

**A SAFETY ANALYSIS OF THE PROPOSED COASTAL PATH**

**ADJACENT TO**

**NORTH SHORE GOLF CLUB**

**25<sup>th</sup> NOVEMBER 2016**

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## Introduction

In September 2016 Swan Golf Designs was approached by Natural England to provide advice on the use of a proposed section of English Coastal Path (ECP) located between Skegness and Mablethorpe, specifically that which is adjacent to North Shore Golf Club.

An initial site visit was made on 3<sup>rd</sup> October 2016 to inspect the proposed path route and to meet with representatives of Natural England and North Shore Golf Club. An informal instruction issued to Swan Golf Designs on 26<sup>th</sup> October 2016. The brief required a spatial analysis of the proposed path route in relation to adjacent golf holes, recommendations for a “safe route” for the ECP and recommendations for measures to mitigate any risks identified for potential users of the path.

The analysis and recommendations contained within this report are based upon the following:

- Coastal Access: Natural England’s Approved Scheme 2013 (NE446) – specifically section 8.20
- Observations made during the site visit;
- Measurements taken from up-to-date aerial photography;
- Swan Golf Designs' safety considerations interpreted from industry recognised research and guidelines.

*NB: All assessments of safety on or adjacent to golf courses are based upon an assumption of golf shots being accidentally played off line and upon the use of current or previous playing technology. No account is taken for shots that are deliberately aimed away from normal target areas or hit with malicious intent. Similarly, future significant changes in playing technology may impact upon the distance that golf balls may travel and therefore alter any assessments of safety.*

## Background information

Natural England is currently implementing the England Coast Path which will secure;

- a new route around the whole of the English coast and will be designated as a National Trail; and
- an associated “margin” of land for the public to enjoy on the seaward side of the route.

A section of rock armour flood defence has been constructed between the beach and North Shore Golf Club. Included in this construction is a surfaced maintenance access path, sufficient to accommodate mid-sized tracked and wheeled vehicles that may be used in any such maintenance. This access route is not a public right of way and is located within the land ownership of North Shore Golf Club. However, despite being fenced off from the beach and public access it is occasionally used by members of the public as an informal path.

Natural England is considering if the flood defence maintenance access route can be given open access status and be adopted as part of the ECP.

North Shore Golf Club has been in operation in its current location since 1910 having been designed by five-time British Open champion and celebrated golf course architect James Braid. It was the second golf course to be opened in Skegness around fifteen years after Seacroft Golf Club, which is situated immediately to the south of the town.

The golf course measures 6214 yards and has a par status of 71. The course is proprietarily owned and is operated in conjunction with a hotel located on the same site. Those that use the golf course are a mixture of members and visitors, some of whom may also be hotel guests.

The golf course is located approximately one mile (1.5km) north of Skegness town centre. Its site is broadly rectangular of 35.43Ha (87.55 acres). It has a coastal boundary measuring 1000m which is located between five and thirty metres of the high tide line. The first 175m of the site from the coastal boundary could be described as duneland, comprising two major linear dunes and dune slacks.

The golf course has three holes which are adjacent to the coastal boundary and proposed path route, namely the 5<sup>th</sup>, 10<sup>th</sup> and 13<sup>th</sup> holes. These holes are part of the 6-8 “links” style golf holes, with the remainder being parkland in nature. Anecdotally, the links holes are a major attraction of the golf course for both members and visitors, and as such are critical to the success of the business.

## A spatial analysis of the proposed footpath and adjacent golf holes

The 5<sup>th</sup> hole is a mid-long par-4 which plays in a northerly direction with the proposed path route to its immediate right. The distance between the right-hand edge of the prepared playing area varies between 4m at the tee, 5m at the fairway and 30m at the green.



The analysis shows that the proposed route of the path is in danger for the full length of the hole, and that there is a risk of golf balls landing on or beyond this proposed route. This includes the potential for golf balls to endanger pedestrians on the proposed path immediately adjacent to the back (white) tee and at all points further along the hole all the way to (and beyond) the green. The risk is estimated at 20-30% of golf shots landing on the proposed route, diminishing to negligible at the eastern edge of the shaded area.

The identified danger comes from golf shots which are hit to the right of the intended playing area, which corresponds to the most common shape of shot (slice) for right-handed golfers (85%-90% of UK golfers are right-handed). The proposed ECP route is just 25m from the central playing axis on the 5<sup>th</sup> hole at the estimated average driving distance (220m from the tee), with the right-hand edge of the fairway just 7.5m from the proposed ECP route at this point. The area of risk is identified as up to 60m either side of the central axis of play, which means that the risk extends to 35m beyond the proposed ECP route at the estimated average driving distance.

The risk is exacerbated by limited visibility of the proposed route from the 5<sup>th</sup> hole, which prevents golfers from making informed decisions about when it is safe for them to play.

The area of potential risk under normal circumstances extends beyond the proposed path, beyond the high tide line and far onto the beach.

The 10<sup>th</sup> hole is a mid-length par-4 which plays north from the clubhouse/hotel. The hole is played between the seaward dune and the coastal boundary with clear visibility from tee to green. It has the coastal boundary situated between 81m (at the tee) and 38m (on the approach) from the core playing areas, to the right of the hole when being played.



The application of Swan Golf Designs safety criteria to the 10<sup>th</sup> hole is shown in the adjacent plan. It can be seen that there is a very small predicted area of conflict between play and the proposed path route (25m), which is adjacent to the green. As such, we would deem that there is a very low probability of golf balls played from the 10<sup>th</sup> hole landing on the proposed path (estimated at less than 1%).

Looking at the landscape in more detail, this probability is further reduced by the apparent penalty for landing the ball beyond the prepared playing area is severe. The gorse, bracken and brambles that are situated between the 10<sup>th</sup> fairway and the proposed path route provide a strong deterrent for golfers not to hit their golf balls to the right, thereby further reducing the risk.



The 13<sup>th</sup> hole is also a mid-length par-4 playing west to east, through one dune and over the seaward dune. The approach shot to the green is blind, with a marker post used to indicate its approximate location to golfers on the fairway. The distance between the back of the green and the proposed path route is 21m.



The spatial analysis shown on the plan shows that there is minimal risk of golf balls overflying the green and landing on the proposed path (15m). In normal circumstances any danger may be as a result of balls bouncing on or beyond the green and travelling at a lower speed and trajectory towards the proposed path, but the nature and scale of the vegetation between the 13<sup>th</sup> hole and the proposed path makes this very unlikely (estimated at less than 1%).

A complicating factor is that the approach to the green is blind, played from below the level of the green over the primary dune. This may result in incorrect judgement of distance and/or incorrect club selection by golfers playing the 13<sup>th</sup> hole, with a possible increase in the likelihood of golf balls landing on the proposed path.

## Recommendations for any measures that could mitigate the risks for potential footpath users

The identified areas of risk on the proposed path route from the 10<sup>th</sup> and 13<sup>th</sup> holes are very small, and it is therefore reasonable to conclude that the possibility of golf balls landing on the proposed path in normal circumstances is also very small. We are not aware of any instances where people using the proposed path route, albeit illegally, have been threatened by golf balls.

The identified area of risk on the proposed path route adjacent to the 5<sup>th</sup> hole is both large and significant. Given the topography of the land and the relatively small area that the golf course occupies, there is no opportunity to make significant changes to the golf hole. If this section of the path was proposed as the route of the England Coastal Path then extensive measures would be required to afford adequate protection. These would likely include:

- explanatory signage for both pedestrians and golfers identifying the nature of the risk and what actions should be taken by each to mitigate that risk;
- clearance of obstructive vegetation between the golf course and proposed path route so that both golfers and pedestrians have clear visibility of all possible risks along the entire length of the hole;
- double layer protective fencing (2.5m height) adjacent to the 5<sup>th</sup> back (white) tee – approximately 50m in length;
- single layer protective netting “side and roof” (2.5m height) – approximately 400m in length;

or

- single layer protective netting “side only” (up to 30m height) – approximately 400m in length.

Given that each installation is unique and takes into specific site conditions it is difficult to provide an accurate estimate of the cost of installing such fencing and netting. However, as an indication of potential costs a range of between £100-£500 per linear metre could be considered. Given the exposed coastal location of the potential fencing/netting then perhaps the upper estimate may be more applicable.

Critically, installation of fencing and netting is only the first part of any mitigation strategy. Any fencing or netting is only effective if it is properly maintained, and such maintenance required significant and ongoing investment. Given the level of risk identified and the apparent difficulty encountered by North Shore Golf Club in maintaining exclusion fencing along the proposed path route, significant doubts remain as to whether safety fencing/netting can be adequately maintained to ensure its effectiveness at all times.



## Recommendation of a potential “safe route” for the proposed footpath

Based upon the above analysis and the availability of mitigation measures it is not possible to recommend the use of the proposed path route alongside the 5<sup>th</sup> hole. It is possible to recommend the use of the proposed route where it is adjacent to the 10<sup>th</sup> and 13<sup>th</sup> holes.

Therefore, and working strictly to the brief of this report, one potential “safe route” for the proposed footpath is as shown in yellow on the below plan.



The potential “safe route” makes use of the proposed path route alongside the southern half of the golf course, but then uses the existing public right of way to route pedestrians back to the A52 footpath.

However, taking a wider view of how this potential “safe route” may be used, it is important to consider the effects of increased traffic on the existing east-west public right of way which crosses four golf holes and is closely adjacent to two more.

It is assumed that North Shore Golf Club has made an assessment of the risks caused by the golf course and the existing public right of way, but this assessment will require updating should coastal path status be added to the footpath.

Without knowing the number of rounds played at North Shore Golf Club and the expected increased number of pedestrian users it is very difficult to make such an assessment. However, given the amount of golf holes that directly impact upon the safe use of the footpath it is difficult to see how the frequent use of this route could be managed without exposing pedestrians to greater risk than they would be when using the originally proposed ECP route.

In addition, the use of this intermediate route would cause a detrimental effect on play at North Shore Golf Club, with play significantly delayed on the affected holes to accommodate pedestrians. The outcome of this likely delay is a reduction in

the number of golfers that the golf course can accommodate in any given time period, and therefore a reduction in potential revenue for North Shore Golf Club.



Therefore, two potential "safe routes" could be recommended.

The first is to use the southern section of the proposed ECP route up to the intersection of the public right of way, and at that point to direct the route onto the beach outside of the area of identified risk (shown in pink). Whether this route is possible at all times requires further analysis as it will likely be affected by the tide.

The final potential "safe route" is the default scenario of using North Shore Road and Roman Bank (A52) as shown in red, which completely avoids any new interaction with the golf course (no analysis is made of the relationship between the golf course and any adjacent roads).

## Summary

It is proposed that the English Coastal Path adopts a section of surfaced flood prevention access route alongside North Shore Golf Club which is currently not a public right of way. Swan Golf Designs has undertaken a spatial analysis of the proposed path route in relation to the adjacent 5<sup>th</sup>, 10<sup>th</sup> and 13<sup>th</sup> holes of North Shore Golf Club to assess whether the route can be used safely by the public.

The spatial analysis has identified small areas of risk adjacent to the 10<sup>th</sup> and 13<sup>th</sup> holes, but a large and significant area of risk adjacent to the 5<sup>th</sup> hole. This area of risk runs the entire length of the golf hole and extends far onto the beach.

It is possible that the proposed path route adjacent to the 10<sup>th</sup> and 13<sup>th</sup> holes is included within the English Coastal Path. However, it is not recommended that the proposed path route which is adjacent to the 5<sup>th</sup> hole unless significant mitigation measures are undertaken, including the installation of fencing and netting along the entire length of the golf hole.

A potential alternative to the proposed path route is to use the route adjacent to the 10<sup>th</sup> and 13<sup>th</sup> holes, and then ask pedestrians to use the existing east-west public right of way across the golf course to join with the Roman Bank (A52). However, this route has potential problems with its interaction with the golf course on the existing public right of way, where it crosses four hole and closely adjacent to two more.

Therefore, two potential “safe routes” are recommended, either making use of the beach or the existing rights of way along public roads.

Report compiled by

A handwritten signature in blue ink, appearing to read 'W. Swan'.

William Swan  
Swan Golf Designs Limited



## Appendix

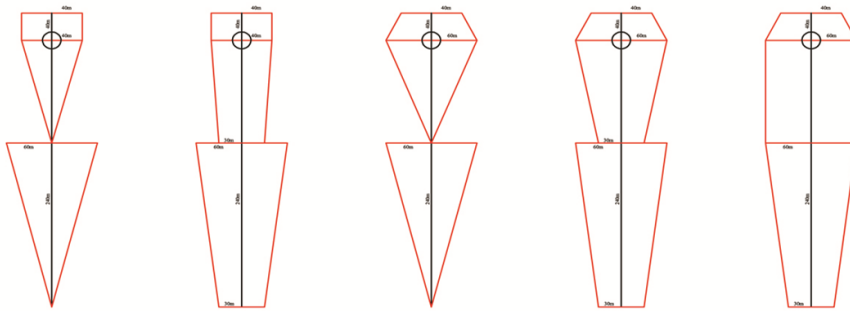
The following documents have been used to inform the methodology of safety analysis undertaken by Swan Golf Designs:

### Swan Golf Designs

#### MINIMUM SAFETY MARGINS

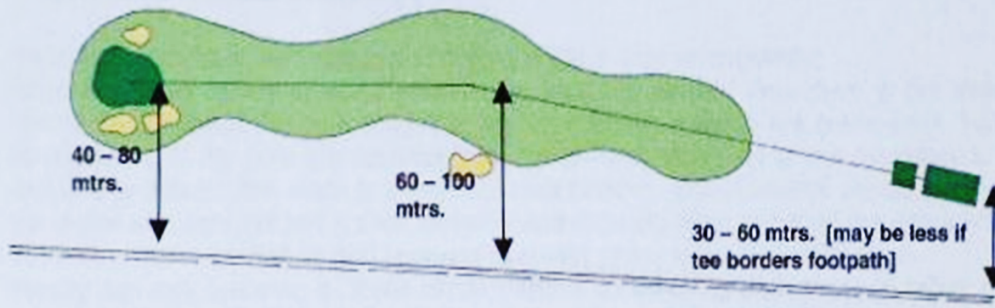
SOME INTERPRETATIONS OF THE EIGCA SAFETY GUIDELINES

SCALE - 1:5000

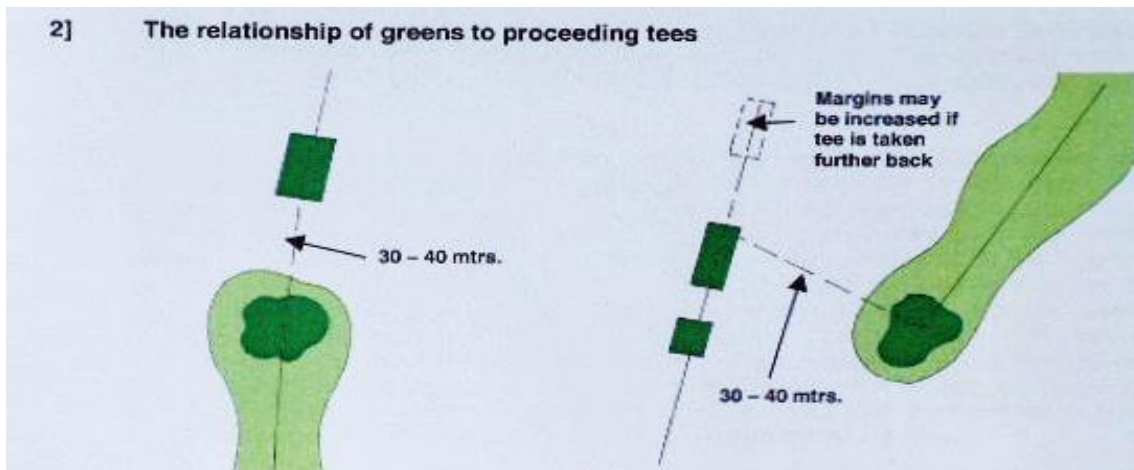


### EIGCA Safety Guidelines

Basic framework for a golf hole parallel to a boundary (measurement in mtrs.)

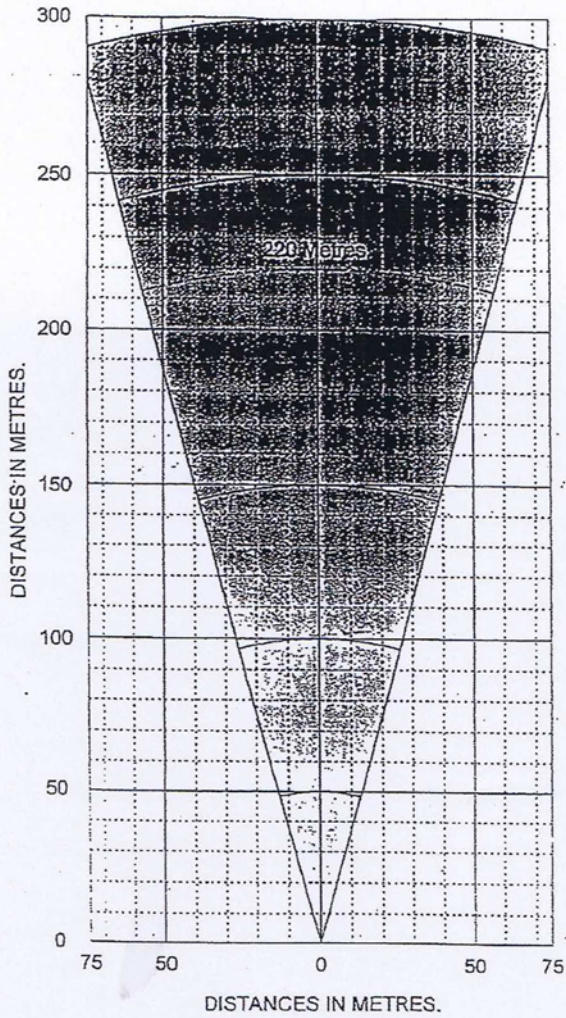


2] The relationship of greens to preceding tees

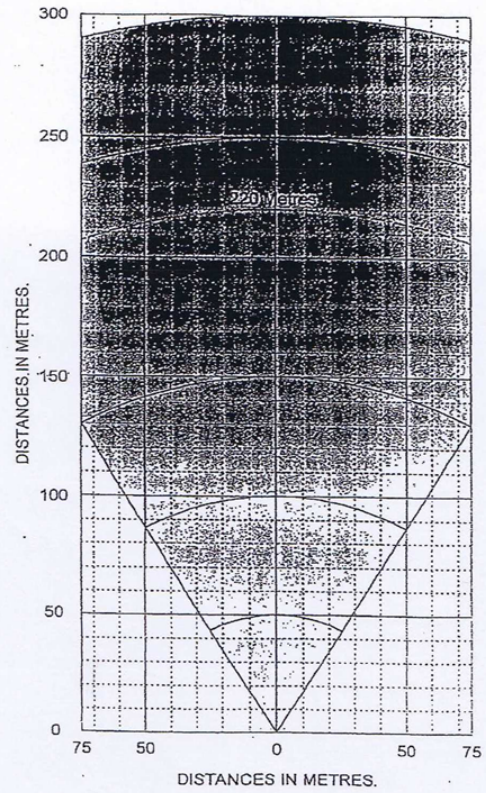




Zone for the 15° Rule.



Zone for the 30° Rule.



\* Notes.\* 220 metres is the distance achieved by the average golfer with a driver from a tee.  
99% of golf balls hit with a driver will land within a zone which is 30° and also 75 metres from the centre line.