

Turnberry Castle and Lighthouse

Trump Turnberry Golf Course, Turnberry, Ayrshire

Construction Phase Archaeological Mitigation

Formation of Hard Landscaping to West Terrace

*Written Scheme of Investigation*

## 1.0 Non-Technical Summary

This document sets out the Written Scheme of Investigation, on behalf of the SLC Turnberry Ltd. (part of the Trump Organization), for archaeological investigation and mitigation works relating specifically to the formation of new stone paving and access steps on the west terrace / lawn of the lighthouse building.

The document establishes actions and products required to achieve Stage 1 of a potentially three-stage process, Stage 2 being any further work, including fieldwork, arising from Stage 1, such as the development and implementation of a mitigation strategy to deal with any significant archaeology identified or recovered during Stage 1, and Stage 3 being the further analysis of any materials recovered during the field work in either or both Stages 1 and 2 and/or the preparation of a final report on all works constituting preservation by record for publication, as appropriate.

## 2.0 Site Location and Description

The site is located on the Trump Turnberry resort, south-west of the village of Maidens in South Ayrshire. The area to which this document specifically relates focuses on the area of Turnberry Lighthouse and Bruce's Castle which lie on a coastal promontory at NGR NS 1962 0721.

The proposed landscaping works are in respect of the split level west terrace of the lighthouse, in an area currently overlain by lawns and modern concrete paving.

## 3.0 Archaeological and Historical Background

The Trump Turnberry Resort has been the subject of a fair degree of exploratory archaeological work in the relatively recent past as part of the development of a heritage-management strategy for the hotel and wider estate.

### *2008-2009 Investigation and Excavation*

A rapid desk-based assessment of potential archaeological sensitivities was undertaken in 2008, which characterised the principal known archaeology within the area of the Turnberry Estate i.e. including the golf courses themselves, the hotel and cottages and the WWII airfield (as well as Bruce's Castle and the Lighthouse) and in the immediately surrounding landscape, and commented on the anticipated archaeological sensitivity to potential future redevelopment.

The desk-based assessment clarified the existence of number of archaeological sites with statutory protection located within the estate. These include two Scheduled Ancient Monuments, Turnberry Castle (i.e. Bruce's Castle) (SAM 6183) and Bain's Hill standing stone (SAM 5815) and three listed buildings, Turnberry Hotel (B-listed: HB Number 7618), Turnberry Lodge Farm (B-listed: HB Number 7591) and Turnberry Lighthouse and Keepers' Houses (B-listed: HB Number 12991).

Several other archaeological sites are known within the boundaries of the estate. These include a possible prehistoric ring ditch (NMRS no: NS20 NW106) and the find spot of a collection of worked prehistoric flints (NMRS no: NS20 NW14) at the north-eastern end of the estate and the First World War School of Aerial Gunnery war memorial (NMRS no: NS10 NE 5).

Also of note, although just beyond the boundary of the estate, is the medieval motte at Shanter Knowe (NMRS no: NS20 NW3). Previous archaeological investigations in the area include a walkover survey in the vicinity of Bains Hill, conducted in 1999, which confirmed that structural remains relating to the airfield were present in the vicinity but did not identify any previously unknown significant sites (Maule 1999), and an evaluation of the site of a then proposed outdoor pursuits centre to north of the hotel, conducted in 2001, which established the presence of remains of Mesolithic and Neolithic date (MacGregor 2001).

What these various presences and findings indicate is sustained human use of the general area for over 10,000 years, up to and including the Second World War. There is consequently potential for discoveries of hitherto uncharted evidence for all periods of human occupation across the entire golf course. That said, the works which would have been necessary to create first the golf course, then the airfield, and then the reworked golf courses immediately after WWII, are likely to have disturbed and possibly destroyed many surviving traces of past human activity. The natures of those operations do, however, leave scope for pockets of survival on both a micro and a macro scale.

The works to which this document relates are to be focused on the lighthouse and castle along with the area immediately to the east, much of which is a scheduled monument (SM). The castle, a twelfth-century (or earlier) foundation located on the promontory, comprises a keep, surrounding wall and ditch (MacGibbon & Ross 1887-92; Barrow 1980) with the listed category B lighthouse, the footprints of which are excluded from the scheduling, being located within the castle walls to the south-west of the keep.

The visible remains of the castle are now disparate but numerous, complex and, in their current state, difficult to interpret in their entirety with confidence. The surrounding wall, for example, appears to have been designed to follow the many small natural bays which surround the promontory and which would have provided suitable landing points for sea-borne traffic in the past. In places, fragments of walls survive to heights of 5 to 6 m. The location of the landward entrance to the castle, once apparently protected by a drawbridge or similar structure across the enclosing ditch, is preserved by the modern access track and traces of dressed masonry may still be seen at points on either side of the modern track. The ditch still exists as a significant landscape feature on either side the modern track and associated infill, though currently heavily overgrown in places.

During the 2008 work, nine trenches were opened by hand in the immediate vicinity of the Lighthouse, a B listed building representing one of nearly thirty built by the Stevenson brothers during the Victorian era (Munro 1979). Turnberry Lighthouse, and the associated keeper's houses, date to 1873. The first of these trenches (Tr 11), located immediately outside the door of the lighthouse against the north facing wall, encountered a possible old and sealed Medieval ground surface (dated by the discovery of a Medieval silver coin), within a cut hollow or natural crevice in the bedrock, at a depth of 0.2 m at southern end and 0.6 m at northern end of the trench. The second, located on the grassed area outside the Lighthouse on its westward side and most relevant to this WSI (Tr 12), encountered further potentially significant deposits below a probably modern ashy black layer and builder work debris immediately below the turf. This took the form of possible turves at a depth of 1.0 m below the surface and the possible remains of a 'mound' of unknown date and purpose at a depth of 0.3 m below the surface.

Other trenches encountered collapsed Medieval walling (Tr 16, located just outside the castle gateway) and, at a depth of between 0.5 and 0.9 m, the old Medieval ground surface overlying collapsed walling within the ditch (Tr 17, located along the road to the Lighthouse over the outer edge of the Medieval ditch).

The remaining five trenches produced no significant archaeological evidence. Trench 13 was located in the courtyard of the lighthouse against the north facing wall and hit bedrock at 0.3 to 0.5 m, while trenches 18 & 19 were located on the road to the Lighthouse. None encountered significant archaeology. Of particular interest in the context of the works proposed herein, Trenches 14 & 15 were located on the road by the Lighthouse, and within the scheduled area. They were excavated to a maximum depth of 0.5 m to 0.7 m. The surface consisted of two layers of tarmac which sealed a layer of sand and small stones, presumably post-Medieval levelling up material. This lay over uneven bedrock which was found at a depth generally of between 0.2 m and 0.5 m below the surface with occasional deeper fissures. Again, no significant archaeological features were found within these trenches and no finds were retrieved.

#### *2014-2015 Investigation*

During the 2014/2015 archaeological works (Black & Durnan 2015) a total of six trenches (Tr 1-6) of varying sizes were opened within the confines of the castle wall to determine if any historic service trenches existed that could be reused during future development. A further five trenches (Tr 7-11) of varying length were opened within and south of the southern part of the walled garden, to assess the potential for buried archaeological remains to exist here that might be affected by future redevelopment of the golf course. Two more small trenches (Tr 12a & 12b) were opened at either end of a former septic tank location in order to assess whether any future development here could impact on archaeological remains relating to the castle.

Within the castle walls historic service trenches and service cables/pipes were clearly shown to be present within the lighthouse courtyard and at the edges of the current track. The deepest and most distinct of these, and the only ones sitting within clear service trenches, ran up the northern side of the access track and north to south within the courtyard area just within the boundary wall. The latter also ran through the northern boundary wall into the former septic tank location. Where investigated the service trench running along the northern side of the track was shown to be between 0.2 m and 0.6 m deep and 0.5 m to 0.3 m wide and to cut through archaeological deposits and features at various points along its entire length, some of these features being walls and deposits most likely relating to the occupation of the castle.

Archaeological remains likely relating to the castle were also found to exist in close proximity to the surface in both of the small trenches opened at either end of the former septic tank, immediately north of the lighthouse boundary wall, however these were not subject to further investigation as the new tank could be accommodated within the existing concrete base and utilised the extant cast iron outfall.

Archaeological remains of indeterminate age were uncovered just south of the walled garden. They were ultimately preserved *in-situ* during subsequent construction of the new 9th green.

#### *2016 Investigation*

In April 2016, further investigation was carried out to the west terrace in advance of an SMC application for paving and landscaping works. Work comprised stripping of topsoil, recording of the 2008 trench, and expansion of this trench to cover the width of a proposed staircase.

The controlled stripping of turf and topsoil over the western terrace revealed features relating to the lighthouse but nothing obviously older than this or material of a nature which would be likely to be adversely affected by any proposed paving scheme.

The re-excavation of the 2008 evaluation trench has shown that no obviously significant archaeological layers exist within the upper levels where the deposits appear to relate to lighthouse activity. Likely archaeological deposits and features were uncovered at the western end of the trench, the most obvious two being cut features [014 & 015]. Given the absence of any artefactual material being recovered and the narrow confines of the previous evaluation trench it was not possible to fully characterise these features or their associated deposits. It was, therefore, also not possible to fully confirm whether they related to the lighthouse or some prior episode of activity. Their nature – sand with angular stones – suggests that these are unlikely to be adversely affected by any proposed paving scheme. The turf features mentioned in the 2008-9 report could not be identified during the current excavation works.

The removal of the 0.4 m either side of the previous evaluation trench during the extended evaluation was confined to layers above the potential archaeology. However, the extent of the extended evaluation resulted in excavation to within approximately 0.1 m of the top of the uppermost possible feature [014]. Further excavation was not undertaken in accordance with the conditions of the Scheduled Monument Consent dated 26th April 2016. It was considered that, if excavation was limited to this same depth, there will be no disturbance of archaeological deposits which might exist however consideration should be given to an appropriate mitigation strategy for all remaining groundbreaking works to ensure that the archaeological resource is fully protected.

## 4.0 Project Objectives

The overall aim of this specific component of the archaeological monitoring programme at Turnberry is to ensure that there is no significant archaeological material below the west terrace which could be affected by the proposed hard landscaping works, in particular the proposed reduction in ground levels towards the centre of the existing grassed embankment in order to allow construction of steps.

In that respect, the project objectives are to:

- Ensure any significant *in-situ* archaeological remains are not disturbed during the construction works.
- Ensure the recording and recovery of any potentially significant “stray” finds (i.e. material not in its primary archaeological context) contained within deposits relating to the lighthouse construction, use and any later activity.
- Ensure that the needs for archaeological recording and conservation are met without causing unnecessary delay or disturbance to the development.

## 5.0 Methodology

### 5.1 *Watching Brief*

Undisturbed turf and topsoil layers within the remaining confines of the area required to form the new steps will be removed by a mechanical excavator, fitted with a flat-bladed ditching bucket. This will be controlled and monitored by a suitably qualified archaeologist throughout. The surface beneath the turf and topsoil will, where appropriate, be cleaned by hand in order to identify areas of archaeological potential. Any such areas or deposits encountered during this process, whether deemed archaeological significant or not, will be recorded by written description on pro forma recording sheets, by digital photography and by measured drawing.

All archaeological finds encountered will be dealt with by the on-site archaeologist. The general practice will be to bulk recover artefacts by context where these date from the nineteenth or twentieth century. Should significant archaeological finds be encountered, even though these may not be in their original context, there may be the requirement for three-dimensional recording of the find spot prior to up-lifting. Decisions in this respect will rest with the judgment of the on-site archaeologist. Finds which are of particular sensitivity or importance may require specialist conservation assessment.

Should any archaeological features or layers require to be investigated (for example if there is doubt about the age and/or character of a layer or deposit encountered), these will not be further excavated but may be cleaned by hand, by the archaeologist, to the extent that this allows determination of the date of the deposits and/or their character to allow them thereafter to be either removed (if modern) or accurately avoided during the formation of the west terrace.

Deposits encountered during the site investigation works, whether deemed archaeological significant or not, will be recorded by written description on pro forma recording sheets, by digital photography and by measured drawing.

In the unlikely event that significant, extensive, numerous and/or complex in situ archaeological deposits or features are proven to be present within the confines of the western terrace staircase area and, for whatever reason, it is deemed that disturbance of these cannot be avoided by the new terrace, the developer, Historic Environment Scotland and the local authority's archaeological advisor will be informed immediately this becomes apparent, to allow discussions, including a site meeting if deemed necessary and appropriate, to be held between the relevant parties to agree the most appropriate strategy. As a guide, and without prejudice, where preservation *in situ* is not feasible in these situations, the resultant solution(s) will normally include the need to develop a stage 2 mitigation strategy to excavate and record any significant archaeological features or sites to ensure preservation through record.

No further ground breaking works relating to the formation of the new west terrace is anticipated, however preparation of the solum will be monitored by a suitably qualified archaeologist. Given the small scale of the proposed works it is anticipated that one archaeologist will be sufficient to monitor all works. The archaeologist will be authorised to stop work immediately should should any deposits that cannot be confidently identified as relating to either the construction and use of the lighthouse or any later activity, all pending further discussion and review with Historic Environment Scotland and/or WoSAS as appropriate.

All archaeological finds encountered will be dealt with by the on-site archaeologist. The general practice will be to bulk recover artefacts by context where these date from the nineteenth or twentieth century. Should significant archaeological finds be encountered, even though these may not be in their original context, there may be the requirement for three-dimensional recording of the find spot prior to up-lifting. Decisions in this respect will rest with the judgment of the on-site archaeologist. Finds which are of particular sensitivity or importance may require specialist conservation assessment.

## 5.2 *Human Remains*

Should human remains be encountered, the local police, Historic Environment Scotland, the West of Scotland Archaeology Service (WoSAS) and SLC Turnberry Ltd. will be notified immediately and thereafter prescribed procedure for their treatment will be followed, in accordance with legal requirements.

## 5.3 *Project Monitoring*

Historic Environment Scotland, WoSAS and SLC Turnberry will be notified immediately of any unexpectedly significant or complex discoveries, or other unexpected occurrences which might significantly affect the archaeological work and/or the development. In that event, all finds and features will be left *in situ* until arrangements have been agreed for safeguarding or recording them.

An archaeological project manager will be appointed for all the works outlined above and the manager will be the first point of contact for any project-related liaison with Historic Environment Scotland, WoSAS and the developer or the developer's agent for all formal logistical, administrative and financial aspects of the project.

It will be important to ensure that all formal communications, instructions and/or requests (including any proposed amendments to on-site strategies) are ultimately made in writing to the project manager, to ensure organisational, administrative and financial efficiency.

Any site visitors, including representatives of Historic Environment Scotland and WoSAS will be required to conform to the health and safety regime in place during the fieldwork programme.

## 6.0 Reporting, Archive & Small Finds Arrangements

Following completion of the fieldwork, a report on the fieldwork will be prepared, outlining the main results and incorporating lists of all features, finds, samples, photographs and drawings. This report will be produced as an electronic report (and a desk-top published document where this is required). The report will also include recommendations for further mitigation measures appropriate to the remains encountered. Implementation of any recommendations offered would, however, only follow consultation with Historic Environment Scotland and WoSAS.

The report will be prepared, in structural and textual content terms, to the standard of the traditional Data Structure Report as defined by Historic Environment Scotland, in their "Project Design, Implementation and Archiving" document (Historic Scotland Archaeological Procedure Paper 2, 1996). The report will provide "a structure or organisation to the primary records" of the fieldwork, forming "a basis for further work". It will be "essentially, an initial organisation on paper of the information retrieved from the site" and consist "of a narrative account of the contexts...discovered, including field interpretations and a set of lists. It is not intended for publication, but will itself be archived." A project archive will be prepared and made ready for submission within six months of the completion of all fieldwork or post-excavation work (as appropriate). The resultant site archive will be deposited with the National Monuments Records for Scotland.

A short report detailing the results will also be submitted for publication in *Discovery and Excavation in Scotland* and to *OASIS*.

Copies of the Data Structure Report will be provided to Historic Environment Scotland, WoSAS, the developer and to the National Monuments Record for Scotland. Further copies can be distributed to other recipients if requested and specified.

The results of this work will inform the need for further (Stage 2) fieldwork or further (Stage 3) analysis of materials/generation of a report for publication, the report will, on request, be followed by a costed assessment specifying any work deemed necessary in order to complete the project. Publication, where required, would normally be sought in a suitable academic journal. The post-excavation process is essential to bring a piece of archaeological work to completion.

The laws relating to Treasure Trove and *Bona Vacantia* in Scotland apply to all finds where the original owner cannot be identified. This includes all material recovered during archaeological fieldwork. Accordingly, all assemblages recovered from archaeological fieldwork are claimed automatically by the Crown and must be reported to the Scottish Archaeological Finds Allocation Panel through its secretariat, the Treasure Trove Unit. In the event of the discovery of small finds during the evaluation or any subsequent stages of work, a filled-out copy of the form "Declaration of an Archaeological Assemblage from Fieldwork" and two copies of the pertinent Data Structure Report will be submitted to the Panel at the conclusion of the fieldwork. The Panel will then be responsible for recommending to the Queen's and Lord Treasurer's Remembrancer (QLTR) which museum should be allocated the finds.

All artefacts will be stored temporarily by the archaeologist until a decision has been made by the Panel regarding the museum which will be allocated the finds for permanent curation. All finds will be transferred to the appropriate museum within six months of completion of the fieldwork, if no post-excavation work is required, or at the end of the latest finishing post-excavation programme.

In the event that unallocated finds recovered from the evaluation or any later stages of work require to be removed from Scotland, for the purposes of post-excavation analysis, there is a legal requirement to obtain the consent of the QLTR, in the form of a loan agreement. Initially, an indication of intent would be registered with the Treasure Trove Secretariat at the National Museums of Scotland, after which formal consent would be applied for using the form "Application for authority to borrow unallocated Treasure Trove for research purposes". A consent form, signed by the QLTR and specifying conditions (such as the period during which finds may be held outside Scotland) would then be issued. Receipt of this signed consent form will be required before items may be removed from the country.

## 7.0 Timetable

The watching brief will be undertaken during May 2016, with a proposed start date on or around w/c 16<sup>th</sup> May subject to receipt of statutory consents.

## 8.0 Staffing

To be confirmed

## 9.0 Health and Safety

Prior to fieldwork commencing a risk assessment of the project will be undertaken.

## 10.0 References

Barrow, G. W. S., 1980, *The Anglo-Norman era in Scottish History*. Oxford.

Black, S. & Durnan, J., 2015, *Turnberry Golf Course: Archaeological Evaluation*, Unpublished Northlight Heritage Data Structure Report No. 135.

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Munro, R. W., 1979, *Scottish Lighthouses*. Stornoway.