APPENDIX A

GLEN ABBEY GOLF COURSE

Heritage Review

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> Ken Moodie is a Member, and Past President, of the European Institute of Golf Course Architects. Born in the home of golf in Scotland in 1965, Ken Moodie combined his lifelong love of golf with a BA Honours degree in Landscape Architecture from Heriot Watt University in 1988 to embark on a career in Golf Course Architecture. He joined the practice of Hawtree & Son the following year and established his own firm, Creative Golf Design, in 1998.

> Over a period of over 28 years in golf course architecture, Ken has been involved with a wide variety of projects throughout Europe. He has worked on over 20 new golf course developments and advised more than 70 golf clubs on course improvement projects.

Ken specialises in the sympathetic renovation and restoration of historic golf courses and conducts a detailed review of their design evolution before making recommendations for reinstating architectural features which had been lost or making course improvements in a sympathetic style. In 2007 he co-ordinated, contributed to and edited a report for English Heritage (now Historic England) on behalf of EIGCA entitled *"Golf Courses as Designed Landscapes of Historic Significance"*. This made recommendations on how a golf course might be protected for its heritage value and the criteria which should be considered. He is also a member of the Alister MacKenzie Society which plays the golf courses and celebrates the work of this legendary golf architect from the early 20th century.

On behalf of the British (and later European) Institute of Golf Course Architects he established and ran a Diploma in Golf Course Architecture in a part-time capacity between 1997-2001 and he has continued to contribute to design teaching for students since then. He currently sits on the EIGCA Education Board.

Ken has spoken at a number of conferences on golf course design throughout Europe for organisations such as the English Golf Union, British & International Greenkeepers Association, the Institute of Civil Engineers, the Royal Institute of Chartered Surveyors, the Federation of European Golf Greenkeepers Associations, and the Czech Greenkeepers Association.

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Colour photographs: Ken Moodie *(unless otherwise credited)*

TABLE OF CONTENTS

1)	Introduction	4
2)	The Heritage Attributes of the Golf Course as a Whole	5
	Brief History	5
	Masterplanning	8
	Landscape Character	9
	Earthmovement	10
	Views	10
	Changes to the Golf Course	13
	Scorecard	15
3)	The Heritage Attributes of the General Golf Course Features	18
	Introduction	18
	Greens	20
	Bunkers	
	Tees	29
	Spectator Mounds	30
	Lakes	31
	Fairways	32
	Practice Facilities	
	Trees & Other Vegetation	
	Clubhouse	
4)	Hole-by-Hole Assessment of Heritage Attributes	
	Hole 1	
	Hole 2	40
	Hole 3	43
	Hole 4	46
	Hole 5	49
	Hole 6	
	Hole 7	55
	Hole 8	58
	Hole 9	61
	Hole 10	64
	Hole 11	67
	Hole 12	71
	Hole 13	73

Hole 14	76
Hole 15	80
Hole 16	
Hole 17	85
Hole 18	
5) Relationship between Holes, Features and Complete Golf Course	
6) Documents Reviewed and/or Referenced	
7) Appendix	
A. Curriculum Vitae for Ken Moodie	
B. Curriculum Vitae for Neil White	114
C. Email from Ray Ball, Nicklaus Design, 22nd June	116
D. Agronomy Design Report 27th April	118
E. Key Events & Changes to the Golf Course (table)	
F. Agronomy Design Report 27th April	
G. Scope of Retainer from the Town of Oakville	

1. Introduction

- 1.1. We were commissioned to undertake a detailed Heritage Review of the golf course at Glen Abbey following the submission of an initial Cultural Heritage Evaluation Report prepared by Letourneau Heritage Consulting Inc., which we assisted with. Ken Moodie, the Principal and Director of Creative Golf Design Ltd, initially visited the Canadian Golf Hall of Fame & Museum at Glen Abbey with the Letourneau Heritage Consulting Team on the 8th January and had the opportunity to gain an overview of the golf course from the access road into the property and by viewing it from the Smith Triller viaduct on Upper Middle Road. He was not granted access to walk the golf course at that time but was able to look at photographs and maps of the course, and also a series of videos of each hole available on the internet via the link <u>http://www.mediaevents.ca/glen-abbey-golf-club-course-flyby-footage/</u> which he used for the initial assessment work.
- 1.2. When we were commissioned for this report Ken Moodie visited Glen Abbey on the 26th May 2017 to play golf and he used the opportunity to make notes and to take photos of every hole, many of which are included in this report. He returned to the golf course on the 28th May to take a few more photos which he missed during his round of golf, with the permission of the staff in the Pro Shop.
- 1.3. Our brief from the Corporation of the Town of Oakville, as quoted from the "Scope of the Retainer Cultural Heritage Landscape Strategy Stage III", was as follows:
 - 1. *Visit(s) to Oakville and potentially the Glen Abbey site as necessary.*
 - 2. Prepare and provide a report identifying, documenting and describing all of the heritage attributes of Glen Abbey, including:
 - *a) the heritage attributes of the golf course as a whole;*
 - *b) the heritage attributes of the general golf course features (for example, greens, tees, mounding, hollows, bunkers, trees, ponds, views, etc.);*
 - c) a hole-by-hole assessment of heritage attributes; and,
 - *d)* how the features and holes relate to each other, and how they relate to the heritage attributes of the golf course as a whole;
 - 3. Within your report, identify which features could be modified, and the limits to how the features could be modified, while maintaining the heritage attributes and heritage value of the site; and
 - 4. Respond to any questions raised by Town staff regarding your reports.
- 1.4. The chapters which follow have been titled to correspond with the items listed a) to d) under item 2 of the brief. An Appendix in section 7 containing supplementary information.

2. <u>The Heritage Attributes of the Golf Course as a Whole</u>

2.1. This chapter will look at the golf course at the layout design level. It will consider how the course fits within the landscape which surrounds Raydor House, how it was designed to suit a particularly specific and challenging brief, and some of the key people involved with its conception and birth. We will start with a background history to golf on the site before looking at the areas of heritage merit in the current golf course layout design.

Brief History

2.2. Before the Glen Abbey golf course was built another golf course existed on the site, opening in 1965¹, which was developed by the then owners, Clearstream Developments. It was played on by the Upper Canada Golf Club and was designed by Howard Watson, a well-known Canadian golf course architect who had apprenticed under the famous Stanley Thompson before starting his own business in 1950. The golf course had a very different layout to the Nicklaus course and only the holes located within the valley of Sixteen Mile Creek bear any resemblance to the ones that exist today, as shown in exerts of a Google Earth image which have been overlaid with an old plan of the course that follow (from ²).



- 2.3. The 11th hole of the Upper Canada course, represented by the faded line drawing, had a similar tee shot to the current 13th hole (shown on the colour photo below it) although the line of the creek was altered considerably when the Glen Abbey course was developed.
- 2.4. The 12th hole of the Upper Canada course, shown in the illustration overleaf, followed a similar line to the existing 14th hole and required a similar heroic drive over water, but not as demanding as the current hole requires. Although there are these areas of similarity in the layout of the course we doubt that any remnants of the original course still exist due to the very extensive earthworks which took place during the construction of the Nicklaus course which included the re-routing of Sixteen Mile Creek. On the plateau holes, the Upper

¹ (Thompson, 2004)

² (Letourneau Heritage Consulting Inc., 2017)

Canada golf course had a very different axial arrangement and most of the holes had a south-west to north-east alignment and were perpendicular to many of the Glen Abbey holes.



2.5. The existing 11th hole does bear some similarity to the Upper Canada 10th hole, in that it plays from the plateau down into the valley towards the eastern end of the property, but it follows a very different alignment and has a green located on the far side of the creek.



- 2.6. In March 1974 an agreement was signed between Dick Grimm, the President of the Royal Canadian Golf Association, and Great Northern Capital stating that the new course that was to be built at Glen Abbey would be the site of the Open for 20 years ³.
- 2.7. Jack Nicklaus had already been appointed to design the course and had produced some plans following several inspections of the property ⁴. The brief was to create a golf course that could provide a home for the Canadian Open, be spectator friendly during tournament play and be designed "not only for the tournament player but for the average golfer." ⁵ As the author can testify, as a mid-handicapper with a handicap of 12, the course is very playable and given the fact that it has successfully hosted 29 Canadian Opens and is known as a good spectator course, it is safe to say that it has achieved all of these objectives. The course officially opened on the 1st June 1976 and hosted its first Canadian Open in 1977.
- 2.8. This is considered to be Jack Nicklaus' first 'solo' design since he was awarded the contract for designing the golf course and took the lead in developing its design. He put together a team of experts to help him realise the project ⁶ including Bob Cupp, who was an illustrator and fledgling golf architect with a couple of golf course designs to his name by this point, and Jay Morrish who had a Landscape and Nursery Management degree and had worked on the construction team with Robert Trent Jones, one of the USA's most prolific golf course architects. Jay Morrish was to become a noted golf course architect in his own right but, at the time of Glen Abbey, had a more technical construction and maintenance role on the team. Bob Cupp seems to have had some role in the design of the course since he later listed it in his portfolio of work⁷, although we have been unable to find references to exactly what he did on the project. The references to some holes at Augusta National, such as the design of the 3rd hole at Glen Abbey in particular which is clearly based on the design of the 12th hole at Augusta, was a feature of Bob Cupp's later work including the golf course he designed at Hawk's Ridge Golf Club in Georgia, USA where the author has played. However, he may have been inspired to do this by working with Nicklaus at Glen Abbey since Nicklaus referenced Augusta National many times at a press conference he gave when launching the project on March 26th, 1974, as noted by Rick Fraser in his article for the Toronto Sun. He quoted Nicklaus as saying:

"There's been many changes at Augusta. They'll change a hill at Augusta: they keep satisfying the spectator. Always the golfers AND the spectators are taken into consideration." "Sure they make changes at Augusta every year. But it also can be made very easy for the members. They lengthen it out for the pros; the pin placements are extremely difficult. But it can be shortened and made into a very easy course for its members."⁸

By the press conference of 1974, Nicklaus had already played in The Masters at Augusta National on 15 occasions, and won the tournament 4 times, ⁹ so he had a detailed knowledge of the course as well as a great admiration for its design.

³ BARCLAY, Golf In Canada: A History. 1992. Print. p. 575

⁴ (Royal Canadian Golf Association, 1974)

⁵ (Glen Abbey Golf Club)

⁶ NICKLAUS, J., & MILLARD, C. (2002). Nicklaus by design: golf course strategy and architecture. New York, H.N. Abrams. Print. p. 146

⁷ (Klein, 2016)

⁸ (Fraser, 1974)

⁹ (Kelley, 2017)

Masterplanning

2.9. The golf course at Glen Abbey is considered by some to be the first course designed with spectator viewing mounds (see quote below). While even Jack Nicklaus would dispute this, and cited the Muirfield Village Golf Club in Ohio, USA, which he designed in collaboration with Desmond Muirhead and Pete Dye¹⁰ in around 1972 as the first true stadium course, he appears to have taken the concept to a new level at Glen Abbey. Even Pete Dye, who had worked with Nicklaus in the early stages of the Muirfield Village golf course design, visited Glen Abbey to learn from the project as is described below:

"Pete and his wife Alice travelled up to Toronto to see Glen Abbey, site of the Canadian Open. Jack Nicklaus, Dye's design consultant at Harbour Town, created Glen Abbey in 1976 and it was the first course to have specially constructed spectator mounds.¹¹"

2.10. Jack Nicklaus came up with a golf course layout concept he called:

" a 'spoke and wheel' design or a 'central theme'....rather than put the clubhouse at the edge of the golf course, I'd put it right in the middle and build the golf holes to play away from the hub and back."¹²

On other occasions it has been referred to a "*hub and spoke*" layout ¹³ which is a better description of the design concept and the way the holes radiate like spokes away from the hub of the central clubhouse.

2.11. In a 1975 interview with Jack Nicklaus about Glen Abbey he stated:

"nowhere else in the world will you find a course so adapted to tournament play that 10 of the 18 holes may be clearly seen by spectators within the area of a football field - 10 holes plus bits of several others. But what pleases me more than those features is the concept of play that I have long wanted to express in a course ... Glen Abbey expresses my belief that golf is basically a game of precision, not power. It places stress on strategic rather than punitive design. The average player may find [Glen Abbey] a bit more difficult than he likes, but the low-handicapper will soon realize that brains, guile and courage will produce lower scores than muscles. I designed it in line with my belief that every hole calls for one very good shot to score par, and a great shot to score a birdie. The greens are small (they average 5000 square feet) because I believe large greens detract from the finesses demanded in chips, pitches and sand shots. Finally the larger the greens the slower the traffic; the longer the putt the longer a player spends over the putt."¹⁴

2.12. In addition, in Jack Nicklaus's autobiography, which he wrote with Herbert Warren Wind in 1969, Nicklaus stated¹⁵:

"I personally like Bobby Jones' concept (which Augusta National dramatizes) of building par 5's that are intrinsically par $4\frac{1}{2}$'s, the green within reach in two if the golfer puts a pair of long, accurate shots together."

¹⁰ "How Jack Built this Place" by Dave Shedolski, 23rd May 2016 - http://www.pgatour.com/long-form/2016/05/30/jack-nicklaus-muirfield-village-memorial.html

¹¹ Birth of the Stadium: TPC Sawgrass allowed fans to see golf in a whole new way, 2013, http://www.golf.com/trips/2013/05/08/birth-stadium-tpc-sawgrass-allowed-fans-see-golf-whole-new-way

¹² NICKLAUS, J., & MILLARD, C. (2002). Nicklaus by design: golf course strategy and architecture. New York, H.N. Abrams. Print. p. 146

¹³ (Letourneau Heritage Consulting Inc., 2017)

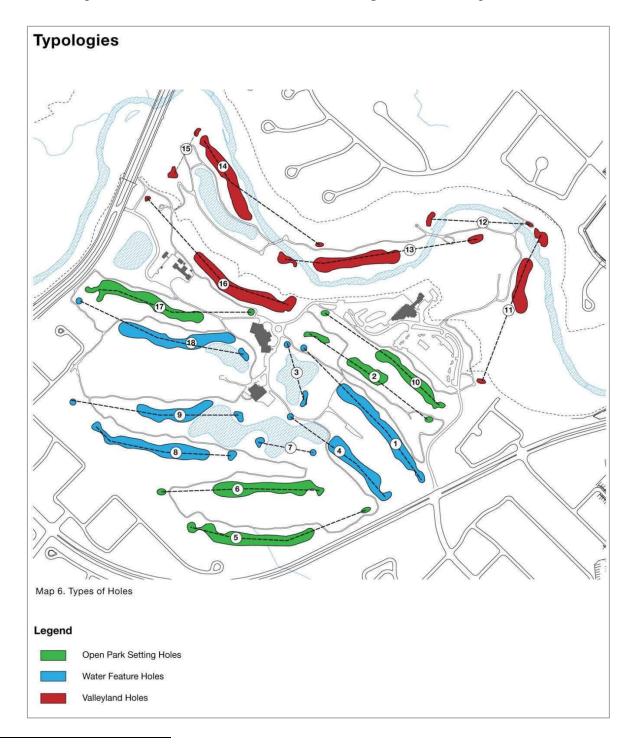
¹⁴ Barclay, Golf In Canada: A History. 1992. Print. p. 575-576

¹⁵ (Glen Abbey Golf Club)

This is something which he achieved very well in the design of the par 5's at Glen Abbey that are all reachable in two shots by the top players but present a degree of risk for attempting to do so. The 13th and 18th holes provide the ultimate danger of ending up in a water hazard, if the second shot lands short, and the related drama this provides for the spectator. Tom Weiskopf, who played in the opening of Glen Abbey, and later became a renowned golf course designer in his own right, later said "*that the last three holes at Glen Abbey were the finest closing holes in golf*"¹⁶.

Landscape Character

2.13. The golf course at Glen Abbey has three main character zones as illustrated on the plan, below, reproduced from the *Phase II: Cultural Heritage Evaluation Report*.¹⁷



¹⁶ (Glen Abbey Golf Club)

¹⁷ (Letourneau Heritage Consulting Inc., 2017)

The holes on the upper plateau - sometimes referred to as the 'tableland holes', which were subdivided into Open Park Setting and Water Feature Holes on the plan - generally have a parkland character while the Valleyland holes which border Sixteen Mile Creek have a more wooded and secluded character. However, even on the tableland holes the course has a contained feel and few views extend beyond the property boundary.

2.14. Nicklaus said of the original site: "Aside from a stream that ran through a limited low section of the land, it was a pretty bland piece of property on which we could do nearly anything we wanted".¹⁸

Earthmovement

- 2.15. In order to implement the design of the plateau holes the construction team "moved vast volumes of earth. The material from three artificial lakes provided the base of his viewing mounds for spectators. The once flat fairways were given rolling hills and gentle swales, and new bunkers were filled with imported sand. A thousand trees were planted." (another source states 500 trees) "Most holes had four teeing areas, so that it could be played from the back tees as championship course of 7,200 yards, a medium course of 6,200-6,500 yards, or as a short course 5,600- 5,900 yards."
- 2.16. The result of this extensive earth-movement is less severe and more natural-looking than one might expect from the description given above, and while there are some areas which look a little artificial we believe that the earth modelling was handled quite sensitively given the brief to create good viewing opportunities for spectators which required artificial mounding to be created. The mounds have been carefully located at strategic positions at the backs of tees and greens, and also adjacent to fairways where shots are likely to land as can be seen from the plan, overleaf, overlaid on a Google Earth image from 10th October 2016.

Views

- 2.17. With the exception of the 11th hole, which tees off from the edge of the escarpment and plays down into the valley, views are contained by the steep sides of the valley within the holes that border Sixteen Mile Creek. This is compounded by the fact that the valley slopes are heavily wooded. Views are therefore directed along the valley and are generally internal to the property other than when playing the 14th hole, which has the road viaduct in the backdrop, and some views into the valley behind it. Fortunately the bridge has an elegant form which minimises its visual impact when playing the golf course.
- 2.18. Since the Tableland holes have a more open, parkland feel there are some longer views that span a few holes. One of the most interesting ones is the view over the interconnecting lakes, shown in the photo opposite, which was taken



¹⁸ NICKLAUS, J., & MILLARD, C. (2002). Nicklaus by design: golf course strategy and architecture. New York, H.N. Abrams. Print. p. 146

¹⁹ Barclay, Golf In Canada: A History. 1992. Print. p. 575



GLEN ABBEY GOLF CLUB

Spectator Viewing Mounds & Slopes

Key Spectator viewing mounds & slopes (apex of triangle pointing downhill)



during the construction of the course. The vista extends between holes 4 and 9, giving a classic picturesque view that leads the eye and creates a sense of mystery of what lies around the corner.

2.19. Certain views are in danger of being lost due to the planting of additional trees since the course was opened and the lack of management of the trees in certain naturalised areas, such as on the slope in front of the 11th tees which we will discuss in more detail later. The planting which has taken place on the course since it opened, and natural establishment of trees from seed, can be ascertained by comparing the vegetation present in early and more recent aerial photos of the course and by estimating the age of trees by their size and girth.

Changes to the Golf Course

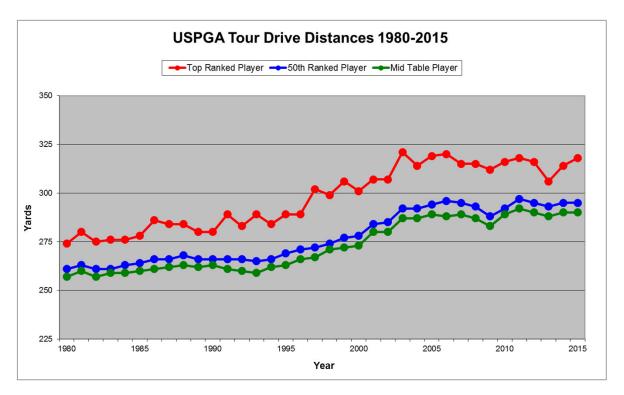
- 2.20. Prior to assessing a golf course's heritage significance it is important to know what parts relate to the original design and the intent of the original architect to allow informed judgements to be made.
- 2.21. The integrity of the layout of the golf course has remained intact and the holes are all where they were originally positioned, but a number of changes have been made to some of the features of the course since it was built. Most of the changes have been relatively minor in scope and we have highlighted the ones we have been able to identify on the plan on the preceding page. This has been produced by comparing aerial photos from 1979 and 2016, and supplementing this with information from photographs and notes we made on site in May 2017. Many of the alterations have been able to clarify the extent of some of the changes to greens by contacting Ray Ball of Nicklaus Design who has provided answers to most of the questions we posed in an email and provided information from an Agronomy Design Report from 27th April 2004 (see Appendix items D & E). We have summarised the changes we have written or photographic evidence for within the table in *Appendix*, item A.
- 2.22. Most of the changes have been made with Jack Nicklaus, or at least his company Nicklaus Design, during the period when they were retained as design consultants. When the course was built the client signed a 3-year consultancy agreement with Nicklaus. This was later extended and was still in place in 1986. As Jack Nicklaus stated in his 1969 autobiography, making some modifications in the early years is in keeping with his design philosophy:

"The holes never turn out the way the 'paper architect' imagines they will. After a hole is built, the architect must go back to it, see how it actually plays, and then modify the hole to bring out its charm and its shot value." 20

- 2.23. It is not unusual for a golf course to have undergone several phases of development and remodelling, often by more than one golf course architect and especially when it plays host to a major golf tournament. Technological advances in club and ball technology have increased the distances that Professional golfers can hit the ball and there was an increase of around 35 yards in average drive distance on the USPGA Tour from 1980-2015, as shown in the chart overleaf. This would have had a direct impact on the challenge of the course at Glen Abbey for the top players and so some changes in tee and bunker positions would have been required to restore the challenge that the original course presented.
- 2.24. The fact that the course has been able to sustain high-level tournament golf, and can still host the Canadian Open without a significant increase in its length from the championship

²⁰ (Glen Abbey Golf Club)

tees (see table in 2.28) shows that the course has enough playing strategy interest to make it challenging.



- 2.25. It is testament to the original quality of the design and the high esteem which Jack Nicklaus is held in, that he and his company were retained to advise on, and oversee, most of the changes that were made.
- 2.26. The principle changes which have been made to the golf course can be categorised as follows:
 - a) Those prompted by external factors, such as the new Upper Middle Road West which was built in the early 1990's and required the 17th hole to be shortened by 15m or so and the green to be partly rebuilt. The road viaduct was also built at this time and some mounding was constructed to the right of the 15th green to partly screen it from view. The changes to the 17th hole caused part of an iconic green to be lost but the green extension and bunker alterations were designed sensitively by Nicklaus Design to retain the essence of the original green design, albeit as a mirror image of the original.
 - b) Those related to maintaining the championship test of the golf course for the top tournament Professionals. This included the introduction of a few new tees and bunkers, the narrowing of fairways, planting of trees in strategic locations, the reshaping of the 13th green surrounds, and the extension of the 12th and 16th greens to provide more challenging and varied pin positions. These were orchestrated by Nicklaus and his company and so can be considered as refinements by the original architect.
 - c) Changes required for operational reasons. These included the rebuilding of the 11th green which was suffering from shading by nearby trees and the construction of a new reservoir for water storage to the north-west of the maintenance depot. In addition, some bunkers were filled in on holes 1, 17 and 18 over the winter of 2016/17. We consider that the changes made to the 11th green and the removal of bunkers on the 1st and 17th holes, and to some extent also on the 18th hole, have been damaging to the original design as we will discuss later.

- d) Development of the practice facilities to accommodate a large number of golfers during the Canadian Open which caused part of the lake to be filled in to the right of the 18th green. This does not appear to have been detrimental to the 18th green setting and, if anything, adds to the amphitheatre-like nature of the green surrounds.
- e) Improved traffic management for golfers, maintenance machinery and also traffic movement/access during a major tournament which required building new cart paths and roads, and rerouting some of the existing ones. The path near the 16th tees needed to be altered to accommodate the new back tee and the path near the 18th tees was rerouted when the tees were rebuilt further left. The paths have generally been integrated sensitively to minimise their visual impact when playing the course.
- f) Lack of intervention management which has allowed trees to establish and develop in places where they are detrimental to the integrity of the golf course and its original design, such as in front of the 11th tees. Trees and woodland require continuous management just to maintain the status quo.
- 2.27. We will consider some of these changes in more detail later in this report and particularly in the hole-by-hole Analysis.

Scorecard

2.28. We have reproduced the Tournament scorecard for the course when the Canadian Open was first played in 1977 beside the one from 2016 when it was last played, below.

GLEN ABBEY - Scorecard Comparison			d Con	nparison				
Hole	1977	Par	2016 *	Par	Difference in Length	Notes		
1	506	5	485	4	-21	Reduced from par 5 to par 4 in 1978.		
2	411	4	414	4	3	Minor difference due to measurement inaccuracy.		
3	176	3	156	3	-20	Back tee removed for more space around clubhouse.		
4	431	4	417	4	-14	No changes apparent but back tee may have been removed.		
5	527	5	527	5	0	No change.		
6	439	4	437	4	-2	No change.		
7	203	3	197	3	-6	No change to hole length evident.		
8	457	4	433	4	-24	Back tee removed.		
9	456	4	458	4	2	No change to hole length evident.		
Out	3606	36	3524	35	-82	Loss of length due to chamges on holes 1, 3, 4 & 8.		
10	442	4	443	4	1	No change.		
11	415	4	452	4	37	New back tee and changes to green.		
12	217	3	202	3	-15	No changes evident but back tee may have been removed.		
13	533	5	558	5	25	New back tee.		
14	440	4	457	4	17	New back tee.		
15	140	3	141	3	1	No change.		
16	459	4	516	5	57	New back tee added length to hole and allowed par increase		
17	457	4	436	4	-21	Green moved back to accommodate road.		
18	517	5	524	5	7	Tees altered in 2003.		
In	3620	36	3729	37	109	Net increase in length due to changes on holes 11, 13, 14 & 17.		
Out	3606	36	3524	35	-82	Back nine now considerably longer than front nine.		
Total	7226	72	7253	72	27	Small overall increase in length.		

* Hole numbers in 2016 different on front nine to those shown but given same numbering as 1977 course to allow direct comparison to be made.

- 2.29. We have included some notes in the right-hand column and tried to identify changes to green and tee positions which were responsible for the changes in length of certain holes where we have been able to identify them from documentary records or the aerial photos from 1979 and 2016. Small differences in length are probably due to the selected position of the measure point on dog-leg holes and some changes on the mowing lines on the edges of greens and tees.
- 2.30. The numbering of the course changed for Championship play in 2008 when it became a requirement that Professional golfers walk the course rather than travel in golf carts between holes. Due to the length of the walk between the some of the greens and tees, such as from the 9th to the 10th, it was possible to save the time per round significantly by altering the sequence of the holes on the first half of the course. The illustration, overleaf, shows the layout of the course when it hosted the Canadian Open in 2016 and the sequence of holes now used.

Summary of Heritage Attributes of Golf Course as a Whole

- 2.31. The golf course at Glen Abbey was representative of a key era in the history of golf course design. It was at the forefront of the development of the Stadium golf courses which were designed to improve the spectator experience and accommodate the large crowds, television cameras, needs of officials and commentators to access key parts of the course quickly. It has been used as an educational resource to golf course architects such as Pete Dye who visited the course prior to designing the Tournament Players Course (TPC) at Sawgrass which opened in 1980.²¹
- 2.32. The course is an early and representative example of a style of layout with its novel, purposeful *spoke and wheel* design. This form of layout has been developed in more recent years mainly for the purpose of offering golfers the opportunity to play loops of just a few holes (normally in loops of 3 or 6 holes) so that they can tailor the length of the game to suit the time they have available.
- 2.33. The course has been influential in the development of golf course aesthetics due to the extensive use of spectator mounds and viewing banks which define the shape and setting of many of the holes and are a particular feature of the backdrops to a number of greens where an ampitheatrical setting was created.
- 2.34. Since it was Jack Nicklaus's first 'solo' project, and he has proved to be extremely influential in the design and development of golf courses worldwide, the golf course is also an early and representative example of the work of a golf course architect of national and international importance.
- 2.35. Glen Abbey's design and operation as a tournament course designed to accommodate PGA Tour events and accommodate the viewing needs of spectators has, and will continue to provide, an educational resource for golf course architects, landscape architects and turf specialists who can come to study and learn from its design attributes and challenging environmental conditions for turf growth and management.²²

²¹ (TPC Sawgrass and PGA TOUR History - TPC)

²² (Letourneau Heritage Consulting Inc., 2017)



3. The Heritage Attributes of the General Golf Course Features

Introduction

- 3.1 This section will look at the design features of the golf course (greens, bunkers, tees, spectator mounds, lakes, fairways, practice facilities, trees, and clubhouse) to identify the special characteristics of each feature and which aspects of each are important to maintaining the golf course as a cultural heritage landscape. It will describe the typical style of the features course-wide and give examples of some features on individual holes which should be preserved in their current state. It will also inform future golf course architects and other individuals who may be involved in advising the Glen Abbey Golf Club and its owners on how future changes to the golf course can be done in a sympathetic manner.
- 3.2 Golf courses are an unusual type of sports facility in that they do not have a prescribed, measured playing pitch which must conform to strict criteria but there are some accepted standards relating to the type of golf course being designed and, where a course is intended to hold a major professional golf event, such as a PGA tournament, there are certain criteria which need to be met. A PGA tournament course, which Glen Abbey was designed to be, will need to have 18 holes and be of challenging length for the top golfers, with over 7,000 yards in length being the norm as shown in the table of the PGA Tour Courses 2017 (item F of the Appendix). The average length of the PGA Tour courses in 2017, which we have vardages for, was 7,247 yards which is very close to Glen Abbey's length of 7,253 yards. The eighteen golf holes on the course will normally consist of three to five par 3's and a similar or lesser number of par 5's, with the rest par 4's and a total par of 70-72 (71.2 was the average in 2017). In addition, good practice facilities will need to be provided for the Tour players to practice on prior to each round of golf which will normally include a practice putting green, chipping area, and a driving range of at least 300 yards in length with a wide tee which can accommodate many players practicing at the same time.
- 3.3 To host professional golf events, such as PGA tournaments, additional facilities are required. These include an area to be set aside for a tented village to provide food, beverage, shopping and information services for spectators, corporate hospitality facilities, and space to accommodate large numbers of spectators between the golf holes. The demands for televising the event also need to be taken into account with room for television cameras at the backs of tees and greens, space for television trucks and commentary studios, and other paraphernalia. Stands will be erected at times around the main viewing areas and access by road needs to be maintained to avoid damage to the golf course when they are being put up and dismantled. Car parking will need to be provided nearby for the tens of thousands of spectators who are likely to attend an event such as the Canadian Open, although this does not have to be accommodated on site since shuttle buses are often employed.
- 3.4 We have identified several design elements of the golf course which are listed below with a brief definition of under each heading:

a) Greens

The greens are the target areas of each hole and represent an area of short-mown grass where the hole-cup is located and the flag situated. They generally range from 300-800m2 (3,000-8,000ft approx.) in size. The golfer plays from the tee location towards the flag, via the fairway, and tries to get the ball in the hole in the least number of shots. When the player reaches the green he will use a club with an upright face called a "putter" and use this to put the ball in the hole. The green surface is also known as the "putting surface" for this reason. The green can be split into more than one "pin area" which are separated by changes in level, to create tiers, or by gentle mounds, ridges or swales which subdivide the flatter areas of the putting surface to place a premium on the golfer finding the right part of the putting surface with his approach shot to score well. The green is normally surrounded by a "collar" which is an even width of grass, typically of 0.5-1.2m in width, mown at a slightly higher height of cut than the putting surface to frame the green.

b) Bunkers

Bunkers are areas of sand of widely varying dimension which are normally built in a hollow with a raised bank at the rear on the direction of play to create an obstacle for the subsequent shot. They serve as hazards which the golfer tries to avoid in playing the hole and punish the inaccurate player, or one who fails to hit the ball over them. Bunkers are one of the best ways in which the golf course architect can challenge the golfer since the golfer can play a recovery shot out of them, which is not normally possible with water, so the design of the bunker, including its size, depth, steepness of face can create a varying degree of penalty depending on the challenge the architect wishes to present and the ability of the player. If the sand in the bunkers is taken up the face of the mound at the rear, the bunkers become very visual features in the composition of the hole, as is the case at Glen Abbey.

c) <u>Tees</u>

Tees are areas of level ground where the golfer starts play on a hole. The golfer will normally site the ball on a tee-peg, to raise it off the ground, but occasionally the ball is played from the grass such as on par 3 holes by the better golfer. Tees generally range in size from between 50-300m2 and there are normally two to five tees on each hole to provide a range of hole-length which allows different abilities of player, both male and female, to enjoy the same golf course at a length which suits them. On older courses, built prior to 1950, the tees were often rectangular in shape with angular, squared corners. On courses built since the 1950's, and particularly during the 1970's and 80's, tees were often built with rounded corners and more organic shapes, although rectangular tees were still employed by some architects.

d) Spectator mounds

We have defined spectator mounds as mounds and banks which have been integrated between fairways and at the backs of tees and greens to provide raised areas where spectators can view play during a major tournament.

e) <u>Lakes</u>

The lakes on the golf course which come into play or are important to the setting of golf holes.

f) Fairways

These are the short-mown grass areas which normally start at between 50-100 yards from the forward tees, and lead up to the front of each green, providing the normal route of play to for the golfer on each hole. Fairways generally range from 20-40 yards in width but can occasionally be narrower or wider than this. They are normally framed by a band of slightly longer grass, called *semi-rough*, which provides a buffer strip to slow a ball before it reaches the longer grass in the *rough* areas.

g) Practice facilities

The facilities provided for the player practice prior to a round of golf and also for general practice and coaching purposes which normally include a practice putting green, a chipping area for short-range shots, and a driving range where golfers can hit longer

shots to target flags or distance markers. The practice area is normally located close to the clubhouse and 1st tee area for convenience.

h) Trees

We have defined this to include all of the trees on the course where they have an impact on a golf hole in either visual or playing terms.

i) <u>Clubhouse</u>

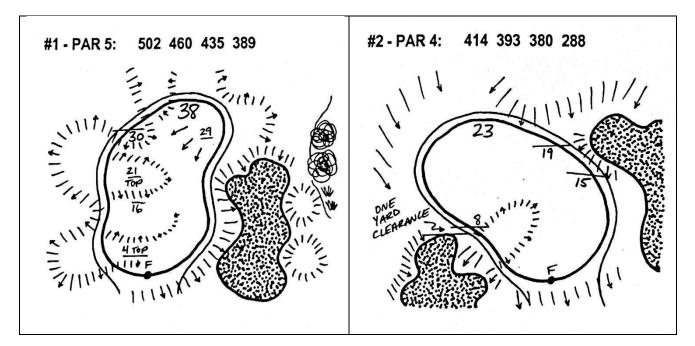
The building provided to service the needs of golfers and other visitors to the golf course who may be using the restaurant or attending a function. It includes a reception area, bar, restaurant, kitchen, function suite, changing facilities, shop with golf equipment and clothing, administration offices and stores.

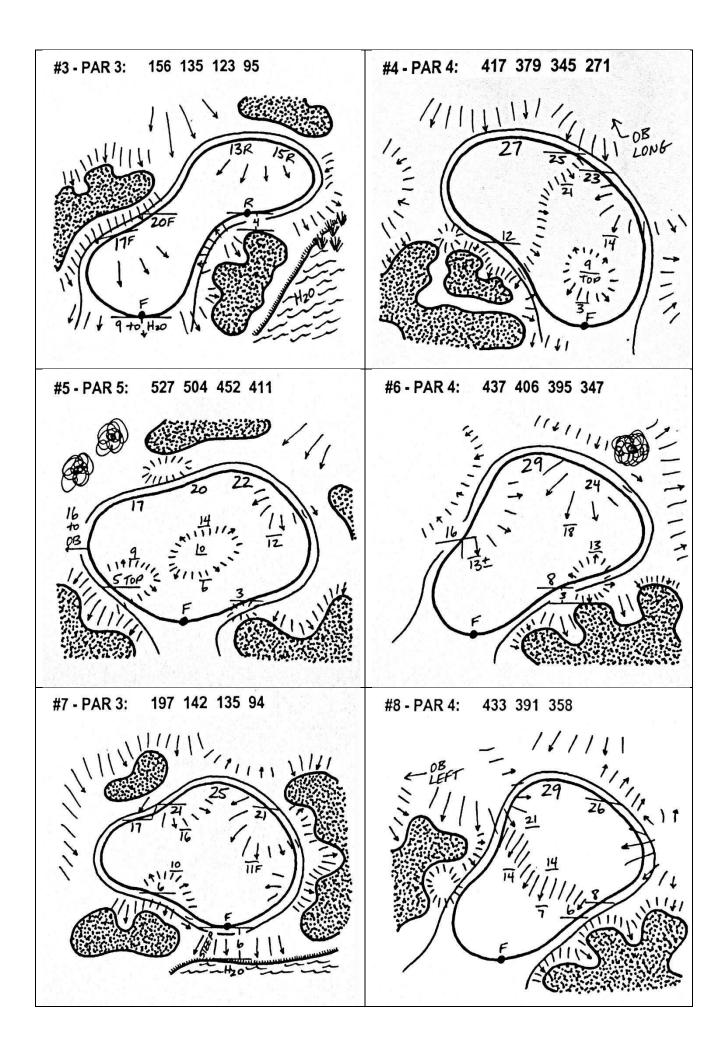
Greens

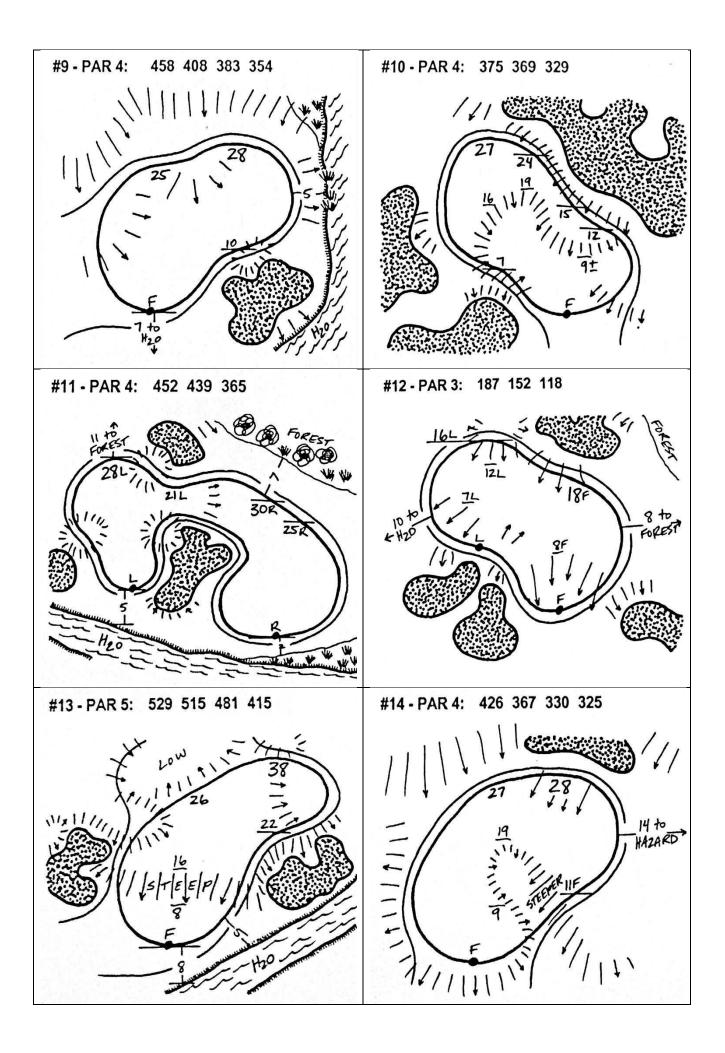
3.5 The greens at Glen Abbey were designed to be relatively small, as Jack Nicklaus is quoted earlier as stating, and they were contoured to provide a range of pin positions, including challenging ones for tournament play. We have measured the current green sizes from a Google Earth aerial photo from 2016 and tabulated them below. This shows that the greens currently range from 265m2-845m2 in size, or 2.852-9.096ft2 with an average of 443m2/4,889ft2. We have also measured the green sizes from the 1979 aerial photo and included them in the table, but the green edges are more difficult to define on this photo so there may be some inaccuracy here. However, it does suggest that many of the greens were significantly bigger in 1979 and some, such as the 5th, 6th, 8th and 10th greens, have been reduced in size by more than 30% since then. Having looked at the 1979 green shapes on the aerial photo, and comparing it to photos of the current greens on the ground, it would appear that this has generally been done by reducing the mown area of the green rather than changing levels so little physical damage has been done to the original design. It means that it should be possible to reinstate the original green sizes by changing the turf types and lowering the mowing heights if desired.

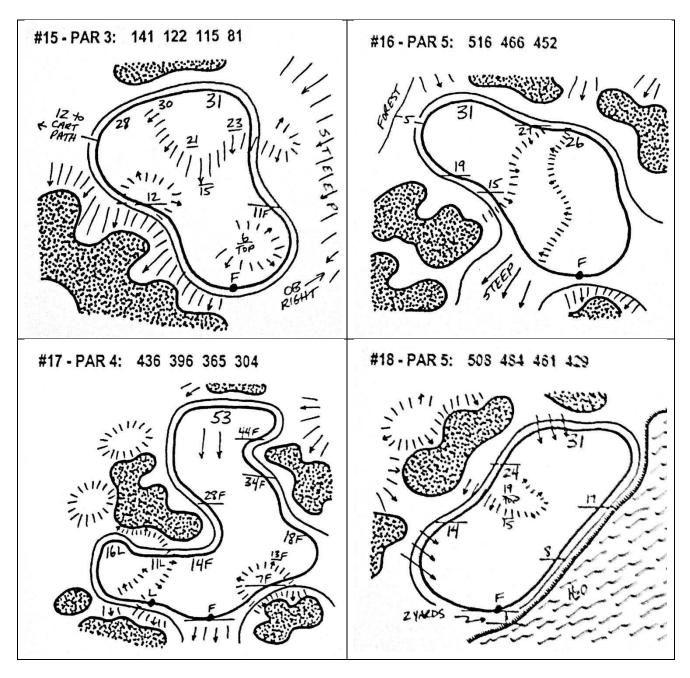
Green	2016 Area (m2)	1979 Area (m2)	2016 Area (ft2)	1979 Area (ft2)	Change from 1979 to 2016	Area from 1976 brochure (ft2)
1	449	521	4,833	5,608	-13.8%	6,015
2	265	367	2,852	3,950	-27.8%	4,800
3	470	518	5,059	5,576	-9.3%	7,870
4	467	563	5,027	6,060	-17.1%	6,850
5	347	569	3,735	6,125	-39.0%	7,600
6	348	537	3,746	5,780	-35.2%	7,205
7	394	489	4,241	5,264	-19.4%	6,510
8	386	573	4,155	6,168	-32.6%	8,290
9	507	664	5,457	7,147	-23.6%	7,950
10	355	509	3,821	5,479	-30.3%	6,390
11	497	579	5,350	6,232	-14.2%	6,415
12	458	417	4,930	4,489	9.8%	5,820
13	531	527	5,716	5,673	0.8%	6,080
14	422	491	4,542	5,285	-14.1%	(no record)
15	413	491	4,445	5,285	-15.9%	5,940
16	550	564	5,920	6,071	-2.5%	8,200
17	845	782	9,096	8,417	8.1%	(no record)
18	472	424	5,081	4,564	11.3%	5,590
Average	454	533	4,889	5,732	-14.7%	6,720
Total	8,176	9,585	88,006	103,172	-14.7%	(n/a)

- 3.6 Another source of green size we looked at is contained in the *Glen Abbey Golf Club brochure*, within the descriptions of each hole, produced around the time when the course opened. We have included the stated measurements in the right-hand column of the table but believe that they can be largely disregarded since there is also no record that the greens were reduced in size in the first three years prior to the 1979 aerial photo being taken and Nicklaus stated that the greens averaged 5000 ft2 in a 1975 interview, as quoted earlier. The sizes given in the brochure may include the collar around the green and not just the putting surface and this would account for most of the differences between the measurements given in the brochure and those taken from the 1979 aerial photo.
- 3.7 The 17th green was intentionally built as a large green before it was altered in the early 1990's, when the new road was built, and the modified green is approximately the same size as the original. The average size of the greens in 1979 of 533m2, or 4,889ft2, is on the smaller side, especially given the strong contouring, which puts a premium of accuracy as Nicklaus wanted to achieve. The 2nd green was particularly small at just 367m2 or 2,852ft2.
- 3.8 The 12th, 16th and 18th greens have been documented as having been extended by a few yards to gain additional challenging pin positions for tournament play; the 12th and 16th greens to the left and the 18th into the lake on the front-right side.
- 3.9 We have copied, below, diagrams for each green from a course guide that can be purchased in the Pro Shop at Glen Abbey. They highlight the key features of each green and, most usefully, the slopes within the green. The greens vary in plan shape and contain significant undulations with mounds, ridges and swales that split up the putting surfaces into a range of interesting and challenging pin positions, putting the emphasis on accuracy for the approach shot as Nicklaus intended. This adds greatly to the playing strategy of each hole and allows them to be set up to play more easily or difficult depending on the flag position.









- 3.10 There are a few greens which are worthy of special mention; namely the 2nd, 3rd, 5th, 11th, 13th, 17th and 18th greens which we will provide more details on, below. Although we have highlighted these greens it does not mean that others are not worthy of some degree of protection from future alteration since the shape of each green appears to have been carefully considered to reflect the intended strategy of each hole. In the case of the 11th green, it has been singled out as an example of a green that has been changed for agronomic reasons, which has spoiled the original design of the hole, and we are recommending that action is taken to reinstate the character of the original green.
- 3.11 The 2nd green, pictured below, is particularly interesting because of its setting within the spectator mounds that surround it. Also the sloping front to the green adds playing challenge since it causes a ball playing with backspin to run back off the putting surface, and the backward fall of the green beyond the ridge which enters the green on the centre-left side guards a tricky left-hand pin. The front-right to back-left diagonal axis of the green and positioning of bunkers front-left and back-right ask the golfer to be accurate in both line and length.



3.12 The 3rd green has undoubtedly been inspired by the 12th green at Augusta National and bears many similarities including the lake in front, the narrow depth of the green at its centre, where it reduces to just 6m or so, and the slight front-left to back-right axis of the putting surface. The bunker in the centre-front and the bunkers at the rear are other similarities, although the rear bunkers cover a wider spread. Although it is a pastiche, to some degree, the green is a reinterpretation of the original and probably borrows what Nicklaus considered its best features so it is still of heritage value. It is also significantly bigger than the original which offers a larger range of pin positions.



- 3.13 The 5th green is particularly interesting since it has some strong mounds and a ridge which run into and through the centre of the putting surface from left to right, creating some devilish pin positions. It is tricky to design something as bold without making the green unplayable but this one works very well as a culmination to a par 5 which is reachable in two shots for the elite golfer.
- 3.14 The 11th green has been altered a number of times with changes to the shape and location of the putting surface and the position of the surrounding bunkers. Some of the changes to the green have been recorded as having been carried out to reduce shading from nearby trees but given the fact that the main section of the green seems to have been moved further back and left, away from the river, and reduced in size this is debateable. The current green is split into two separate sections, to the left and right, with the right section possibly being part of the old green. This is confusing for golfers and it is out of character with the other greens on

the course. We would suggest that consideration is given to managing the trees around the green, many of which appear to have grown up since the green was originally built, and reinstating the shape and position of the green closer to its original design.



3.15 The 13th green has a wonderfully contoured putting surface with a central upper plateau in the centre between two lower sections to the front-left and right which offer some very interesting and challenging tournament pin positions. Having made enquiries with Nicklaus Design we have been told that the green shape is original, although we know that a bunker was added on the left side and the right one was reduced in size. The hollow at the rear of the green was modified in 2003 but there would have been a run-off area here before this addition and so the essence of the green has stayed much as it was. We would recommend that the green shape is preserved although some minor bunker modifications could be made to restore the original higher sand-lines the bunkers would have had.



3.16 The 17th green was partially relocated in the early 1990's when the Upper Middle Road West was widened to service the new Smith-Triller Viaduct. The rear half of the green, which used to extend to the back right, was removed and replaced by the large mound seen in the right section of the photo, below, and a new section built to extend to the front-left. The putting surface is essentially a mirror image of the original. The central-left bunker, which was at the front of the original green, was reduced slightly from the right side to

facilitate the new green shape and bunkers were added to the front of the altered green. The changes were made by Nicklaus Design and respected the original green design, including retaining half of the old putting surface. Given that it still has many of the design characteristics of the old green, albeit as a mirror image, we would recommend that it is preserved in its current form.



3.17 The 18th green is remarkable for its green setting, the way it provides a climax to a round of golf, and its role as the stage for one of the best remembered shots in golf; namely Tiger Woods' shot from the right fairway bunker to the right side of the green to secure his 2000 Canadian Open win. The green is guarded by water, at the front which provides a do-or-die climax to a round when a golfer is trying to secure a birdie or better. The bunkers which guard the rear narrow the depth of the green and do not present an attractive bail-out option given the fact that the green slopes away from them toward the water which presents a very tricky recovery shot. The slight ridge which runs through the centre of the putting surface puts an emphasis on being on the right side of the green for a certain two-putt.

3.18 The green is set within a wonderful naturalistic amphitheatre of mounding and enhanced by the shape of the clubhouse which adds to the sense of enclosure with its wings which reach forward to enclose the green setting. The height of the clubhouse adds to the height of the mounding and provides viewing opportunities for dignitaries and corporate guests from the upper level suites.



The clubhouse curves to follow the shape of the spectator mounds

3.19 Some changes were made to the 18th green in the early 1990's when the green was extended a few yards to the front-right to toughen up this pin position but this was carried out by Nicklaus Design and merely served to enhance the existing features of the green. The lake in front of the green, which used to extend further right (south) was reduced in size when the practice area was extended and this allowed additional spectator mounds to be introduced where the frame for the spectator stands is shown in the bottom photo on the previous page.

Bunkers

3.20 A representative selection of the bunkers on the course is shown below and this shows quite a variety of shape, but a generally uniform style. From the older photos we have seen, and from studying the aerial photos, the shape of the original bunkers has generally been retained although the sand-lines on some have been lowered with more of the faces turfed with grass.

Fairway Bunkers



Bunker left of 1st fairway



Bunkers with islands right of 11th fairway

Green Bunkers



Bunker left of 2nd green



Interlocking bunkers left of 10th green



High-faced bunker with noses left of 18th fairway



Bunker with grass noses left of 15th green

- 3.21 If bunkers are to be remodelled, or new ones introduced, they should be built in an appropriate style in keeping with the original design. This can be broadly described as:
 - a) Varied sand-lines cut into gently rolling mounds and ridges on the faces of the bunker or bank of a green and kept low at the mouth of the bunker.
 - b) Sand faces with sand rising 2/3^{rds} or more up the bunker banks but retaining at least a slight grass roll-over at the top to define the sand and with grass noses of varying length and width to break up the profile of sand in the face.
 - c) Ground which generally falls towards the mouth of the bunker and gathers the ball into the sand.
- 3.22 We would recommend that no new fairway bunkers should be introduced without good justification and generally only to reinstate the original strategy of a hole where it has been lost due to technological advances, or potentially, the loss of key trees. In these cases they should be set in a similar manner in relation to the fairway, such as the far-left drive bunker that was introduced on the 18th hole was positioned, to offer a similar level of challenge. If there is scope to move the tee back instead this should be done in preference to changing bunker positions.
- 3.23 We would recommend that green bunkers should not be significantly altered unless they are being returned closer to their original shape, or they have been introduced since the course was last amended by Nicklaus Designs. Some slight tightening of the greenside bunkering, particularly at the bunker mouths, may be acceptable if it can be demonstrated that they are no longer challenging enough for the length of shot currently being played into the green.
- 3.24 Bunkers should not be filled in unless they are being replaced by a similarly positioned bunker further down, or they lie at the start of a bunker cluster where new bunkers are being added beyond to address technological advances in ball and club technology.

Tees

3.25 There are generally 3-4 tees on each hole and they mostly have either have a circular, oval, crescent, banana or sausage shape in plan as originally designed. The ones on the 18th hole, shown below, are rectangular with a curved front and rear edge but these were introduced in 2003, when the line of play was altered, and are slightly different as a result. Angular, square or rectangular tees would look out of place and we would recommend that any tees which are to be introduced or altered should be designed in one of the original forms.



Banana-shaped tee on 1st hole





Crescent-shaped tee on 11th hole



Oval tee on 12th hole

Rectangle with curved front & rear later introduced

3.26 The introduction of new tees, or the enlargement of existing ones where playing demands require it, is normally less damaging to the design integrity of a golf course than the introduction of other new features, if they are designed sensitively and do not include hard landscape features such as walls or steps. Tees are not generally intended to stand out as features of the hole and represent the viewing point for the golfer, as well as a platform to play from. However, forward tees will be generally be in view from tees further back and so they need to be kept low so that they are unobtrusive and do not interrupt sight-lines from the rear tees. Care should be taken to minimise their visual impact and the amount of alteration required to spectator mounding, or other designed landforms, to accommodate any new back tees which may be deemed appropriate. There is also a danger that views may be opened up of surrounding properties if tees are taken back too far which could spoil the general sense of seclusion which the current course has.

Spectator Mounds

3.27 The integration of spectator mounding and banking is a key design feature of the Glen Abbey golf course and one of the reasons for recognising the golf course as an important heritage landscape since it is an important early example of a *Stadium-style* golf course. The use of mounds at the rear of the 2nd and 18th greens has already been touched upon in a previous section of this report but other examples of additional spectator banks are illustrated below:



Viewing bank left of 2nd fairway



Mounding to rear of 3rd green



Mounding to side of left approach bunker on 5th hole



Mounding to rear of 9th green



Mounds & swale to left of 8th green



Viewing banks to right of 17th fairway

- 3.28 The mounds and banks have been introduced in a naturalistic way with broad, rolling ridges broken up with long spurs which have generally been tied-in imperceptibly with the ground at the bases of the slopes. One exception to this that we noted is the toe of the spur to the rear of the 9th green, shown above, which does not blend in as well to the green as most of the features and we suspect that this was as a result of a later modification. It is generally relatively easy to create the more flowing forms of the original mounding on a new golf course, with the right design plans and guidance, using a bull-dozer since it marries in the shapes well due to the way it cuts and fills the soil if operated by a skilled driver. It is more difficult to add or amend mounding on an established golf course since there is always the tendency to limit the area of turf and topsoil stripped to achieve it and excavators are often used instead where more operator skill is required.
- 3.29 If any new mounding or alterations to existing mounding is proposed it will need to be handled very sensitively and only with very good justification, such as the provision of space for a new back tee to lengthen a hole which does not the challenge that the original hole provided as a result of increased drive distances. New mounding should be integrated in a sympathetic style, with a natural appearance, and be limited in scale in both plan and elevation so that it does not have a significant impact on the visual composition of the adjacent golf holes.

Lakes

3.30 The lakes on the golf course have been introduced in a naturalistic style and following picturesque principles as noted under *Views* in Chapter 2. The banks of the lakes re generally composed of grass slopes of between 20-40% and the grass is allowed to grow longer on these banks which helps to define the water edge and give them a more natural appearance. There is some limited marginal aquatic vegetation. An exception, in terms of water edge treatment, is at the front of the 9th green where a vertical wall has been installed which creates a more clear-cut indication of whether the ball is in the water hazard or not and it was probably introduced to heighten the drama for the spectator when the green was extended to the front-right.



Lake on 3rd hole



Shot from left 14th tees



View from 4th forward tees towards 9th fairway



Lake in front of 18th green

3.31 The shape and form of the lakes, particularly on the tableland holes around the clubhouse, was another key feature of the masterplan of the golf course and so should not be modified without very good justification and great sensitivity. They are important strategic features of many holes and only the reservoir which was introduced later, between the 16th tees and 17th green, is of low design significance. The lake to the right of the 18th green was modified but this was done with the input of Nicklaus Design to allow the practice facilities to be extended and it has actually enhanced the ampitheatrical setting of the green and provided improved spectator opportunities.

Fairways

- 3.32 The shape of the fairways in both plan and elevation are relevant to the design and strategy of individual holes and also the general character of the landscape. The fairway mowing lines were modified in 2003 to narrow some of the fairways by a few yards to challenge the Pros during the Canadian Open. However, the general shapes and sweep of the fairways were retained, i.e. the wider and narrower parts of the fairway remained in the same places. There is no record of any alterations to the fairway landforms and so they can be considered to be as originally designed and we see no need to modify what is there.
- 3.33 The fairways which have most notable topographic features that were built to influence the way the hole played include those on the 2nd, 10th, 13th and 16th holes and we have included photos of each below.



Bowl short of 2nd green



Swale feature in front of 10th tees



Right-to-left sloping fairway on 13th hole



The rolling 16th fairway

- 3.34 The tee shot on the 2nd hole is limited in distance by the drop down to a lower bowl which lies short of the green and this enhances the amphitheatre-like setting of the green. The base of the bowl on the 2nd hole narrows into a deep swale, or gentle ravine, that crosses the 10th hole and creates a challenging carry to the fairway for the shorter hitter. It also adds foreground interest to the visual depth and foreground interest to a hole which would otherwise look rather flat. The swale connects into a natural ravine further left so it looks like a natural feature has been retained and enhanced in the design of holes 2 and 10.
- 3.35 The shaping of the 13th fairway is more subtle but what was probably once a relatively flat river floodplain has been made more interesting with the right-to-left tilt given to the fairway which means that the golfer wishing to shorten the hole, by cutting the slight dogleg, will need to not only risk the bunkers on the right but try to shape his ball with a fade into the slope without overdoing it.
- 3.36 The rolling fairway on the 16th creates some awkward lies for a long drive that is not well placed and also some hidden ground for the approach shot which creates some uncertainty in the golfer's mind about the length of the shot.

Practice Facilities

3.37 The practice facilities were altered to include a putting and chipping green as shown in the photo below. As noted earlier, this required a reduction in the size of the lake in front of the 18th green which used to come into this area. Since the practice ground is screened by mounding, has already been altered significantly and has no special design merit, there is no need to protect it from alteration as long as a facility capable of hosting a major tournament, such as the Canadian Open, is maintained in this area. If changes are proposed they should be designed carefully to avoid any adverse visual impact on the surrounding golf holes or significant alteration to the mounding on each side which are also spectator mounds for the golf course.



Trees & Other Vegetation

3.38 According to the history of the course in *Glen Abbey Golf Club*, p28²³ - "Bordering 140 acres of fairway there are 1,000 trees including oak, ash, pine, beech, little leaf linden and five varieties of maple". The 1970's *Glen Abbey Golf Club brochure*, produced close to the time of the course opening, gives further details on the species of pine, maple and oak which are identified as: Austrian pine, sugar maple, red maple, silver maple, Norway maple, Emerald Queen maple, and red oak. This gives a useful insight to the species of trees that were originally planted and which species are in keeping with the original design concept should any restocking be required.





Trees beyond 6th *drive bunkers create double hazard*



Tree growth/self-seeding to left & in front of 11th tees

- 3.39 Additional new planting should not be carried out without very good justification since it will tend to spoil the original intended parkland character of the course. In some places this is already happening as illustrated by the photos of the 1st fairway, where infill planting of a line of small fir trees looks out of place. If it is not remedied, and similar planting is carried out elsewhere, the course will gradually become tree-lined which will degrade its heritage landscape value.
- 3.40 In other places the planting of trees has had an impact on the strategy of certain holes. To the right of the 5th fairway the trees which have been added are starting to force the dogleg which gives the hole an artificial feel. To the left of the 6th fairway smaller trees which surround around the larger specimen create a double-hazard with the drive bunkers and limit the options for a recovery shot to the green which negates adventurous play and excitement during tournament play.
- 3.41 Lack of management of trees and other vegetation can be as damaging as inappropriate intervention and can, in some cases, can lead to more drastic measures being required such as the rebuilding of greens or tees to overcome tree shading issues, as happened with the 11th green.

²³ (Glen Abbey Golf Club)

3.42 Woodland management is required at the back of the 11th green, as we have already identified, to remove shading trees which have grown up over the last 40 years or so since the course was built and in other area such as in the carry from the 11th right-hand tees. Some of the copses which were originally planted will also need thinning to favour the better trees if they are to grow into true parkland specimens.

Clubhouse

3.43 The clubhouse deserves special mention since it is an intrinsic part of the design of the golf course as we discussed when we described the design of the 18th green setting. The green is set within a wonderful naturalistic amphitheatre of mounding and enhanced by the shape of the clubhouse which adds to the sense of enclosure. The glass picture windows in the clubhouse provide a grandstand view of the complete hole. In relation to the golf course the exterior shape and massing of the building are important on the 18th green side of the building.



View of clubhouse from 18th green



View of 18th *hole from clubhouse picture window*

3.44 Changes to the façade of the clubhouse could be detrimental to the setting of the golf course and so should be handled very sensitively if they are to be permitted. It is also important that it continues to service the needs of golfers since it provides the hub of the '*spoke and wheel*' design which we have identified to be an important heritage attribute.

4. <u>Hole-by-Hole Assessment of Heritage Attributes</u>

<u> Hole 1</u>

General observations

This hole plays as a par 5 for everyday play but a long par 4 for the Pros. It was lengthened slightly from its original 489 yards to its current length of 502 yards with the addition of a new back tee.

Tee shot

A drive bunker is sited on the left side of the fairway, covering a distance of 281-306 yards from the back tee, which is very much in range of today's top golfers. Originally there was also a bunker on the right side of the fairway, covering around 220-240 yards from the back tee, but this was removed in 1978 since the fairway was considered too narrow for an opening hole. It would now be too short to challenge the top players but it would be nice to reinstate the framing qualities it must have provided to the hole.

The ladies' tee offers a very different view of the fairway and the trees which have been planted to the right of the fairway, to replace the old bunker, come more into play from this angle. The bunker would have been a fairer hazard than the trees, since the carry is greater to clear them than it would be for sand, and they could become problematic for play if they are allowed to mature.





Drive landing area

The mounding which supports the fairway bunker provides an elevated position for tournament spectators to view golfers playing their second shots as well as helping to make the sand visible from the tee.



Approach shot

The approach shot was originally more demanding when the hole played as a par 5 for the Pros since there used to be a bunker to the right of the right of the approach until very recently, in the face of the mounds which lie some 30 yards short of the green. It is an unfortunate loss since it must have added visual depth to the approach shot and encouraged more golfers, playing it as a par 5, to consider laying up.

In addition, the right green bunker once extended partly across the front of the green. This was partly filled in when the hole became a long par 4 for tournament play.



Green

The elevated green provides a challenging target for a long second shot. A swale which lies some 20 yards short of the green, on the left side, carries both surface water and also golf balls away from the front of the green. A running approach shot needs to be accurately placed to find the gap between the bunker and where the fairway slopes away to the left.

A ball missing the green on the left will leave the golfer with a tricky pitch to a contoured green.

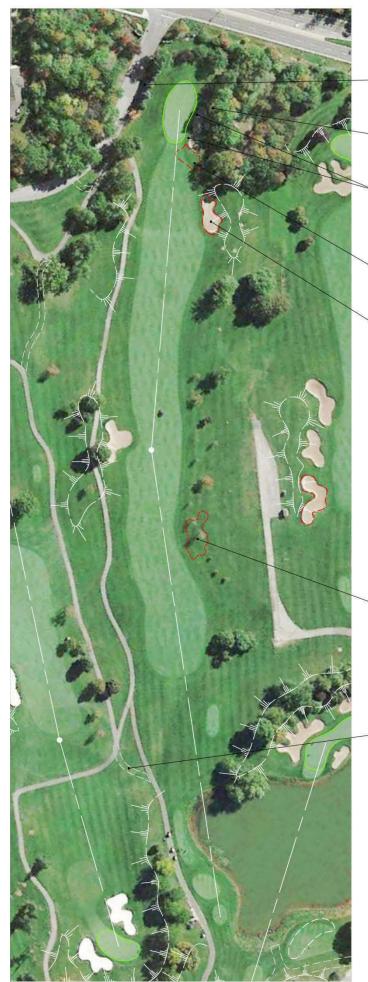




Summary of Changes to Original Design

- A new back tee was added to lengthen the hole by 13 yards.
- A line of fir trees was planted in recent years to the right of the start of the fairway.
- A right-hand drive bunker was filled in between 1979-1983 and replaced by trees.
- A right-hand approach bunker was removed over the winter of 2016/17.
- The right green bunker was filled in from the front to widen the green entrance for tournament play as a par 4.

- a) The line of three fir trees planted to the right of the drive should be removed since the spoil the original parkland design.
- b) The right drive bunker could be considered for reinstatement to replace the trees which were planted here.
- c) The approach bunker which was recently removed should preferably be reinstated.
- d) The sand in the right green bunker could be raised in the face of the green bank to give it more visual presence from the fairway as we believe the old bunker would have had.
- e) Trees to the right of the green, which are casting shade on the putting surface, need to be thinned and managed to allow the green to remain in its current location.



Conifers planted to protect road out of character with parkland landscape.

Trees encroaching on green need management.

Bunker face has been turfed down which has reduced visibility of sand. Reinstate higher face.

-Bunker used to be extend into this area

Bunker filled in during winter of 2016/17 should ideally be reinstated since it added visual depth for the approach shot.

Bunker filled in between 1979-1983. Consider reinstating bunker to replace trees which have been planted in place of it possibly 20y further down where relevant for today's golfer with modern technology.

Old cart path no longer relevant.



<u> Hole 2</u>

General observations

This hole has one of the few mature trees on the table-land that was present before the course was built and it is utilised as a hazard for the drive of the weaker golfer. The better player will be able to drive over it quite easily. The bunker sizes and positions on this hole are almost exactly as they were originally designed, although they will have been repaired and renovated over the years which will have altered their shapes a little.

Tee shot

The large tree which sits just to the left of the centreline of play has little bearing on the tee shot of the elite golfer but the weaker golfer will need to play towards the fairway bunkers on the right of the fairway if he is unable to carry it. The bunkers cover a span of 213-265 yards from the back tee which is a little short for the Pro golfer but, since the fairway ends at 288 yards and the bunkers cover the best angle into the green, they will still come into play for the tournament player. The strategy for most Pros will be to use a 3 wood or rescue club to play as close to the end of the fairway and the second drive bunker as they dare to leave a 9-iron or wedge to the green.

The ladies' tee, pictured opposite, offers a very different angle and the tee shot plays to the left of the large tree.





Drive landing area

The second fairway bunker, shown opposite, will come into play for the golfer who pushes his lay-up shot.

The first section of fairway finishes just short of a valley which runs through this and the 10th hole. Although the valley is reachable by the longer hitter it provides a poor view of the green and an unpredictable lie in the rough which is likely to cause a loss of control for the golfer's second shot. Playing close to the end of the fairway on the plateau will therefore generally be the preferred option.





Approach shot

The green is set on a diagonal running from front-right to back left which is enhanced by the way the bunkers have been positioned. The left one covers the rear half of the green while the right one catches a ball which is over-hit into the front section. The green is therefore easier to approach from the right side of the fairway which gives the golfer who risks the fairway bunkers with his drive the reward of a better line of attack for his approach shot.



Green

The narrowness of the entrance to the green and its slope to the right further enhance the strategy described above. This green is the smallest on the golf course at just 265m2 or 2,852ft2. It was originally up to 100m2 bigger and there may be opportunities to enlarge the putting surface closer to its original outline to gain more variety of pin positions.

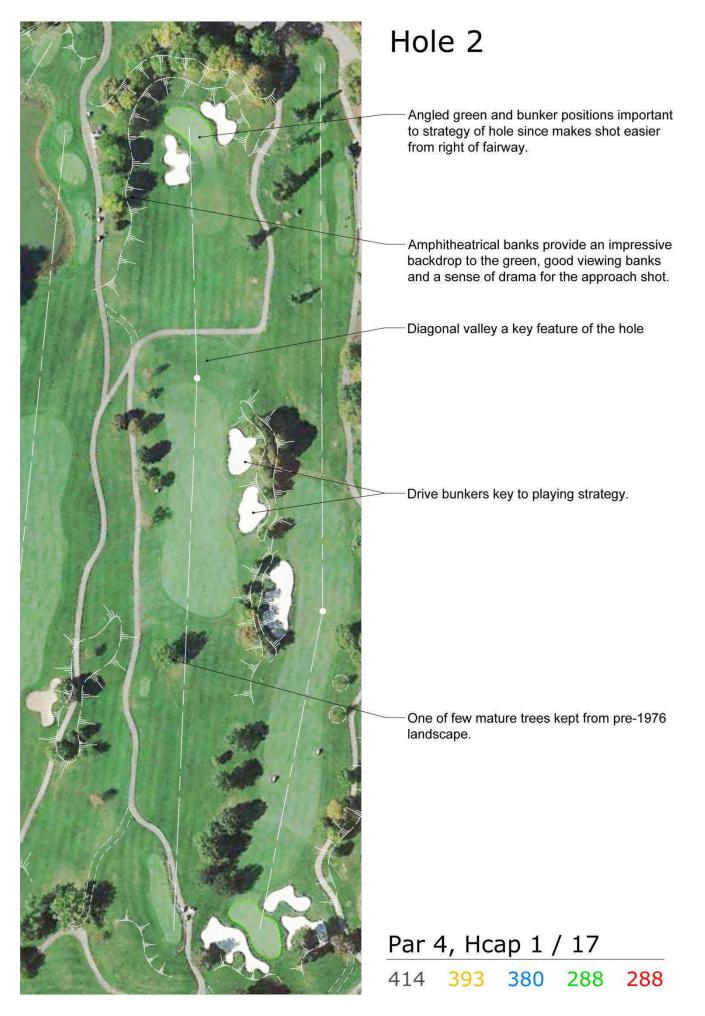




Summary of Changes to Original Design

There have been no significant changes to the design of the hole since 1979, other than the apparent reduction in the size of the green.

- a) The general design of the hole, including its bunker positions and the topographic shape of the green, should be preserved.
- b) There may be an opportunity to extend the green closer to its original size by replacing turf and altering the mowing outline.



<u>Hole 3</u>

General observations

This is a classic par 3 over water which is almost certainly based on the design of the 12th hole at Augusta National where they play the Masters, one of the four "Major" tournaments in the Professional golfing calendar. It is the only one to play at the same location every year. Augusta National was designed by one of the greatest golf course architects of the early 20th century, Dr Alister MacKenzie, in collaboration with the top amateur golfer Bobby Jones, and it opened for play in 1933. Jack Nicklaus had played Augusta many times before he designed Glen Abbey and Bob Cupp, who worked with him on its design was also very familiar with the course and continued to use the 12th hole as inspiration for other courses he designed as was mentioned earlier. The key features of the 3rd at Glen Abbey, which seem to have been copied from the Augusta 12th, include the shot over water to a narrow green which is angled slightly from front-left to back-right, the waisting of the green to just 7 yards in the middle (8 yards at Augusta), the positioning of a bunker covering the centre and part of the right side of the green, the bunkers at the rear to catch an over-hit shot, and the rising ground behind the green. It is not uncommon for holes to be copied in this way and Alister MacKenzie also borrowed elements of the Old Course in St Andrews in his designs and replicated his best greens over and over again with subtle variations to suit the setting. However, it is how he interpreted them that made them special.

Tee shot

The tee shot from the back tee requires a shot of 156 yards to find the centre of the green which is just a 9 iron for most touring Pros. The hole used to be 20 yards longer, playing at 176 yards from the back tees, but these seem to have been removed when the path system around the clubhouse was altered and when, what appears to have been the old putting green, was also removed as shown on the hole plan.

The tees are spread around the edge of the lake and ladies are given a very different angle of attack further right which is probably a little more demanding than that for men, albeit considerably shorter.

Green

The rising ground at the rear of the green not only creates a natural amphitheatre, and sense of drama, but provides good spectator viewing opportunities.









The very narrow centre section of the green divides the frontleft and back-right sections and can leave the golfer with a long and very awkward putt is he finds the opposite side to the pin. The rising slope of the putting surface at the rear of the left side of the green provides a helpful buffer for a shot which is played slightly long, but it also makes the shot from the rear bunker, back onto the green, even more demanding.

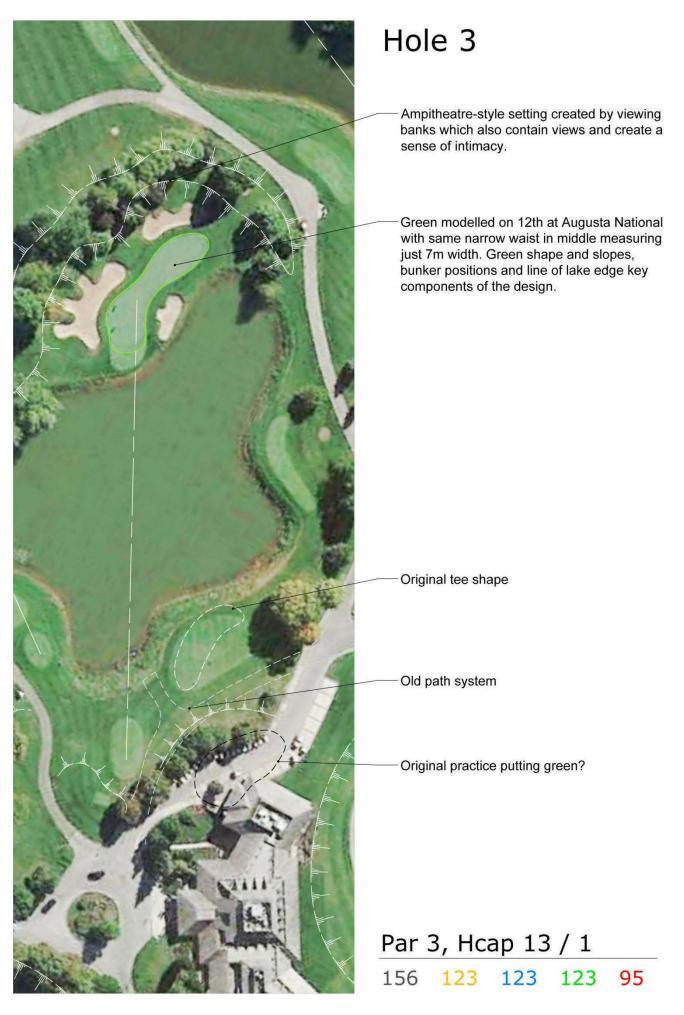


Summary of Changes to Original Design

- The path system around the tees has been altered to move it closer to the clubhouse, with the removal of what appears to have been the original putting green.
- The hole has been shortened since 1976, from 176 yards to 156 yards, with the removal of the original back tee.
- The middle tee was extended to the back-right.

Recommendations

a) To preserve all the features of the hole, its characterful green and setting and, in doing so, Jack Nicklaus's homage to Augusta National. Some minor modifications to the tee sizes and shapes could be tolerated if carried out sympathetically.



General observations

An unnerving driving hole for the shorter hitter.

Tee shot

There used to be three bunkers sited on the left of the fairway but the first of the line, which sat some 20 yards short and left of the remaining ones, was removed during the winter of 2016/17. This change has little bearing on the challenge for the better golfer, who will be well past this distance, but it has changed the aesthetics of the hole and it would be good to see it reinstated.

The second of the two remaining drive bunkers is the only one that really comes into play for the top golfer and it covers a span of 257-287 yards from the back tee.

The view over to the 7th green, and back along the lake towards the 9th fairway, is an attractive one as described earlier and an important design feature. Spectator mounding surround the rear of the back tee and offer a useful vantage point for watching the Pros teeing off during a tournament.

Drive landing area

A bunker starts at 323 yards from the back tee on the right of the fairway, which is just within the long drives of some of the top Professionals and also in range for the longer hitter playing off a forward tee. It was probably added more for framing and aesthetic purposes when the course was first designed but now makes the long hitter think more about placement than he otherwise would. However, the rough has been allowed to grow short of it which stops the ball rolling into it as readily and it would be good to see the area cut as fairway. There are also a few trees which have been planted on a similar line and these should be removed.









Approach shot

Like the 2nd green, this one also has a front-right to back-left axis which tests both line and distance control and favours a shot played down the right side of the fairway.



Green

Two interlocking bunkers guard the left side of the green and the putting surface is split into two halves by the step which runs through the centre. The golfer is faces with a tricky putt if he finds the wrong side of the green.

A grass hollow will catch a ball which lands to the right of the green.

A low mound, which sits some 9 yards into the right side of the putting surface, adds challenge for the approach shot and makes chipping difficult for a golfer whose ball lands short of the green.



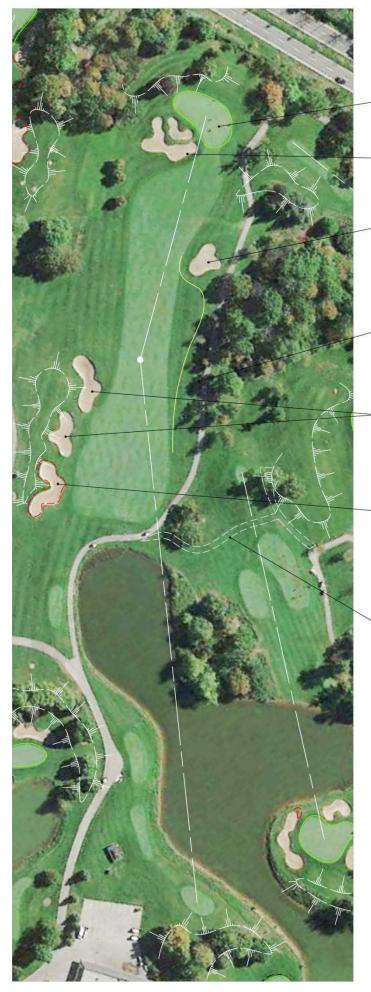




Summary of Changes to Original Design

- The first left drive bunker on the hole plan was filled in during the winter of 2016/17.
- The fairway was reduced in width from the right side and trees planted here which are starting to obscure bunker.

- a) The hole seems to have been shortened by 14 yards since the course opened, by comparing scorecards, from 431 to 417 yards in length. This may be due to the way the hole has been measured since there was no obvious location for a tee further back.
- b) The drive bunker which was recently removed should be reinstated.
- c) Trees which have been planted in recent years to the right of the fairway should be removed and the fairway mown towards the right drive bunker.
- d) The right drive bunker could potentially be moved further left, and perhaps back towards the tee a little, to bring it more into play.
- e) The very interesting contours of the putting surface should be preserved.



 Very interesting contours of the green should be retained.

Bunkers protecting left side of green and the angle of the putting surface key features of the hole.

Bunker is good distance for tournament play but fairway needs to be mown in front of it, as was originally the case, to allow ball to run into it and golfer to find better angle into green if he stays short.

Recent tree planting encroaching and blocking view to right fairway bunker.

Diagonal bunkers which tighten fairway on left with distance a key feature of hole.

Bunker removed in winter of 2016/17. This could be replaced with one beyond the remaining two bunkers to reinstate spirit of original design to suit current drive distances.

Old paths

Par 4, Hcap 9 / 15 417 379 345 345 271

General observations

This is the first of the par 5's for the Tournament golfer and the second for the rest. It measures 527 yards from the back tees, which is short by today's standards, and it is therefore very reachable in two shots for most of the Pros, with some only requiring a mid-iron to do so.

Tee shot

The trees on the inside of the dogleg are the only defence to stop the golfer cutting a large chunk of the dogleg and thereby shortening the hole substantially. The most recent trenche of tree planting has, we believe, gone too far and has created an artificially forced dogleg. Some judicious tree removal and thinning would be beneficial.

From the forward tees, the bunkers closer to the green can be seen under the tree canopies giving some sense of the shape of the hole and some tree thinning and removal would help improve the aesthetics of the hole.





Second shot

A bunker lies on the right of the fairway, 62-88 yards from the front of the green, and another on the left runs from 43 yards short to almost the front of the green which creates a pinch-point for a long second shot and danger for someone landing short.



Approach shot

The bunkers mentioned above are unlikely to affect the approach shot for the long hitter who should be green-high with his second shot.





Green

This green is one of the most interesting on the golf course. It is quite small, and heavily guarded with bunkers on all sides, which is appropriate for a relatively short par 5 where a decent golfer, playing in regulation, will generally have a wedge to the green. However with the amount of contour on the putting surface it is probably a little too severe and it would be good to return the green closer to its original size which was considerably larger than the current green. It appears to have extended into the area between the bunkers shown to the right of the photo opposite and this would provide a very good tournament pin position if it was reinstated.

The green has been designed in a form which used to be referred to as a "fried egg green" when it was first developed by Willie Park Jnr at the turn of the 20th century since it has a central mound, like the yolk of a fried egg. However, in this case the mound has been continued as a ridge from left-to-right through the centre of the green which links to two spurs on the edges of the putting surface as can be seen in the photo opposite. It is a particularly good example of how to integrate in a natural-looking way what could otherwise appear like a rather contrived feature.

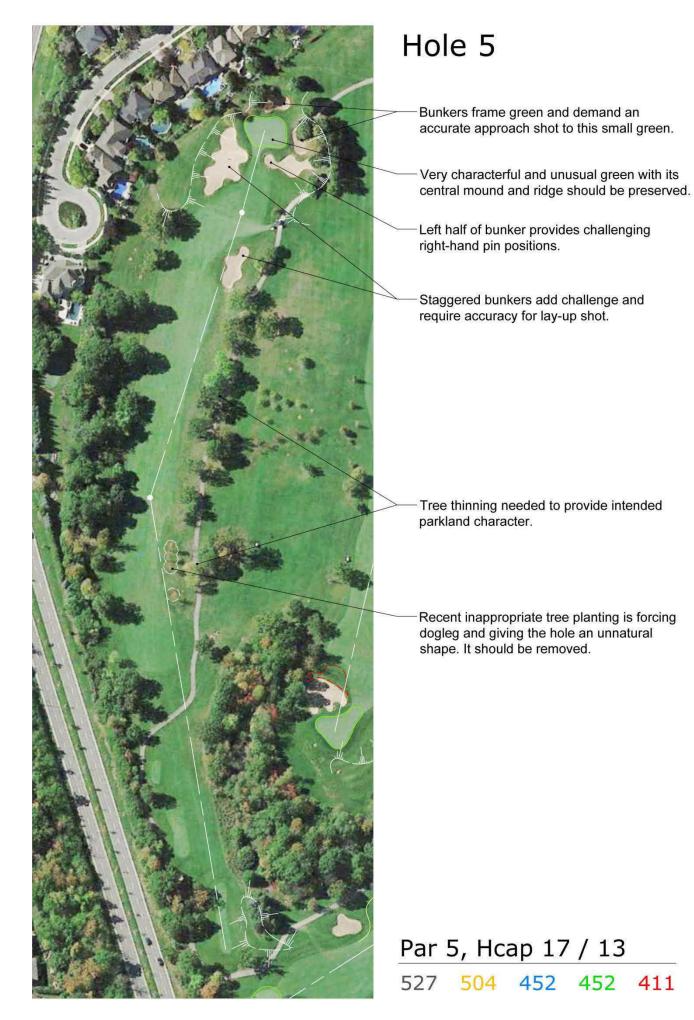




Summary of Changes to Original Design

• Additional planting on the inside of the dogleg.

- a) Remove recent planting and thin plantation to open out a view of the shape of the fairway beneath the trees.
- b) Preserve the very interesting contours of this green.
- c) Consider enlarging the mown area of the green closer to its original size and, in particular, reinstating the frontright pin position which has been lost.



<u>Hole 6</u>

General observations

The main changes which have happened on this hole include the planting of trees either side of the fairway to narrow the drive and the reduction on the size of the front green bunker which once extended 10 yards or more forward at the front.

Tee shot

This long par 4 of 437 yards from the rear markers has a simple strategy. The nearer the golfer plays to the left bunkers, which lie at some 203-257 yards from the back tee, the better the line into the green for the second shot. The bunkers are now short for the modern Pro and so trees have been planted in an effort to make the drive more challenging. Unfortunately these bunkers are now too short to come into play much for the touring Professional and really need to be at least 20 yards further on to provide the original design intent. Adding another bunker further down on the left, or replacing the first left bunker with another beyond the second one could be considered an acceptable change to the hole since it would reinstate the original strategy of the hole for the top golfers. The sympathetic lengthening of the hole with a new tee could also be contemplated if it was designed sensitively since it would have an impact on the spectator mounding at the rear of the tee.



Drive landing area

The trees which lie beyond the drive bunkers on the left of the fairway create a double-hazard for the recovery shot and the newer planting would best be removed. The single large specimen could be retained.



Approach shot

The green has an attractive setting with the large bunker on the front-right of the green, which part of the putting surface is tucked behind, and the spectator mounding on the left which nicely counterbalances the feature.



Green

The green bunker was originally twice the size of the current one and extended some 10-15 yards further toward the tee. Rather than reinstating the old bunker size, lowering the ground at the front of the bunker and possibly raising the sand a little would give it the same visual impression, from distance, that the original bunker provided. A photo of the original bunker can be found in the *Glen Abbey Golf Club brochure/pamphlet* produced for the Canadian Open of 1977 for reference.



The green area has been significantly reduced in size since it was built and it appears to have been pulled in on all sides but mainly from the left.

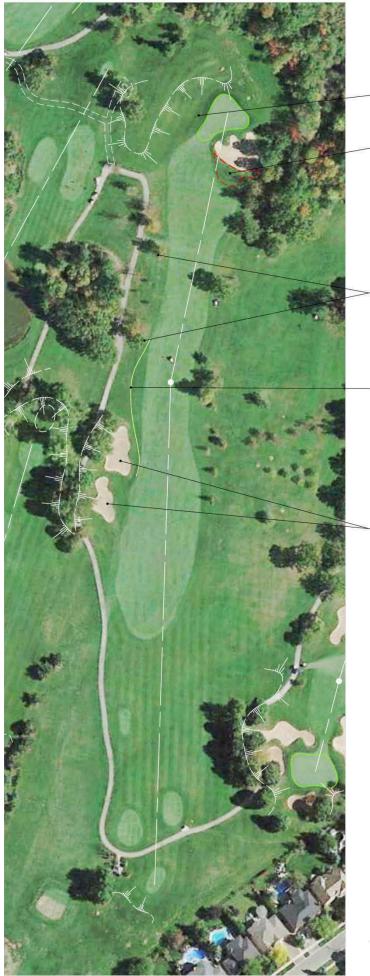
The putting surface is attractively contoured and has a grass swale up the left side which will catch a ball that runs long, which is a nice feature of the green.



Summary of Changes to Original Design

- The fairway has been narrowed beyond the left drive bunkers.
- Trees have been planted to the left of the fairway further up.
- The green bunker has been reduced from the front by 10-15 yards.
- The green has been reduced by up to 190m2 in area.

- a) Remove new tree planting to left of fairway on approach to the green.
- b) Reshape fairway to left beyond the drive bunkers to encourage golfers to risk bunkers as they once did.
- c) A new back tee could be considered if designed sensitively.
- d) The visual drama of the right green bunker should be restored by either lowering the ground and/or extending the bunker at the front closer so that more sand is visible.
- e) The green could be extended closer to its original 1976 size.



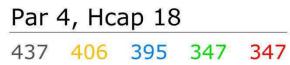
Grassy swale a key feature of green.

Bunker has been filled in at front but will have had little detrimental impact on the playing qualities of the hole. Ground could be lowered in front of bunker to reinstate visual drama of original bunker without need to extend it.

-Recent tree planting to left of fairway interferes with strategy of the hole and should be removed.

Old fairway shape should be reinstated to allow golfer to find best angle into green.

Bunkers to left of fairway key elements of strategy of hole which is to play down left for best angle into green. These are short for tournament play and the construction of a new tournament tee further back could be considered to reinstate the challenge.



<u> Hole 7</u>

General observations

The second of the par 3's plays over water but this time to a green that is narrower and deeper than the 3^{rd} green. The more open entrance to the green is on the right side as opposed to the left side on the 3^{rd} .

Tee shot

Only a narrow strip of water can be seen from the back tee which plays at a distance of 197 yards, although the golfer is still very much aware of it. This is the second longest of the par 3's with the longest, the 12^{th} , just 8 yards longer. The hole seems to have been reduced by 6 yards in length when comparing scorecards, perhaps to create a bigger difference between the two holes which must have been as a result of tee alterations.

From the ladies' tee the full expanse of the lake can be seen which makes the tee shot look even more intimidating.





Green

The green is surrounded by spectator mounding which provides an attractive backdrop to the green and visually contains the hole by blocking the view through to the 9^{th} hole which might distract the golfer from the task at hand.

The green has again been reduced in size since it was built and most of the reduction has occurred at the rear and front-left sides.

The putting surface generally slopes from the back to the frontright with gentle mounds feeding into the putting surface on three sides. The right side of the green is more accessible for a tee shot. The green is surrounded by bunkers set in an attractive asymmetrical pattern, with one large one flanking the right side of the green, a mid-sized bunker covering the left third of the putting surface, and a smaller bunker sitting in the face of the bank on the back-right to tighten up the left pin position. This bunker used to be almost twice its current size and originally extended further to the left. This could be considered for reinstatement since it would toughen up the narrow left pin position although it would also narrow the walkway onto the green which may cause wear issues.





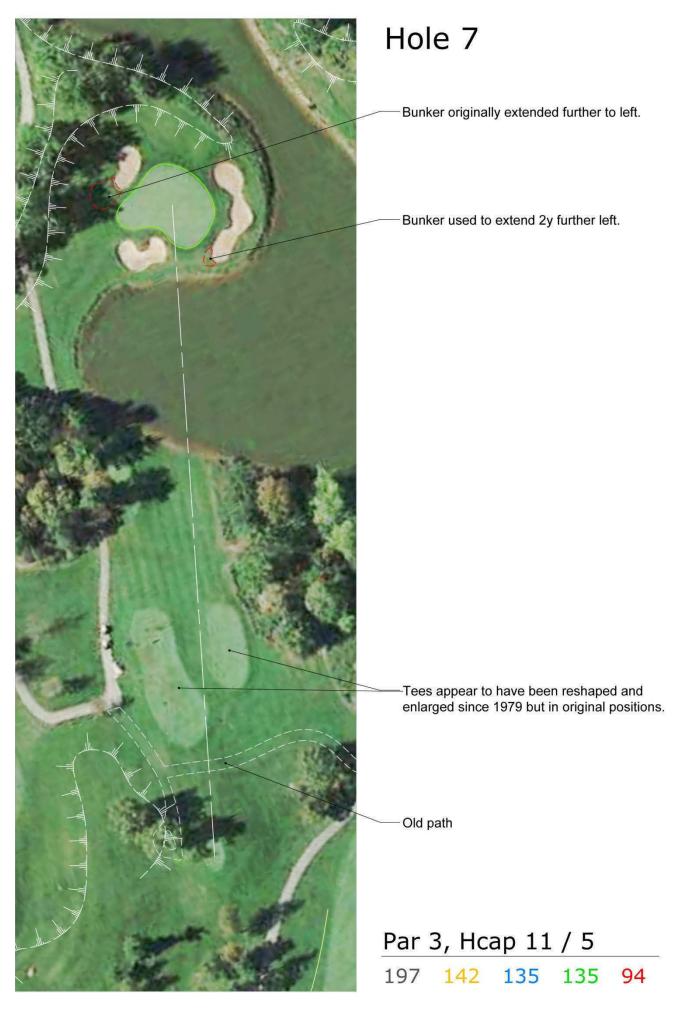
A grass hollow sits at the rear of the green between the backleft bunker and the right one providing an alternative hazard for a ball which runs long.



Summary of Changes to Original Design

- The hole used to be 6 yards longer.
- Paths which crossed in front and to the left of the back tee have been removed.
- The middle tees seem to have been enlarged and the back tee has probably been moved forward by 6 yards.
- The front-right green bunker has been reduced by 2 yards from the left.
- The back-left bunker has been reduced by 8 yards from the left.
- The green has been reduced in size.

- a) Consideration should be given to reinstating, or partially restoring, the original size of the back-left green bunker.
- b) The green could also be enlarged in places closer to its original size.



<u>Hole 8</u>

General observations

A challenging par 4 of 433 yards which was said by Nicklaus to be one of his favourites.²⁴

Tee shot

This hole doglegs slightly to the right around two bunkers which are placed at 224-279 yards from the back tee and angled into the fairway to narrow the target with increasing distance from the tee. When playing into the prevailing wind, which comes from the west, this hole will still be testing for the touring Pro but if there is no wind, or if it is blowing from the east, it will be an easy two-shotter for most.





Drive landing area

Some mounding on the left of the fairway will provide an awkward sloping lie for a golfer who hits his ball too far this way, as well as a viewing mound for spectators.



Approach shot

The large bunker which lies short-right of the green covers the right two-thirds of the putting surface which means that some of the pin positions are more accessible from the left of the fairway. Two bunkers sit in the face if the banking to the left of the green and approach and will catch a pulled approach shot to the green.



²⁴ (Glen Abbey Golf Club, p. 28)

Green

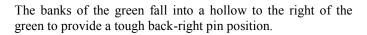
A grass bunker sits to the right of the approach to the green and looks like it might once have been a sand trap, although we can find no record of it. It may have originally been shaped as a bunker during the construction of the course and grassed as a design change during the build.



The large right-hand bunker is similar to the one to the right of the 6^{th} green which would have originally had a similar scale before it was reduced in size.



The green has a slight step running through its centre which is nicely shaped with a central mound or spur.







Summary of Changes to Original Design

- An old back tee must have been removed to reduce the length of the hole by 24 yards from 457 to 433 yards.
- A grass hollow short-right of the green appears to have been reduced in depth.

- a) The old back tee could be considered for reinstatement to restore the original length of the hole and provide a more challenging tee shot for the tour player.
- b) The hollow to the right of the approach, which seems to have been partly filled in, could potentially be deepened to reinstate its original depth if it can be successfully drained.



Bunker configuration and two-tier green key elements of hole.

Grass hollow appears to have been partly filled which will have reduced the drama of the approach shot. Some remodelling to add depth and strengthen feature could be beneficial.

Bunker configuration create slight dogleg and key to hole.

Old back tee could be considered for reinstatement to put drive bunkers at more challenging range for tournament play.

Par 4, Hcap 7 / 9 433 391 391 358 358

<u> Hole 9</u>

General observations

The closing hole on the front nine holes is the first to provide the spectacle of a carry over water to a long narrow green. The similarity between the design of holes 9 and 18 could be considered a weakness but efforts have been made in the design to make them play quite differently, with the 9th designed as a long par 4 of 458 yards from the back tee and the 18th hole a short par 5 of 524 yards. The 9th hole only has one bunker on the right side of the fairway while the 18th has a few to each side. These differences should be preserved.

Tee shot

The mounding and trees which have been planted to the left of the fairway provide the main defence which stops the golfer from playing direct towards the green and reducing the carry over the lake he has to face for his second shot. However, for the Professional golfer, the carry over the water is not as intimidating as it is for the average club golfer and many would prefer to play down the right side for a similar length shot into the left and right sides of the green. This will give them more space to deviate in the line of the approach shot since generally a Pro will hit the ball a consistent distance. Doing so will bring the lake closer to play since it lies at 329 yards on the right side of the fairway, which is reachable for the top golfers, and also the risk of running into the bunker which covers a span of 246-290 yards from the Black markers.

Conifer planting to the right of the fairway fills a gap in the copses and is at odds with the parkland setting. It would be good to see these removed.





Drive landing area

The large bunker which sits to the right of the drive landing area is attractively shaped and gives the illusion that it is closer to the lake than it actually is. This makes the lake appear nearer to the tee and more in range for a drive which is an interesting design device to intimidate the player.

The conifers which have been planted to the left side of the fairway look incongruous in relation to the mix of deciduous and occasional conifers which were originally planted. We believe that at least some of the conifers should be replaced with deciduous trees to better match the original landscape concept.

Approach shot

The lake extends through a narrow section to the right of the green, giving almost the appearance of a river in the distance.

The green is set on a slight front-left to back-right diagonal with a bunker guarding the right section of the putting surface.





Green

The golfer who successfully plays over the trees on the inside of the dogleg will benefit from a slightly better angle into the back-right pin positions.

The tall mounding at the rear provides good viewing opportunities for spectators wanting to watch the drama on this classic tournament hole, where the risk of shots ending up in the water adds to the excitement.



An area of apron has been mown to the left of the green to give the illusion that the target is wider than it actually is and to make a recovery shot easier for a shot which misses on the left. The green used to extend further to the front, towards the pond, and also to the back-left as we have shown on the hole plan. The front section could be reinstated as a false-front, that the ball would spin off back into the water, which would add to the drama of the shot into the green.

A spur from the bank at the back of the green gives the mounds a more attractive shape but it could be tied in better with the edge of the green. This appears to have been a later amendment which was possibly made when the green was reduced in size.

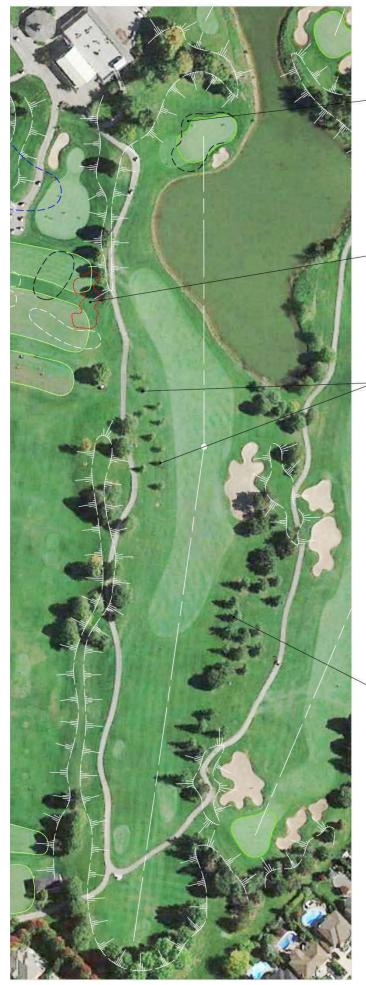




Summary of Changes to Original Design

- Conifers have been planted to the right side of the fairway, near its start.
- Tree planting to the left of the fairway has been introduced to provide additional challenge for the top golfers.
- The green has been reduced a little in size and appears to have been reshaped also at the rear.

- a) Remove the dense conifers plantation to the right of the drive.
- b) Replace some of conifers on the left of the fairway with deciduous trees.
- c) Modify the back banks of the green to blend more naturally with the green surface as they do elsewhere on the course.
- d) The green front should be reinstated to reinstate the drama of the original approach shot.

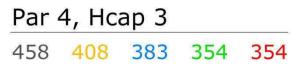


Green appears to have been reduced in size and its outline altered from the original. From our site inspection it appears that the back bank has been amended slightly.

Old practice bunker and green replaced with larger tees and new chipping facility when part of pond near 18th green filled in.

Conifer planting inappropriate in parkland setting and these should be replaced with deciduous trees from the palette of species planted originally, but not too close to fairway edge.

Dense conifer planting create linear edge to fairway, at odds with parkland landscape, and should ideally be removed.



<u>Hole 10</u>

General observations

This is a demanding driving hole with a large bunker on the right and trees on both sides.

Tee shot

The tee shot utilises the feature of the valley which runs through the adjacent 2^{nd} hole as a feature in the carry. It also helps to shed surface water into the natural gully which has been retained in the trees to the left of the hole and has been piped under the car park.

The relatively mature trees that lie to each side of the fairway, and which were probably mostly planted when the course was built 40 years ago, now have a stature which complements the golfing landscape and gives it the intended parkland character. Further down a few smaller trees have also been planted which spoils this impression and selective tree removal would be beneficial.





Drive landing area

The photo, opposite, shows the valley from the left side of the fairway looking towards the approach to the 2^{nd} green.

The large bunker to the right of the fairway covers a distance of 255-296 yards from the back tee which is appropriate for tournament golf today even though the drive will have some assistance from the prevailing wind on occasions. Some of the trees to the left of the fairway are remnants of the earlier landscape since they are present on the 1979 aerial photo. As such the ground levels have not been changed much in this area.

Some mounding to the left of the fairway performs the dual function of screening the large car park and providing an elevated viewing position for spectators.





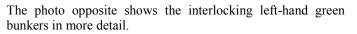
Approach shot

The green is this time angled from front-right to back-left which rewards the golfer who can draw the ball and adds variety to the golfing experience. The left half of the green is protected by two interlocking bunkers and a rear bunker, set to the right of centre, will catch a shot which is over-hit. Only a few glimpses can be seen of the sand in the rear bunker and we suspect that it would have been more visible when the course was first opened.

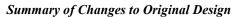
More spectator mounds lie to the right of the approach and around the rear of the green.

Green

The green has a slight step which meanders through its centre adding putting interest and making it important to find the right part of the green with an approach shot to have a good chance of par or birdie.



The picture opposite shows the rear bunker from the left side and the viewing mounds which lie beyond it.



- Trees have been planted to the left of the fairway.
- We suspect that the sand face of the rear green bunker has been lowered.

- a) Remove recent tree planting to the left of the fairway.
- b) Raise the sand-lines of the rear green bunker.

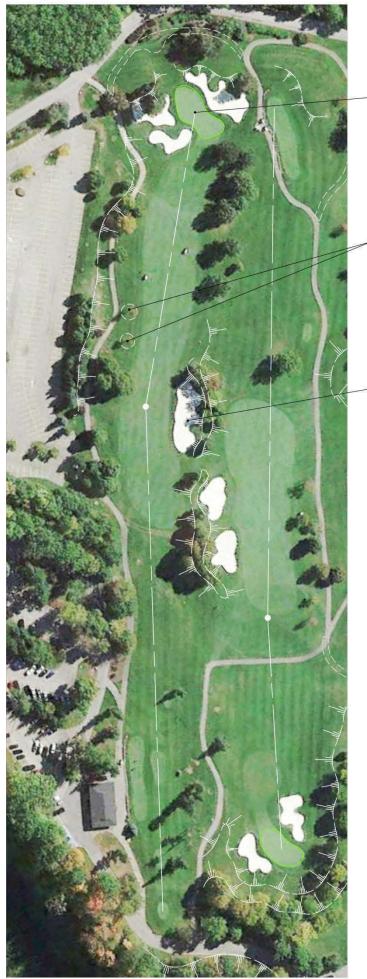












Shape of green and positions of bunkers complement playing strategy created by single drive bunker.

Recent tree planting inappropriate and should be removed.

Bunker well positioned for tournament play and works strategically with angle of green.

Par 4, Hcap 10 / 8 443 375 369 369 329

<u>Hole 11</u>

General observations

This is the first of the valley holes which marks a change in the character of the golfing landscape where the natural features dominate and the designed ones provide the playing features and strategy. The decision to move the centre section of the 11th green further left, to benefit from more sunlight, has spoiled the original design of the hole. The river is a key feature of the next four holes where it is utilised in different ways.

Tee shot

The tee shot presents a dramatic drop shot down to the flat floor of the valley from tees perched on the valley side. The view of the valley is partly blocked from the back tee by the tee in front even though it is raised. The hole is long at 452 yards from the back tee but the drop in elevation will shorten it by 30-40 yards due to the additional carry which the ball will receive before it lands on the fairway, although it will get less run when it does than one on more level land.



Self-seeded trees are developing in the carry to the fairway and threatening to block the view from all tees. These should be removed and the area managed to maintain grassland and low level vegetation to maintain the original majesty of the hole. The view of the pond at the base of the valley slope is also a key feature of the hole which should be kept visible. Trees which are pushing in to either side of the tee shot should also be cut back and thinned out to maintain the original wider vista rather than the narrow chute which it is becoming.

The photo opposite shows the view from the forward tee which presents a very different angle of attack which brings the large tree on the left of the fairway into play for the better golfer.





Drive landing area

Golfers who cannot make the carry over the vegetation on the valley side are provided with a dropping area, where they can drop a ball at the penalty of one stroke, rather than having to play another from the tee which could end up with the same fate.



The bunkers which lie on the right side of the fairway, covering a distance of 277-337 yards from the back tee, angle into the fairway to tighten the width of the landing area with distance. The elevation change will add up to 40 yards to the carry and so both bunkers are very much in play for an elite golfer's drive and even the river, which sits at 367 yards is within range for the long hitter. The large tree on the left side complements the strategy of the hole and the golfer who is unable or unwilling to attempt to carry it will have a smaller landing area to aim at. The golfer who plays safe with a rescue club or iron will risk being blocked out by the large tree or caught in the first bunker.





Approach shot

The approach shot plays over the river to one of two small green targets either side of a central bunker which appear to have been built in 2005/2006, reputedly to overcome shading issues of the earlier green. The two sections do not hang together as one putting surface and create some confusion for the golfer playing his approach shot. Ideally some woodland management should take place to allow the green to be rebuilt closer to its original position and shape with the bunkering altered to accommodate it.

Green

The river was moved to allow space to construct the green on the far side of it which caused some construction challenges and required some stone walls, or gabions, to be built on the far side of the river to prevent it from going back to its original course. The limited space for the green meant that it was built close to the valley side and the trees which grow on the slopes and to the right of the green cast shade in the crucial morning hours when the sun is needed to remove dew and frost. The trees also impede air movement which is important for good grass health since grass diseases are more likely where the air is stagnant and the humidity is allowed to build. The closer trees which seem to be causing most of the problems appear to have grown up since the course was built due to their relatively young age which emphasises the need for timely woodland management.

The central green bunker, which splits the two sections of the green, sits in one of the sunnier areas on this side of the river and we believe that a green which more closely resembled the old green could be built successfully, especially if coupled with selective tree thinning and removal. We believe that the historic value of this green site outweigh the environmental concerns of some selective tree removal and this would be our recommendation.







The sign, opposite, was located on the left section of the green during our visit and is required due to the large bunker which separates the two halves and makes putting almost impossible.

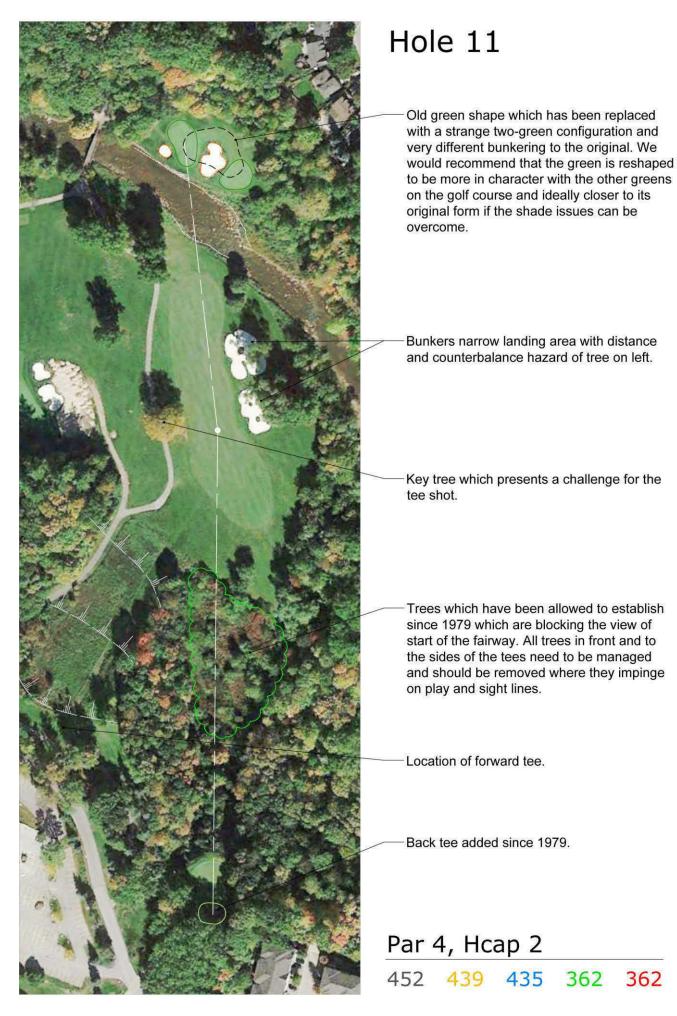


A large fan has been installed at the rear of the green to provide much-needed air circulation to assist grass growth and minimise disease.

Summary of Changes to Original Design

- A new back tee was added since 1979 to extend the hole by 37 yards.
- Trees have self-seeded and grown up in the carry for the drive since the course opened and the trees are also closing in on each side of the tee shot.
- The green has been altered a number of times in the past and no longer resembles the original.

- a) Remove trees in the carry and open up the vista from the tee by cutting back trees to each side.
- b) Consider rebuilding the green so that it is in character with the other greens on the course and ideally closer to its original shape and position by managing the woodland to the right and beyond the green location.



<u>Hole 12</u>

General observations

The 12th hole is the longest of the par 3's at 205 yards from the back tees. Since this hole will generally play into the wind, and the target is quite small, it must present a stern challenge when the wind is blowing.

Tee shot

The river is the key concern for the amateur golfer but there is a small bail-out area in front of the entrance to the green on the right which gives the golfer an additional 15 yards to play with. The shot to the left side of the green is tighter since the river is closer here and two bunkers guard this side. A bunker also sits at the back of the green to catch a ball which runs long.

A tee was built to the far side of the river, above Sixteen Mile Creek, prior to the 1983 Canadian Open but this is no longer in play.

Green

The green rises a little towards the back bunker which provides a more receptive target for the tee shot. It also slopes a little quicker off the front-right of the putting surface which will cause a ball which lands a little short with spin to run back off the green.

The green was extended to the left by around 8 yards since 1979 and the back bunker was cut a little closer to the putting surface in 2003.

The trees to the right of the green require to be cut back and managed properly.





Summary of Changes to Original Design

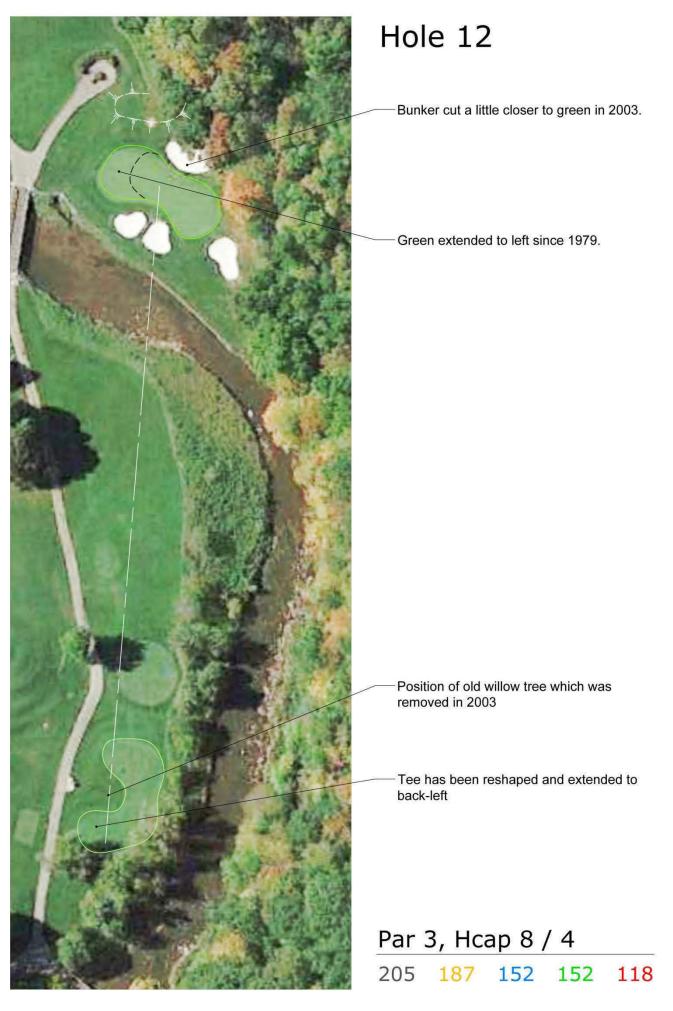
- The tee was reshaped and extended to the back-left when an old willow tree was removed.
- The green was extended to the left by around 8 yards.
- The back green bunker was reputably extended slightly closer to the green in 2003

Recommendations

a) The trees to the right of the green need to be cut back and managed more regularly.







<u>Hole 13</u>

General observations

This hole was lengthened by around 30 yards to 558 yards in 2003 with a new back tee. The river is utilised on both the drive and the approach to the green on this hole and, while very different is topography and character, it was possibly influenced by the 13th hole at Augusta National in its general layout, although the topography is very different.

Tee shot

The tee shot plays over the river to a fairway which slopes gently from right to left. Bunkers on the right of the fairway guard the fast-track to the green, from 240-294 from the Black tees.



Drive landing area

A golfer who successfully skirts the drive bunkers should benefit from a larger onward bounce which the slight ridge in the fairway can provide, as well as a more direct line to the flag.



Second Shot

Large willow trees to each side of the fairway require the layup shot to be precise for the golfer to avoid being blocked out from the green for his approach shot.



Approach shot

The green is very reachable in two shots for the Professional golfer, if he gets a good drive away, and the two-tiered nature of the green provides a slope which will slow a running ball which might otherwise run through the back of the green. However it is also difficult to secure the right level of the green to ensure a relatively easy two-putt or have the chance of an eagle.



Green

The bunker which guards the right side of the green was reduced in size and the left bunker introduced sometime since the course was opened.







The green dips away to a lower plateau on the back right, as shown in the photo opposite, which provides a challenging pin position and also makes the upper plateau trickier to hold.

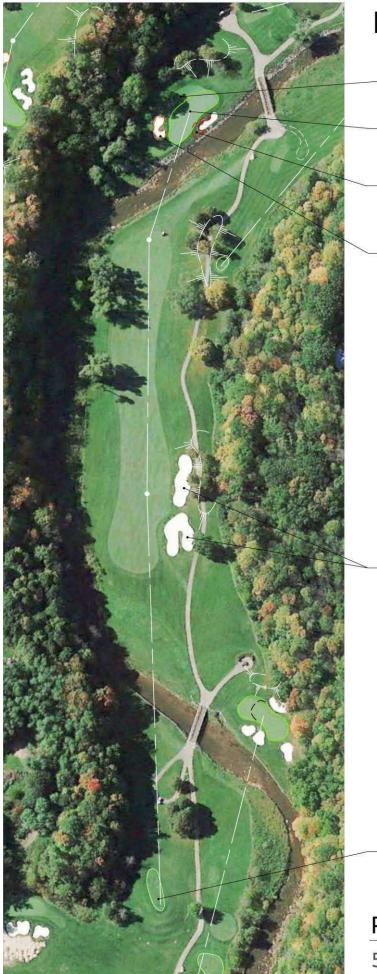
The grass hollow which sits at the centre rear of the green was reshaped in 2003.

Summary of Changes to Original Design

- The old back tee was rebuilt and extended by 25 yards to the rear.
- The right green bunker was reduced in size from the left.
- A new bunker was built to the left of the green.
- The hollow was reshaped at the rear of the green.

Recommendations

- a) The very interesting green should be protected.
- b) No significant changes should be made to the hole.



Hole 13

Hollow introduced in 2003.

- Very interesting three-level green surface, with lower front and right-hand pin areas, should be preserved.
- Bunker reduced in size from left between 1979-2004.

-New bunker installed between 1979-2004.

Bunkers guard best driving line for golfer wishing to utilise slope of fairway for extra run and to cut slight dog-leg in fairway.

Old tee rebuilt and extended to rear to add 25 yards to hole in 2003.

Par 5, Hcap 12 / 10 558 529 481 415 415

<u>Hole 14</u>

General observations

This hole is the only one which resembles a hole from the original 1960's, Howard Watson, design but the tee and green positions have been altered as we demonstrated earlier. In 2003 the 14th hole was lengthened by 15 yards with a new back tee to 457 yards to make it, according to a plaque on the course, *"historically one of the toughest par 4's in PGA Tour history"*.

Tee shot

The tee shot from the back tees is very different from that from the forward tees which play further left, closer to the preceding 13th green. The right tees provide the angle that the hole was designed from since it brings the river into play as a diagonal feature. This offers a heroic carry which increases in distance the further right, and more directly towards the green, the golfer plays.

Viewing banks around the back tee also provide views of golfers playing on the 13th hole.

The two large bunkers which sit on the far side of the dogleg wait to catch a pulled drive or one which does not risk as big a carry over the river. The fairway also narrows in width between the river and the sand as the golfer plays further right. The fact that the tee shot will often play into the prevailing wind makes judging the best line for the drive even more difficult.

The shot from the forward tees is more straightforward and most golfers just require a straight shot since the carry over the lake is negligible.







Drive landing area

The bunkers sit attractively into low mounds to the left of the fairway which give some improved spectator viewing opportunities, although not to the extent available on some of the tableland holes.



The river to the right of the fairway runs parallel with the fairway for a distance and then diverges from the hole nearer the green.



Approach shot

The bridge at the back of the green was built in the early 1990's and was designed sympathetically to minimise the negative impact on the golf course. Its elegant form is not too jarring to the golfer's enjoyment of the naturalistic experience of the valley. The viewing bays on the bridge provide some great views of the golf course and link it with the surrounding community.



This is one of the less inspiring greens on the golf course. The putting surface is guarded principally by its elevated form which will shed a ball into a grass hollow on the left and down a bank on the right. The slope at the front of the green will require a running approach shot to be judged well.

The bunker at the rear of the green will catch a ball which runs through the back and the tall mounds that surround the green provide very good viewing opportunities for a Tournament gallery.

A strange step in the green surface does not appear to tie in properly at its base. We note that there was what was described as an 18" swale through the green in the *Glen Abbey Golf Club* brochure/pamphlet of around 1976 and this may have been softened a little when the putting surface was re-laid with new turf in the past. Nicklaus Design has no record of any changes having been made.

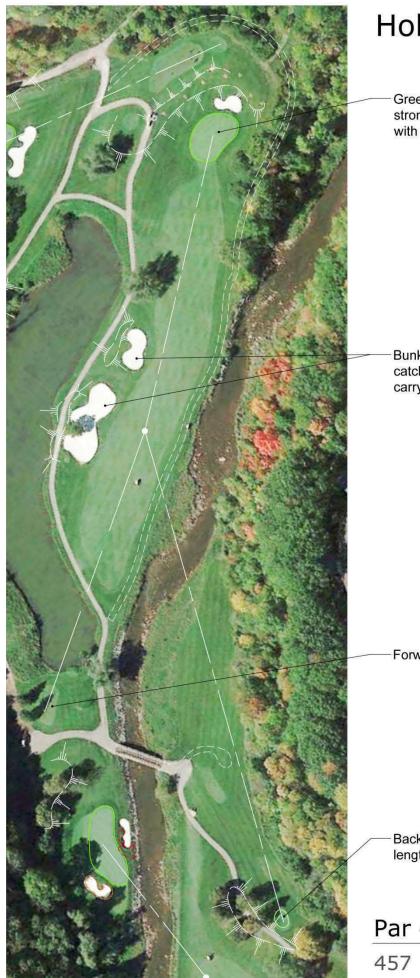


Summary of Changes to Original Design

- A new back tee was built in 2003 to lengthen the hole by 17 yards.
- Some alterations to cart paths including rerouting the path to the left of the hole rather than down the right.

Recommendations

a) The hole is very much as it was originally designed and the key features should be retained, although some sympathetic remodelling of the green might be acceptable.



Hole 14

Green setting with backdrop of mounds is strong but green shape a little disappointing with strange step in putting surface on right.

Bunkers narrow fairway with distance and catch shot which does not take on enough carry over the river.

Forward tee.

 Back tee built in 2003 to add 17 yards of length.

Par 4, Hcap 4 / 6 457 367 330 325 325

<u>Hole 15</u>

General observations

Some changes were made to the right side of the green when the viaduct was built to provide some mounding to screen the bridge structure but the green seems to have been kept in its original position. This also doubles as a viewing bank for spectators.

Tee shot

The tee shot plays slightly uphill to a green which is benched into the hillside. A large bunker to the front-left of the green covers most of the putting surface and one at the rear provides a hazard for a ball which runs long. The bank of the large mound to the right of the green allows a ball to be fed in off the slope and utilise the small entrance into the green on this side.





Green

The green and the front bunker are angled from front-right to back-left which increases the carry from the tee, the further left the pin is located. The green also has a raised back-right quadrant offering a tricky rear flag position.

There used to be a bunker in front of, and below, the existing left green bunker but this was removed by 1979.

Before the mounds were introduced to the right of the green a swale existed here, but this is largely now gone. There also seems to have been an additional small bunker at the end of the swale in the face of the banks at the back-right of the green.



Summary of Changes to Original Design

- Some changes to the cart path system.
- The bank to the right side of the green was introduced, or raised, to screen the viaduct.
- Photos of the hole prior to 1979 show a bunker in front of the existing forward green bunker and also one to the back-right of the green.

Recommendations

a) The changes which have been made do not seem to have been detrimental to the design of the hole and seem to have been made with the input of Nicklaus Design.



Hole 15

-Raised back-right tier a good feature of the green.

Mounding to right of green seems to have been added or at least increased in height when the viaduct was built.

Shape of bunker has been modified slightly since 1979 but its function in guarding the left pin positions has been retained.

1979 cart path which was removed.

Par 3, Hcap 18 / 12

<u>Hole 16</u>

General observations

Initially a par 4 of 459 yards this hole was later lengthened to a par 5. It was briefly shortened to a par 4 of 480 yards for the Canadian Open in 2003 and returned to a par 5 of 516 yards by the time of the 2016 Open. Trees were also planted on the left side of the fairway in 2003 to narrow the width of the drive landing area and a new bunker installed to the front-right of the green to make it more difficult to play a bounce-up approach shot.

Tee shot

The tee shot plays across a valley and onto a plateau fairway with the clubhouse as a focal point in the distance. The hole doglegs to the left around trees, some of which were planted in 2003 and cover a span of 280-213 yards from the tee, and it is framed by mounding to the right. A hollow lies in wait of a long drive which runs too far to the right.



The ladies' tee is sited on the far side of the valley making the hole much shorter for women.



Drive landing area

Mounds line the right side of the fairway and continue around the rear of the green, giving spectators a good view of final stages of play during a major tournament.

The trees which have been planted to the left of the dogleg come too far out and will spoil the hole if they are allowed to grow to maturity.



Approach

The green is well protected and framed by bunkers to the front and rear. A small bunker was built to the front-right of the green in 2003 to stop a ball being run onto the front of the green too easily and so generally the golfer will need to carry his approach shot onto the green surface unless he can find the small gap that remains between the bunkers.



Green

The green has a very interesting form and a long axis which runs at almost right angles to the line of play. It was extended a few yards further the left sometime in the 1980's to provide some tougher pin positions for tournament play. There is a slight step in the green surface which divides the lower right side from the raised left section.





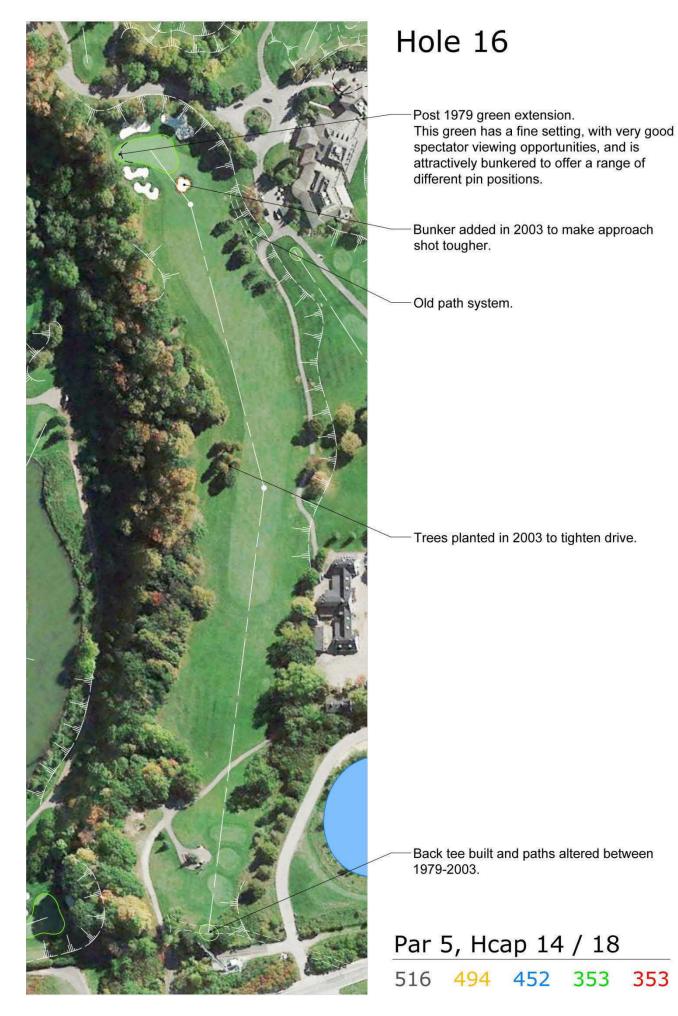
The banks which surround the green provide some great spectator viewing opportunities at this late point in the round.

Summary of Changes to Original Design

- The hole was extended to a par 5 with a new back tee which lengthened it by 57 yards.
- Trees were planted on the left of the fairway to narrow the landing area for the drive in 2003.
- A new bunker was added to the front-right of the approach to the green in 2003.
- The green was extended by a few yards to the left in the mid 1980's.
- The cart path was modified slightly to the right of the approach to the green.

Recommendations

- a) The changes which have been made have generally enhanced the original design of the hole and were carried out by Nicklaus Design.
- b) The trees which were planted to the left of the fairway will spoil the hole if they are all allowed to mature and some selective removal would be beneficial.



<u>Hole 17</u>

General observations

This long par 4, of 436 yards from the back tee markers, can be very challenging when the prevailing wind is blowing since it plays due west. It can sometimes be more difficult to reach in two shots than the preceding par 5, 16th hole. Three bunkers have been removed to the right of the fairway since November 2017 which is a great pity since they added drama to the carry from the tee even though they were not really in play for the Professional golfer. Another bunker, which lay some 40 yards short of the first of the remaining bunkers on the left of the fairway, has also been removed in recent months although this has had less impact on the visual and playing characteristics of the hole.

Tee shot

The removal of the three carry bunkers has left a large bail-out area to the right of the fairway for the drive of the club golfer. We would like to see the diagonal sequence of bunkers reinstated even if they were pushed 20-30 yards further back so that they come more into play for the longer hitter, as they would have done originally, to keep the spirit of the original design alive.

The remaining sequence of left-hand drive bunkers span a length of 196-299 yards from the back tee, with the last two still very much in range for the top golfers.

The preferred line for the drive is general down the right side of the fairway since most of the flag positions are best approached from this angle and there is little other than the remaining bunker and trees further right to stop the golfer taking this line.





Drive landing area

The tee shot from the front tee shows the area where the bunkers were removed, highlighted by the dark green area of the turf which has recently been laid.



Approach shot

The dished nature of the second half of the fairway, and the mounding to the right side, provide good viewing opportunities for spectators watching golfers approaching the green.



Green

The green is heavily bunkered and has a very unusual form. When the course was first built the green extended to the rear of the second right-hand green bunker and into the area where a large mound now sits. The section to the left of the front-right bunker did not exist at that time. The green was altered when the new road and viaduct was built in the early 1990's which meant shortening the hole to make space for it. The front section built to the front left to create what was essentially a mirror image of the old design with minimum intervention. This neat solution has retained the characteristics of the original design, and the unique characteristics it possessed, i.e. a green which is shaped in a horseshoe configuration around a bunker.

The shape of the green does pose some problems when it comes to putting from one end of the green to the other, since it will be impossible to putt directly to the flag with the bunker lying between. Golfers will either need to accept a minimum of two putts or attempt to play a lofted shot with a wedge over the bunker, which could damage the green surface. However, from our inspection of the green this does not seem to cause a problem for the maintenance team.

Although the green has been altered we believe that the current configuration of the putting surface together with the layout of the surrounding bunkers, which replicate the key features of the original green design, should be retained in its current form.







Summary of Changes to Original Design

- New back tee built further right since 1979.
- Four drive bunkers filled in over winter of 2016/17; one to left and three on the right.
- The green was rebuilt further forward, while retaining the back section of the green, and two new bunkers built.

Recommendations

- a) The diagonal feature of carry bunkers should be restored, possibly starting and extending a little further up the fairway to better challenge the better golfer.
- b) The green and its bunkers should be retained in its current form as an homage to the unusual design of the original green and a very unusual green in its own right.



Hole 17

Section of green and rear bunker removed when Upper Middle Road West built and viewing mound built in their place.

Bunker reduced in size at front when green altered.

-Front half of green and three frontal bunkers built when road constructed.

Reservoir built between 1979-2003.

Four bunkers were removed in winter 2016/17 and this has spoiled the drama of the drive. We would recommend that a similar configuration of bunkers is reinstated on the right, but possibly further on to restore challenge for the better golfer.

Back tee built since 1979 and enlarged to rear in 2003.

Par 4, Hcap 6 / 14 436 396 365 365 304

<u>Hole 18</u>

General observations

The 18th hole is a classic finishing hole in that it is a short par 5 with a final approach shot over water, which provides a high level of excitement at the close of a round. The hole plays to 508 yards from the back tee which is a very short par 5 for touring Pros which means that most will be hitting a mid-length iron into the green if they can get a decent drive away.

Tee shot

A cluster of three bunkers has been removed in recent months from the left side of the fairway, short of the remaining ones. They would have covered a span of 205-238 yards from the back tee which is too short to challenge the top golfers. The remaining left-hand bunkers cover 245-318 yards which are very much in play. The far bunker and some additional trees were added on the left of the fairway in 2003 to make the hole more challenging to play for the Pros.



Drive landing area

The dark green area of grass to the left of the fairway, shown in the photo opposite, mark the position of the three bunkers which have recently been removed.

Spectator mounding lies to the right of the fairway, before and after the right-hand drive bunkers providing a good view of players hitting their second shots and, at the far end of the mounds adjacent to the lake, spectators can view the action on the green.

The right-hand drive bunkers cover 212-322 yards from the Black tee markers with the far two most relevant for the top golfers. The far bunker pinches into the fairway, narrowing it to just 20 yards, which places a high emphasis on accuracy for a golfer electing to take a driver from the tee. It is not surprising that many golfers end up in the sand and that Tiger Woods was faced with a shot from the far-right bunker in the 2000 Canadian Open.







Second shot

The golfer who manages who hits his tee shot well down the fairway is given the choice of laying up in the area of fairway to the left of the lake or going directly over the water towards the green.

The second of the right drive bunkers, pictured opposite, is the one which Tiger Woods ended up in during the 2000 Canadian Open. The spectacular shot he played to the right-hand pin position from here was key to him winning the Open that year and it has gone down in golfing folklore as one of the best shots ever played in tournament golf. It is so well remembered that many golfers who play the course try to replicate the shot and until recently a plaque commemorated the location of this legendary event.

Approach shot

The approach shot for most golfers is played from closer to the green since they are unable to reach it in two shots. The green sits on a front-left to back-right diagonal angle to the line of play requiring the golfer to judge both line and distance accurately to land on the putting surface. A ball which lands short will often end up in the water and one which goes long will probably find one of the three bunkers which frame the rear of the green. There used to be a bunker to the front and left of the first one that guards the entrance to the green. The existing left one could be extended a few yards forward and left to create a similar visual statement and challenge but without making it too difficult for the average golfer which is possibly the reason that it was removed.

Green

A ball which ends up in one of the rear bunkers will leave a dangerous bunker shot to a green which slopes towards the lake and the risk of the ball running off the putting surface and into the water. The green has an amphitheatrical setting since it is surrounded by high banks that provide the ideal viewing angle for spectators to watch the final shots of a round. Originally the lake used to extend further to the right but it was filled in to provide space for the putting green which sits there now. This has had no detrimental impact on the green setting and has, in fact, enhanced the viewing experience by providing a bank where spectator stands can be located closer to the green.

A slight ridge or long spur runs into the centre of the green from the back bank which helps to separate the left and right sides of the green which makes putting from one side to the other more tricky.











The curved façade of the clubhouse adds to the enclosure of the green and stadium feel of the 18th hole. We believe that its layout and form is integral to the experience of the golf course and should be protected from significant alteration.

The wonderful view of the 18th hole and green from the large clubhouse windows gives the visitor a chance to enjoy watching golfers finishing their rounds which enhances the





Summary of Changes to Original Design

- The tees were rebuilt further left and back in 2003.
- The cart path system was modified to be closer to the new tees at the same time.
- Three bunkers were removed on the left of the fairway during the winter of 2016/17.
- A new bunker was installed beyond the cluster of bunkers on the left of the fairway to reinstate the challenge of the carry for the top golfers.
- The green was extended to the back-right in the early 1990's.
- The lake to the right of the 18th green was reduced in size and mounding installed in its place when the new practice putting green and chipping facilities were built.

Recommendations

user experience.

- a) This is an iconic hole and Tiger wood shot at the 2000 Canadian open at Glen Abbey is considered by many of the best of his career: *"final round, final hole, par 5 fairway bunker, 216- yard carry, all water, one shot lead over Grant Waite, and Waite was already on the green in two".* ²⁵ As such it deserves special protection to preserve the key features of the hole so that future golfers and other visitors can relive the shot first-hand, in their imagination if not in deed. The trees which lie between the bunker and green will need to be managed in the future to retain the vista which Tiger would have had.
- b) We would like to see at least one of the bunkers which were removed last winter the far left one reinstated since it added visual strength to the bunker cluster. The other two were low-lying so had less presence.
- c) The front-left green bunker could be extended to the left where an old bunker once lay.

²⁵ MILLARD, C., & PALMER, A. (2014). The golf book: 20 years of the players, shots and moments that changed the game. Print. p. 89



Hole 18

Green extended in early 1990's.

 Area of lake filled in and spectator mounds and new chipping facilities built to replace it between 1979-2003.

Bunker removed between 1979-2003.

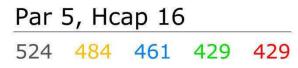
 Bunker which Tiger Woods played hisnow legendary recovery shot from to win the Canadian Open in 2000.

-New bunker built in 2003.

Three bunkers were removed in the winter of 2016/17. The loss of these is less significant than the ones on the 17th fairway, since an additional bunker had already been built further down, but we would prefer to see the far left one of the three restored since it added framing qualities to the hole.

Old cart path was removed when tees were relocated.

- Tee enlarged to rear in 2003 and tee positions altered between 1979-2003.



5. <u>Relationship between Holes, Features and Complete Golf Course</u>

- 5.1. Since the layout of the holes is a key heritage attribute of the golf course, which gives it its 'spoke-and-wheel' design, the arrangement of all the holes and the relationship between them needs to be protected. Although the 'spokes' are most evident in the Tableland holes directly around the clubhouse, the Valley holes are recognised as providing a very fine sequence of holes and *"the last three holes at Glen Abbey were the finest closing holes in golf"*²⁶ according to PGA Tour Player, Tom Weiskopf. A golf course layout needs to be considered in its entirety and the inter-relation of the holes, the change of par, hole length and difficulty throughout a round are carefully considered by the golf course architect during the early stages of the design. The way the holes lead the golfer through the landscape is also important and the sequence through the valley provide a rise in drama culminating in the three closing holes where the clubhouse is in sight.
- 5.2. The spectator mounds that give the course its Stadium-style design, which Glen Abbey and Nicklaus were at the forefront of starting, are very important structural elements of the golf course. They define many fairways and enhance the visual appreciation of the "spokes" of the wheel as a strong design concept. The viewing mounds are utilised not only to provide viewing opportunities for spectators during golf events but to support fairway bunkers and provide the backdrop to greens, giving them more than one purpose. Their retention is important not only to the interpretation of the design but also the integrity of the golf course layout and its design features.
- 5.3. The clubhouse is a key element in the masterplanning of the golf course and its unusual form complements and enhances the design concept which Nicklaus, and his team, came up with for the golf course. It is the lynch-pin of the design and the *hub* of the wheel and so it is important that its outward appearance, and continued purpose in servicing the needs of golfers, does not change.
- 5.4. A large practice ground that can sustain the demands of practice during tournament golf, the availability of an area for a spectator village and corporate hospitality, and space to accommodate large numbers of spectators are required to host PGA tournaments such as the Canadian Open, which the course is so strongly associated with. The continued ability for the course to host such tournaments is preferable, but not essential, to maintaining its cultural heritage attributes but we would recommend that high-quality practice facilities which golfers expect when they come to play a course of this stature are retained.
- 5.5. The sequence of hole length, par and challenge each hole affords was carefully considered in the design of the original golf course. In relation to the design of the par 5's Nicklaus stated that they were designed as "*intrinsically par 4¹/₂*'s the green within reach in two if the golfer puts a pair of long, accurate shots together." ²⁷ Although the original par 5, 1st hole, was changed to a long par 4 shortly after the course opened and the 16th turned into a par 5 to maintain the total par, this alteration was carried out with the input of Nicklaus Design and so was one of the early refinements that Nicklaus liked to make to a new course once he had seen how it played. We would recommend that the hole lengths are generally maintained as they are, although there may be some justification for lengthening one or two holes, where there is space to do so, to reinstate the challenge which they originally presented where technology has changed the landing area for the drives significantly.

²⁶ (Glen Abbey Golf Club)

²⁷ (Glen Abbey Golf Club)

- 5.6. The course was designed with up to 4 tees on each hole to offer a range of hole length so that the golf course could be used "not only for the tournament player but for the average golfer."²⁸ so the protection of this element of the course design should be strongly encouraged.
- 5.7. The greens were designed by Jack Nicklaus to be small (he stated an average of 5000 square feet although they appear to have been built a little larger than this) since he believed in rewarding "precision, not power" and believed: "large greens detract from the finesses demanded in chips, pitches and sand shots. Finally the larger the greens the slower the traffic; the longer the putt the longer a player spends over the putt."²⁹ If any changes are permitted to the greens these should be carried out sensitively and maintaining Nicklaus' design philosophy. The green shapes and contours are key to the strategy of each hole and should generally be protected and only minor modifications, with good justification, should be permitted if they are not detrimental to the playing strategy of the hole. The one exception is the 11th green which we recommend is rebuilt closer to its original configuration. The greens which we have identified as having special interest should be preserved as they are.
- 5.8. The bunker sizes, depths, and positions are intrinsic to the challenge and strategy each hole presents and so great care needs to be taken when proposing alterations to them. We would generally recommend that no bunkers are removed from the sides of fairways unless another is reinstated to maintain the same bunkering pattern and reinstate the challenge which the old bunker configuration provided. The green bunkers should be maintained in their current positions and only minor alterations or renovations should be permitted. The "Tiger Woods" bunker" to the right of the 18th fairway should be given special protection and maintained in its current form.
- 5.9. The views across and within the golf course are important to its setting and cultural landscape heritage value of the course and these should be protected from inappropriate development. The lakes were built both as key features in the golfing challenge on a number of holes and also for their aesthetic role in forming picturesque views across the course and between holes. Any changes proposed to the perimeter shapes of the lakes needs to be very carefully considered even if the area in question is not directly involved with play on a hole. The shape of the river is also key to the play of holes 11-14 and the holes were very carefully arranged to maximise the way it was used to provide a variety of challenges for the golfer to play each hole. The river corridor should be maintained on its current path if at all possible.
- 5.10. As we discussed earlier the inappropriate planting of trees, or unchecked natural establishment of woodland, can be very damaging to the integrity of the heritage attributes of the golf course. The trees and woodland areas on the golf course need to be carefully managed to ensure that no other greens like the 11th require to be rebuilt, or other features lost, due to lack of timely intervention and no new tree or shrub planting should be permitted without approved planting plans and a woodland management plan being put in place.

Conclusion

5.11. We would recommend that a golf course architect with heritage experience, and ideally a good appreciation of Nicklaus' design style and work, should be employed to carry out any alterations to the Glen Abbey golf course in the future so that it can be done in a sensitive manner and only where the benefits can be shown to outweigh the potential damaging impact of such changes. Any proposals for change which are made should be scrutinised by a golf

²⁸ (Glen Abbey Golf Club)

²⁹ Barclay, Golf In Canada: A History. 1992. Print. p. 575-576

course architect with similar experience and no financial or political interest in the changes being proposed.

6. Documents Reviewed and/or Referenced

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- *TPC Sawgrass and PGA TOUR History TPC*. (n.d.). Retrieved August 4, 2017, from TPC: https://tpc.com/sawgrass/history/
- Wired Press Release. (1974). Canadian Open Finds New Home Nicklaus' company to design course. Original wire copy story and wire photo moved across USA and Canada.

OTHER DOCUMENTS REVIEWED

VOL	VOLUME 1 – 1960's-1970's Documents Reviewed					
А.	Overview Documents					
1.	List of archival documents available at Golf Museum					
2.	Glen Abbey Golf Club (written story)					
3.	No title - Glen Abbey one-page summary 1930's – 1999					
4.	1333 Dorval Drive – RayDor Estate House					
5.	A Few Notes on "Raydor", the present home of Glen Abbey Golf Club					
6.	Glen Abbey Past & Present					
7.	The Little Monk of Glen Abbey					
B.	1960's Articles/Documents					
1.	Oakville Beaver – Country Club Project Announced					
2.	Glen Abbey Golf and Country Club flyer					
3.	The Telegram – Oakville Estate Sold for \$1 million					
4.	Upper Canada Country Club Newsletter No. 4					
C.	1970's Articles/Documents					
1.	Great Northern Capital Fact Sheet					
2.	Lease agreement between Home Smith/RCGA/Great Northern Capital Ltd.					
3.	RCGA Press Release – permanent home for Canadian Open/Jack Nicklaus					
4.	Golden Bear Inc. Press Release – Jack Nicklaus to design course					
5.	Le Devoir article					
6.	Toronto Sun – Nicklaus Designs Course					
7.	Canadian Open finds a home					
8.	The Gazette – Canadian Open gets a home as Nicklaus produces design					
9.	Toronto Star - Nicklaus builds a Canadian Open home					

10.	Atlanta Constitution – Permanent Home Set for Canadian Open
11.	Columbus Citizen-Journal – Nicklaus builds Open course
12.	Glen Abbey course to become permanent site for Canadian Open
13.	Nicklaus builds a Canadian Open home
14.	The Spectator – Oakville hails news of Open's Glen Abbey site
15.	Globe and Mail – Builders of new golf course facing environmental charges
16.	RCGA HQ move-in announcement
17.	Weekend Magazine – the Course that Jack Built
18.	Jack Nicklaus design cost article
19.	Acomb shines Nicklaus image at Glen Abbey
20.	RCGA poster sent to member clubs – donation of equipment, books, etc.
21.	The Gazette – Rain stymies Glen Abbey for 1976 Canadian Open
22.	Glen Abbey comes of age
23.	Precision key to course Jack built
24.	The South African money behind the money
25.	Glen Abbey Golf Club brochure – incl. description of all holes
26.	Glen Abbey brochure/pamphlet for Canadian Open
27.	Dorval Dr. won't get name change
28.	The new landlord – Genstar didn't start out as rent-a-bunker
D.	1970's Images/Maps
1.	Great Northern Capital Map of Glen Abbey area
2.	General setting and flow map, Oct 29, 1973
3.	Various construction images from newspapers
4.	Black and white aerial image (no date)
5.	Jack Nicklaus' map of Glen Abbey

6.	Canadian Open '77 map of golf course							
VOL	VOLUME 2 – 1980's-2000's documents reviewed							
E.	1980's Articles/Documents							
1.	Genstar Development Co – Glen Abbey Buzzes with Activity							
2.	Gillanders Construction Quote – Proposed Extension to Hall of Fame							
3.	Toronto Star – the high cost of golf							
F.	1980's Images/Maps							
1.	1988 map of Glen Abbey Golf Course							
G.	1990's Articles/Documents							
1.	Town of Oakville (Sept 6, 1991) – notice regarding Heritage Status of Museum							
2.	Town of Oakville (May 26, 1992) – invitation to LACAC meeting							
3.	LACAC Heritage Meeting Minutes (July 20, 1992)							
4.	Town of Oakville (August 10, 1992) – heritage designation letter							
5.	Town of Oakville (September 8) heritage staff report and letter							
6.	Town of Oakville (Sept. 11, 1992) – newspaper notice							
7.	RCGA letter (Oct 8 1992)							
8.	Town of Oakville (Nov. 16 1992)							
9.	Conservation Review Board letter (Jan 8 1993)							
10.	Town of Oakville (August 17 1993)							
11.	Town of Oakville (Sept. 24 1993)							
12.	Town of Oakville (October 19 1994)							
13.	Toronto Star – Glen Abbey Sale in Works; Open in Limbo							
14.	RCGA Press Release – Sale of Glen Abbey to ClubLink							
15.	Nelson News – Golf a money maker, even when economy slows							
16.	Golf News – RCGA sells Glen Abbey to ClubLink							

17.	Financial Post – ClubLink Snaps up famed Glen Abbey
18.	Ottawa Citizen – ClubLink Corp. share value
19.	Fort McMurray Today – Golf Scores an Ace – Sport a money-maker, even when economy slows
20.	Lethbridge Herald – Glen Abbey peddled away as RCGA revamps focus
21.	The Globe and Mail – Canadian Open's home at Glen Abbey sold to private operator
22.	Financial Post – Sale of Glen Abbey is a real blockbuster (illegible)
23.	Calgary Herald – World-class golf centre planned
24.	Saint John Times Globe – Sale of Glen Abbey was a no-brainer (illegible)
25.	King Weekly - ClubLink and Bell working together (illegible)
26.	Cambridge Reporter – Deerhurst a great walk in the park (illegible)
27.	ClubLink drives golf marketing
28.	The Mississauga News – Residents voice their concerns over possible new RCGA golf centre site <i>(illegible)</i>
29.	The Globe and Mail – ClubLink completes three financings
30.	The National Post – ClubLink completes three financings totaling \$115M
31.	Tourism Minister suggests RCGA plan an opportunity/Glen Abbey attracts 250,000 annually
32.	Letter of the Week – Residents should back RCGA plan
33.	Oakville Beaver – How not to win friends and influence residents
34.	Oakville Beaver – Oakville domes change hands again <i>(illegible)</i>
35.	Peel/Halton Bureau – Golf course plans opposed
36.	Hamilton Spectator – Pesticides on golf course would endanger the water
H.	1990's Images/Maps
1.	1991 map of Glen Abbey Golf Course
2.	1995 aerial photos x 4

3.	1999 aerial photos x 4
I.	2000's Articles/Documents
1.	Oakville Beaver - Golf course in park not worth the gamble
2.	Edmonton Journal – RCGA drops Bronte Creek from list
3.	Globe and Mail – Golf association nixes plan for course at provincial park
4.	Oakville Beaver - RCGA drops Bronte Creek PP from short list/Opposition group now eyes campground proposal
5.	Abbey Oaks News – RCGA drops Bronte Creek from site list
6.	Elevated Green Fees won't hurt that much
7.	Oakville Beaver – editorial – Small victory
8.	Burlington Post – RCGA drops Bronte Creek Park as possible site for course
9.	NAGA - Economic Impact Study of Golf in Canada
J.	2000's Images/Maps
1.	2002 aerial images x 4
2.	2006 aerial images x 3
3.	2008 aerial images x 4
4.	2010 aerial images x 4
5.	2012 aerial images x 4
6.	2015 aerial images x 5
7.	2016 map of Glen Abbey Golf Course
K.	Drawings
1.	Drawings for proposed extension to Golf Hall of Fame
L.	Misc.
1.	Map of Glen Abbey Golf Course (no date)
2.	Aerial photos (no date)

7. <u>Appendix:</u>

- A. Curriculum Vitae for Ken Moodie
- B. Curriculum Vitae for Neil White
- C. Key Events & Changes to the Course (table).
- D. Email from Ray Ball, Nicklaus Design, 22nd June 2017
- E. Agronomy Design Report, 27th April 2004
- F. PGA Tour Courses 2017 (table)
- G. Scope of Retainer from Town of Oakville

Item A)



Curriculum Vitae for Ken Moodie, Director

Professional Qualifications

Senior Member & Past President (2007/09) of the European Institute of Golf Course Architects

Professional Accomplishments

Societies

Associate Member of the The Alister MacKenzie Society of Great Britain & Ireland which recognises the work of this historic architect by arranging events on courses he designed.

Awards

Renovation of the Year 2014 from GolfInc Magazine Renovation of the Year 2005 from Golf World Magazine The President's Award for services to the Institute from EIGCA in 2002

Conference Speaker for:

English Golf Union Royal Institute of Chartered Surveyors European Institute of Golf Course Architects Federation of European Golf Greenkeepers Associations Czech Greenkeepers Association British & International Greenkeepers Association Real Estate Conference, Zagreb, Croatia

Relevant Publications / Reports

Co-authored a report for English Heritage entitled "Golf Courses as Designed Landscapes of Historic Interest"

Golf Course Reports, including review of the historic context of the course design, for over 50 golf clubs.

Expert Evidence

Theresa Liddiard v World of Golf Centre (expert witness report on cause of flooding issues) Taffes v Acanthus Golf Centre (expert advice on safety issue including at Court Hearing) La Grande Mare Planning Enquiry (expert witness at Court Hearing supporting golf course development project)

Employment History

May 1998 - present	Director/Principal Golf Course Architect	Creative Golf Design Ltd, Chester, UK
June 1996 – April 2001	Part-time Course Director for EIGCA Education Programme	EIGCA, Worplesdon, Guildford, UK

Associate/Golf Course Architect

Hawtree Ltd, Woodstock, Oxford, UK

July 1988 – March 1989

Research Assistant

Heriot-Watt University, Edinburgh, UK

University Education

August 1988	BA Honours Degree in	Heriot Watt University,
	Landscape Architecture	Edinburgh, UK

Projects

PROJECT NAME/ GOLF CLUB	COUNTRY	NEW COURSE (N) OR REMODEL (R)	No OF HOLES	DATES OF WORK	DESCRIPTION OF WORK
Acanthus Golf Centre	UK	-	9	2011- 2013	Expert witness for complainant regarding balls escaping from golf course & driving range into neighbours land. We helped to win our Client's case.
Aldeburgh Golf Club	UK	R	18	2005 onwards	Plans & construction guidance for phased improvements to the course.
Alwoodley Golf Club	UK	R	18	2009 onwards	Restoration & improvement of all the bunkers on the course in a phased programme of work, following a detailed Course Report to reinvigorate this classic Alister MacKenzie designed course.
Ashford Manor Golf Club	UK	R	18	2003- 2004, 2014	Full course appraisal and report leading to course improvements.
Ashton & Lea Golf Club	UK	R	18	2007- 2008	Proposals for developing new practice facilities.
Ashton in Makerfield	UK	R	18	2008	Safety advice for Highways Agency.
Astbury Golf Club	UK	R	18	2005	Plans for new putting green.
Aylesbury Park Golf Centre, Aylesbury	UK	N	18	1994	Layout design for new 18-hole golf course.
Badgemore Park	UK	R	18	2013	Course Review.
Ballards Gore Golf Club	UK	-	27	2006- 2008	Design plans for the major redevelopment of golf course to provide new 18-hole championship course, remodelled 9 holes, 6-hole par three course and driving range.
Blackmoor Golf Club	UK	R	18	2005- 2008	Course Review & bunker redevelopment project.
Blyth Golf Club, Newcastle	UK	R	18	1997, 1998, 1999,	Full course report leading to a bunker re-siting and remodelling programme.

				2000	
Bradford Golf Club	UK	R	18	1999	Full course appraisal and report.
Bramall Park Golf Club	UK	R	18	2001, 2004- 2005	Course Review, detailed construction drawings & supervision for bunker redevelopment project.
Brancepeth Castle Golf Club, Durham	UK	R	18	1994	Full course report leading to design and supervision of bunker alterations on three holes.
Brokenhurst Manor Golf Club	UK	R	18	2010	Course Review with proposals for improvement.
Bruntsfield Links	UK	R	18		Course Review with proposals for improvement.
Burgham Park	UK	R	18	2008	Advice on a couple of holes.
Burningfold Manor	UK	N	18	1999	Design of putting green for private garden.
Bury Golf Club	UK	R	18	2008	Advice on relieving impact of new pipeline.
Buxton High Peak Golf Club	UK	R	18	2001	Design drawings and advice for alterations to allow a new road to be constructed on the edge of the course.
Canterbury Golf Club	UK	R	18	2002	Report and plans for redeveloping the practice ground and constructing a new nine-hole course.
Carlisle Golf Club	UK	R	18	2010	Advice on costs for possible new holes.
Carrick Knowe Golf Club, Edinburgh	UK	R	18	1994, 1996- 1998	Advice on layout alterations to accommodate new bus route.
Cathcart Castle Golf Club	UK	R	18	2002	Full course report with proposals for improvement.
Cherwell Edge Golf Club	UK	R	18	2000	Course improvements based on a Bunker Appraisal Report.
Chester Golf Club	UK	R	18	2002- 2006	Reconstruction of 3 greens and construction of new chipping facility. Advice on the development of new practice facilities.
Chester-le-Street Golf Club	UK	R	18	2015 - ongoing	Course Review leading to course improvements.
Chesterfield Golf Club	UK	R	18	2012	Course Review and proposals for altering layout of golf course.
Chirk Golf and Country Club, Oswestry	UK	R	18	1994	Detailed course report resulting in some improvement work.

Coordina Lilli Carlf		D	10	2002	Course Deview leading to constant
Coombe Hill Golf Club	UK	R	18	2003- 2004	Course Review leading to complete bunker renovation and repositioning project and other course improvements. Won Renovation of the Year Award 2005 for work.
Copt Heath Golf Club, Solihull	UK	R	18	1989- 1993	Assisted in design and supervision of major alteration work to existing golf course.
Cosby Golf Club, Leicester	UK	R	18	1995, 1996, 2002	Design and construction supervision of two new greens and remodelling of four others. Proposals for reconstruction of 1st green.
Coxmoor Golf Club	UK	R	18	2015 onwards	Course Review followed by plans and supervision for course improvements.
Cruden Bay Golf Club	UK	R	18	2006	Advice on areas of course improvement.
Cuddington Golf Club	UK	R	18	2010- 2013	Course Review leading to some course improvements.
Danubia Park, Bratislava	Slovakia	N	18	2008- 2010	Development of detailed planning drawings for new 18-hole championship course plus driving range and short-game practice facility.
Davenport Golf Club	UK	R	18	2013	Advice on safety issue and possible areas of course improvement.
Deeside Golf Club, Aberdeen	UK	N	18	1996	Construction supervision of 11 new holes for existing golf club.
Denham Golf Club	UK	R	18	2012	Advice on bunker styling and construction techniques.
Didsbury Golf Club	UK	R	18	2004	Advice on safety and design issues.
Dorrington Park Golf Centre, Harlow	UK	N	36	1995	Layout design for 36 holes and earthworks drawings for planning application which was successfully obtained.
Dortmunder Golf Club	Germany	R	18	2010- 2014	Course Review leading to plans and supervision of improvements to holes 2, 4, 9, 13, 14 & 15.
Drienovec	Slovakia	N	18	2006- 2007	Layout design for new 18-hole golf course, driving range and short-game practice area.
Dulwich & Sydenham Hill Golf Club	UK	R	18	2006- 2014	Phased improvements to the course following Bunker Strategy Report.
Dunstable Downs	UK	R	18	2012	Advice on safety issue.
Eaglescliffe Golf Club	UK	R	18	2000- 2001	Report, plans and supervision of remodelling work to deal with a safety issue on 12th hole.

		I			
Easingwold Golf Club	UK	R	18	2008	Course Review
Eaton Golf Club	UK	R	18	2006	Advice on improving a few holes.
Eerste Tilburgse Golf Club, Tilburg	Holland	N	9	1996- 1997	Supervision of construction of 9-hole golf course.
Elsham Golf Club	UK	R	18	2010	Proposals for improving 18th green.
Elstree Golf Club	UK	R	18	2009	Proposals for improving driving range & course layout.
Erewash Valley Golf Club, Nottingham	UK	R	18	1995	Design of six new greens and some supervision.
Falcon Hills	Bulgaria	N	18	2008	Feasibility study for new golf course to help with land selection.
Finchley Golf Club	UK	R	18	2008	Course Review
Finlows Villa	UK	N	3	2010	Plans for 3-hole private golf course.
Flackwell Heath Golf Club	UK	R	18	2003	Full course appraisal and report. Drawings and inspection visits for bunker alterations on the 16th hole.
Garstang Golf Club	UK	R	18	2008, 2016	Course Review. Advice regarding possibly relocation of the driving range & layout changes required.
Gog Magog Golf Club, Cambridge	UK	N	11	1995	Contract supervision for 11-hole extension to existing facility.
Golf Bela, Zilina	Slovakia	N	27	2008- 2009	Layout design for new 27-hole golf development with practice facilities.
Golf de La Jenny, Bordeaux	France	N	3	1993	Construction supervision for 3-hole course.
Goring & Streatley Golf Club	UK	R	18	2015	Advice on siting & design of possible new golf academy.
Grange Park Golf Club	UK	R	18	2002	Design and contract administration for construction of new 17th green.
Grassmoor Golf Centre	UK	R	18	2004- 2011	Improvements to 18-hole course and driving range involving the introduction of landfill material to form mounds and rebuild certain tees and greens. A 5-hole golf academy is also planned.
Hadley Wood Golf Club	UK	R	18	2002	Design and contract administration for construction of new 2nd, 6th & 16th tees with timber sleeper walls.
Hale Golf Club	UK	R	9	2012	Course Review for 9-hole course.
Hartsbourne Golf Club	UK	R	18	2004	Advice on a few selected holes.

		D	10	0000	Demonstration and the end of the
Hazel Grove Golf Club	UK	R	18	2002- 2004	Report on possible course improvements. Plans and contract management for the remodelling and re-siting of bunkers on 8 holes as the first phase of a two-year programme.
Helsby Golf Club	UK	R	18	2008	Course Review with proposals for improvement.
Hermagor Golf Club	Austria	N	18	2005	Layout plans for a new golf development.
Houghton on the Hill	UK	N	27	2016	Layout designs & site selection advice for possible relocation of Scraptoft Golf Club.
Iford Bridge Golf Centre, Bournemouth	UK	N	18	1997	Layout and detailed design for new 18 hole golf course, driving range, short practice area and linkage with existing 9-hole course. Construction drawings and contract administration of first phase of development.
Jablanove	Slovakia	N	27	2009	Layout design for new 27-hole golf centre with 18-hole par 3 course & driving range.
John O'Gaunt Golf Club, Cambridge	UK	R	18	1993	Full course report with proposals for improvement.
La Grande Mare Golf Club, Guernsey	UK	N	18	1993	Provided expert evidence at Public Inquiry which resulted in a successful result for the client. Various visits to provide advice on the development of the 18-hole course being built by the Client.
La Romana	Dominic an Republic	N	9	2010	Layout plan & construction drawings for 9-hole Par 3 Course.
Leven Links Golf Club	UK	R	18	1997	Detail design proposals for improving six holes.
Lindrick Golf Club	UK	R	18	2012-15	Course Review leading to course improvements
Linlithgow Golf Club, nr Falkirk	UK	R	18	1994	Advice on new bunker positions.
Linzer Golf Club, Linz	Austria	R	18	2003	Advice on redevelopment of two holes on existing course.
Longridge Golf Club	UK	R	18	2007	Proposals for improving 1st hole.
Macclesfield Golf Club	UK	R	18	1998, 1999, 2002, 2003	Advice on course improvements. Design and contract administration for new 2nd, 9th and 18th greens.
Manchester Golf Club	UK	R	18	2003	Advice for alterations required to overcome a safety issue.

Manager and a set of a life			10	4004	
Mapperley Golf Club, Nottingham	UK	R	18	1994, 1996, 1997, 1990, 1999	Full course report leading to extensive course improvement work on a phased basis.
Marine Golf Club, Sylt	Germany	N	18	2003- 2005	Detailed design and contract administration for new 18-hole championship links course which opened in September 2006.
Matlock Golf Club	UK	R	18	2008	Proposals for new holes to enable housing development.
Mickleover Golf Club	UK	R	18	2014 - ongoing	Advice on layout alterations required to accommodate housing.
Middlesbrough Golf Club	UK	R	18	2002	Advice and plans for the redevelopment of the putting green and short-game practice facilities.
Minchinhampton Golf Club, Stroud	UK	N	18	1994-95	Design & contract supervision of tree planting proposals for new 18-hole course.
Mold Golf Club, North Wales	UK	R	18	1991	Detail design and contract administration for two new holes.
Moor Park Golf Club	UK	R	18	2002	Course strategy plan looking at bunker repositioning and reconstruction on the High Course.
Moortown Golf Club	UK	R	18	2004- 2013	Full course report providing proposals for improving the challenge of the course for top amateur golfers and reinstating the Mackenzie character of the original design. Ongoing course improvements including green, bunker and tee reconstruction. Won Golf Inc Course Renovation of the Year 2014 for work.
Muirfield Golf Club	UK	N	9	1994	Assistance with the development of a layout for a possible 9-hole extension and initial discussions with the planning authority and Scottish Heritage.
Muswell Hill	UK	R	18	2007- 2015	Course Review and some improvements implemented. Advice on safety issue.
Newark Golf Club	UK	R	18	2005- 2011	Full course report with proposals for improvement. Work being implemented over 6 year period.
Newcastle-under- Lyme Golf Club	UK	R	18	2005- 2012	Full course report with proposals for improvement. Course improvement work - mainly bunker improvements - over several years.
Newtown Golf Club,	Eire	N	18	1993	Full design of 18-hole golf course.

Dublin					
North Hants Golf Club	UK	R	18	2004 - ongoing	Ongoing course improvements following an initial Course Review.
North Manchester Golf Club	UK	R	18	2000	Report on increasing the challenge of the par 5's.
North-west National Golf Club	UK	R	18	2010	Advice on a safety issue for St Helens' Council.
Northwood Golf Club	UK	R	18	2013- 2014	Proposals for improving a few holes.
Notts (Hollinwell) Golf Club	UK	R	18	2002- 2006, 2015	Report with proposals for improvements required for the Club to host a major tournament such as the Walker Cup. Detailed design and supervision of construction work related to above.
Old Padeswood Golf Club	UK	R	18	1999- 2000	Full course report leading to the reconstruction of two greens.
Ombersley Golf Club	UK	R	18	2009	Proposals for improving golf course.
Penwortham Golf Club	UK	R	18	2001	Full course report on possible improvements. Detailed drawings and construction administration for the reconstruction of 17 greens to USGA specification.
Perranporth Golf Club	UK	R	18	2001	Report with a view to implementing a number of course improvements. Design drawings and budget costs for alterations to four holes.
PGA Golf Academy, Schladming	Austria	N	3	2004- 2005	Design plans & documents for golf academy for PGA of Austria including a driving range, large putting green, short-game practice area and 3-hole golf academy course.
Pine Cliffs Golf Club	Portugal	N	9	1993	Design and construction visits for the extension to the golf academy.
Pitreavie Golf Club	UK	R	18	2016	Course Review for Alister MacKenzie designed golf course.
Portmarnock Golf Club	Eire	R	27	2000	Design of new chipping green and supervision of shaping of this and remodelling work to greens 12, 13 & 16.
Poynton Relief Road	UK	-	9	2014	Safety and course redesign advice in relation to optional routes for a new road next to Adlington Golf Centre
Poulton Park Golf Club	UK	R	9	2007- 2009	Construction plans and advice for redeveloping practice facilities including artificial grass pitching green.

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Prenton Golf Club, Wirral	UK	R	18	1997, 1998	Advice on course improvements.
Prestbury Golf Club, Macclesfield	UK	R	18	1995, 2000	Advice on course improvements. Plans and contract administration for the repair of bank slippage in front of 17th green.
Radyr Golf Club	UK	R	18	2016	Safety advice for developer planning housing on boundary of golf course.
Real Golf de Bendinat	Mallorca	N	9	1994- 1996	Detail design of 9-hole extension (integrated with housing development) and full-time contract supervision for a period of six months.
Reaseheath Golf Club	UK	R	9	2012	Safety advice.
Ringway Golf Club, Manchester	UK	R	18	1993	Detailed report for course improvements.
Roehampton Club	UK	R	18	2009- 2015	Course Review leading to a major course redevelopment project.
Royal Birkdale Golf Club, Southport	UK	R	18	1993, 1994, 1999	Assisted in the redesign and supervision of all 18 greens plus putting green at this Open Championship venue. Also advice on bunkers design and shaping.
Royal Blackheath Golf Club	UK	R	18	2014- 2015	Course Review leading to a major golf course improvement programme over 3 year period.
Royal Golf Club de Belgique	Belgium	R	18	1992, 1993, 1996, 1997 & 1998	Detailed design work and supervision for extensive course improvements in several phases.
Royal Wimbledon Golf Club	UK	R	18	2002	Course report leading to major bunker redevelopment project.
Rudding Park, Harrogate	UK	N	18	1993- 1994	Tree planting plans for new 18-hole golf course.
Rufford Park Golf Centre	UK	R	18	2004- 2009	Advice on further course improvements following other successful projects.
Saddleworth Golf Club	UK	R	18	2004	Full course report with proposals for improvement.
Sandiway Golf Club	UK	R	18	2003	Course Review. Design and construction inspection visits for bunker remodelling on the 6th hole.
Selby Golf Club	UK	R	18	2005	Plans for improving 13th hole.
Shanklin & Sandown	UK	R	18	2007, 2012	Proposals for improving certain holes and practice facilities.

Champing and Engine		Б	10	2005	Disvise strate we say of followed by
Sherwood Forest Golf Club	UK	R	18	2005- 2013	Playing strategy report followed by phased course improvement project.
				2013	
Shillington Golf	UK	N	6	2003-	Plans & construction drawings for
Course			-	2008	short golf course.
Shipley Golf Club	UK	R	18	2002	Full course report with proposals for
					improvement.
Circura Calf Olub	Denmanlı	NI	40	1001	Assists die the dateil desire and
Simons Golf Club, Copenhagen	Denmark	N	18	1991- 1992	Assisted in the detail design and contract administration for new 18-
oopennagen				1002	hole course which has held PGA
					European Tour events.
South Beds Golf	UK	R	18	2002	Full course report and plans for re-
Club					bunkering.
Couth Llanta Calf	UK		10	2006	Full course report loading to humbre
South Herts Golf Club	UK	R	18	2006- 2009	Full course report leading to bunker repositioning and remodelling project
Jub				2009	over 3 years.
St Leon-Rot Golf	Germany	R	18	2016	Woodland Management Report and
Club	-				other advice for Rot Course
<u></u>		<u> </u>			
St Neots Golf Club	UK	R	18	2002	Plans for reconstructing 9th green.
St Veit	Austria	N	18	2004-	Layout design for possible new golf
Siven	Austria	IN	10	2004-2005	course
				2000	course
Staket Golf Centre,	Sweden	N	6	2006	Plans for new 6-hole par 3 course
Stockholm					and driving range.
Stanmore Golf Club	UK	R	18	2009	Proposals for improving 11th hole.
Stevenage Golf	UK	R	18	2007	Dranagala for improving calf course
Club	UK	ĸ	10	2007	Proposals for improving golf course using land-fill.
0100					
Stockport Golf Club	UK	R	18	1998,	Course report and detailed design for
				1999	green, tee, and bunker
					reconstruction.
Stookwood Dark		N	0	2002	Advise on altering 19 hole service
Stockwood Park Golf Centre	UK	N	9	2003- 2005	Advice on altering 18-hole course layout to allow for development of a
				2005	new leisure centre on the site of the
					clubhouse.
Stoke Park Golf	UK	R	18	1992	Full course report leading to course
Club					improvement work.
Stopphone Calf Club		Б	10	2012	Course Poview
Stoneham Golf Club	UK	R	18	2012	Course Review.
Stourbridge Golf	UK	R	18	1998	Report on bunker condition and
Club				1000	locations with proposals for re-siting
					and remodelling.
					, C
Styal Golf Centre	UK	R	18	2012-	Layout plans & construction drawings
				2014	for redeveloping course with new
					holes to accommodate new road.
Tadmarton Heath	UK	R	18	2010-	Course Review, plans & construction
			10	2010-2016	advice for improving course and
					bunkers.
	•	•		•	-

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Teignmouth Golf Club	UK	R	18	1997	Design and supervision of new 16th green.
The Drift	UK	R	18	2008- 2009	Course Report leading to some improvements
The Leicestershire Golf Club	UK	R	18	2001	Advice on the redevelopment of the practice facilities and other aspects of the course.
The Oaks, Mollington Golf Club	UK	R	18	2012	Advice on possible areas of course improvement.
Thornbury Golf Centre, Thornbury, Bristol	UK	N	36	1989- 1992	Detailed design of 18-hole par three course and joint supervision of construction for main course (36 holes).
Thorndon Park Golf Club	UK	R	18	2016	Course Review with proposals for improvement.
Thorpeness Golf Club	UK	R	18	2009 onwards	Course Review leading to course improvement project.
Torquay Golf Club	UK	R	18	1997	Supervision of reconstruction of two greens and tee.
Upton-by-Chester Golf Club	UK	R	18	2003- 2005	Detailed drawings and contract administration for 16 new greens, new putting green and chipping area in two phases
Utrecht 'De Pan' Golf Club	Holland	R	18	1995, 1997, 1998	Assisted with detailed course report leading to course remodelling including two new greens and bunker renovation.
Veresegyhaz	Hungary	N	18	1991	Full design of 18-hole golf course for combined golf & housing development.
Vicars Cross Golf Club, Chester	UK	R	18	1999- 2002 & 2006	Detailed report for existing golf club with proposals for improvement. Reconstruction of 18 greens to USGA specification in 4 phases, including bunker alterations to improve the strategy of the holes.
Vilamoura Millennium Golf Course, Algarve	Portugal	N	18	1998- 2000	Detailed design of new 9 holes and reconstructed 9 holes for joint golf & housing development plus supervision of construction.
Warkworth Golf Club	UK	R	18	2000	Report on potential course improvements.
Warrington Golf Club	UK	R	18	2004- 2012	Course Review followed by bunker redevelopment project.
Welwyn Garden City Golf Club	UK	R	18	2007- 2014	Strategic Report for improving course which is currently being implemented.
West Derby Golf	UK	R	18	2016	Advice on a safety issue.

Club					
Weston Super Mare	UK	R	18	2012	Plans for developing new holes to solve safety issues.
West Surrey	UK	R	18	2015	Course Review with proposals for improvement.
Weybrook Park Golf Club	UK	N	18	2005 onwards	Design of 9 hole extension to existing 18-hole facility & plans for redeveloping existing holes.
Whiteley Golf Course, Southampton	UK	N	18	1992	Layout design and earthworks plan for planning application relating to course incorporating some fairway housing. It was later constructed without supervision.
Willesley Park Golf Club	UK	R	18	2015	Advice on a safety issue.
Willow Valley Golf Club	UK	R	18	2016	Course Review.
Woodbridge Golf Club	UK	R	18	2009- 2013	Course Review & plans for course improvements.
World of Golf, Croydon	UK	-	-	2016	Expert witness acting for complainant regarding alleged flooding from driving range in neighbours land.
Worplesdon Golf Club	UK	R	18	2008- 2011	Course Review & plans for course improvements.
Wouwse Plantage Golf Club	Holland	R	18	2002	Full course appraisal and report.
Wrexham Golf Club	UK	R	18	2014	Course Review with proposals for improvement.
Wrexham Road	UK	-	-	2013	Expert advice on safety of new roadway in relation to Clays Golf Centre & Wrexham Golf Club.
Wychwood Park Golf Development, Crewe	UK	N	18	1997- 1999	Full design & construction supervision for integrated golf, hotel & housing development.
Wynyard East Course, Cleveland	UK	N	18	1994-95	Design of tree planting proposals and contract supervision for joint golf & housing development.
Zarandieh Golf Course	Iran	N	18	2010	Masterplan development for new 18 hole championship golf course.

Item B)

Curriculum Vitae for Neil White, Evolve Golf Course Design (sub-consultant)

Personal statement

Evolve Golf Course Design Ltd. is headed up by Neil White, a long-time admirer and student of both the 'art' of golf course architecture and its rich history.

He has over 15 years of experience in the golf business having previously worked as a greenkeeper; a role that has given him a unique perspective of how design influences playability and maintenance practices, and has visited in excess of 350 courses throughout the UK, Europe and America.

Alongside his design practice, Neil writes for regional golf magazine, **Midlands Golfer**, primarily covering course reviews and regularly contributes to <u>GolfClubAtlas.com</u>.

A member of The Enville Golf Club, Neil plays off a handicap of 11.

Qualifications

1992 - 1994 Greenkeeper at The Enville Golf Club, Stourbridge whilst studying for NVQ levels 1 & 2 in Horticulture (Amenity)

2013 - 2015 Undertook EIGCA Vocational Qualification in Golf Course Design achieving a distinction for Part One.

Work history - greenkeeping

Trainee / assistant greenkeeper - The Enville Golf Club, Stourbridge

Head greenkeeper - Addlethorpe Golf Club, Skegness

Work history - design

2013 - ongoing Solo projects

Evolve Golf Course Design Ltd.

- Site analysis, survey, detailed drawings & CAD / Photoshop presentation for 9-hole Par 3 course, Kingswinford, UK New Course / Completed
- Site analysis & CAD / Photoshop presentation for 9-hole re-development of Parley Golf Centre, Bournemouth, UK - **Re-development** / **Completed**
- Detailed design of practice putting green and bunker practice area for Parley Golf Centre, Bournemouth, UK Re-development / Completed
- Site analysis, survey, detailed drawings for single hole alteration, 7th hole, Evesham Golf Club, UK Redesign / On-going

2013 - ongoing Work closely with EIGCA Members Simon Gidman, Ken Moodie & David Hemstock on a number of re-design proposals and reports for existing clubs and courses - see below: -

Projects assisted with Ken Moodie at Creative Golf Design

- Routing options and bunker strategy review for Bruntsfield G.C, Edinburgh Existing Course
- Site analysis, routing options and report for re-location of Scraptoft G.C, Leicester New Course / Ongoing
- Bunker review and associated proposals for Denham G.C, Buckinghamshire Existing Course / On-going
- Heritage report for Glen Abbey Golf Club, Ontario, Canada Existing Course / On-going

Project assisted with for Hemstock Design

• Site analysis, routing options and reports for two confidential major golf developments in United Kingdom - New course / On-going

Projects assisted with for Simon Gidman Golf Course Architects

- CAD / Photoshop presentation for practice academy Collingtree Park Golf Club, United Kingdom Existing Course / On-going
- CAD / Photoshop presentation for 9-hole extension to existing 18 hole course, Oxfordshire, United Kingdom New Course
- CAD / Photoshop presentation for re-development of Hounslow Heath Golf Centre, United Kingdom Existing Course
- CAD detailed design for two hole alteration of Heacham Manor Golf Club, United Kingdom Existing Course / On-going
- CAD detailed design for 1-green alteration for Kirkby Muxloe Golf Club, United Kingdom Existing Course / Completed
- CAD / Photoshop presentation for 1-hole alteration for Hartley Wintney Golf Club, United Kingdom Existing Course / Completed
- CAD detailed design and associated planning documents for Ferrybridge G.C, North Yorkshire New Course / Completed
- CAD detailed design and Photoshop presentation for six hole alteration of Stover Golf Club Existing Course / On-going
- CAD / Photoshop presentation for alteration of Torquay Golf Club, United Kingdom Existing Course / On-going
- CAD / Photoshop presentation for alteration of Willesley Golf Club, United Kingdom Existing Course / On-going

2013 - on-going Work with EIGCA Associate Member, Jakub Cervenka on a number of new course proposals including those as co-designer - see below: -

Projects assisted with for Czech Golf Development

- Co-design including routing options and detailed design for new 18-hole course in Dobrouc, Czech Republic - New Course / In construction
- Site analysis and routing options for re-design of Golf Club Prague, Czech Republic Existing Course / On-going
- Co-design including routing options and detailed design for 18-hole golf course in Lipno, Czech Republic New Course / On-going
- Routing options for golf course 18-hole Heipark, Tosovice, Czech Republic New Course
- Routing options for Faldo Academy, Kestrany, Czech Republic New Course
- Co-design including routing options and detailed design for 6-hole course in Rapotin, Czech Republic New course / On-going

Item C) Key Events & Changes to Course

DATE	1976	1978	Prior to 1983 Canadian Open	Prior to 1986 Canadian Open	1986	Early 1990's	2003	2006	2008	2010-2012	2016
General Notes	Course opened. 3- year consultancy agreement with Nicklaus company put in place.				Nicklaus consultancy agreement still in place. "further evolution of the course" planned by Nicklaus's team but without Jack's involvement.	the new Upper Middle Road West required some changes to the right of the 15th green and the partial	Course was "tightened, lengthened and made more difficult with a series of alterations, especially on the back nine" since the course was not considered challenging enough to attract the top players. Fairways were narrowed with rough generally on the front nine with bluegrass replacing bent- grass areas of fairway.		The holes were renumbered for the Canadian Open to reduce the time required to play the course since players were now required to walk the whole distance. Holes 1, 2 and 3 play as holes 8, 9 and 7 during tournament conditions but remain the same during normal play.		
Hole 1		Changed from 489y par 5 to a 435y par 4 for tournament play (remained par 5 for normal play).	The right fairway bunker was removed.	The front green bunker reduced in size (at front).			Left fairway bunker slightly enlarged (looks like 1979 version) and fairway moved closer to bunker.				485y par 4 for Canadian Open
Hole 2		normal play).					Fairway cut closer to				
Hole 3							right bunker. Back tee widened (probably just mown back to old size). Sand- lines raised on rear bunkers back to old shape.				
Hole 4			Front-left corner of 4th green enlarged to make more receptive.				Last drive bunker enlarged to right (back to 1979 size).				
Hole 5							Fairway narrowed and back green bunker enlarged back to original size.				
Hole 6							Fairway narrowed and trees removed short-right of green.				
Hole 7							Back-left bunker				1
Hole 8							deepened by 2ft. Fairway mown closer to bunkers.				
Hole 9							Trees planted to left of drive landing area and fairway narrowed here. Hollow behind green reshaped.				

DATE	1976	1978	Prior to 1983 Canadian Open	Prior to 1986 Canadian Open	1986	Early 1990's	2003	2006	2008	2010-2012	2016
Hole 10							Fairway narrowed.				
Hole 11				Green rebuilt further from trees.			Sand-line raised on back right bunker (now gone).	Green completely rebuilt with new bunkers on front-left and rear-centre.		Back green bunker removed	
Hole 12			New tee built above Sixteen Mile Creek to make hole play as originally intended (no longer in play).				Large willow near tee removed. Tee levelled. Rear bunker enlarged closer to green edge and sand-line raised.				
Hole 13			μαγ.				Extended with a new enlarged back tee to lengthen hole to 558y. New hollow installed to back-left of green.				
Hole 14				Hollow modified at rear of green.			Lengthened by 15y with a new tee back and left of old tee. Fairway narrowed.				
Hole 15		Bunker in front of front-left bunker removed.				Back-right bunker removed & new mounding formed to right of green to partly screen viaduct.					
Hole 16				Green extended to left.			Made into a 480y par 4 for the Canadian Open while remaining a par 5 for regular play. Fairway narrowed and trees planted to left of drive landing area. A new bunker was built to the front-right of the green to stop bounce-up approach shots.				Restored to 516y par 5 for Canadian Open.
Hole 17						The green was altered significantly with a new front-left extension and reduced in size from to the back-right with associated changes to the bunkering when the new road was built.	Tee levelled.				
Hole 18						The 18th green was extended into the lake on the back-right. The lake was filled in further right to provide space to expand the practice facilities.	Tournament tee moved				



Ken Moodie <ken@creativegolfdesign.com>

Glen Abbey

Ray Ball <Ray.Ball@nicklaus.com> To: Ken Moodie <ken@creativegolfdesign.com> Thu, Jun 22, 2017 at 9:00 PM

Ken sorry for the slow response, but I inquired with a couple of past associates who were involved in Glen Abbey or would have knowledge of the design. Pasted below in red are comments I received from Tom Pearson who was one of Jack's design associates years ago and this is his recollection. Also, I have attached an agronomy report from 2004 prepared for the club by Jon Scott (agronomist), which summarizes and confirm what changes were implemented then.

The last formal agreement Nicklaus Design had with the club was dated 2003 and I am not aware of any further engagement of Nicklaus Design by the club since then.

I hope this information is useful and if I find out anything further I will let you know. Regards, RB

Ray Ball Vice President Nicklaus Design, LLC 11780 U.S. Highway #1, Suite 500 North Palm Beach, FL. 33408 Phone: 561-227-0300 Direct: 561-227-0468 Email: ray.ball@nicklaus.com Skype: rayball01



To: Ray Ball Subject: Re: Glen Abbey

Hi Ray,

Thanks very much for your quick response.

We now have an aerial photo of the course from 1979, 3 years after the course was opened, so can piece together most of the changes from that. My main areas of where I need more information are as follows.

1) Which greens were completely reshaped rather than just enlarged?

Specifically:

a) Is the very interesting 4th green surface as it was originally built? This is original

b) We know that the 11th was rebuilt but was Jack Nicklaus involved with the new green design? 11 has been rebuilt several times. The latest within the last 5 years. I don't believe JWN did this double green configuration

c) The 12th has been extended to the left but was the rest reshaped also at the same time and again was JN involved? The green was extended only.

d) Was the 13th green altered significantly when the left bunker and rear hollow went in? No it was not altered

e) Has the 14th green been reshaped? There is a strange half-step on the right side which suggests settlement or an alteration to the putting surface. Never been reshaped

f) When the viaduct went in to the right of the hole some mounding was installed to the right of the green. Was the green surface changed at that time at all? There was a minor modification made to the front bunker at some point. Not to my knowledge

g) When the 16th green was extended to the left was the rest of the green retained as it was originally built and was JN involved? It is original except for extension

h) When the 17th green was rebuilt it looks like the front section of the old green surface, and its wing bunkers, were retained without modification. Is this the case and was JN involved with the design of the new front section? The reason the green was changed was its proximity to Upper Middle Road. I don't have an original scorecard but if memory serves me right the complete green complex was brought forward

i) Was JN involved in the changes to the lake to the right of the 18th green and the extension of the green towards the water? Yes

2) Does the Nicklaus company still advise Glen Abbey, and if not:

a) When were the last design changes made by the Nicklaus company? I would say 16 green bunker on the approach

b) Have there been any other architects advising Glen Abbey on design changes as far as you are aware?

Any other insights you can provide would be gratefully received. Just about every green has been extended or enlarged. The outside edge through maintenance had been allowed to grow in. I doubt they are as built now. I visit the golf course frequently and have noticed how much the shapes have changed probably through top dressing, airification, etc.

Thanks very much for your help.

Kind regards,

Ken

Ken Moodie Director

www.creativegolfdesign.com

www.creativegolfvideo.com

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Agronomy Design Report 042704.pdf







Jonathon L. Scott Vice President, Agronomy, Competitions

AGRONOMY MEMO

To:	Peter Kinch, Superi	ntendent, Glen Abbey C	folf Club	
C:	Stephen Ross Henry Hughes	Bill Paul Andy Pazder	Mike Shea Mike McBride	Steve Rintoul
Date:	April 27, 2004			
Re:	Site Visit to Review	Course Changes for Bel	l Canadian Open 2004	

Peter:

Item E)

It was good to come back to Glen Abbey for this early spring visit and review the changes made to the golf course in preparation for the Bell Canadian Open this September. Fortunately, the weather cooperated and allowed you to complete all of the work before winter set in, and with the exception of the minor adjustments we discussed this visit, all modifications were right on target with what we decided on during our September 2003 visit. Mike McBride of Nicklaus Design prepared a very detailed report summarizing the adjustments that were requested, so I will just summarize them in the following bullets. I understand from you and Mike that all of this work has been completed since our visit.

- #1 Adjust a fairway contour on the right side and complete the left fairway bunker enlargement as directed. The 3 trees on the right have been removed adjacent to the landing area and the fairway has been moved closer to the bunker on the left.
- #2 Adjust the right fairway contour closer to the bunker. Plan on cutting a walk path across the swale as we discussed.
- #3 Expand the rear tee to provide 6 paces between markers as discussed. Raise the two back bunker sand lines for better visibility.
- #4 Enlarge the last fairway bunker on the left closer to the fairway. The willow has been trimmed up to see the landing area from the tee.
- #5 The fairway lines have been narrowed. Raise back sand line and slightly enlarge the bunker on back side of green.
- #6 Adjust right fairway line short right of green. Fairway has been narrowed and trees on the right side rough have been removed.
- #7 Remove cattails in front of green, expand left rear bunker in closer to putting surface and raise sand line, deepening 2 feet. Expand intermediate cut in front of green halfway down slope. Tee needs leveling.

- #8 Adjust fairway line closer to bunkers and contour as painted. Fairway has been narrowed. Shorten fairway to generate bentgrass for other narrowing.
- #9 Add more trees to left side rough adjacent to landing area. Fairway narrowed on left. Rework low behind green.
- #10 Fairway narrowed.
- #11 Raise sand line in back right greenside bunker. Narrow fairway from left two sod strips beyond tree and raise swale in center of landing area. Several trees have been cut down in front of tees and behind green.
- #12 Large willow at tee complex has been removed. Tee will be leveled. Raise sand lines on back bunker and enlarge closer to green.
- #13 Adjust center line of new tee already constructed. New tee is 30 yards long and can play from the same yardage as before back to 558 yards. Fairway has been narrowed and chipping area on right side has been deepened 2 feet.
- #14 New tee has been constructed back and left of old tee. Carry is 260 yard to fairway at turn and 300 into landing area between bunkers. Plays now to 457 yards. Enlarge bunker closer to left edge of fairway in 2nd bunker.
- #15 Unchanged.
- #16 Further adjust right and left fairway lines as painted to smooth out contours. Fairway has been narrowed. Add new trees as flagged to left side rough at turn point. Swale has been raised and flattened. Lower collar approach on front of green to take out topdressing roll and expand approach to left. Finish shaping edges of new approach bunker. Hole will play as Par 4 with new tee at 480 yards. Tee shot is 292 to just short of rolling down swale and 338 to bottom of swale. Save back ½ of next forward tee as option to shorten hole.
- #17 Check and level tee.
- #18 Adjust fairway line on the right past the bunker. New bunker on left at 300 yards and expanded back tee now to 524 yards.
- Mow collar height between chipping green and practice tee for chipping area.

The golf course came through the winter in great shape and I know your normal maintenance practices will have it in equally good condition this summer. As a reminder, I do caution you on low mowing heights during the summer stress period to achieve arbitrary greenspeed goals. I have seen grass on these greens disappear quickly in August from heavy play and close mowing. Once gone, there is no getting it back before The Open. I know you will use good judgement in meeting this challenge.

Thanks again for your time on this very productive visit with Mike. Let me know how things are progressing as the grass starts to grow again.

Jon

Item F)

Event	Course	Yards	Metres	Par	Notes	No. of Years
Safeway Open	Silverado Country Club	7203	6586	72		10
CIMB Classic	Kuala Lumpar Golf & Country Club	7005	6405	72	Asian Tour	7
WGC/HSBC Champions	Sheshan Golf Club	7261	6639	72	Asian / European / PGA Tours	
Sanderson Farms	Country Club of Jackson	7354	6724			49
Shriners Hospital for Children	TPC @ Summerlin	7235	6616	71		34
OHL Classic	El Camaleon Golf Club	6987	6389	71		10
RSM Classic	Sea Island Golf Club	7005	6405	70		7
SBS Tournament of Champions	Kapalua Resort	7452	6814	73		64
Sony Open	Waialae Country Club	7044	6441	70		52
CareerBuilder Challenge	PGA West Stadium Course	7113	6504	72		56
CareerBuilder Challenge	PGA West Course	7204	6587	72		56
CareerBuilder Challenge	La Quinta Country Club	7060	6456	72		56
Farmers Insurance	Torrey Pines - South	7698	7039	72		65
Farmers Insurance	Torrey Pines - North	7258	6637	72		65
Waste Management Pheonix Open	TPC Scottsdale	7266	6644	71		85
AT&T Pebble Beach Open	Pebble Beach Golf Links	6816	6233	72		80
AT&T Pebble Beach Open	Spyglass Hill Golf Course	6953	6358	72		80
AT&T Pebble Beach Open	Monterey Peninsula Country Club	6958	6362	71		80
Los Angeles Open	Riviera Country Club	7322	6695	71		91
The Honda Classic	PGA National Golf Club	7140	6529	70		45
WGC Mexico Championship	Club de Golf Chapultepec	7330	6703	71	PGA / European Tours	
Valspar Championship	Innisbrook Resort	7340	6712	71		
Arnold Palmer Invitational	Bay Hill Club & Lodge	7419	6784	72		51
WGC-Dell Tech Matchplay	Austin Country Club	7108	6500	71	PGA / European / Japan Tours	
Puerto Rico Open	Trump International Golf Club	7569	6921	72		9
Shell Houston Open	Golf Club of Houston	7457	6819	72		71
Masters	Augusta National Golf Club	7435	6799	72	PGA / European / Japan Tours	
RBC Heritage	Harbour Town Golf Links	7099	6491	71		48
Valero Texas Open	TPC San Antonio	7435	6799	72		95
Zurich Classic of New Orleans	TPC of Louisiana	7425	6789	72		79
Wells Fargo Championship	Eagle Point Golf Club					
The Players Championship	TPC Sawgrass	7189	6574	72		43
AT&T Byron Nelson	Four Seasons Resort & Club	7166	6553	70		73
Dean & Deluca Invitational	Colonial Country Club	7209	6592	70		71
Memorial Tournament	Muirfield Village Golf Club	7392	6759	72		41
Fedex St. Jude Classic	TPC Southwind	7244	6624	70		59
US Open	Erin Hills	7741	7078	72	PGA / European / Japan Tours	
Travelers Championship	TPC @ River Highlands	6844	6258	70		65
Quicken Loans	TPC Potomac @ Avenel Farm	7107	6499	70		10
Greenbrier Classic	The Greenbrier - Old White	7286	6662	70		
John Deere Classic	TPC Deere Run	7257	6636	71		46
Barbasol Championship	RTJ Golf Trail - Lake Course	7302	6677	71		2
RBC Canadian Open	Glen Abbey Golf Course	7253	6632	72		113
WGC-Bridgestone Invitational	Firestone Country Club	7400	6767	70		19
PGA Championship	Quail Hollow	7600	6949	71	PGA / European / Japan Tours	
Wyndham Championship	Sedgefield Country Club	7127	6517	70		79
Northern Trust	Glen Oaks Club					50
Dell Tech Championship	TPC Boston	7216	6598	71		14
BMW Championship	Conway Farms Golf Club	7198	6582	71		10
Tour Championship	East Lake Golf Club	7385	6753	70		30
	Average Length & Par	7247	6627	71.2		

Item G) Scope of Retainer from the Town of Oakville



June 14, 2017

Mr. Ken Moodie Director Creative Golf Design Ltd. 6 Barony Way Chester, CH4 7NP, UK

Dear Mr. Moodie,

Re: Scope of Retainer - Cultural Heritage Landscape Strategy Phase III

We are pleased to formally confirm your continued retainer by the Corporation of the Town of Oakville (the "Town") for your expert advice on golf heritage matters. This letter builds on your existing retainer by the Town as a sub-consultant to Letourneau Heritage Consulting Inc. ("LHC") on the preparation of the Cultural Heritage Landscape ("CHL") Strategy Implementation – Phase II: Cultural Heritage Evaluation Report regarding 1333 Dorval Drive.

It is our understanding from our discussions that you have no conflict of interest in continuing to assist the Town in this matter. We ask you to confirm this in writing by signing the acknowledgment at the end of this letter.

Background - The CHL Strategy Implementation

The Town adopted the CHL Strategy in January 2014.

Phase I of the CHL Strategy Implementation, a screening-level evaluation of 63 potential cultural heritage landscapes, was completed in February 2016. Raydor Estate/Glen Abbey (1333 Dorval Drive) ("Glen Abbey") was identified as one of eight high priority properties recommended to undergo further cultural heritage assessment in Phase II to determine its cultural heritage value or interest and, if needed, identify heritage attributes. The high priority properties were properties that showed potential for a high level of cultural heritage value or interest that were considered vulnerable to change and/or had insufficient existing protection.

LHC was retained by the Town in September 2016 to provide consulting services for part of Phase II, including to complete the Cultural Heritage Evaluation Report for Glen Abbey. Creative Golf Design was retained by LHC on the Town's behalf for its expertise related to golf course design and construction and to undertake the EIGCA Evaluation of Glen Abbey. The draft Cultural Heritage Evaluation Report for Glen Abbey was released on April 13, 2017, together with reports for five of the other high priority properties.



These reports were considered by Heritage Oakville Advisory Committee on April 25, 2017. Heritage Oakville heard submissions from delegates on April 25, 2017 and endorsed and forwarded all of the reports (with some minor changes suggested for several of the reports) to Council for consideration at its meeting of May 15, 2017.

On May 15, 2017, Council decided that the high priority properties identified as significant cultural heritage landscapes, including Glen Abbey, proceed to Phase III, Implementation of Protection Measures, with Glen Abbey having priority.

Scope of the Retainer

The Town is continuing your retainer for your assistance as an expert on golf heritage matters to build on the Phase II report. Specifically, you are retained to identify and document all heritage attributes and features of the site that, in your opinion, merit protection and should be conserved to maintain the cultural heritage value of the site.

For clarification, the Ontario Heritage Tool Kit – Designating Heritage Properties: A Guide to Municipal Designation of Individual Properties Under the Ontario Heritage Act describes heritage attributes as "those attributes (i.e. materials, forms, location and spatial configurations) of the property, buildings and structures that contribute to the property's cultural heritage value or interest, and which should be retained to conserve that value." The Tool Kit gives general and specific examples of heritage attributes at pages 18 - 21. The Took Kit can be found online at:

http://www.mtc.gov.on.ca/en/publications/Heritage_Tool_Kit_DHP_Eng.pdf.

There will be the following deliverables:

- 1. Visit(s) to Oakville and potentially the Glen Abbey site as necessary;
- 2. Prepare and provide a report identifying, documenting and describing all of the heritage attributes of Glen Abbey, including:
 - a. the heritage attributes of the golf course as a whole;
 - the heritage attributes of the general golf course features (for example, greens, tees, mounding, hollows, bunkers, trees, ponds, views, etc.);
 - c. a hole-by-hole assessment of heritage attributes; and,
 - d. how the features and holes relate to each other, and how they relate to the heritage attributes of the golf course as a whole;
- 3. Within your report, identify which features could be modified, and the limits to how the features could be modified, while maintaining the heritage attributes and the heritage value of the site; and
- 4. Respond to any questions raised by Town staff regarding your reports.



The Town has authorized a budget of up to \$25,000 CAD plus HST, not including disbursements, for this retainer. Should you believe at any time that you will require a higher budget, please contact us immediately so that we can discuss how to best proceed.

Duty of an Expert

Your duty as an expert is to provide fair, objective, and non-partisan opinion evidence in your report and any future potential litigation on issues within your area of expertise.

Your independence is as important as your qualifications in arriving at your findings, opinions and conclusions with respect to the issues. We request your objective unbiased opinion in relation to the matters within your expertise. We ask that you do your work in as independent a manner as possible. Although you have been retained by the Town, you are not to view yourself as an advocate for anyone's interest or any particular outcome.

Please consider all aspects of the matter, and, to the extent that you may come into contact with other persons involved, consider their views, but at all times maintain your independence and objectivity.

Qualifications

To the extent that any particular question or issue falls outside of your area of expertise, you should so indicate in your report. Should any of your findings, opinions or conclusions change after the delivery of your final report as a result of further reflection or by virtue of considering additional material, you should communicate any changes to us in writing without delay.

Your Work File

You may be asked to disclose (to a court, a tribunal, or other interested persons), within reasonable limits, everything upon which your findings, opinions and conclusions are based. This would include any materials supplied, together with any additional data or information that you may have obtained from other sources and upon which you have relied. All evidence that you use and that forms the foundation for your findings, opinions and conclusions could certainly be ordered to be disclosed. This could extend as far as an order requiring you to disclose your entire work file, including all your notes, correspondence, and data. This does not mean that you must retain every scrap of paper permanently in your file, but you should preserve any meaningful documents that evidence your work process leading up to your final report.

Billing and Payment

We would ask you to forward your invoice to the Town at the following address:



The Corporation of the Town of Oakville 1225 Trafalgar Road Oakville ON L6H 0H3 Attention: Douglas Carr, Town Solicitor

Concerning disbursements, we understand that you may incur costs for copying, long distance, document delivery, and travel. You should include these costs in your billings to the Town on a regular basis.

Conclusions

If the terms and conditions set out above are satisfactory, please indicate your agreement by signing below and returning the signed copy to my attention.

By signing the agreement, you acknowledge that you have been provided with a copy of this letter, and that you have read and understood its contents.

If you have any questions arising out of the above, please feel free to contact us at your convenience.

Sincerely,

Schapput

Susan Schappert CAHP, MCIP, RPP Heritage Planner

Viani Childs

Diane Childs, MCIP, RPP Manager, Policy Planning and Heritage

Mark Simeon, MCIP, RPP Director, Planning Services



Acknowledgement

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I, Ken Moodie, have reviewed and accept the terms of this continued retainer.

22nd June 2017

Date

Kolhooche

Ken Moodie, Director Creative Golf Design Ltd.