

# Sustainability Blueprint V1

*New Craigend Course  
Royal Troon Golf Club  
Scotland*

Design Stage  
Milestone Document 2 of 4

Produced by:



Date: November 2020

Version: 1.0

<b>FOREWORD</b> .....	<b>1</b>
<b>1. INTRODUCTION</b> .....	<b>2</b>
<b>2. PROJECT OVERVIEW</b> .....	<b>3</b>
SUMMARY .....	3
INTRODUCTION .....	3
CONTEXT .....	3
SITE DECRPTION.....	5
PROJECT DESCRIPTION .....	8
<b>3. ROADMAP</b> .....	<b>11</b>
SUMMARY .....	11
SUSTAINABILITY VISION .....	11
TABULAR ROADMAP .....	12
<b>VERIFIER CONCLUSIONS</b> .....	<b>17</b>
<b>LIMITATIONS</b> .....	<b>19</b>
<b>APPENDICES</b> .....	<b>20</b>
A: CRITERIA CHECKLIST .....	20

## FOREWORD

Done properly golf developments provide multiple positive benefits to local environments and wider communities. Those benefits are complex and often interconnected but provide the opportunity to enhance quality of life and enrich landscapes and ecosystems. All over the world, ethical and environmental issues are directly influencing consumer choices. Resources costs are rising, and governments are gaining votes with policies that protect our environment. Golf development businesses that proactively engage with these issues are better placed for success and to embrace the challenge.

Sustainability was part of golf in the beginning and it must be part of golf in the future, creating golf courses that respect their surroundings and honour the natural environment.

## 1. INTRODUCTION

This Sustainability Blueprint V1 has been prepared by GEO in order to present a concise summary of the anticipated sustainability outcomes generated by the project. It aims to outline the practical ways in which this golf development will benefit local communities, individuals, and the environment.

It provides a comprehensive understanding of the golf project's sustainability vision and goals, and outlines a roadmap showing how these will be translated into real world deliverables in the subsequent stages of the project<sup>1</sup>.

The V1 Blueprint forms the key milestone report, for New Craighend Golf Course on the pathway to receiving the GEO Certified® Development mark.

The GEO Certified® Development mark is the international sustainability certification system for golf design and construction. It represents the highest available standard of sustainable design and construction for the golf industry.

The mark aims to distinguish the world's most sustainable golf developments. It gives credible recognition to projects which demonstrate leadership from local through to global level in all three pillars of sustainability; environment, society, and economy.

The project is independently verified at key milestones corresponding to the following stages of golf development:

1. **Design**
2. Construction
3. Completion

This Sustainability Blueprint V1 report corresponds to the design stage of the certification process. For more details of the certification system, its process and assurance model visit

<http://www.sustainable.golf> New Craighend Golf Course formally registered in the OnCourse® Developments programme in August 2019.

---

<sup>1</sup> The 'project' refers to the golf holes, associated practice facilities and any core building i.e. clubhouse, academy, maintenance facility. It specifically excludes any accommodation components.

## 2. PROJECT OVERVIEW

### SUMMARY

The proposed development comprises a 9-hole par 3 golf course which will also function as a tournament practice ground, a separate members practice ground and amendments to 3 holes of an existing course. Other core golf components include the newly constructed structure for the covered bays at the members practice ground.

The project team includes:

- Project Owner: Royal Troon Golf Club
- Golf Course Architect: Martin Ebert, Mackenzie & Ebert
- Agronomy: Richard Windows, The R&A
- Drainage: Gordon Howat, STRI
- Drainage Contractor: OCMIS/Pugh Lewis
- Irrigation Designer: Adrian Mortram, AMA
- Irrigation Contractor: OCMIS
- Environmental Consultant: Bob Taylor, STRI
- Golf Course Contractor: Esie O'Mahony, GolfLink Evolve

### INTRODUCTION

The purpose of this 'Project Overview' 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. The site information is drawn primarily from the baseline studies undertaken for the project.

### CONTEXT

Situated in the South West of Scotland in the county of Ayrshire, the site is located approximately 40km South West of Glasgow. There are two nearby international airports, Glasgow (less than 40km) and Prestwick (5km) and several other highly regarded golf courses within a 10km radius of the site.



Figure 1: Context Map (Source: Google Earth)

### *Socio Economic*

- There are around 15,000 people that live in the town of Troon and around 110,000 that live in the South Ayrshire council area.
- The area is dominated by agricultural land uses and associated industries as the soils are particularly fertile in this region of Scotland.
- The area is within commutable distance from the City of Glasgow with good road and travel infrastructure available.
- It also is a popular tourist and golf visitor destination with 3 golf courses that have hosted The Open Championship in close proximity including Royal Troon Golf Club.

### *Environment*

- The area is classified as a marine climate with humid weather and short dry summers. Around 1100mm of precipitation is received annually and an average temperature of 9 C.
- The coastal area's climate, landscape and weather patterns are heavily influenced by the North Atlantic Ocean.
- There is a nearby SSSI named Troon Golf Links and Foreshore<sup>2</sup> which is 150.11 hectares in size and represents the best example of a sand dune system in Ayrshire.

---

<sup>2</sup> <https://apps.snh.gov.uk/sitelink-api/v1/sites/1565/documents/1>

## SITE DESCRIPTION

The site is located on the existing property of Royal Troon Golf Club. The land is currently used for golfing purposes and is entirely within the club's property. The proposals affect the land in that is currently occupied by the Portland practice ground and the 9<sup>th</sup> hole from the Portland course.

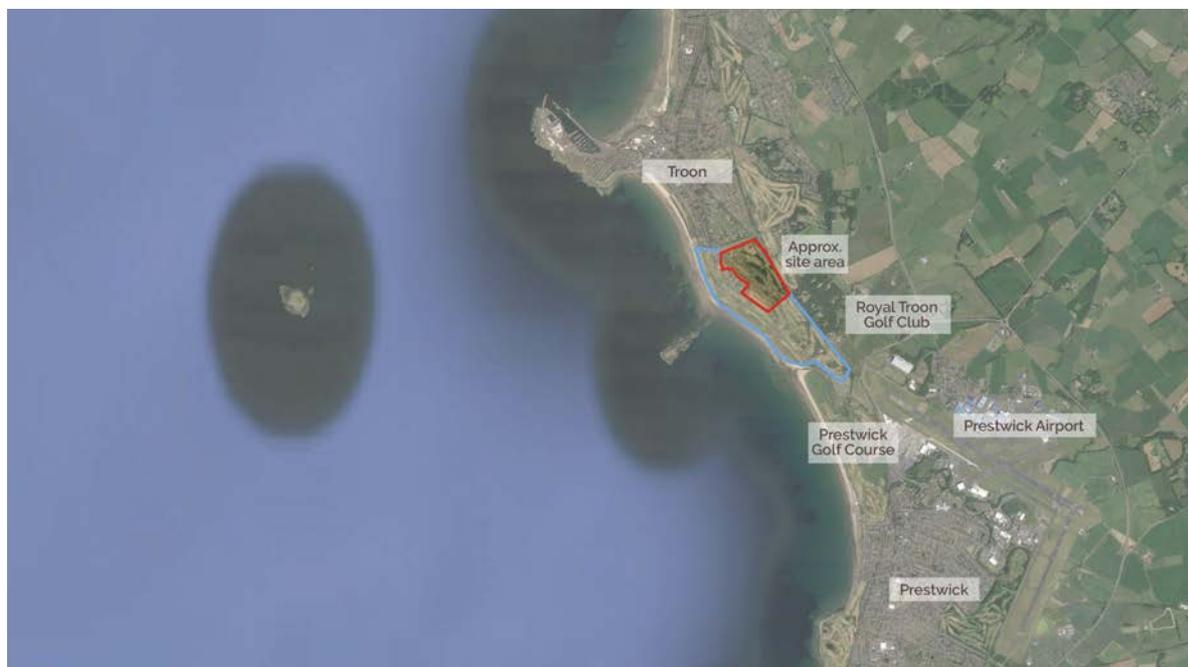


Figure 2: Site Map (Source: Google Earth)

### *Environment*

- The area of proposed work for the New Craigend Golf Course takes in approximately 10 hectares of existing golf course land.
- There are no environmental designations on the land proposed for the golf course or protection order or way leaves on the land.
- The climate is well suited for golf and availability of water is not a cause of concern currently with an abstraction license in place for the burn that crosses the site before entering the sea. Note: the club currently abstracts around 45% of their allowance for irrigation purposes. This could be expected to rise slightly post construction.

### *Topography and Drainage*

- A mains drainage line runs across the current Portland course and part of the land proposed for the New Craigend Golf Course. Areas along this line flood seasonally as was seen during the site visit in November 2019.
- The views on the site are very open and typical of a links golf setting.
- The site is relatively open, gently undulating and fairly flat with no dramatic elevational changes.

- The soils are well suited for the cultivation of sports turfgrass with good drainage properties and are thought to need little amelioration for use as rootzone material.



Figure 3: Photo of the area affected by the drain line running toward the public highway. (Source: GEO)

### *Vegetation*

- The site area is predominately mown managed amenity grassland with some patches of gorse and other grassland/heathland scrub vegetation currently in 'out of play' areas.
- The areas of amenity grassland offer low ecological value, but the patches of scrub vegetation are more valuable, especially the larger contiguous patches.
- Some patches of heather were noted in the areas of the site farthest from the coast and some gorse control measures had been undertaken successfully to control the spread of the plant. Vegetation regeneration post gorse clearance was a good diverse sward, which notably included the gorse regrowth.



Figure 4: Patches of heather planting noted (Source: Author)



Figure 5: Aerial Photo of Site (Source: Mackenzie and Ebert)

## PROJECT DESCRIPTION

The proposed development comprises a 9-hole par 3 golf course which will also function as a tournament practice ground, a separate members practice ground, academy short course and amendments to 3 holes of an existing course. Other core golf components include the newly constructed structure for the covered bays at the members practice ground and the replacement of the entire irrigation system on the Portland Course to improve water use efficiency.

The Project is set to begin construction in Winter 2019 and projected opening is Spring 2022.

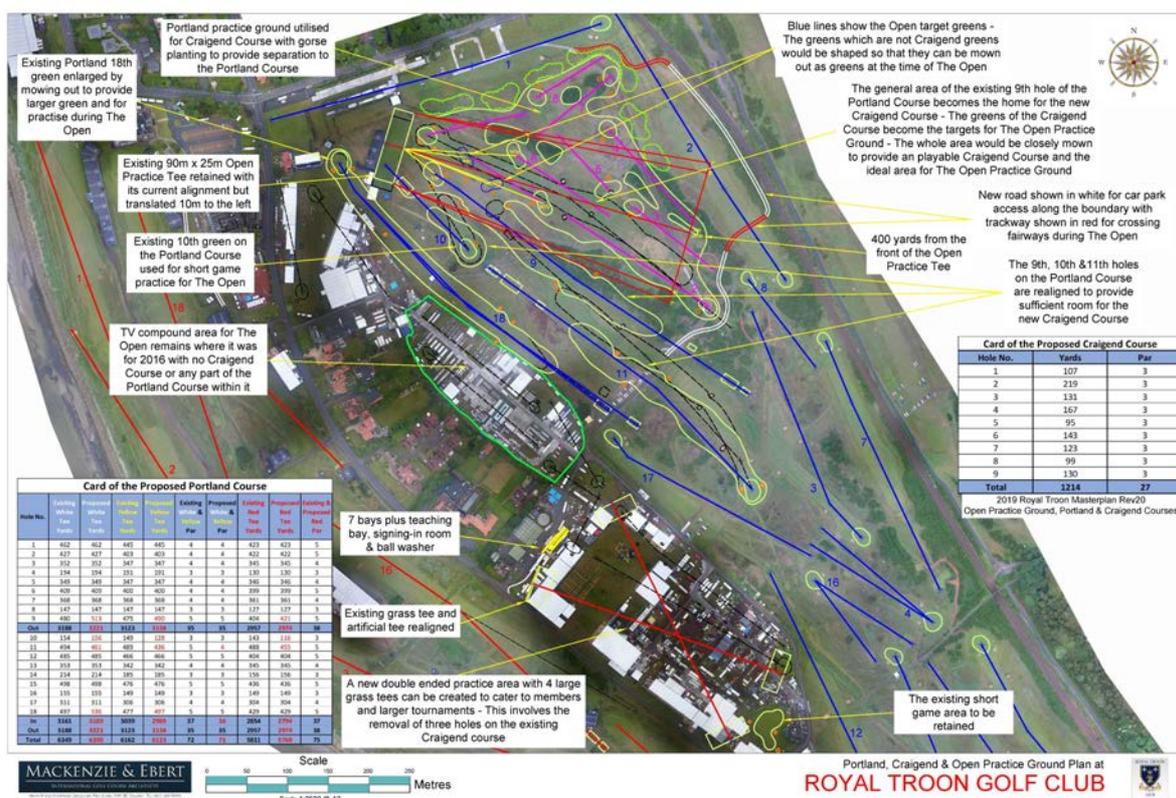


Figure 6: Illustrative plan with changes shown to Portland and Craigend courses (Source: Mackenzie & Ebert)

The project's golf proposals include:

- 9-hole par 3 course
- New tournament practice ground with chipping area
- Members practices ground extended
- Amendments to 3-holes of the Portland course
- Up to 6 Academy practice holes / TV compound for televised events

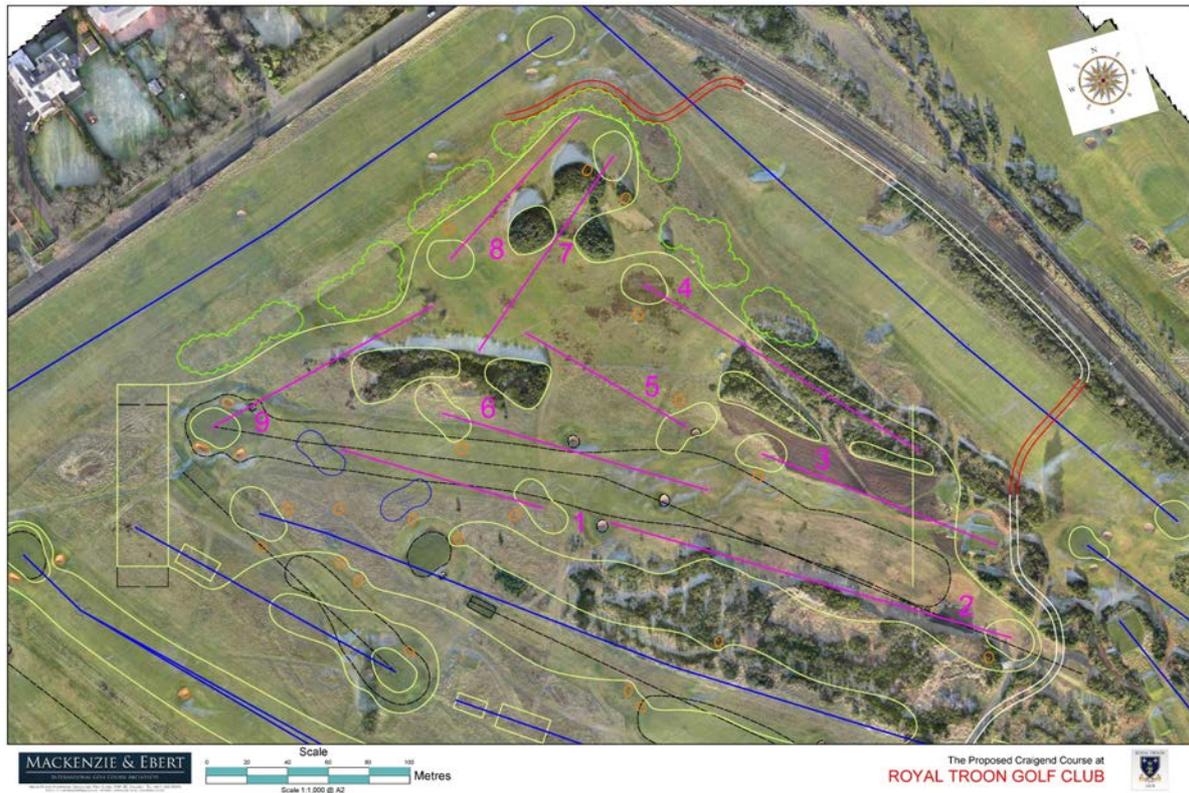


Figure 7: New Craigend Golf Course (Source: Mackenzie and Ebert)



Figure 8: A tournament practice ground (Source: Mackenzie and Ebert)

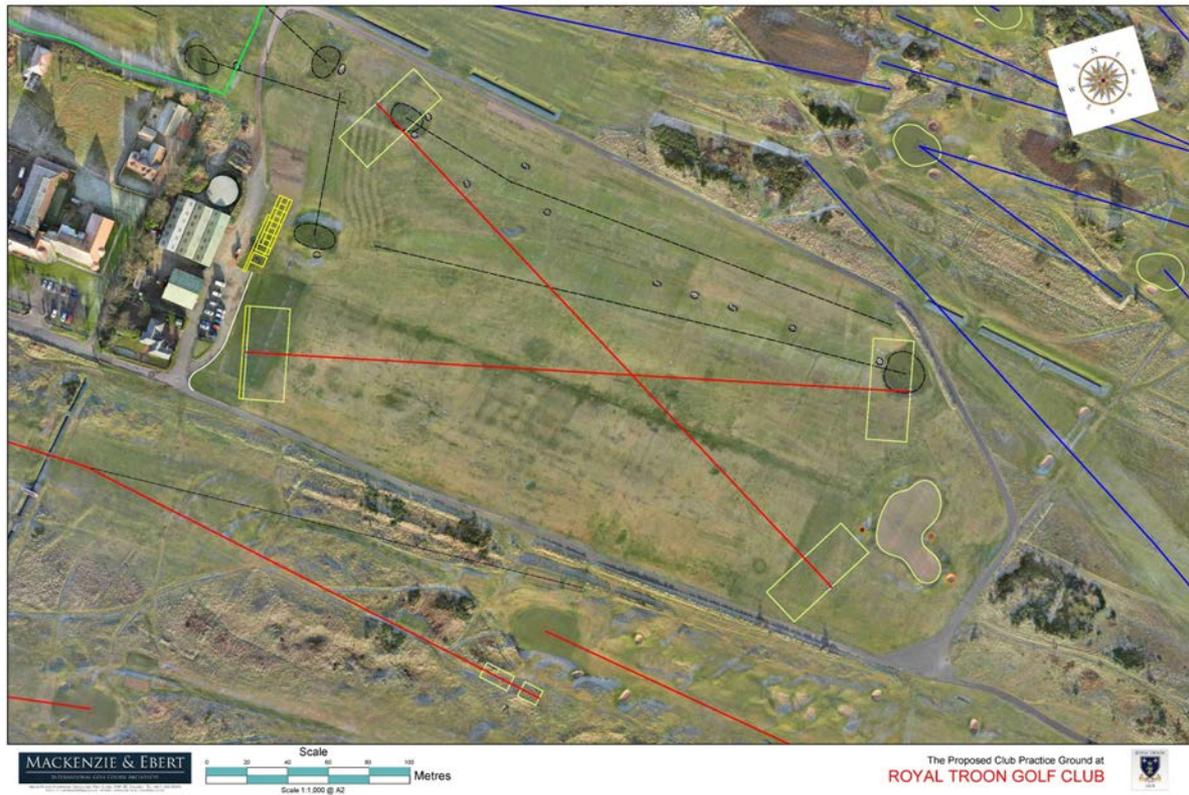


Figure 9: A member's practice ground (Source: Mackenzie and Ebert)

### 3. ROADMAP

#### SUMMARY

This section of the report includes the overall sustainability vision for the project and the individual project targets set against the widely understood agenda of nature based targets, resource efficiencies and community activity.

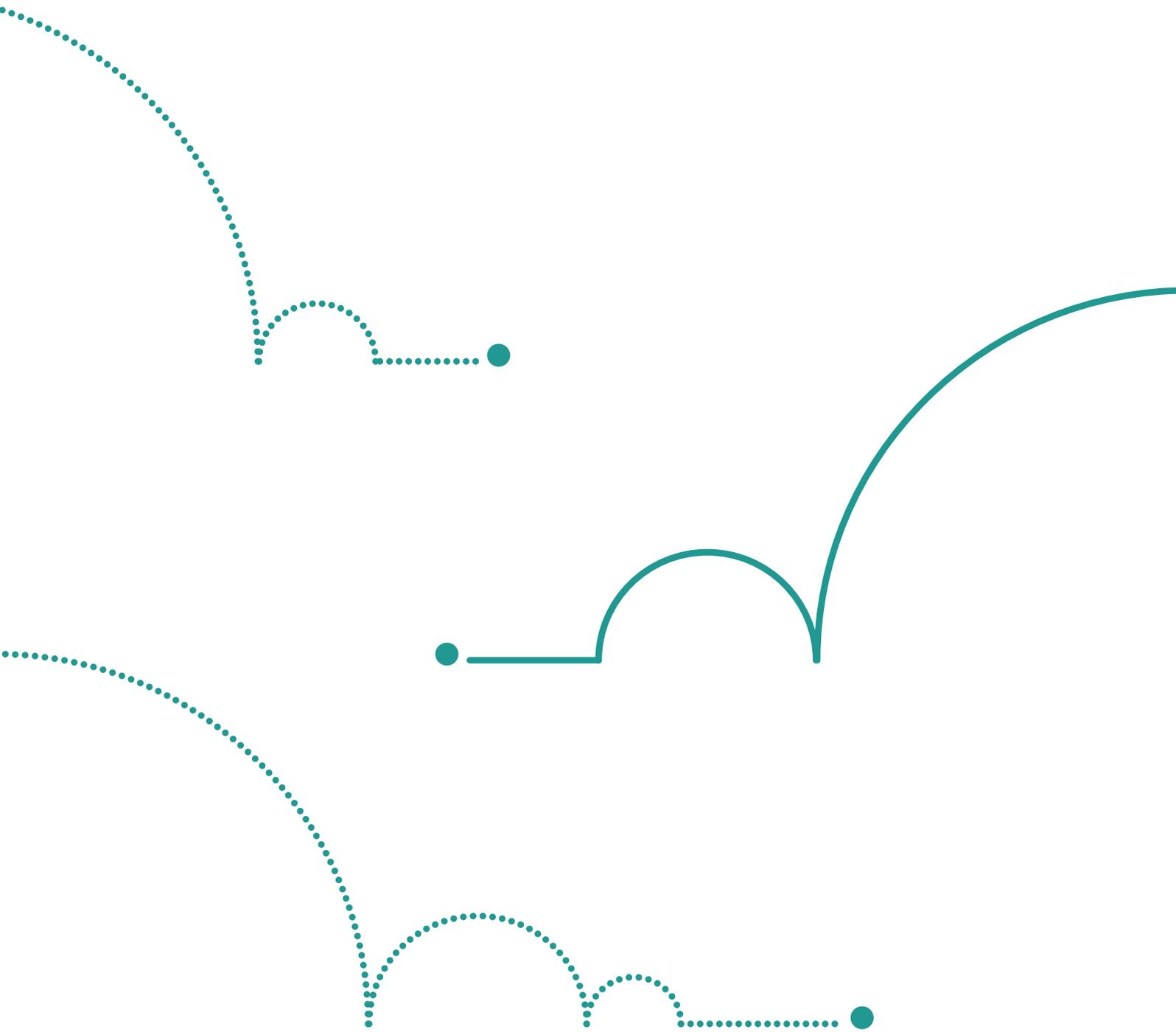
#### SUSTAINABILITY VISION

The creation of the new Craighend golf course and associated improvements across that part of the property is providing a solution to a number of issues for the golf club.

The sustainability actions and output integrated in the project and set out in the roadmap below seek to primarily deliver a set of 9 golf holes that can provide an entry way into golf but also a way to transition out of the game and the physical challenges the championship links presents to members. This socially focused approach is at the heart of the decision-making process for the project and will help it to provide multiple benefits to all generations of the community.

Beyond the community values, there is a clear intent to make each square metre work harder and be more productive both in golfing terms but also in biodiversity, resource management and economically. This concept of valuing our land to make it more efficient, effective and productive is key to a modern sustainability vision and will be borne out of this project through increased biodiversity levels, overlapping multiple land uses, robust design and responsible construction practices.

## TABULAR ROADMAP



THEME	PROJECT TARGETS	SUPPORTING DOCUMENTATION
NATURE	Increase the area that is encouraging 'dune heath and acid-grassland' type habitats (JNCC: 2150) to over 9,000sq.m – promoting the growth of species such as <i>Erica cinerea</i> , <i>Calluna vulgaris</i> , <i>Carex arenaria</i> , <i>Festuca ovina</i> and <i>Agrostis capillaris</i>	Vegetation Plan Conservation Design Statement
	Reduce the overall amount of gorse dominated 'scrub' habitat by over a quarter (<8,500sq.m).  (existing gorse area 32,673sq.m proposed gorse area 23,889sq.m)	Aerial photo Vegetation Plan Conservation Design Statement Existing and proposed vegetation plan
	Creation of 'Dune Slack' <sup>3</sup> or similar related type habitats as part of sand borrow areas on the right hand side of 13 <sup>th</sup> hole on the championship course.	Ecological Enhancement Design Statement
	Limited earthworks to no more than 12,000cu.m and deliver gentle undulations in keeping with landscape character.	Earth Movement Plan
	Removal or ordnance from the land previously used as a WW1 Grenade Training School area.	Press snippet
	Limit area of disturbance to no more than 56,000sq.m	Earth Movement Plan
	Zero exotic species to be planted and pioneer conifer tree species to be removed as part of management.	Vegetation Plan Conservation Design Statement
	Zero loss of any identified Isle of Man cabbage <sup>4</sup> species.	Conservation Design Statement
	Establish a staged approach to reducing cutting heights in the rough areas, especially when preparing tournament practice ground for event hosting.	Course Management Statement

<sup>3</sup> <http://www.sandsoftime.hope.ac.uk/succession/duneslack.htm>

<sup>4</sup> [https://en.wikipedia.org/wiki/Coinceya\\_monensis\\_subsp.\\_monensis](https://en.wikipedia.org/wiki/Coinceya_monensis_subsp._monensis)

THEME	PROJECT TARGETS	SUPPORTING DOCUMENTATION
	Minimize on course furniture such as bins, benches, tee markers to only the essential items and prioritize visual integration of these into the landscape.	Course Management Statement
	Produce a course management plan for the new course to increase species diversity of the sward in the out-of-play areas.	Conservation Design Statement Course Management Statement
RESOURCES	Harvest turf from onsite either from other turfgrass areas.	Vegetation Plan
	Installation of state-of-the art irrigation system including hand moisture sensors to inform irrigation practices. Manual watering points will be provided to allow for spot watering as needed.	Irrigation Plans and Specification
	Creating multiple uses for the same piece of land: 1. 9-hole golf course doubles as a elite level Tournament practice ground and short game area; 2. the designated TV Compound area accommodates up to 6-hole short course when not in use for TV.	Masterplan booklet Meeting memo
	Capitalize on the resource saving opportunity to have construction teams on site and make improvements to other areas of the property such as 1. drainage improvements; 2. academy course; 3. members practice ground; 4. existing Portland course amendments (4-holes).	Masterplan booklet
	Source 50% of the sand materials for the rootzone and fill from on-site borrow areas. (Estimated 6,000cu.m)	Meeting memo Vegetation Plan Golf Specifications
	Create defined 'roadways' and circulation routes to be used when hosting events out of a suitable material able to remain in place all year round and be reused.	Masterplan Temporary roads confirmation
	Low input turfgrass species selected for the seeding out of areas of turfgrass as required.	Golf Specifications
	Zero impermeable surfaces to be installed.	Masterplan Temporary roads confirmation

THEME	PROJECT TARGETS	SUPPORTING DOCUMENTATION
	Inclusion and protection of all future infrastructure provisions required for event hosting such as fibre cable lines, drainage, water, electricity and install these provisions now to future proof against further disruption.	Tender Specification
	Prioritise water reduction measures such as use of weather station data analysis, soil moisture metering, short water windows during the most suitable weather conditions and spot watering by hand dry spots.	Course Management Statement
	Sharing of maintenance machinery, buildings and resources with existing courses.	Meeting Memo
	Source any stone and timber needed from local suppliers and promote the reuse or recycling of materials such as stone and FSC certification of timber.	Practice Ground Shelter - photos Meeting memo
COMMUNITES	Increase number of junior rounds played per year.	Projected number of rounds Current estimated number of rounds
	Provide increased opportunity to access the sport at the property for a wider audience of local community members.	Community engagement statement
	Create a layout able to host local charity groups to support those less mentally or physically able to play the sport.	Earth Movement Plan Community engagement statement
	Prefer the employment of locally based contractors and trades people to deliver services and materials.	Contractor(s) details
	Promote the community activities and outreach to a wider audience through traditional and social media channels.	Community engagement statement
	Continued delivery of community outreach projects in relation to beach clean ups, controlled clubhouse access for local groups.	Community engagement statement
	Establish an academy course in the area designated as TV Compound to provide a very first entry into the sport accessible by all as well as a training area for new greens staff.	Community engagement statement

THEME	PROJECT TARGETS	SUPPORTING DOCUMENTATION
	Continued and if possible, expansion of the 'School of Golf' initiatives run by the Club Professional to over 2,500 local school children.	Community engagement statement

## VERIFIER CONCLUSIONS

Following an accompanied site inspection carried out on 12<sup>th</sup> November 2019 I have reviewed the Sustainability Blueprint above in conjunction with the supporting information and have the following points for consideration:

- Develop a Construction Environmental Management Plan to ensure structured approach to controlling, monitoring and interventions for pollution prevention (e.g. runoff, hydrocarbons), environmental nuisance (e.g. noise, dust, lighting), traffic management, waste and ecology.
- The development proposals are located in an area that generally has limited current ecological importance and is relatively isolated from larger areas of ecologically rich and connected habitat. Notwithstanding this, the scheme seeks to retain the more valuable features, translocate where possible and then create/restore habitats increasing the overall biodiversity value of this part of Royal Troon. Consider methods to highlight/safeguard (on the ground e.g. re-useable demarcation fencing) more important areas or species of interest or subject to legal protection where these have been identified.
- Develop a habitat and ecosystem service balance sheet using the Phase 1 survey results, alongside conclusions on habitat importance, to show current areas, areas subject to change and areas retained/enhanced created. This will demonstrate the overall increase in more valuable habitats and ecosystem services delivered by the proposals and cited in the Ecological Enhancement Design Statement.
- Adopt further precautionary measures with respect to reptiles (which will also benefit other species), including sequential and directional cutting and removal of vegetation in locations suitable for this species (e.g. cut to 20cm, hand search, cut to 10cm, hand search, cut to ground level, starting in the centre and working out to support animal dispersal).
- Consider diversifying the shrub mix further to maximise the range of nectar sources, flowers, berries and nuts to sustain invertebrates, birds and mammals across the year, as well as varying structure and colour.
- Re-consider whether educational opportunities arising from the engagement with GEO and the sustainability blueprint, can be delivered, particularly at such a high profile internationally significant sports venue. E.g. specifically draw attention to sustainability and the design and management process during other community initiatives such as the School of Golf.
- Reconsider whether opportunities for community health and wellbeing opportunities (e.g. this could be for the golf club community) can be highlighted and delivered. During the site visit, measures that would benefit older player e.g. flatter tee's and greens and improved accessibility were discussed.

Considering all of the above information I recommend that the New Craigend Course, Royal Troon Golf Club, Scotland should progress to the Construction stage of the OnCourse® Developments program.

A handwritten signature in black ink, appearing to read 'Matt Johns', with a long horizontal flourish extending to the right.

Matt Johns

Independent Verifier for Craigend Golf Course

## LIMITATIONS

The content of the Sustainability Blueprint V1 is drawn from information contained within existing project documentation and surveys carried out by consultants hired by Royal Troon Golf Club. It reflects information correct at the time of writing; it is possible that new information will become available after the completion of this report. This new information would be incorporated into future revisions of this report or in the subsequent stages of the certification reporting.

## APPENDICES

### A: CRITERIA CHECKLIST<sup>5</sup>

---

<sup>5</sup> To be read in conjunction with the [“Sustainable Golf Development – Voluntary Sustainability Standard. First Edition”](#)

## A: CRITERIA CHECKLIST

To be verified by the independent verifier.

### Design Stage:



#### Nature

*Baseline Criteria* 7 of 7

*Improvement Criteria* 6 of 7

*Aspirational Criteria* 3 of 4

Criterion	Objective	Detailed Performance Requirements	Notes - <b>OK</b> / <b>Pending</b> / <b>No</b>
DN1B	Develop clear understanding of species, habitats, hydrology and geomorphology	Study in detail ecology, hydrology, designations and geomorphology of the site. Any invasive species to be identified and managed appropriately.	<b>OK</b>  Extensive experience within the course management staff of working the property. Club has occupied the site since 1838.
DN2B	Ensure golf course and landscape design typology is clearly compatible with site and surroundings	Avoid pre-determined artificial or enforced design styles.	<b>OK</b>  Course design is in keeping with existing golf course style and character.
DN3B	Protect the most valuable landscape and ecological features	Avoid ecological hot spots and sensitive landscape zones. Retain existing valuable and/or protected existing trees and habitats.	<b>OK</b>  No ecological hot spots or valuable protected habitats have been identified within the construction area.  Adjacent protected areas off the site are governed by existing management agreements.
DN4B	Use native or locally important species in landscaping designs, and drought-tolerant varieties if applicable	Landscape planting to maximise native or locally important species (exceptions for some sites where aesthetic or cultural heritage issues are relevant or for garden areas).	<b>OK</b>  Translocation of species from on site is proposed to create the vegetated area outside of the turfgrass surfaces.
DN5B	Ensure that any topographic changes protect and enhance landscape character	Ensure no degradation to existing landscape character.	<b>OK</b>  Minimal earth moving is proposed and is in keeping with scale and character of existing landforms.
DN6B	Consider whether open	Clear justification for any open water in desert/arid locations.	<b>OK</b>  No open water proposed.

	water is appropriate		
DN7B	Minimise pollution from maintenance facility	Integrate best practice pollution control measures into maintenance facility design.	<b>OK</b>  Existing maintenance facility to be used and is linked to GEO Certified® Facility
DN8I	Plan an ecologically-rich landscape	Maximise integration of native habitats and ecology in the design.	<b>OK</b>  All proposed habitats are native and surround the amenity grassland areas and 'out of play' locations.
DN9I	Maximise habitat patch sizes and connectivity	Internal habitat patches to be large enough for key species. Link internal patches, maximise habitat size, and create connections to wider landscape habitats.	<b>OK</b>  Given the limited opportunities there are contiguous area of scrub vegetation and coastal grasses.
DN10I	Adopt a 'natural systems' approach to water management, considering water quality and habitat creation	Utilise natural soakaways, attenuation areas, swales and turfgrass bio-filters. Incorporate vegetative buffer zones into design. Allow seasonal flooding where possible. Demonstrate that water table control does not adversely impact upon surrounding habitats.	<b>OK</b>  Minimal drainage infrastructure is concentrated in perceived 'problem spots'. Majority of surfaces water left to percolate through the free draining soils.
DN11I	Naturalise any water features as far as possible	Create diverse, living lakes and wetlands suitable to site, maximising ecological value as far as practical.	<b>OK</b>  Sand borrow areas are to be finished with ecological design principles in mind.  Final designs to be confirmed, but wetter low areas are to be considered.  No other water bodies present.
DN12I	Minimise the extent of intensively managed grass areas	Minimum area of the site within the development boundary to become intensively managed grass.	<b>No</b>
DN13I	Consider the visual impact of buildings	Avoid prominent or highly exposed positions and skylines.	<b>OK</b>  New practice range buildings well sited alongside existing built area of maintenance facility and house.
DN14I	Maximise permeable surfaces	Maximum possible area of car parks, paths and other hard surfaces to be made of permeable materials.	<b>OK</b>  100% permeable surfaces
DN15A	Minimise visual intrusion of bunkers and tee and green complexes on visually sensitive sites	No significant adverse impacts on visual amenity of key receptors or viewpoints. Justify overall sand area and sand colour.	<b>OK</b>  Course design is in keeping with existing golf course style and character.
DN16A	Increase ecological interest of the external skin of the buildings	Utilise green roofs, green walls and insect housing etc...	<b>No</b>

DN17A	Minimise the visual impact of signage and furniture	Use of local materials and positioning to integrate with the surroundings.	<b>OK</b>  New practice range buildings formed of local materials and constructed by local contractor firm.
DN18A	Use permeable surfaces	Car parks, paths and other hard surfaces to be made of permeable materials.	<b>OK</b>  100% permeable surfaces

## Design Stage:



### Resources

Baseline Criteria 6 of 6

Improvement Criteria 6 of 7

Aspirational Criteria 1 of 3

Criterion	Objective	Detailed Performance Requirements	Notes - <b>OK</b> / <b>Pending</b> / <b>No</b>
DR1B	Ensure responsible use of site and surrounding water resources, including watershed.	Undertake and analyse baseline surveys to ensure informed water resource decisions and implement recommendations.	<b>OK</b>  Project team has a deep and long knowledge of the site's water management and irrigation demands.
DR2B	Seek opportunities to minimise energy use in design	Design to minimise energy use and demonstrate how this is achieved.	<b>OK</b>  Savings planned through sharing of existing resources, multiplying land uses and minimal earth moving proposals.
DR3B	Minimise impact on key hydrological and flood zones on site if applicable	Avoid these areas for built development and net positive fill.	<b>OK</b>  Minimal earth moving proposed and no significant flood zones present on site.
DR4B	Minimise volume of earthwork	Design a course which does not require excessive earthworks in order to minimise fuel use during construction.	<b>OK</b>  Minimal earth moving proposed
DR5B	Maximise irrigation water efficiency	Irrigation system to deliver water most efficiently to smallest possible area. Restrict irrigation only to genuine priority areas with flexibility in the system to control application areas. Identify ways golf course irrigation water can come from recycled or "off grid" sources.	<b>OK</b>  Irrigation design propose flexible layouts due to multiple land uses proposed.  Water source comes from the gyaws burn.
DR6B	Use local materials	Minimise the average total distance construction materials will travel. Give preference to on site or locally sourced materials where feasible.	<b>OK</b>  50% of fill materials coming from on site and translocated turf and vegetation being utilised.
DR7I	Select best-adapted turf species and cultivars for the local environmental conditions and to minimise resource requirements	Maximum stress, disease, temperature and drought resistant species to be selected where possible. Select grass species with moderate maintenance requirements such as verti-cutting and top dressing rates. Consider the final quality of the playing surface in the decision making process.	<b>OK</b>  Translocated or site grown turf used.  Seed to be fescue or fescue bent mixes from UK sources and used on the existing courses on the property.
DR8I	Optimise location of	Analyse the location and aspect of clubhouse and maintenance building.	<b>OK</b>

	buildings to benefit from natural heating, cooling and lighting		Existing facilities being used.
DR9I	Reduce fuel use in maintenance	Consider ease of maintenance access in design to avoid excessive fuel use.	<b>OK</b>  Course manager part of all development discussions to date.
DR10I	Manage precipitation on site	Define the amount of precipitation to be retained on site. Optimised this amount to benefit the entire watershed.	<b>OK</b>  Flood and water management issues are not present.
DR11I	Maximise the energy efficiency of drainage design	Justify the use of piped drains in light of criterion DN10I.	<b>OK</b>  Minimal drainage infrastructure proposed.
DR12I	Maximise the energy efficiency of irrigation system	Design irrigation system to maximise benefits of topography, soil type and climatic conditions. Design irrigation system to optimise use of pipe and wire.	<b>OK</b>  Existing infrastructure (pumps, software, weather stations) have been used in the new irrigation install.
DR13I	Use recycled materials and materials with recycled content	Maximise the integration of recycled material into the supply chain. Where available, maximise use of certified products and materials equal to ISEAL Alliance standards.	<b>OK</b>  100% permeable surfaces FSC wood and reclaimed materials used in driving range structure.  Type 1 from on-site used in construction set up.
DR14A	Consider development as "net zero energy"	Assess the potential of on site or local renewables. Assess the feasibility of exporting on-site generated energy back to the national grid.	<b>No</b>
DR15A	Minimise fuel use in buggies	Design a golf course that can be walked where climate and terrain permit. Use electric or hybrid powered buggies if they are required.	<b>OK</b>  Course considered to be used for all groups, ages and abilities.
DR16A	Integrate re-use and re-cycling of water around clubhouse and other buildings	Utilise harvested rainwater for garden irrigation and cart/machinery wash down <sup>12</sup> .	<b>No</b>

## Design Stage



### Community

Baseline Criteria 4 of 4

Improvement Criteria 3 of 4

Aspirational Criteria 1 of 3

Criterion	Objective	Detailed Performance Requirements	Notes - <b>OK</b> / <b>Pending</b> / <b>No</b>
DC1B	Define supply chain of products and materials	Identify key opportunities and challenges in materials supply and demonstrate how they can be resolved.	<b>OK</b>  Sand material and turf have been two key challenges identified.
DC2B	Undertake local consultation	Consult with local community and advertise to raise local awareness. Encourage input through meetings/open days, in writing, by phone and via email.	<b>OK</b>  Local community and course membership aware of proposed changes to layout of the existing golf courses.
DC3B	Protect cultural heritage	Design to protect and/or incorporate features of historical and cultural significance if any.	<b>OK</b>  None present.
DC4B	Ensure principles of 'Access for All' are implemented	Pro-actively consider all requirements for accessible buildings to meet the access needs of disabled people.	<b>OK</b>  Existing buildings being used.
DC5I	Undertake local engagement	Engage with, listen and respond to local opinion. Encourage input through meetings/open days, in writing, by phone and via email and give transparent feedback on how this has been addressed.	<b>OK</b>  Extensive consultation with membership has been undertaken.  Part of the intention is to have a facility to be able to host other community initiatives i.e. school of golf, allow different charities play on course.
DC6I	Promote ethically and environmentally led procurement	Define policy for procurement of products and services. Suppliers and contractors to conform with Ethical Trading Initiative's base code or equivalent.	<b>No</b>
DC7I	Incorporate public access where appropriate	Maintain an appropriate type of community access to all or part of the property, or mitigate any detrimental affects to the existing situation.	<b>OK</b>  Course adds an improved facility for the club to be able to do this.  Existing walkways have not been affected negatively by the proposals.
DC8I	Justify transport impact	Minimise the demands placed on the community's transportation network through development both in construction and in the future. Promote future multi-modal transport methods.	<b>OK</b>  No negative impacts anticipated or significant changes to current situation.
DC9A	Promote community	Establish ways in which the development can contribute to local communities such as promoting publicly	<b>OK</b>

	integration and awareness	accessible outdoor facilities on site or events programmes to help raise awareness of sustainability issues, such as local ecology, cultural heritage and renewable energy.	Course adds an improved facility for the club to be able to do this.
DC10A	Incorporate educational values	Design in educational opportunities - such as placements, open days (i.e. pre- and post-construction) and on site classroom facilities etc.	<b>No</b>
DC11A	Promote and improve community health and wellbeing	Incorporate opportunities for non-golf related health and wellbeing activities appropriate and proportional to site conditions, project scope and location.	<b>No</b>



**GEO Foundation**  
2 Quality Street, North Berwick  
East Lothian, Scotland. EH39 4HW  
t: +44 (0) 1620 895100  
w: [sustainable.golf](http://sustainable.golf)