptible to Fluvial flooding actions.
- 2.3 It should be noted that the site is surrounded by defences to counter the risk of fluvial flooding from the River Arun, therefore the risk of flooding due to fluvial actions is reduced to a minimum.

Coastal Flooding

- 2.4 The site lies within an area designated by the environment agency as Flood Zone 3B, with the coast bordering the proposed development to the south, showing the site to be at risk of tidal flooding actions.
- 2.5 The site is protected from the effects of coastal flooding as shown within the Environment Agency's Product 4 Package.
- 2.6 The EA have previously confirmed that as the areas on site that are to be reprofiled fall within flood zone 3 due to tidal actions, no flood water compensation is necessary due to the nature of the proposed works. The Product 4 flood mapping as well as the original correspondence with the EA can be seen within **Appendix C**.

Groundwater

- 2.7 EA online mapping shows the site to be located outside of any groundwater source protection zones. Furthermore, the BGS aquifer maps – bedrock designations show the southern section of the site to be overlying a Principal Bedrock designated aquifer, with superficial deposits designated as Secondary A Aquifer.

- 2.8 The site is considered to be at a low risk of groundwater flooding according to the EA groundwater maps accessible online.

Fluvial / Surface Water

- 2.9 The EA's online flood mapping shows that the site is not located within a Surface Water Safeguard Zone (SuSgZ).
- 2.10 The Government's 'Risk of Flooding From Surface Water' map shows minimal to no risk of surface flooding within the site boundary.

Flooding from Infrastructure Failure

- 2.11 The Flood Warning Information Service (published under Long Term Flood Risk Information) mapping shows that the proposed development location does not lie within an area that is at risk of flooding from reservoirs.

3.0 Drainage

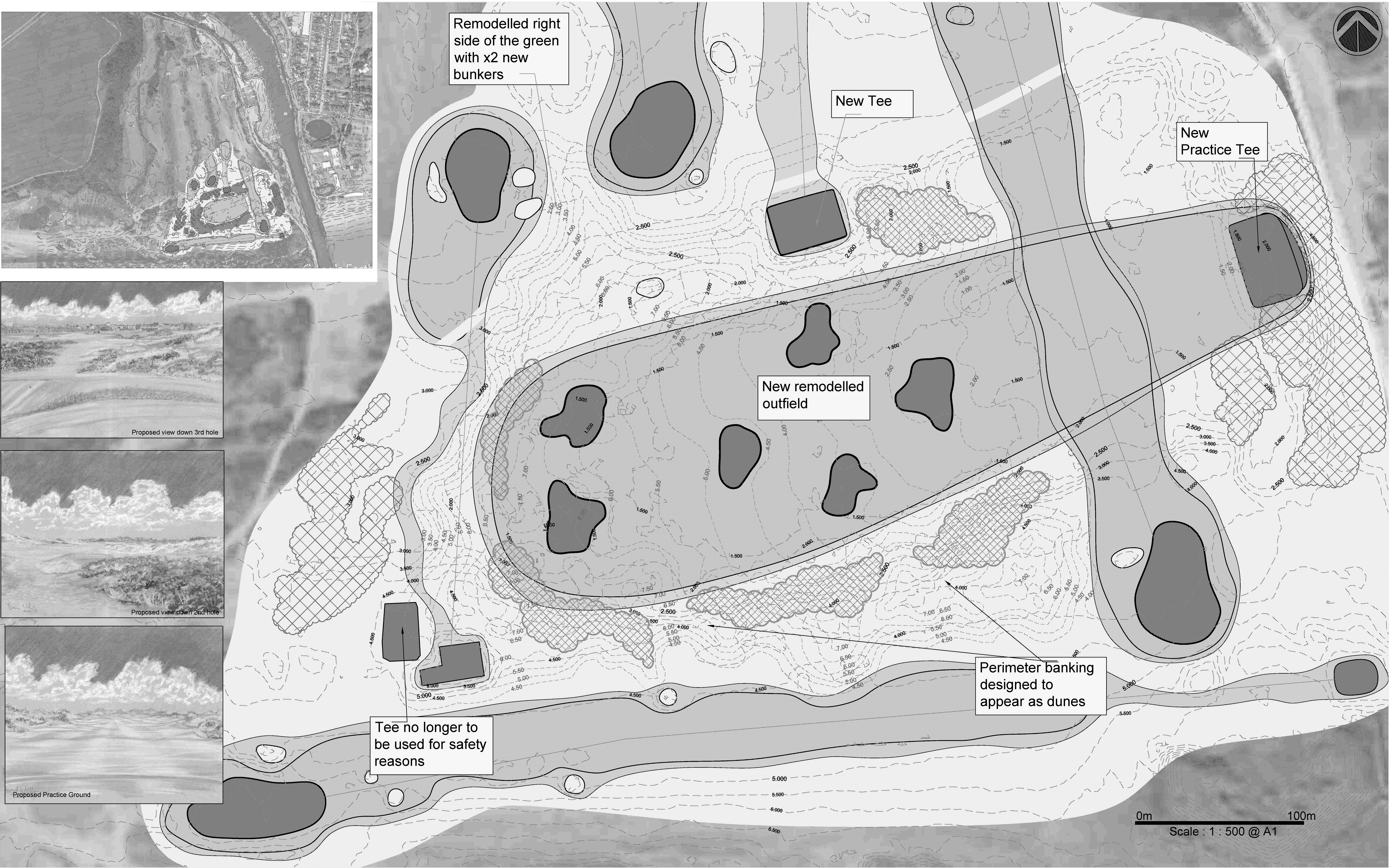
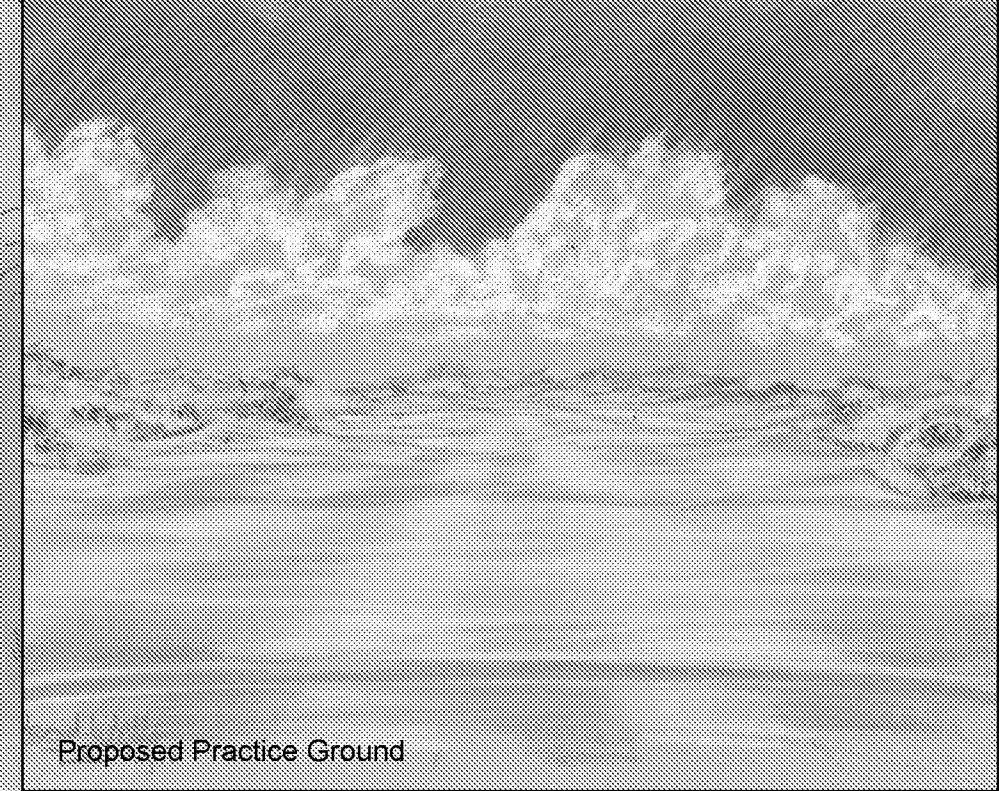
- 3.1 The British Geological Survey (BGS) online Geoindex Mapping identifies the underlying bedrock geology correlates to the Lewes Nodular Chalk Formation, Seaford Chalk Formation and Newhaven Chalk Formation – all primarily composed of chalk
- 3.2 The BGS mapping identifies superficial deposits of Raised Marine Deposits (Clay, Silt, Sand and Gravel) within the immediate area. These materials are not likely to allow any infiltration.
- 3.3 Existing drainage record plans show that the site's surface water is dealt with via the use of a land drainage system, so as to collect, attenuate and re-use / discharge the surface water generated on site.

4.0 Summary

- 4.1 It can be seen from the information presented above that there is a minimal risk of increasing the flood risk within the site boundary or along neighbouring sites owing to the proposed reprofiling of the terrain within Littlehampton Golf Club. This includes risks from all sources such as tidal, fluvial and surface water.
- 4.2 The Environment Agency has confirmed that no flood water compensation will be required as the flooding within the vicinity is due to tidal actions.
- 4.3 The current on-site surface water drainage system is an ideal SuDS system, as it provides attenuation, filtration and potential re-use possibilities to the development.

Appendix A

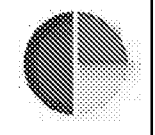
Proposed Reprofiling Plan



DRAWN BY:	David Weller	APPROVED BY:	Bruce Weller	CLIENT:	Littlehampton Golf Club
DATE:	18th May 2017	PROJECT NO:	820	DRAWING:	Grading Plan
DGN. NO.:	820.02	SCALE:	1:500 @ A1	REVISIONS:	

PROJECT: Littlehampton Golf Club

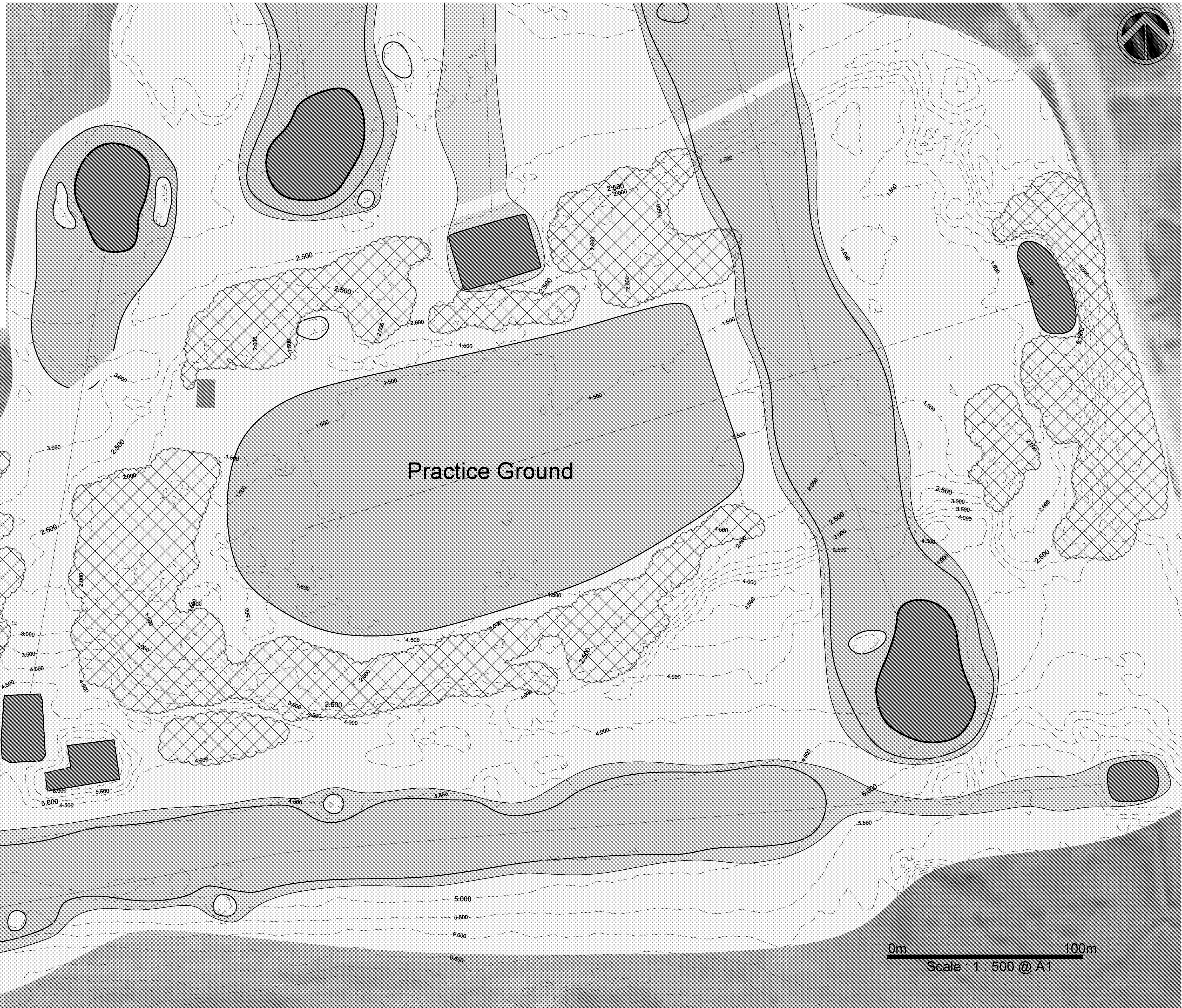
Key:	Existing Contours (0.5m intervals)	Existing Greens / Tees	Existing Maintenance Track
Existing Roughs	Existing Bunkers	Proposed Gorse / Broom Planting	Proposed Contours (0.5m intervals)
Existing Semi Roughs	Existing Scrub		



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Appendix B

Topographical Survey 820.01

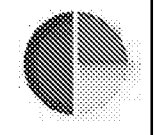


DRAWN BY:	David Weller	APPROVED BY:	Bruce Weller	CLIENT:	Littlehampton Golf Club
DATE:	18th May 2017	PROJECT NO:	820	DRAWING:	Existing Site Survey
DGN. NO.:	820.01	SCALE:	1:500 @ A1	REVISIONS:	

PROJECT:

Littlehampton Golf Club

Key:					
	Existing Contours (0.5m intervals)		Existing Greens / Tees		Existing Maintenance Track
	Existing Roughs		Existing Bunkers		Existing Covered Bays
	Existing Semi Roughs		Existing Scrub		



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