

Project Appraisal

*Equipment Test Centre,
The R&A*

Preparation Stage
Milestone Document

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1. RECOMMENDATION

The recommendation of the Golf Environment Organization (GEO) further to the Project Appraisal process outlined by this report is that the Equipment Test Centre is considered eligible for registration in the OnCourse® Developments Programme.

The primary reasons for this recommendation are:

- An exemplar of carefully considered site selection process for such a facility
- A sensitive design to the test centre building that is responsive to its landscape setting
- A comprehensive approach to the design and enhancement of the habitat diversity on site
- A sensitive design that takes into account the existing tree and plant conditions
- The nature of the facility provides significant opportunity to engage with educational opportunities that are especially unique

Taking into account the uniqueness and quality of the proposed development GEO is confident that, given the thought leadership and dedication of the project team coupled with the high standard of sustainable development that commitment to the OnCourse® Developments programme demands, the **Equipment Test Centre, The R&A** undoubtedly has the potential to deliver significant multiplier benefits in strengthening the environment, society and economy of the Fife area.

GOLF ENVIRONMENT ORGANIZATION

August 2015

2. INTRODUCTION

PURPOSE OF REPORT

The purpose of this Project Appraisal Report is to provide a recommendation regarding formal registration in the OnCourse® Developments (OC-D) programme.

The recommendation is informed by a review of the fundamental sustainability opportunities and challenges the project is likely to generate, to ensure that it has the potential to deliver the very highest standards in sustainable development.

CLASSIFICATION

Equipment Test Centre, The R&A has been classified as falling within the category **renovation** for the purposes of the OC-D programme.

SCOPE OF PROGRAMME

It is regarded as fundamental to the aims of the OC-D programme that the project has the potential to deliver a fully integrated sustainability concept, in which golf is embodied within a wider entity. In this instance it is proposed that the OC-D programme should include development of the **Equipment Test Centre** including:

- Test centre, golfing grounds and all associated hard and soft landscape works

Moreover, the OC-D programme philosophy requires that the sustainability potential of the project extends beyond the property boundary, to interface with, and embrace, the wider social, economic and environmental context of the Kingsbarns and the wider Fife area.

METHODOLOGY

Project Appraisal constitutes an initial review of the core aspects of the development project. Should the project be formally registered in the OC-D programme, this process will be extended incrementally to explore the relevant sustainability issues at progressively more detailed levels, corresponding to the project's progress.

The Project Appraisal therefore focuses on investigating the broad compatibility of the project with the values and aims of the OC-D programme, rather than detailed specifics. It includes the following key tasks:

- Review of the main components of the project as currently defined
- Appraisal of key sustainability issues generated by the project, in order to identify and understand the main opportunities and challenges in relation to the Sustainable Golf Developments Guidelines and Criteria (Ver 1.1) ¹
- Advice and guidance² on fulfilling the project's sustainability potential through the subsequent stages of the process

These tasks have been informed by:

- Review of documents both directly and via the online planning portal
- A detailed review of general literature sources, site photographs and websites
- Discussions with the project's lead and members of the project team

¹ http://www.golfenvironment.org/assets/0003/3813/New_Golf_Development_Criteria_Ver1_1_LR_Version.pdf

² See Section 6. Guidance & Advisory

3. CONTEXT

INTRODUCTION

The purpose of this section of the report is to provide a brief overview of the context of the project with respect to the main factors potentially influencing sustainability. It is presented in two parts, addressing first the wider context of Kingsbarns and the Fife region, followed by a more detailed description of the project site.

REGIONAL AND LOCAL CONTEXT

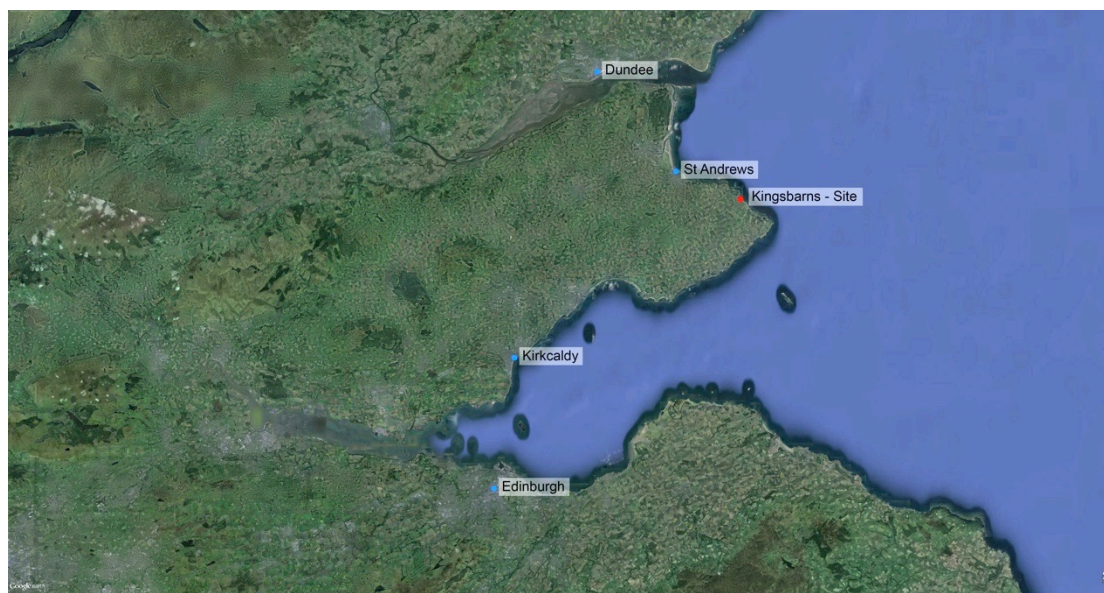


Figure 1: Context Map (Source: Google Earth)

1. Social and Economic

- a. The county of Fife is situated on the East Coast of Scotland. The county covers 1,325 km². The project site is located close to the town of St Andrews and the city of Dundee.
- b. The county has a population of 365,000 and a low density of people at 276/km².
- c. There are a number of golf courses in the county that is widely recognised as the home of Golf and the location for the R&A one of the two governing bodies for the game.

2. Environment

- a. The county of Fife has a landscape dominated by large areas of lowland open sloping farmland and pronounced volcanic hills and valleys³.
- b. The area around the East coast of Fife is characterized by raised beaches used predominately for agriculture and recreational use.

PROJECT SITE

1. Location

- a. The site is located at the Northern end of the existing warm up area for KGC. The warm up area field is 500m x 125m providing adequate room at the underused 'far end' of the warm up area to be utilized as a suitable site for the testing facility. The site is enclosed on three sides and provides a secluded location for such a high profile testing facility.
- b. The proposed Test Centre covers approximately a 5-hectare area including the access road and adjacent woodlands (to be managed in future by R&A Rules Ltd.). The purpose of the facility will be to primarily evaluate equipment for conformity with the specification set put in the Rules of Golf.
- c. The site is located within the designed landscape of Cambo Estate and is owned by the Estate. Kingsbarns Golf Club leases the land and the R&A will sub-lease from Kingsbarns Golf Club (KGC).
- d. KGC will be responsible for the maintenance of the test centre golfing grounds. KGC currently participates in the OnCourse® - Facilities programme.
- e. The site is near to Kingsbarns village. The village is serviced by a local bus service (No. 95). It is unclear at this time if direct pedestrian access will be available from Kingsbarns village to the test centre. Adequate cycle provision is integrated into the test centre proposals.

³ Fife Landscape Character Assessment - 1999



Figure 2: Location Map (Source: Google Earth)

- f. The woodland that surrounds the site is designated 'Ancient woodland of Plantation origin' and is shown on the first edition Ordnance Survey map 1854. The trees provide an important setting both for the test centre and the village of Kingsbarns.
- g. The surrounding woodland means the site has enclosed views down to opposite practice ground of KGC. This woodland also provides a degree of shelter and privacy for testing purposes.

2. Topography and Drainage

- a. The site is predominately flat, falling gently to the south and west.
- b. The soil on site is poor clay sub soil, the top soil was removed during construction of adjacent golf course. As a result the site sits approximately 1-2m below surrounding levels.
- c. Nutrient levels are unknown at present but presumed low. This will be determined during construction to set appropriate input levels during grow in period.
- d. There is currently no connections to the public drainage network.

3. Vegetation

- a. The existing vegetation is mainly self-generated scrub in the main field with areas of marsh orchids that have colonized the poorer soils. The surrounding woodland is mainly a mix of Sycamore and Pine trees with gaps being in filled by shrub layer of young Sycamore, Ash, Box and Hawthorn.

- b. There is 1.1ha of young and semi mature mixed broadleaved coppice as a result of recent felling along the western boundary of the proposed approach road. This area contains the oldest tree on site (Sycamore).
- c. There is an area of marsh orchids that have colonized a part of the site that has poor quality soils.

4. PROJECT

CONCEPT

The test centre development is driven by a desire to provide state of the art testing facility for one of Golfs governing bodies. It is found not possible to locate such facilities within St Andrews and the creation of a dedicated and integrated testing facility is thought to be preferred. This new facility is intended to provide the R&A with a facility that demonstrates and supports its position as the leading authority on the performance of golf equipment worldwide.



Figure 3: Test Centre Landscape Plan (Source: Fife Council)

PROJECT TEAM

The key members of the project team and their roles are:

- | | |
|------------------------|--------------------------------------|
| Client: | The R&A Rules Ltd. |
| Golf Course Architect: | Kimber Golf |
| Course Superintendent | Innes Knight, Kingsbarns Golf Club |
| Clubhouse Architects: | Wellwood Leslie Chartered Architects |

Project Coordinators:	Wellwood Leslie Chartered Architects
Forester:	Langton Tree Specialists
Ecologist/Agronomists:	STRI
Drainage Consultant:	Burnett Consulting Engineers

At this stage there is no main contractor or sub contractor appointed and no irrigation specialist to the best of GEO's knowledge.

PROJECT COMPONENTS

The Equipment Test Centre, associated landscape and access works covers approximately 5 hectares. As summarised above, the additional components include:

- Testing grounds and associated hard and soft landscape works

TIMESCALE

The golf and landscape construction works is due to start in Autumn/Winter 2015 with opening expected Summer 2016. Work on the building construction and access road is in its preliminary stages.

5. EVALUATION

SITE SELECTION	OPPORTUNITY	CHALLENGE
Appropriateness	<ol style="list-style-type: none"> Existing use is golf practice area Sheltered by mature woodland belt A site of predominately self generated scrub Potential to improve habitat conditions 	<ol style="list-style-type: none"> Soil conditions are challenging Presence of Ancient Woodland area Vehicle access not straight forward due to woodland areas
Legal	<ol style="list-style-type: none"> Conditional Planning Approval has been granted by the local authority 	
Economic, Social and Environmental	<ol style="list-style-type: none"> The benefits of the development in terms of improvement to R&A Rules Ltd facilities is well justified by 'Statement of Need'⁴ The close collaboration between local authorities and the project team has ensured a responsible approach to woodland protection and creation of new habitat opportunities. 	<ol style="list-style-type: none"> No information seen to date on accessing the development facilities and the general public i.e. public transport access to facilities and golf course.

NATURE	OPPORTUNITY	CHALLENGE
Understanding	<ol style="list-style-type: none"> A thorough investigation into the site through various surveys has lead to a full understanding of existing conditions and highlights issues to be addressed 	<ol style="list-style-type: none"> Future monitoring provisions is still to be determined
Landscape	<ol style="list-style-type: none"> Scope to create areas of new wetland and woodland planting on site that is complimentary to a proposed water feature 	<ol style="list-style-type: none"> Locating access road through an area of ancient woodland. Explore the use of locally sourced materials for construction of associated golf elements such as footpaths,

⁴ page 3. - http://planning.fife.gov.uk/online/files/7EF1F07DEBCAF4746EEE6B11AE130710/pdf/14_03300_FULL-19_-_APPROVED_DESIGN_STATEMENT-1278709.pdf

	<ol style="list-style-type: none"> 2. Proposed habitat areas have the potential to improve the existing habitat conditions 3. Style of proposed facility is designed to compliment the existing character of the area 4. Improvement of existing woodland conditions can be achieved through woodland management plan 5. Mature existing trees are a significant asset to the project setting 6. Building has been designed with timber cladding and sedum roof to reduce visual impact of the building on the landscape 	<p>drainage gravel, soil ameliorants and bunker sand.</p>
Biodiversity	<ol style="list-style-type: none"> 1. The introduction of wetland areas alongside the new water feature represents a significant opportunity to boost the water aquatic ecosystems on the site 2. The creation of areas of fescue rough and 'wildflower meadow' will provide enhanced foraging habitat 3. The potential improvements in the site's biodiversity are closely aligned with Fife Local Biodiversity Action Plan 4. Less than 40% of the site proposed as 'intensively managed grass' i.e. fairways, greens and tees 5. Final mowing lines to be determined, still allowing opportunity to maximise low maintained areas 6. Retained and enhanced valuable marsh orchid habitat 7. Native landscape planting palette proposed 	<ol style="list-style-type: none"> 1. Details of water feature profile and planting is still to be determined so cannot be assess if the proposal has maximised the opportunity to naturalize water feature
Quality	<ol style="list-style-type: none"> 1. A SUDs approach to managing the water run off has been proposed 	<ol style="list-style-type: none"> 1. No information seen to date on details of KGC maintenance facility

	2. Sensitive earthworks blend with existing topography	
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RESOURCES	OPPORTUNITY	CHALLENGE
Demand	<ol style="list-style-type: none"> 1. Earthworks have been kept to a minimum and balancing the cut/fill on site 2. Areas of intensively managed turf are kept to a moderate size of 0.7 hectares (less than 15% of the site), therefore reducing fuel use in maintenance and water use for irrigation 3. Simply shaped green complex allows for ease of access for maintenance 	<ol style="list-style-type: none"> 1. Turf species selection is still to be determined 2. Proposed quantity of locally sourced materials to be used for construction of golf course is still to be determined 3. The proposed use of any hybrid or electric golf vehicles (ball collector) and maintenance vehicles is still to be determined 4. Construction method of greens is still to be determined 5. Limit of earthworks is still to be determined
Sources	<ol style="list-style-type: none"> 1. There have been significant efforts made to utilize natural rainfall and recycle surface water run off to provide the irrigation water required 2. No mention of the intention to use sub-air type technologies or floodlighting. 3. Retaining the greenfield run off rates for water results in no negative impacts on local watershed 4. Re-use of existing maintenance facility nearby has reduced the amount of potential waste generated 5. Design of test centre building is carefully considered in terms of aspect, solar gain and visual impact 	<ol style="list-style-type: none"> 1. Intentions to generate on-site renewable energy either now or into the long term is still to be determined 2. No confirmation on the certification of timber sourcing for external building cladding. FSC or similar is suggested
Efficiency		<ol style="list-style-type: none"> 1. Details of irrigation system is not known to date for the golf and landscaped areas

COMMUNITY	OPPORTUNITY	CHALLENGE
Purchasing Policy / Suppliers	<ol style="list-style-type: none"> Local contractors are preferred providing they have suitable expertise to deliver 	<ol style="list-style-type: none"> Use of local labour in the construction staff unknown to date Amount of recycled materials being used in the golf construction is not defined to date No policy seen to date on assessing compliance of contractors with ETI base code or similar such as 'considerate contractor'⁵
Culture	<ol style="list-style-type: none"> Leadership of project team is strong with full understanding of sustainability and golf 	
Products and Materials		<ol style="list-style-type: none"> The amount of imported materials for greens, fairways etc. is undefined to date
Engagement	<ol style="list-style-type: none"> Local consultation has been made through the planning process with community councils and expert consultees Public footpath access provisions have been un affected by proposals Carefully considered traffic management in consultation with local authority has minimized impact of traffic on local residents both during construction and future operations. Traffic flows are anticipated to be low (less than 30 car park spaces) so impact is negligible on public highways Provisions during construction for delivery timings and cleaning of 	<ol style="list-style-type: none"> Currently no details of access and availability to test centre for public i.e. local schools access, interested groups etc. Currently no details on education and outdoor woodland management or learning opportunities

⁵ <http://www.ccscheme.org.uk>

	vehicles have been conditioned by the Local Authority through planning	
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6. GUIDANCE AND ADVISORY

The key theme to be communicated with regard to ongoing advice and guidance on this project is simple and clear: continuing commitment to the highest standards of sustainable development.

The challenge and opportunity lies in the delivery of the detailed design and construction stages with the support of the OnCourse® Developments programme. True success in this will be dependent on maintaining close attention to detail consistently across all sustainability themes, under the pressures associated with a very demanding timescale.

Specific design development issues where GEO will seek to provide continuing inputs in subsequent stages include those identified in the Evaluation table above. In addition, points worthy of further close attention include:

- Link to public transport - Criteria Ver 1.1. Criterion DC8T and DC12T
- Water feature details - Criteria Ver 1.1. Criterion DN13T
- Future monitoring plan - Criteria Ver 1.1. Criterion CN12G CN16T
- Turf grass species selection - Criteria Ver 1.1. Criterion DR4G
- Mowing lines and regimes - Criteria Ver 1.1. Criterion DR7G
- Alternative energy considerations - Criteria Ver 1.1. Criterion DR3G
- Timber cladding certification - - Criteria Ver 1.1. Criterion DR13G
- Irrigation system design and specification - Criteria Ver 1.1. Criterion DR4G
- Education or community outreach programme - Criteria Ver 1.1. Criterion DC9T and DC10T
- Greens construction build up - Criteria Ver 1.1. Criterion DR12G

7. NEXT STEPS

- Agreement of formal registration of project in the OnCourse® Developments programme
- Arrange site visit by project verifier
- Preparation of project's Sustainability Blueprint V1 (SBPV1) from GEO's template. This sets the project specific sustainability targets. SBPV1 work can be done by GEO if required.
- Evaluation and sign off of Sustainability Blueprint by verifier (suggested target December 2015)



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