

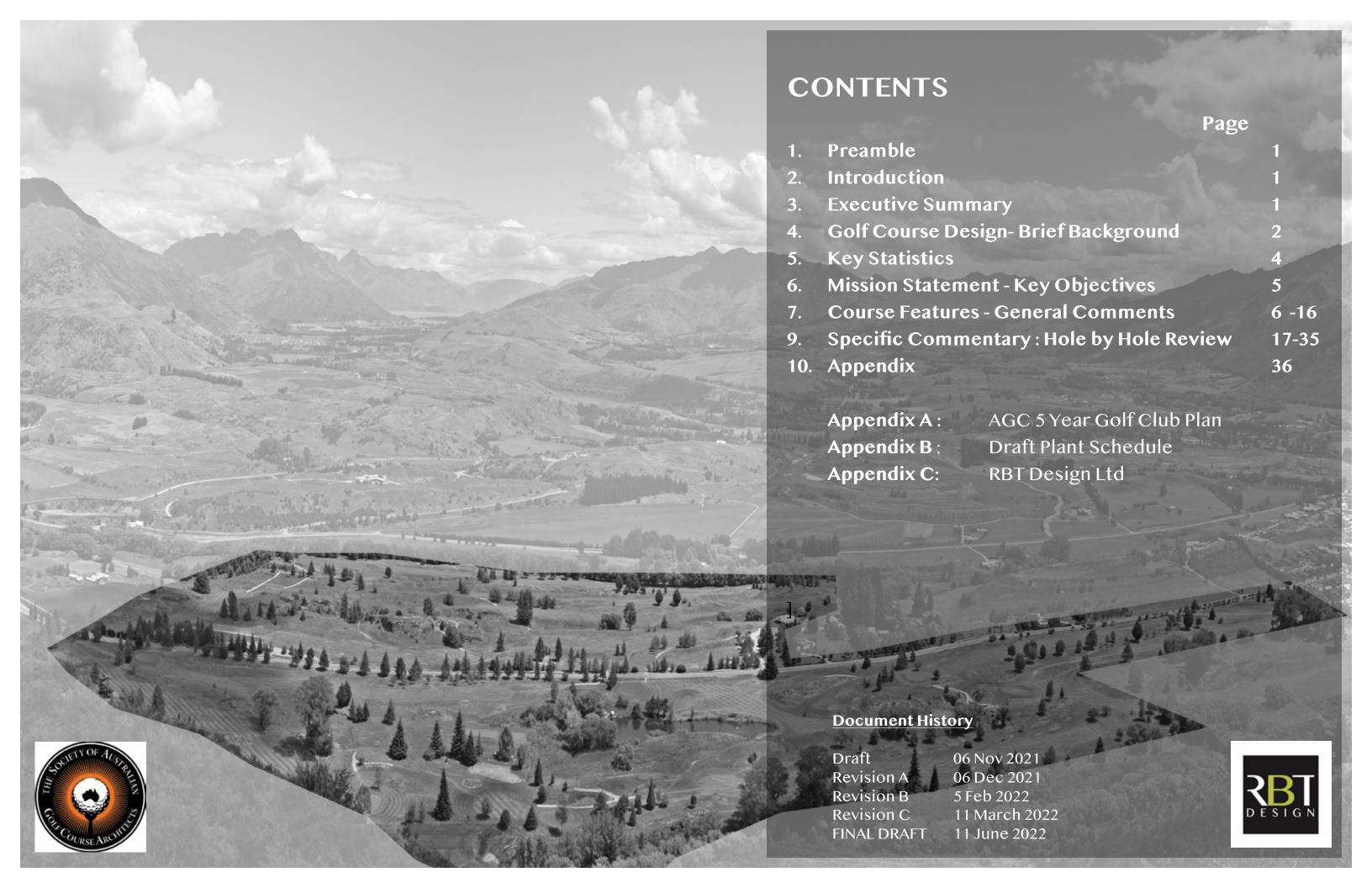


LONG TERM GOLF COURSE PLAN Final Draft 11 March 2022



Hole 1772 98 340 Out In TOTAL

Arrowtown
GOLF CLUB



1. PREAMBLE

This document is referred to as the Long Term Plan or LTP. It is not a design or a redesign document!

A well thought through and concise golf course review document doesn't require immediate action. It establishes an agreed strategic direction and foreshadows some of the potential alterations and adjustments that may be required. From time to time specific design may be required to facilitate the exact outcome for a new tee, fairway extension or green renovation. This document should be used as an ongoing reference document for the Club.

The LTP was commissioned by Arrowtown Golf Club in April 2021, to provide an overview of the golf course and make recommendations as to what improvements, if any, could be made to make the golfing experience more enjoyable for its membership and visiting golfer alike: in the short, medium and long term.

It is an appropriate time to undertake such a review given the current Covid situation and the impact this had on the Clubs finances, which was quite reliant of green fee revenue. It has given the Club time to think about its future.

2. INTRODUCTION

Arrowtown Golf Club is fortunate to be located in New Zealand's premier 'destination' golf location, being Queenstown. Its sits alongside Millbrook Resort, The Hills and Jacks Point all three are Marque Courses in New Zealand, of which there are only 14. Because of that it gets a lot of spill over golfers who now see Arrowtown as a 'must play'. Arrowtown is regularly included in the Top 20 Golf Courses in New Zealand. This is testament to not only an exceptional piece of golf topography and lay out, but also to a small and dedicated greenkeeping staff and management team.

Arrowtown is a true representation of 'Central Otago golf' - *wild and rugged*. It's striking topography of rocky outcrops, stone walls, no bunkers and small greens combined with its surrounding vistas and autumn colour, makes for a unique and quirky golf experience, unlike anything else in New Zealand.

It has a strong passionate membership and a welcoming Club atmosphere to the many visiting golfers which pass through is doors.

Such is its regard, that re-known American golf course architect, Tom Doak,

made the following comments in his Confidential Guide to Golf Courses, Volume 5. Of the 450 + golf courses they reviewed they had the following to say about Arrowtown:

'....the overriding memory of a round at Arrowtown is the feeling of golf as it was meant to be: charismatic, curious, understated, inexpensive and a little light hearted.'

That is high praise from Doak, a man who is considered one of the best modern golf course architects in the world and who's opinion on 'golf' is highly regarded. The rise of Queenstown as a golf destination, its population growth, along with comments from one of the best golf course architects in the world is putting a lot of pressure on this small rural course from visiting golfers. Or had, until Covid altered the tourism landscape. The following sections seek to give insight into the golf course itself and some of the issues and pressures it is under.

3. EXECUTIVE SUMMARY

Arrowtown is a much loved golf course by members and guests alike. Its popularity is both a blessing and a curse. The nature of the course with its narrow fairways and small greens means it can only handle a certain amount of rounds per year, without it having a serious impact on the golf course agronomy and therefore the golfers experience. The list below is a summary of general recommendations for the golf course. Specific recommendations, on a hole-by-hole basis follows in the latter part of this document.

The key recommendation are:

- 1. Produce a work programme, to enable long term planning and appropriate funding.
- 2. Establish a programme to renovate and rebuild/relocate the <u>tees</u>, so they are fit for future use with the projected increase in annual rounds. Some will need levelling, enlarging and in some cases new tees. Consideration should be given to converting to sand.
- 3. Add some irrigated <u>fairway width</u> and with it 'strategy' to those holes that are best suited to that eg 1st, 2nd, 4th and 6th. It adds to the variety and options off the tee, which adds to the fun factor.
- 4. Remedy those areas of the course where the <u>rough</u> is too much in play for the average golfer, or has inappropriate grass species or gets too much irrigation. This will bring them more in line with the 'Arrowtown' aesthetic of dry thin whispy rough. Consideration should

- be given to land management for the 12ha of <u>unmaintained rough</u>., this includes a strategy for <u>wilding plant species</u> eg oregon, broom.
- 5. Establish a **greens** renovation programme to improve consistency, increase pinable area if at all possible and thus future proof the greens for the increasing number of rounds per annum. Consider annual renovation with sand, instead of topsoil, which will result in a slow conversion. The **green surrounds** shold be part of that discussion as well.
- 6. Establish a <u>cart path</u> implementation plan using a hard surface treatment. Ensure stormwater management/ drainage is considered. Add GPS restrictors to manage cart circulation and preserve the golf courses agronomy, by limiting where carts can go.
- 7. Establish an agreed <u>landscape plan</u> for tree removal and tree replacement, if necessary. Establish a plant list of desirable and site appropriate trees/ plants. (refer Appendix B)
- 8. Provide a considered design strategy for **golf furniture** to ensure the elements complement the course and its surrounding. Less is best.
- 9. Consider <u>mounding</u> along the internal road corridor to remove its visual presence from the golf experience eg along the 7th, 8th, 9th, 17th and 18th.
- 10. Re position those <u>golf features</u> eg tees, fairways or greens that compromise safety both on the golf course and along the road corridor. Its important to note that the legal road boundary along the 8th and 9th, is actually about 6-8m inside the golf course.
- 11. Consider renovation to the <u>practice facilities</u>, both the chipping area and the practice range, for better functionality. Also consider possible reinstatement of driving bays, primarily for the visiting golfer. Do it in a way that its integrated into the overall facility ie. Do not place it in the far reaches of the carpark as per its previous location.
- 12. Ensure that <u>future earthworks and renovations</u> are undertaken by trained professionel so that the Arrowtown character is enhanced by such undertakings. Its all in the detail.
- 13. Consider <u>exposing the rocky knobs</u> both in the fairways and peripheral to the fairways, which have slowly overgrown with grass. These features 'are' Arrowtown.
- 14. Clubhouse & Environment: This is a separate piece of work that should be undertaken. It should review the functionality of the entire Clubhouse and its surrounding area with a 25 year lens, to assess whether it will meet the future needs of the membership and visiting golfer. There will be a time when the Clubhouse may need to be upgraded and if it has been considered in the long term plan, then cash flow management and the creation of a separate 'sinking fund' can be created to accommodate a potentially significant capital outlay.

15. Consider building a <u>19th golf hole</u>. This enables a hole to be dropped for renovation without impacting the golf experience..

4. GOLF COURSE DESIGN - BRIEF BACKGROUND

The golf course land is divided in half by Centennial Ave, one of the two main access roads into Arrowtown. There is 9 holes on each side of the road and the respective 9's have different characters. The front nine is open, with more muted, subtle shapes and the occasional large rock formation. It has three par 3's and two par 5's. The back nine is a series of par 3's,4's and one par 5, played down tight narrow gullies divided by rocky ridgelines. The course equates to a Par 70.

The Club's history is neatly summarised in the following bullet points:

- The Arrowtown Golf Club is situated on land which was originally settled by the Shanahan family. Thomas Shanahan (1879 1965).
- In 1911, a six hole course was made just outside the Arrowtown Borough boundary. Such enthusiasm was shown that it was common to see a lady member mowing greens with a hand mower. This club was later disbanded.
- On July 1st 1936 was the day Arrowtown Golf Course came into being. Reg Romans was the convenor of this meeting and has come to be known as the club's founder. Twelve people formed a new club on the recently acquired 90 acres of land on the Arrowtown-Arrow Junction Road.
- The original 9 hole course was laid out by Mr Cook and Mr Wright. However it was Reg who was responsible for carrying out the work done the hard way, using hard rakes, wheelbarrows and hand mowers Once formed the course was maintained by members. The nine hole course was opened in 1936.



- Mr Romans, who was then Secretary of the club went overseas with the 23rd Battalion of the 2nd NZEF and became a Lieutenant Colonel with a DSO. Mr Romans died from wounds during the campaign in Italy in 1943.
- The first clubrooms were obtained from the Anglican Church, being one of their outbuildings and were purchased for \$15 pounds.
- Affiliation with the New Zealand Golf Association was sought in 1946 and granted in 1947.
- The present clubhouse was built in 1956-57 with the help of voluntary labour supplied by members.
- In 1971 the club acquired and developed 53 acres of leasehold land on the opposite side of the road from the nine hole course. This was incorporated in the existing course to provide an 18 hole course of an exceptional standard.
- Water, which was originally purchased from the Ministry of Works Irrigation is now obtained from a creek coming down from Crown Terrace and is gravity fed to the course. In recent years the course has undergone some major developments including a full fairway & greens irrigation project completed in 2001. The clubhouse was also upgraded at the same time.
- The more recent additions have been a new 2nd green in 2006-2008 taking it from a par 4 to a par 5.
- A new ninth green, now the (18th green) was designed in 2011-2012. by Greg Turner, construction by TiC.
- A number of new tees have been constructed and or renovated recently: namely the 14th and 15th tees. The 14th was rebuilt in 2019 and the 15th in 2018.
 - (NB. The design of these works were undertaken by the author).
- The golf course routing was changed in June 2021, the front and back nines were flipped, to enable the finishing hole to be beside the Clubhouse.



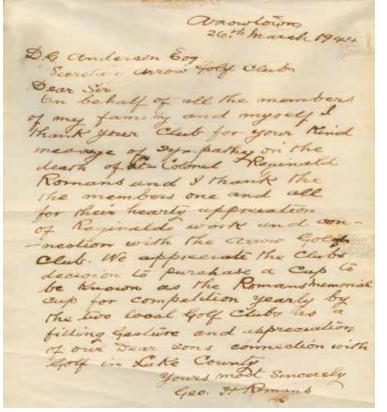
Thomas Shanahan



THOMAS SHANAHAN WAS BORN IN 1879 AND RESIDED IN THE SHANAHAN COTTAGE (SITUATED AT THE 11TH HOLE ON THE ARROWTOWN GOLF COURSE UNTIL 1899 WHEN, WITH 12 OTHER YOUNG MEN, HE SOUGHT SELECTION TO REPRESENT THE LAKE DISTRICT AT THE BOER WAR.

On winning selection he was given a bridle, a saddle and his fare to dunedin where he joined the otago mounted rifles. He served as a "rough rider" in south africa until the end of 1901.

ON HIS RETURN, THOMAS JOINED THE NEW ZEALAND POLICE AS A MOUNTED CONSTABLE SERVING IN CENTRAL OTAGO. HE RETIRED AS SUPERINTENDENT OF POLICE OF THE CHRISTCHURCH DISTRICT IN 1944. THOMAS DIED IN 1965 AGED 86 YEARS.





REGINALD E. ROMANS

Hock in the winter of 1936 a group of local people from the Aerone District gathered in the Council Chambers. The date the 1st July will be remembered as the day the Aeronetown Golf Club came into being. Heg Romans was the convenue of this meeting and has since become known on the club's founder. He was the first Secretary of the Club. Reg was the son of the local butcher. For a number of years he managed his father's had not been also become a supplied to the son of the local butcher.

The original nine hale course was laid out by Mr Cook and Mr Wright, although it was Reg who was responsible for carrying out the original work. In 1937 Reg held the lowest handicap among the men. He played off 14. That same year he went the first Men's Championship and received the silver cup donated by Mackeross and Haslett Ltd of Devercargill.

And then Nazi Germany had to go and antensh its forces on Europe, and the World and the young men of the Arrow had to go and do something wheat it

At the Annual General Meeting in March 1940 the Chairman, Mr. James, spoke of the very great loss "temporarily" the club suffered in Reg going overseas. At a meeting held on January the 17th 1944, those present stood in silence for two minutes. The occasion was simply recorded: "A motion of sympathy to Lt. Col. R. E. Romans was observed in the normal manner." The Secretary Mr.D. G. Anderson, was instructed to convey to the relatives of Reg Romans, the club's deep appreciation for all he had done to make it (The club) a success.

The Club's founder died in December 1943 from wounds received in action during the Italian Compaign. This immensely popular, of the 23rd
Battalian had getined his commission in the field and was awarded the DSO for bravery during the battle of El Alanein and the advance into
Turista. He led from the front and as the small community on the Arraw already knew, Reg was a born leader and his loss was a severe blow.

On the 9th of February 1943 Rog's futher, George Romans celebrated his 100th hirthday. Among the soldiers who spoke over the six from the Middle Face in February 1943 was Rog who broadcast greetings to his father on the occasion of his 100th birthday.

It is mainly thunks to the foresight of Reg that the Arrowtown (rolf Club has become an attraction in its own right in this fast geowing marks town.

If only Reg could see it note.....

5. KEY STATISTICS

As part of the LTP process, it's important to understand both the members and visitors alike. Having access to basic statistical information, like number of rounds per year, number of members, member by category, average handicap for both men and women, amount of cart usage to name but a few, are fundamental to understanding the Club and the change in the Club over time. Having these metrics captured over a 20 year period would enable the Club to see trends and patterns which can be factored into its planning. It would enable better cash flow management and enable the Club to make informed decisions for 'change' based around this data. For example, observing a year on year increase in the number of cart rounds, which puts pressure on agronomic performance, would suggest that the Club will need to invest in a permanent hard surface cart path construction programme, or risk doing serious damage to the playing surfaces. It would allow the work to be scoped, costed and a funding plan put in place.

It became apparent very early on in this process that not a lot of information has been kept or archived by the Club for future reference. However, what we know about the Club and the course are summarised below.

Club Statistics - Looking for Trends

CATEGORY	20	16-'17	2	2019-'20	20	020-'21	Change
Covid							2017-2021
Total members		557		567		639	15%
Number of male members		445		453		506	14%
Number of female members		112		114		139	24%
Full membership fee	\$!	515.00	\$	575.00	\$	815.00	58%
Average green fee (affiliated)	\$	50.00	\$	50.00	\$	65.00	30%
Average green fee (unaffiliated)	\$	85.00	\$	90.00	\$	140.00	64%
Total Rounds played				18,503		25,074	35%
Member Rounds				9,736		13,513	39%
Guest Rounds				8,767		11,561	32%
Domestic Guests - revenue				\$120,000		\$212,000	76%
International Guest - revenue				\$106,000		\$6,000	-94%
Number of carts		20		20		20	n/c

There's a well known saying, 'there's lies, lies and statistics'. Yes they can be manipulated to suit a particular view of the world, but here we just need them to identify trends which can guide future decision making.

Covid has provided a one off event which might skew the statistics. It is yet to play out if these new trends are sustainable, or simply a one off response to the Covid Shock.

What trends can we garner from the limited data set that might assist in decision making on the golf course:

- The membership is growing: from 2017 to 2021 by 15%.
- Number of rounds increased by 35%. Is this a Covid one off or a trend based on increasing local population?
- * Green fee revenue was also up and just from domestc golfers from 2019-2021. What will happen when international golfers are allowed back in? Will the trend revert back to pre-Covid patterns?
- * the Club is doing well and growing.

These very basic trends raise a few questions:

- If membership is rising at such a rate should it be capped, should a joining fee apply, how much should that fee be?
- If the number of green fee rounds has increased by 32% does the Club need to look at seasonal pricing at peak demand to both maximise its return but also try and manage play during that summer period to ensure the agronomy can cope.
- If the number of rounds is high, is there sufficient staff over summer to keep the course to the high standard expected by both members and guests, especially if the green fee is over \$140 per round. For example, is it appropriate to have green plastic hole covers in the greens?

Golf Course Statistics:

- the overall property is 51.9ha: 27ha is freehold and 24.9ha is leasehold.
- 13.6 ha of maintained rough.
- 12.2ha of unmaintained rough
- 9 ha of fairway.
- 0.6ha of greens.
- 0.5 ha of tees.
- 0.4 ha of practice fairway and practice green.
- 15.6 ha of 'leftover' land in gullies and out of play.

4

6. MISSION STATEMENT - KEY OBJECTIVES

Having a basic Mission Statement or a set of objectives from which to assess the Clubs planning and decision making, is quite important. The following bullet points are a synopsis of the Clubs and the LPT Committee objectives.

- To ensure that the Clubs very unique terrain and topography is respected, incorporated and enhanced in any future renovation work on the golf course.
- To ensure that the safety of the golfer is paramount in the Clubs planning.
- To ensure that the course is developed and maintained in a sustainable way by minimising inputs eg water/ fertiliser without com promising the quality of the golf course.
- To enable the Arrowtown Golf Club to be recognised within New Zealand as providing a complete and exceptional golfing experience for both members and visitors alike.
- To ensure that all ongoing maintenance, course preparation, golf course improvements and redesign is considered in relation to the golf courses unique character.

7. COURSE FEATURES - GENERAL COMMENTS

Great golf courses are characterised, in my opinion, by two main principles: variety and contrast. These apply to hole strategy, green size, fairway width, bunkering, vistas and almost everything golf.

The following are some general comments on the components of a golf course:

- · Tees:
- Fairway:
- · Greens:
- Rough:
- Irrigation
- Landscape
- Practise facilities.
- Golf Amenity eg golf furniture.
- Safety

7.1 Tee's

Grass Variety: Browntop/fescue

Area: 5375m2 Average Size: 299m2

General Comment:

- Tees should have ample flat ground from which to hit from.
- Have sufficient area to provide variation in hole length for the various tees.
- Be well drained so they recover well from rain events to enable play to resume.
- Have ample area within which to spread the wear and tear of divoting, especially on the par 3's. Par three's should have approx. 500-600 m2.
- Integrate into the natural topography as much as possible. ie appear natural.
- Incorporate, if possible, different teeing locations so as to change the angle off the tee.
- Be cut, in my opinion, to the same height as the fairway to minimise the need to change mower blade height from teeto fairway.

Arrowtown operates four sets of tees, with a Blue tee just recently being added.





The Arrowtown tees are of the traditional 'push-up' topsoil variety with small individual, oblong shapes with regular batter slopes for each tee. The teeing areas could best be described as being on the small side averaging 299m2. The tee size, on the back nine, is mostly a response to the tightness of the course and the dramatic topography, which restricts both size and location. Recent work on the 14th (refer opposite) and 15th tees has been focused on increasing teeing area to spread wear, especially on the par 3's and providing some flexibility on the angle of attack and hole length. The 14th is now a continuous tee of 30m, which allows numerous tee set ups, spreads wear and tear and makes maintenance easier. It has been designed to tie into the landscape with more natural shape and batters, consistent with the surrounding topography. The 15th tee, although enlarged, was heavily constrained by topography so the expansion in size was not as great as would have been liked.

Renovation of the tees is one piece of work on the golf course that is in regular discussion, but has to date been undertaken on a piecemeal basis, rather than as part a coordinated plan of execution over a fixed period of time.

Current renovation or rebuilding of new tees is undertaken using local top-soil as the finished surface. The local topsoil is quite fine and silty. It also has the potential to break down and 'powderise' if worked too much. Topsoil is difficult to compact evenly and perfectly over the tee. It will eventually result in uneven surfaces as the topsoil subsides at varying rates. Typically, in new golf course construction, sand is the preferred media. It enables consistent compaction for level tees during construction, it's free draining and recovers better from wear and tear and is something the Club should investigate. Sand topdressing after coring is another way to slowly convert existing tees, so that all the surfaces end up being consistent.

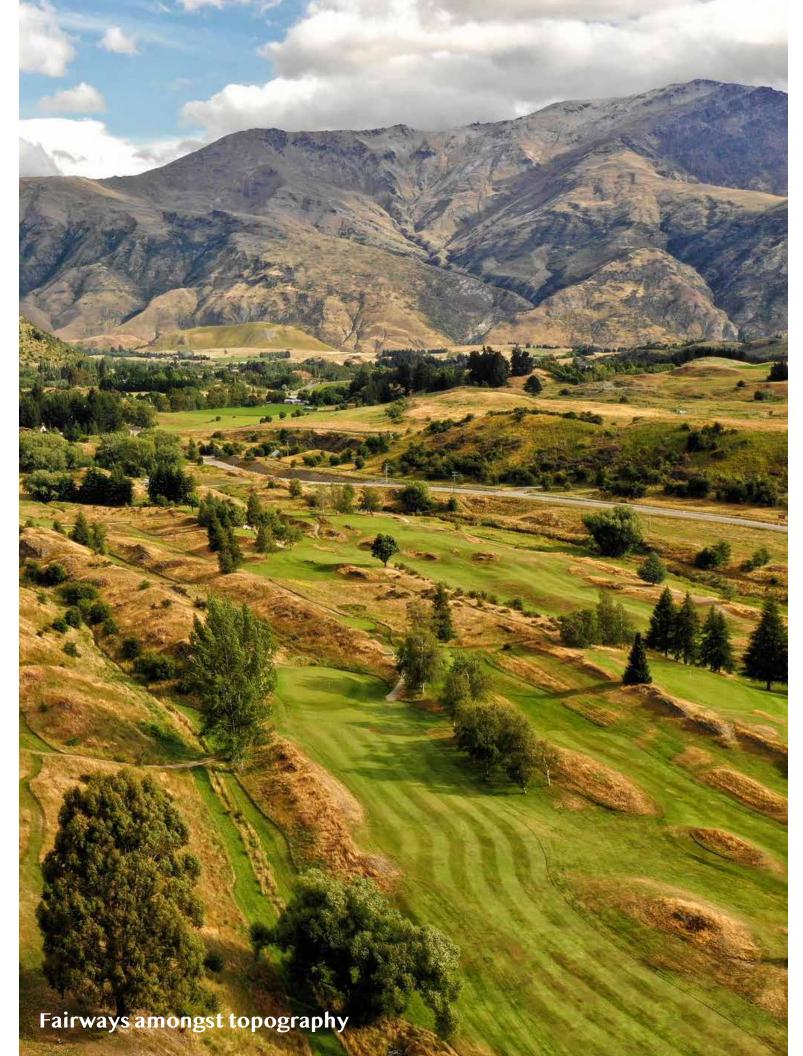
7.2 Fairways

Grass Variety: Predominantly browntop/ fescue

Area: 87,400m2

General Comment:

- Fairways should provide defined target options from the tee.
- Have width where the average member 'misses' ie right at 170m-185m off the tee. Golf is best played from the short grass, especially for the high handicapper and older golfer.
- Be well drained so that it recovers well from rain events.
- Have a reasonably consistent quality of agronomy, depending on the type of course, its resources and target market.



Fairway 'profiles' at Arrowtown are primarily dictated by the irrigation installation. Arrowtown has a single line of irrigation, making the fairways quite narrow. Topography is the other element dictating the fairway profile. The back 9 fairways were dictated by the topography long before the irrigation was installed. This topography has a tendency to guide and channel the golf ball. If you hit a fairway, or the sides of the valley then the balls generally end up being channelled into a similar area on the fairway eg. 11,12,13,14, 16 and 17. This concentrates play into a small area and with it the concentration of wear and tear and associated divoting. (refer Photo opposite). Variable teeing options help spread this divoting to aid recovery.

7.3 Greens

Grass Variety: Browntop Area: 5,580m2 Average Size: 310m2

General Comments:

- Greens should be a variety of sizes and of interesting contour.
- Be consistent in putting speed and true for much of the year
- Be free draining for quick recovery.
- Fit into their topographical surroundings.
- Have in the order of 10-14 pin positions to spread wear and tear of golfer traffic over the green.
- Recover from remedial works eg coring as quickly as possible.
- Average green size for 18 holes in the order of 600-650m2.

Arrowtown is renowned for its small greens and with it their limited number of pin positions. The greens range in size from 165m2 (7th green) to 420m2 (3rd green). The average is 310m2. Some greens such as the 12th (photo) which is both small and heavily contoured means that it only has 4-5 pin positions. Others such as the 10th and 18th which, when built, had significant amounts of fill put under them, have slowly slumped over time, affecting both the number of viable pin positions and also the greens ability to 'hold' a golf ball. This situation is most noticeable in Summer when green speeds are at their fastest. Not ideal, but considered the 'quirk' of Arrowtown.

7.4 Rough

Grass Variety: Predominantly Browntop/ Fescue
Area: Maintained rough 13 ha
Unmaintained rough 12 ha











General Comments:

Good rough should be:

- Unirrigated and of low fertility and require minimal maintenance.
- Be made of grass varieties suited to the area and climate to ensure minimal time and maintenance money is spent on these areas.
- Look menacing off the tee, but upon looking for the ball, it is both findable and playable, with a 'half stroke' penalty associated to it.
- For the dry brown rough to provide contrast with the irrigated fairway, for as much of the year as possible.
- Not be 'in play' for the average member golfer ie short grass fairway, instead of rough, on the right at 170m -185m off the tee.

Rough normally makes up over 50% of the golf course under maintenance and requires significant resource to keep 'under control', whereas most golf clubs would prefer to focus their resources on the 'playing' surfaces.

Arrowtown has, on the whole, little rough compared to most golf courses, due to the tight layout and smallish land holding. It is used, in part, to define adjacent fairways eg between the 1st surround and the 2nd fairway or the 6th and 7th. Some of these areas, in select locations could be converted to fairway.

Some of the rough on the course consists of rye grass eg portions of the 1st and 2nd. This grass variety is characterised as being very coarse, thick, 'juicy' and very green. It is not desirable on the golf course and is incongruous to the predominant species of browntop and fescue. It is generally sown for its quick establishment.

7.5 Irrigation

Full fairway irrigation was installed in 2001 and is now 20 years old. The golf course consists of approximately 300 heads. This is very low for a typical golf course which would have in the order of 700+ heads.

There is single line fairway irrigation and block system for the greens and tees. There is not a lot of control over the application of water compared to the technology that is currently available. Modern technology allows control of individual sprinkler heads via cell phone. Moisture sensors provide feedback as to whether the system needs to be activated. There is also tech to measure nutrient levels and thus allow detection of any deficiencies in the soil/ sand profile.





Application of such technology enables a more sustainable golf course, which only gets the level of inputs ie water and nutrient, that it actually needs to maintain healthy agronomy. The maximum daily take is limited to 50m3. Current summer demand, being 'peak demand', runs at 28-48m3 per day. Storage is in a large pond adjacent to the 9th green. It has an area of approximately 5595m2 and assuming an average depth of 2m can hold approximately 10,000m3/l. Securing the Clubs water rights and having significant storage on site is a priority. Expansion of the pond is planned for late 2022-23

Water management will become increasingly important. The Club commissioned a report in 2020 called the Arrowtown Golf Club Water Management to look at the issue.

7.6 Landscape

This refers to the 'soft landscape' of trees, planted areas and areas of native shrubland on the golf course.

Landscape is a very subjective matter in regards to its presence on the golf course. Some like lots of trees and garden areas, others do not. To me soft landscape should relate to the character of the wider area/ region and the character of the golf course.

Landscape:

- Should be mostly 'out of play', on the outside of the topography
- Have a purpose eg screening neighbouring property, providing habitat, provide safety, frames a golf hole or a view or provide shade.
- Have minimal maintenance, as they can become a distraction and consume scarce greenkeeping resources.

Small trees which when planted 30+ years ago now cast shadow, have roots which invade a tee or green or affect the playable golf corridor. Trees, have a 'use-by' date, more so if they are in the wrong place.

Arrowtown has inherited a treescape mostly planted by previous members. There appears to be little rhyme or reason to the species chosen, other than their ability to survive the harsh Central Otago climate. Some of the planting was done for 'safety' reasons eg between the 11th and 12th fairways, others for aesthetics eg the cherry trees on the left side of the 4th green. Over time some of these trees have out grown there usefulness and have been removed. It is hard to look at any areas on the golf course where trees have been removed and not think it was an improvement on the playability of the course eg removal of the tree left of the 7th green, or improved













agronomy around the 14th teeing area once the trees were removed.

Recent planting has included the introduction of native tree species eg beech, ribbonwood and kowhai, with mixed success. Although well intentioned, these trees have struggled to survive and thrive within the golf course environment, especially without water.

Ongoing removal and addition should be undertaken according to a 'Landscape Management Plan'. This will remove the random additions and deletions that sometime occur with a change of Committee.

7.7 Practise Facilities

Arrowtown provides a reasonable level of practice facilities for its members. Being constrained for land for 18 holes at the outset, meant there was never going to be room for a full practice range. The existing range is approximately 160m long and occupies an area of approximately 4000m2 or 1 acre. It allows for lofted to mid iron practice only. The Chipping green is small, approximately 220m2, but has functioned well over the years. However, like all the Arrowtown surfaces, it is heavily used and is a bit worn out. It has a small practice bunker for those inclined to use it. The practise green was rebuilt in 2011 as part of the 18th green redevelopment. It is approximately 610 m2 and on the busiest Club day, being Saturday, it seems to handle the crowd and traffic adequately. Of course, larger is better. There is currently nowhere for members or visiting golfers to practice hitting driver. The Club once had driving nets adjacent to the car park, but these has since been removed.

7.8 Golf Course Amenity

7.8.1 Golf Pathways/ Cart Paths

Arrowtown, like most rural courses, was a walking course. Small narrow, gravel pathways provided access from tee to fairway or from green to tee for the walking golfer. There was a decision in 2012 to provide 14 carts as a means for revenue generation. This went from 14 carts to 20 in 2016. Increasing demand, especially during Summer/ Autumn period, will likley see the fleet increase in the near future. The pathways have never been upgraded or widened to accommodate the golf carts.

Arrowtown's narrow fairways, concentration of golfers/ carts and little ability to spread the cart traffic means it is very susceptible to excessive wear and tear. Increase in cart activity is very noticeable in certain areas on the course as the agronomy is either heavily worn or non-existent.











Cart usage will continue to increase as will the impact on the agronomy. It is important that the Club develop an approach to carts and the development of cart paths. This might include some or all of the following options:

- Reposition existing paths to improve presentation of the golf hole, like what was achieved on the 15th.
- Install hard surface cartpaths.
- Upgrade to GPS golf carts to control their movement.
- Add more signage to manage circulation.

7.8.2 Golf Furniture

Golf furniture consists of all the non golf, man made elements on the golf course eg hole identifiers, tee markers, toilets, rubbish bins, ball cleaners, advertising bollards etc. These add to the character of the golf course, most of the time, but can also detract if they are excessively used, unattractive or 'not on brand'. For example, it may not be necessary to have rubbish bins on the golf course, except at the chanageover from the 9th-10th holes and the Clubhouse. It takes the greenkeeping staff time to remove the rubbish, time that may be best allocated to maintaining the golf course.

These are small incidental elements which contribute to the overall aesthetic of the golf course. Good examples are the new stone 'hole identifiers' (photo) with rusted steel hole numbers looks very raw and 'on brand' for the Arrowtown golf course, as is the new toilet, discretely placed near the 16th tees and built of timber and corrugated iron. On the other side of the coin, poor examples are toilet on the 3rd hole. It is green gardenshed that sits as a backdrop to the green (photo).

Golf furniture should have some continuity within the 'look and feel' and materials they are made out of. Arrowtown currently has a mixed bag: stone hole identifies, timber signs, plywood rubbish bins, timber sleepers for cart paths, timber sleeper bollards and looped chain to control circulation (photo). There is also timber seats, and an assortment of historical agricultural equipment (which I like) placed on the golf course. The material palette is too diverse and needs refining.

The golf course had a number of low stone retaining walls around some of the teeing areas. These were a beautiful and unique feature of the golf course. However, these were deconstructed and the stone stockpiled on the course. I understand they were removed as they added difficulty to the maintenance. Those details are exactly the details which gave/ gives Arrowtown its character and should be used more often.











7.8.3 Fencing

Like most golf courses, Arrowtown has a significant length of legal boundary of 5636m. This is mostly fenced. Most of the boundary fence is old and of the post and wire farm fencing variety. Some is new, like the fenceline boundary along the western side of the 13th and 14th holes. This was upgraded and realigned as a result of a rural residential subdivision. A proposed subdivision (Tewa Banks) sits adjacent to the 6th golf hole. As part of this development the Council will re-fence the boundary. The Club has been very explicit with the Council as to the outcomes it expects along its boundary. This housing estate will be the single biggest impact on the golf courses mostly 'rural' edge since its inception.

It should also be noted that some of the fenclines ARE NOT located on the legal boundary eg the length of road of the 1st hole and from the 8th tee to the 9th green. The legal boundary is actually within the maintained golf course area. Any future developments needs to mindful of this.

7.8.4 Safety

No discussion on a golf course is complete without reference to 'safety', especially a golf course divided by a major access road. This section covers:

- Ball strike relative to golf hole layout
- Ball strike relative to External boundaries (neighbours).
- Ball strike relative to Internal boundaries (road).
- Golfer safety relative to road crossings

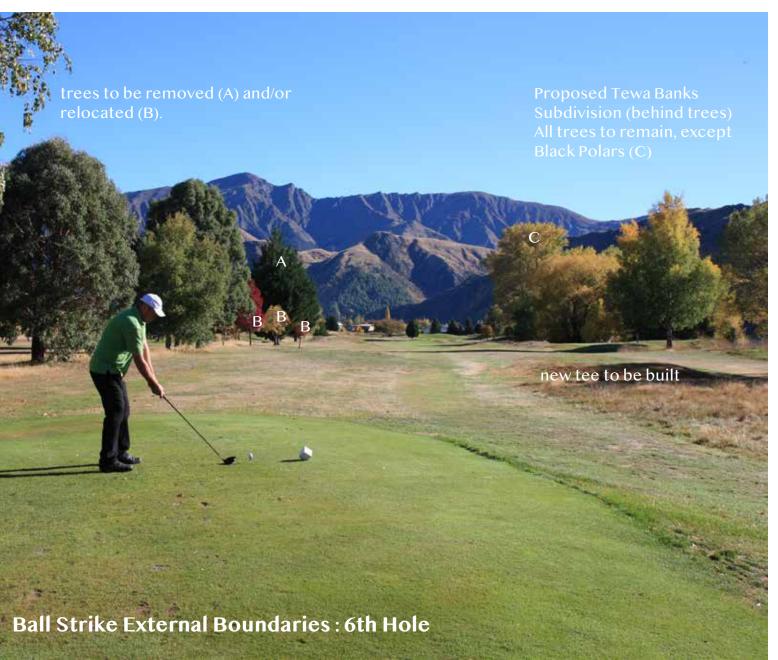
7.8.4.1 Ball Strike - Golf Hole Layout

As previously mentioned, the course is compact and safety issues from internal ball strike are real, particularly on the back nine, hence all the trees planted along the fairways between 11th and 12th and 12th and 13th holes. To my knowledge no serious injuries have occurred to golfers.....until the 2nd February 2022 when a serious ball strike injured a members eye. Any long term planning needs to be cognisant of safety relative to ball strike. This might mean we compromise aesthetics in favour of safety.

7.8.4.2 Ball Strike - Relative to Boundaries

<u>External Boundaries</u>: There has been no issue of ball strike of near-by houses, simply by the fact that there are none within striking distance of the golf course. That might change with the proposed medium density





housing estate along the north eastern boundary, adjacent to the 6th hole (refer previous image). The Club notified the developer of the safety issues but received little compromise. The Club decided to front foot the exercise and adjust the 6th golf hole to ensure the 'golf corridor' was contained solely within its own property. The 'golf corridor' is deemed to be 120m wide in the landing zone, IF it adjoins a residential boundary.

This has meant potential changes to the 6th hole, 7th green and to a lesser extent the 8th tees. These changes are planned to be funded by the developer.

Internal Boundaries: Centennial Ave cuts the course in two. The 1st, 8th and 17th holes play parallel to it. The par 3 7th sits alongside it and the angle of play off the tee brings the road into 'play' as the green is approximately 10m from the road boundary at the closest point. The 9th green is in a similar position. These holes pose a safety risk.

The 1st tee fairway was realigned in 2015 to improve the safety of the golf hole relative to the road. To my knowledge this has been successful.

There have been a few incidences of ball strike on automobiles, but no records are kept. With the increasing membership, increasing number of golf rounds and increasing Arrowtown population and associated traffic movements, then the potential of more ball strike seems a likely statistical outcome. The Club will need to develop a plan as to what needs to happen to mitigate the likelihood of ball strike.

7.8.4.3 Golfer Safety – Road Crossing

There are currently four/ five crossing points across as per the attached plan.

- A. Vehicular entry, which also doubles as a golfer crossing point on Saturday.
- B. Access off the 9th green.
- C. Access onto the 1st tee. (25m away from the 9th egress)
- D. Maintenance access.
- E. Maintenance access to the laydown area beside the 1st fairway.

Centennial Ave is an 80km/hr road. Visibility is good in all directions as the road is straight. However, from a safety point of view, the fewer crossings the better. The circulation of the golfer could be improved by closing the









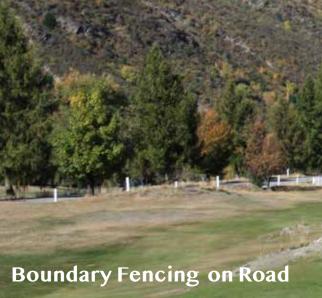
access off the 9th green, (B). The golfer currently has to walk back down the fairway to get to the access. Logic would suggest the golfer exit the green from the rear and onto the path/access for the 1st tee, crossing point 'C', which minimises any hold ups for the golfers waiting to hit their second on the 9th fairway.

The recent addition of the timber sleeper 'control gates' is a response to the safety issue. I think it might be more logical to simply close the egress off the 9th fairway at (B) and redirect it to exit the hole behind the green at (A).

Please note: As mentioned previously, the fenceline is not the legal boundary. It is approimately 6-8m into the golf course

















1st Hole

Par 5

General Comments

- The hole was realigned in 2015 to move play away from the road corridor and improve safety.
- The Club's iconic Shanahan's Cottage is visible from the tee and sits in the rough to the left side of the fairway.
- There are two teeing areas. The tees are elevated above the fairway and built in traditional oval shapes. It's possible to challenge the inside of dogleg by the bigger hitter, but it's risky as the mound is covered in lush rye grass.. Plus an internal out of bounds starts at the top of the mound.
- The designated landing zone is set at about 225m. It's possible to drive through this area into the rough.
- The rest of the fairway plays thru a gully, the entire mound on the right side beyond the fairway of which is manmade, to block out the road and provide some protection for motorists from errant balls. It works well.
- The green is tricky. A small and elevated green with a 1.6m high escarpment on the left side. The green is notorious for 'not' being able to hold a ball. The left side has slumped over time.

- 1. Consider combining the teeing area: firstly it gives more teeing options and secondly it will be quicker to maintain as one area.
- 2. Consider putting a Blue tee on the back of the mound behind the 18th, but only as part of the rebuild of the 18th green This would add 10m-15m.
- 3. Consider simplifying the golf furniture and course decorations.
- 4. Consider resowing the right side mound in 'Arrowtown' grasses ie fescue.
- 5. Consider removing the internal out of bounds as this area is infrequently used by green keeping. It's very penal. Given it's now the starting hole it should have, in my opinion, no hazards or penal elements to navigate to start ones round.
- 6. Widen the fairway on the left (which helps Point 5.) and try and incorporate the cottage 'into the fairway'. Irrigation will need to be extended to achieve this. Remove small trees.
- 7. Remove the small mound (dead elephant), covered in rye, it serves no purpose and is out of character, given the surrounding area is flat.
- 8. Consider extending and then combining the 10th and 11th fairways. Make Shanahans Cottage (8a) part of both golf holes.
- 9. The willow should be removed, like the other two were.
- 10. Consider introducing an extension to the existing ridge (12-15m long) between the fairways, cut mound at fairway height.
- 11. Consider extending fairway into this area, it's the best angle into the green.
- 12. Remove 2 x scraggly trees.
- 13. The green has become less pin-able over time. A renovation or relocation will need to be considered. The green could be extended back and left, away from the OB. NB. The fencelines is not on the legal boundary.
- 14. Consider extending the fairway cut on the left side of the green and remove the thin strip of rough. Once again it's very penal and serves no real purpose, the left side recieves a lot of play.
- 15. Remove all the trees behind the green, to improve agronomy and recovery shots. Needs to be considered as part of the reworking/ repositioning of the green









2nd Hole

Par 4

General Comments

- A strong par 4 from men's blue tee and a par 5 for the women's tee.
- A 'pop up' tee for the men's and a womens tee which is at least a 42m walk back from the 10th green.
- A rocky ridge terminating in a large willow defines the left side, and a line of larch trees on the right define the golf corridor. The last three of which were more recently planted in last 15 or so years.
- A two terraced fairway provides an opportunity for the bigger hitter to aim center-right of the fairway which gets them to the lower terrace and a short iron to the green. That line brings the OB on the right into play, as it should, if you are playing for a distance advantage on the hole.
- The fairway left is quite tight, with an area of rough, beside the willow. The average golfer hits toward this tree, away from the OB.
- The willow sheds both branch and leaf debris.
- There is a spring on the escarpment which makes the escarpment quite wet and boggy in winter.
- The lower terrace is flat all the way to the green.
- The green is flat with a funny little ridge, 400mm high, at the back which encloses the green.
- Lone trees on the both the left and right sides of the green, somewhat frame an otherwise featureless green. The long dry grassland at the back of the green looks good.

- 1. Consider a cart path linking the 1st green to the 2nd tees, with the cart ending up on the right side of the tee. Extend path down along the right side for 40-50m before bringing back toward fairway.
- 1a. The 1st green could move back into this general area.
- 1b. Note; Back tee is actually on neighbouring land.
- 1c. Consider repositioning tee to this general area
- 2. Remove the last three larch on the right side, they just add cones and leaf litter to the golf holes. Plus these trees are on the QLDC noxious plant list as they self seed prolificly. This opens up the risky aggressive drive line down the right side, which brings OB into play.
- 3. Consider removing the willow tree and smaller trees around Shanahans Cottage (3a).
- 4. Consider joining the two fairways (refer 1st Hole) and extending fairway up towards the cottage, once again providing another option off the tee and bringing the cottage into 'play' on the two holes.
- 5. Provide a permanent solution to the spring/ drainage issue and connect the fairway from top to bottom of the terrace.
- 6. Consider removing tree on left side of green and the conifer and the birch trees behind (6a). Convert leftside to 'surrounds' for chipping.
- 7. Green is flat and has multiple pin positions, with plenty of circulation around the green. It is one of the flattist greens, befitting the flat terrace it sits on. No change required.









3rd Hole

Par 3

General Comments

- Great par 3 requiring accuracy.
- A short walk from the 2nd green to slightly elevated 3rd tees.
- Low old stone retaining wall give it the 'Arrowtown' feel.
- A rowan tree provides shade at the tee.
- A reasonably sized tee of 309m2.
- Green protected on the left by a large rocky outcrop and a rowan tree. The right side has two trees close to the green.
- Out of Bounds lurks on the right behind the conifer.
- The green is Arrowtown's largest at 420m2 and is tricky with two club lengths from front to back pins. The back portion falls away from the tee shot.
- It is tucked close to the rocky outcrop and the area between the green and ridge is used for cart access, impacting the agronomy.
- The course toilet is located at the back of the green and visible off the tee.
- It appears from the topographical and cadastral (legal) plans that one third of the green might be outside the Clubs title.

Specific Recommendations

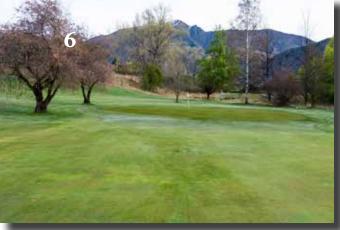
- 1. Consider enlarging and extending the tees to area shown. This will give options for playing the hole a little shorter and from a different angle. It will also spread the wear and tear on the existing tee.
- 2. Reposition path to left side of existing tee to accomplish No. 1 above, delete existing path 2a.
- 3. Remove tree on the left as it diminishes the mound behind, likewise the conifer at (3a).
- 4. Remove the two trees on the right.
- 5. Consider locating cart path as per plan, take it on right side of the green surrounds. Note, this is currently outside the Clubs legal title.
- 6. Relocate and upgrade the toilet to match the one on the 16th tees.
- 7. Cut a 'goat track' from green to 4th tee up the rocky knoll, as a short cut for the walking golfer carrying clubs to the back of the 4th tees, much like the track from the upper 15th tees to the lower tee.
- 8. Drain wet area in front of tees that appears in winter, possibly a spring or seepage from pond.
- 9. Access for walking golfers only.
- 0. Remove silver birch.

Note: This boundary is a less critical when compared to a road boundary. I understand the land is owned by DoC and its unlikely they will be concerned about these minor incursions into their land. I understand in the past that the land was offered to the Club for its use.











Par 5

General Comments

- One of the wider fairways on the golf course and could be wider.
- 3 x super elevated tees give a good view all the way to the green.
- Out of bounds on the right, with conifers and poplars lining the boundary
- Left side of fairway has some interesting hummocky mounds which run all the way to the green. A heavily treed wet area sit mostly out of play on the far left side.
- Right side of fairway is preferred in summer as there is a bank which adds distance to the drive and a better angle to the green, but you have to play adjacent to the OB and the lie can be variable due to the trees and the rough.
- Several small rocky mounds are dotted along the left side of the fairway in and around the second landing zone.
- The green is on grade with the fairway, flattish, but with subtle tricky contour.
- A funny little ridge, similar to the 2nd, runs around the back of the green, thick rough lurks behind.
- Left side has 2 x flowering cherry trees close to the green, favouring a right side approach for left pins.

- 1. The three tees provide ample teeing options, but need re levelling. Remove tree at 1a.
- 2. Remove trees (2a-2b) on the left side. of the fairway and widen fairway irrigation. Allow the high handicapper to aim 'wide left' away from the OB on the right. Use 180 degree heads to give a clear demarcation and strong contrast between irrigated fairway and rough.
- 3. Remove small deciduous trees on right side.
- 4. Remove oregons on the right side (4) and (4a). Widen irrigation to this area, which is strategically position 'A' off the tee, as you need to challenge the OB to get there. Currently the existing rough, pine cones and trees, makes this a risky option. Oregons and conifers at (4c) should also be considered for removal, they don't add anything to the golf hole.
- 5. Remove trees 5a, 5b and 5c and widen fairway to include these mounds 'in' the fairway as opposed to on the 'edge' of the fairway, as is the current situation..
- 6. Concerned that cherry tree roots might have extended into green. Consideration should be given to their removal.
- 7. Future cart path location on right side of green and connects directly to the 5th tee.
- 8. There has long been talk about extending the hole to this location. It has merit as it:
 - a. Lengthens the hole to be a full 3 shot par 5, at just over 500m.
 - b. There is a good green site, on a lower bench, which is closer to the 5th tees, resulting in a lesser 'walk back' to the tee,
 - c. However, it is also lower down and closer to the hill, so will be in shadow longer in the winter time. Needs discussion..
 - d. No immediate action, its just a consideration.









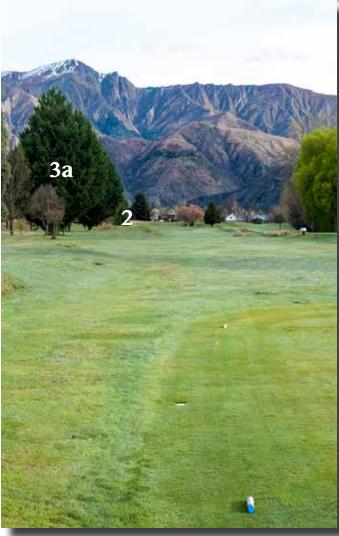
Par 3

General Comments

- A very strong and long par 3.
- Elevated tee with stone retaining wall gives a good view of the hole, but the green is slightly more elevated, so you only see the back portion of the green as it has a slight 'hammock' shape to it ie. lower in the middle.
- The tee is a bit on the small size for a par 3, 215m2, with limited options to adjust length or angle.
- NB. The legal boundary is further north than the fenced boundary ie the Club has more land beyond the fence.
- Rocky outcrop on the left is a striking feature, but currently has a oregon and a birch tree living on it.
- Left side of green is a steep bank kicking balls further left. You don't want to miss here!
- Right side has a ridge running parallel to the green stopping ball feeding on to green for those playing safe to the right.
- The green sits in front of a rocky outcrop with the Remarkables range in the background.
- The green is once again flattish, long (for Arrowtown) and narrow with enough pin locations to change the length of the hole by 2 clubs. It's 345m2 in area. The green is more than adequate with sufficient pins. It is a green that is seldon hit, due to its narrowness and length of the tee.

- NB. Any work along this boundary should be undertaken in conjunction with the landowner when they start their Tewa Banks development. High mounding and planting should be considered as part of the boundary treat ment beside the tee to screen potentially 8m high houses.
- 1. Consider replanning the tees and future cart access relative to the neighbouring development and legal boundary.
- 2. Consider adding other teeing options, allowing for different length and angle into the green. Ensure it is physically connected to the existing tee for easy access for both the walking golfer and maintenance.
- 3. Consider removing the tree located near front left side off the tee.
- 4. Note: the boundary fence in in the wrong location and the Club has more room behind and to the right as the existing fenceline portrays.
- 5. Consider removing the trees to reveal the rocky knob beneath...
- 6. There is a wet area, possibly a spring, which appears from time to time in this area. This may need to be looked at.
- 7. Consider adding irrigation to the left side and changing the grass species, so it can be played as greens surround, enabling options from lob wedge to a putter if need be.









Par 4

Note:

As a result of a proposed land development adjacent to this hole, it is currently under consideration for re-planning. The Club have been proactive to ensure that minimum golf course design standards are adhered to for golf courses in proximity to residential development.

A sketch of the proposed hole has been completed. Advancement of this work is dependant on the landowners construction timeline. The General Comments will mostely become redundant with the proposed changes.

General Comments

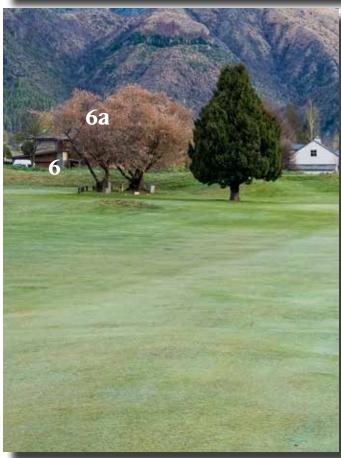
- A strong Par 4.
- The tees are on grade with the fairway.
- The driving corridor is defined by the large leyland trees on the left and the legal boundary (OB) on the right, beyond the treeline.
- The fairway is pretty flat except for some Interesting lumps and humps giving it the 'Arrowtown' aesthetic.
- The green looks benign but there's a left to right tilt as well a subtle ridge running almost parallel to the playline, which creates some interesting pins.
- There is little in terms of short grass 'surrounds' at the back of the green, which means a 2m miss could have you buried in rough. Great for
- competition golf, not as much fun for member golf.
- Trees left and right near the green define the shot corridor for your second shot.

Specific Recommendations

- 1. Reposition tees to play 'away' from the northern boundary with the Tewa Banks subdivision.
- 2. Reposition 'landing zone' to comply with minimum offsets from residential boundary.
- 3. Remove trees. (3a-3c)
- 4. Relocate smaller claret ash trees
- 5. Add mounding to 'turn the dogleg', as well as give some visual separation to the 7th green.
- 6. Consider building cart path to control access onto the fairway.
- 7. Remove conifer on left side as the play is now from the left of the fairway, this tree will be more 'in front' of the green, once fairway is repositioned, than 'beside' it. Consider removing the tree located at front right (7a).
- 8. Consider taking the cart path on the right side of the green, up on the mound and around behind the back of the green, just on the Jopp Street side of the mound (out of sight). Extend to the 7th tees.
- 9. Consider extending short grass surrounds up the mounds towards the proposed cart path.

Note - The legal boundary is between 6-12m further to the right than the current fenceline. If the Tewa Banks development proceeds, a new fence line will be built. ALL the trees on the clubs side of the boundary will remain, except the two large black poplars (10).









Par 3

General Comments

Note: The changes to the 6th also impact the 7th hole.

- A tough, demanding par 3. The green is 8m wide in the middle and only 165m2!!
- Two teeing areas: the Blue tee is elevated on a man made mound, the other is flat and on grade with surrounding fairway.
- Two cherry trees provide a bit of shade beside the lower tee in the summertime.
- Timber bollards enclose the green side of the tee. The trees shade mean this area is challenged when it comes to getting vigorous grass growth and accordingly shows a lot of wear and tear from golfer traffic.
- The green is protected by mounds on both left and right and run parallel to the green, which runs at approximately 25-30 degrees to the line of play.
- The road (Out of Bounds) runs behind the green and very much in play.
- The green is a slight 'hogs back' ie the middle is elevated above the front and back.
- Pin positions are limited to effectively a front, middle and back pin.

Specific Recommendations

- 1. Add/relocate the teeing area toward the west (the roadside), and play a bit more 'beside' the road, rather than 'at' it. A good opportunity to have a large teeing area offering variety in angle and length.
- 2. If tees are repositioned then the Cherry trees can probably stay, for shade.
- 3. Cart path can be positioned behind the tees and extended out into the dry rough. This will help grass growth beneath the trees. It also get a lot of the golfers for the 7th tees, away from the 6th green, improving safety.
- 4. Reconfigure mounding as per comments for the 6th.
- 5. Reconfigure and extend mounding as per sketch design for the 6th
- 6. Extend green toward the front allowing for additional pins, but also provides new pins which direct play 'away' from the road.
- 7. Extend mounding down the road boundary to remove moving traffic from the visual aesthetic of the golf hole. Align the cart path through this mounding, to the back of the green. Consider planting on the road side of this mound to add a protective buffer from an errant tee shot.

Note: The fenceline is not on the legal boundary. The legal boundary is approximately 4-6m into the golf course. Any work on this hole needs to consider this..









Par 4

General Comments

Note: The changes to the 6th hole also impact the 8th tees.

Note: IF road safety becomes more of an issue, the the tees can move forward by 20m and the green move back by 20m, this way the hole will play more 'away' from the road

- Four lots of teeing areas are available. The more eastern (left side) tees were added within the past 10 years, which unfortunately bought the road more into play.
- Mounding and a few native tree species were added to the road boundary to provide some level of safety, which have limited effect.
- Trees were removed from the left side to allow the golfer to play a bit more to the left, away from the road.
- Recently 3 x kowhai have been planted between the 6th tees and 8th fairway, which do not seem to be doing very well.
- Self seeding silver birches have colonised the rocky outcrop.
- A ridge running perpendicular to the fairway at 200m defines two landing areas. Carrying the ridge gives the bigger hitter an advantage of another 20m plus.
- The green is on grade with the fairway and there a subtle swale on the front and a low mound on right side.
- A rowan tree protects the front left side of the green. A flowering Cherry tree is located on the side of the gully to the right.

- 1. Remove eastern tee as response to 6th fairway moving toward these tees
- 2. Extend mound to beside western tee. NB. The legal road boundary cuts thru the teeing area. Any work on these tees should be aware of this constraint.
- 3. Extend and combine front and back tees.
- 3a. Remove tree to enable tees to move away from road and include cart path.
- 4. Create a new roadside mound and plant on the 'road' side of it for the first 150m. This should connect into the existing mound.
- 5. Relocate native trees to road side (as opposed to the golf side) of the mound. Increase planting along this boundary, but only if its irrigated.
- 6. Extend irrigated fairway to favour left side and encourage play away from the road.
- 7. Remove the dead kowhais. Do not replace.
- 8. Continue ongoing removal of the silver birches from the mound.
- 9. The proposed new 6th tees improve safety from errant tee shots off the 8th as they are further away from the fairway, although it is mostly out of range for most member golfers
- 10. Consider mounding, instead of planting, for 'protection' in this area, as it will be more in keeping with the Arrowtown 'look', which is ALL about the topography, not the planting.
- 11. Consider taking the carts off the fairway earlier, as per the plan. This is a natural and logical exit for golf carts, just short of the green.
- 12. Consider this area as the 'cart park' for the 8th green.
- 13. The green is flattish with plenty of pin-able green.
- 14. Remove trees, 14a and 14b..
- 5. Remove tree in gully (15a) as well as group of conifers behind (15b).
- 16. Potential green site, if holes needs to move to improve road safety







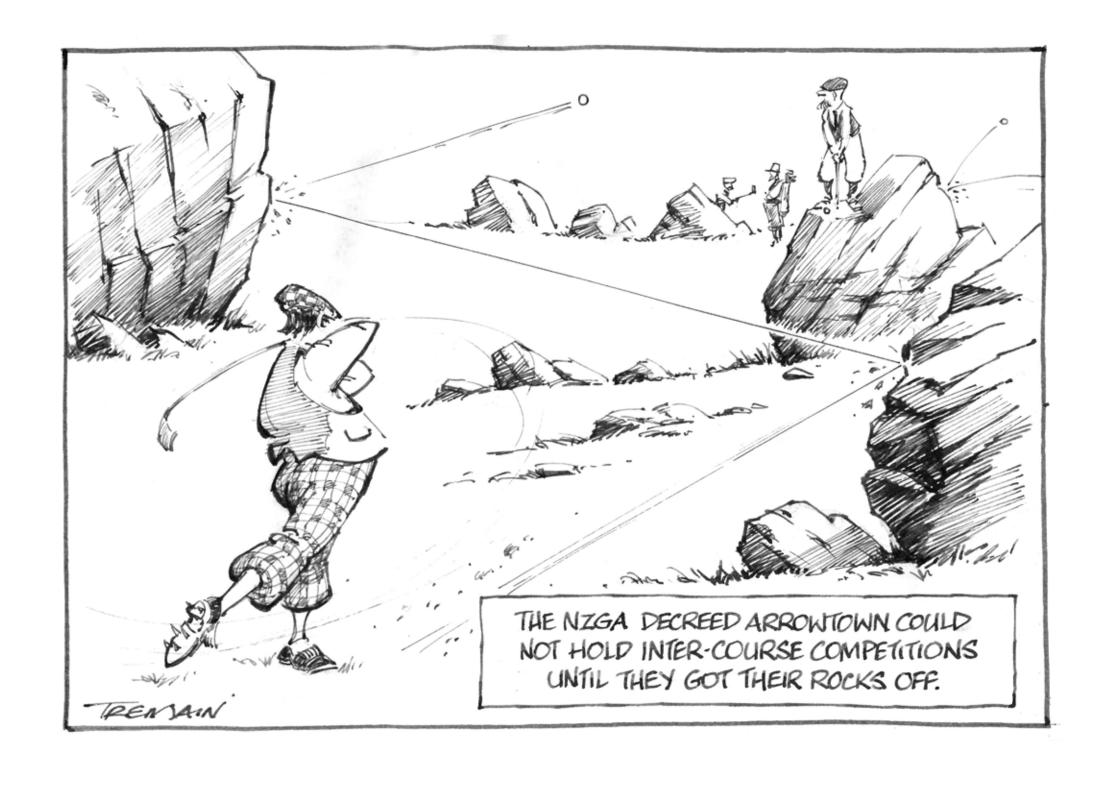


Par 4

General Comments

- A great end to the front nine with all of Arrowtown's character on display, combined with risk and reward elements.
- The tee is very elevated and plays toward the irrigation storage pond, located on the left side of the fairway.
- The more forward tee opens up the fairway and allows the golfer to play away from the pond. It is located in the shadow of the willow trees.
- The aggressive 'hero' line from the back tee requires hitting a blind tee shot to the right of the fairway with approx. 200m of carry over rocky outcrops and dry grassland. If successful the approach is between 75-95m.
- A deep gully runs perpendicular across the fairway at 250m, which is in play for long hitters and down-wind days.
- The conservative play is down a narrow fairway toward the pond, but caution is required as the fairway kicks right to left., toward the pond.
- The green is positioned close to the road and slopes strongly from right to left, which is becoming more severe each year as the left side is slowly slumping. This has resulted in only a few pin-able positions.
- * There is currently a 'walk back' down the edge of the fairway to the exit. This is not ideal.
- * NB. The legal road boundary runs adjacent to the green. Any work done on the 18th hole needs to take into consideration this constraint.

- 1. Trees to the east of the forward tees need thinning.
- 2. Stormwater from 8th cart path discharges onto 9th cart path. The drainage needs to be addressed..
- 3. Potentially relocate cart path away from low wet area, to a more elevated location
- 4. Sunken trench in the fairway needs levelling and suggest fairway quality grass be extended all the way to the edge of the pond. This can be cut as first cut as required.
- 5. Extend fairway into the 'red' highlighted area as this is strategically position 'A' as it allows the golfer to hit back 'into' the sloping green.
- Green position relative to the road is a concern. As is the fact that the green is slumping, resticting pins to only the left side of the green. Consideration should be given to repositioning green toward the pond. NB. The legal road boundary (6a) runs adjacent to the green. Any work done on the 9th hole needs to take into consideration this constraint.
- 7. Clear out willow trees to reveal more 'pond'.
- 8. Close off the crossing point and consolidate access to that behind the 1st tee.
- 9. Allow for a cart path to be located (temporarily) toward the boundary fence. This will get golfers to the back of the green and can exit the green from the rear and cross the road near the 1st tees. This will remove one of the five crossing points and alleviate some safety concerns.
- 10. When the 9th green renovation is required I suggest the green be relocated toward the water.











Par 3

General Comments

- A medium length, down hill par 3.
- Elevated tees give a good view of the green and surrounds.
- The tees exist on several terraces adding variety in length and angle. teeing area is 381m2.
- Out of bounds defines the right side of the hole.
- A strong ridge runs at almost perpendicular to the tee shot. Your tee shot must carry this to reach the green.
- The green is 271m2 in area and located in a bowl, of sorts. These two conditions restrict the number of pin positions.
- The cart path is currently cut directly in line with the tee shot, affecting the aesthetic of the golf hole. This has been remedied, refer photos.
- Current cart access is generally around the left side of the green and very close to the putting surface. The agronomy of the surrounds is quite damaged by carts.
- The gully is often wet, mostly in winter. Solutions are needed.

Note: There is a broader discussion around the site planning for the Clubhouse which should include the 1st tee.

Specific Recommendations

- 1. Remove the planting at the back of the tee to allow the golfer to approach the tee from the rear. This needs to be considered as part of the Clubhouse & Environs future planning.
- 2. Consider repositioning the cartpath to access the golf hole around the right side of the tee and along the right side of the hole, out of viewshot, as much as possible. Walking golfers can still access the tee via the existing left side entry.
- 3. Mounding and planting should occur between the new path and maintenance building, to screen the building and compound as much as possible.
- 4. The path should be continuous from the 1st tee all the way to the second tee, with 'no' cart access off it, this will minimise wear and tear of the grass. Remediate old cart path for the use of the walking golfer only (4a).
- 5. The back tee is distinguished by the stone retaining wall and is the tee most often in play. The other tees are quite small and less frequently used. If the path gets repositioned, consideration should be given to replanning the tees and combining them into one large area., rather than 4 small areas.
- 6. The new path and control of cart circulation, would allow an increase in the green size to the left side and with it a few more pin placements.
- 7. Irregular conditions in ground levels and agronomy in the surrounds, particularly at the back of the green, could be remedied.
- 8. Wet area either needs a robust drainage solution or could be planted.

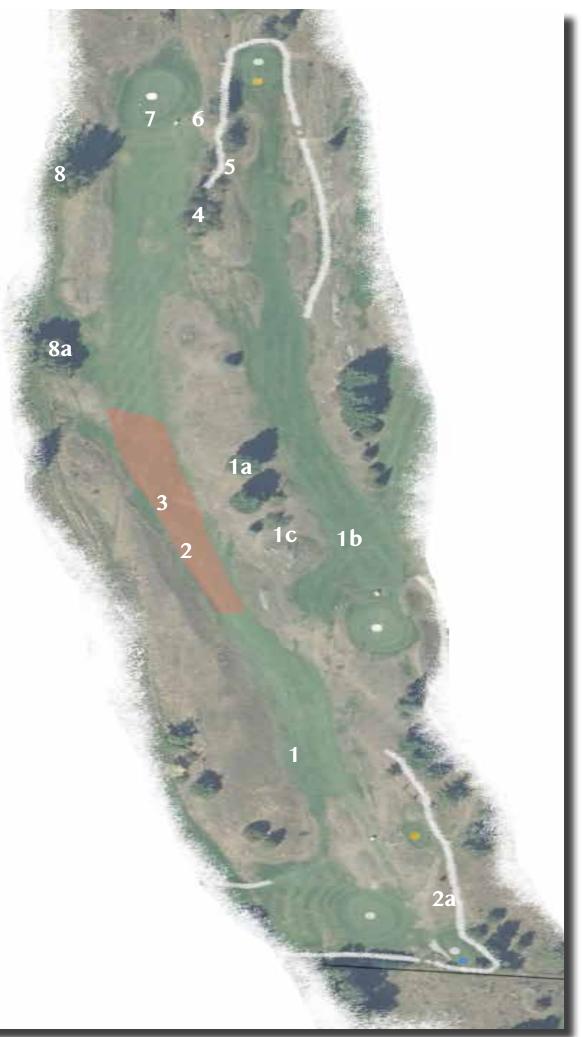
Note: There's a broader discussion which involves the 10th-13th hole s and how we might improve safety, playability and circulation, without materially changing the holes significantly.











Par 5

General Comments

- A medium length par 5 and the only one on the back 9.
- 'Arrowtown' personified and a great driving hole.
- Two small teeing areas are positioned on a ridge. The teeing areas are 210m2, second smallest on the golf course, this limits options to adjust tee position and spread the wear and tear on the fairway.
- The fairway is defined by dry ridges either side of the fairway.
- A lateral hazard is present on the left (but not really visible) and a line of trees on the right at 200m-250m, to protect the 3rd fairway from the second shot.
- The irrigated fairway is barely 12m wide, but the 'corridor' is 35m. Any shot, left or right, within that corridor will 'generally' return to the fairway. This results in a heavily divoted area of fairway (Red area).
- The green is defined by a 4m high ridge on the left and a 2m berm on the right, covered in birch trees and very much in play.
- The green is slightly elevated by approximately 1m, with a batter slope around the front and right sides. It was rebuilt in the early 2000's, is dead flat and somewhat out of character with the entire golf course.
- Golf cart access goes very close to the right side of the green and into a wet area. The agronomy is always very poor here. There may be a spring or a seep in this location.

- 1. Safety off the back tee is a concern. A 'good' miss is far enough right so as to be on the 12th fairway (1b). This is the 'miss' of concern. Consider repositioning/ extending tees to add more angle for the tee shot, (refer 2a below). The large leyland trees at (1a) serve a small safety function. Keep the one with the '1a' label on it and remove the other. Remove the smaller conifers (1c).
- 2. The valley nature of the fairway landing zone means it gathers golf ball into a small area of wear and tear. I suggest extending the tee by another 45m (2a). This should, on average spread the wearand tear on the fairway in line with the tee placement. It would move the risk of the 'miss' on the 12th fair way closer toward the 12th tee. It will also change the angle of play,the golfer will tend to aim a little bit more left. (Requires discussion)
- 3. The first landing zone on the 11th fairway are in occassional danger from an errant shot off the 12th tee. Trees at 1a provide a partial buffer but only for longer hitters.
- 4. Birch trees beside 11th green are of limited safety and of no strategic value I recommend some be removed.
- 5. Reposition cart path where the birches are, which is quite high and out of the fairway. Upgrade cart path to hard surface.
- 6. Remove old cart path and fix the drainage, this should enable better quality agronomy and a wider surround of short grass as it would only services the walking golfer.
- 7. A discussion needs to be held on rebuilding the green, in line with the courses 'style'.
- 8. The poplars are near the 'use by' date and should be on the list for removal. NB. There's a broader discussion around safety on the 10th, 11th, 12th and 13th all of which effect each other and would like to discuss in the field.











Par 4

General Comments

- A short par 4, with club selection options off the tee.
- There are 2 separate teeing areas, the back one is now used as the Blue tee and makes for a strong golf hole. The premium is on the drive.
- There is a low area directly in front of the tees which means it is often wet.
- Fairway is narrow and sandwiched between the 11th and the 13th fairways, meaning a slice easily reach the 11th fairway, a hook is mostly caught by the trees on the left, protecting the 13th fairway.
- Trees both sides provide moderate protection, but are aesthetically out of character with Arrowtown.
- Fairway is mown in the valley and balls slightly left or right collect back toward the fairway, resulting in a compressed area of divoting, similar to the 11th.
- Small narrow, bowl like green with significant contour and accordingly very few pins. A miss right or left feeds onto either the 11th fairway of 13th tees. The green is very small at 265m2 in size.
- Cart access is difficult but usually to the right of the green. This area is maintained as rough, to handle the traffic. The area is also in the firing line for a sliced shot off the 11th back tees.

- 1. Create more teeing area to allow the cart path to be extended behind the tees. Possible extension into (1a) for forward tees.
- 2. Re-route cart path and relocate 'protection' screen to left side of tee.
- 3. Extend path down left side of fairway by approximately 40m to control access onto the fairway.
- 4. Improve drainage at front of tee.
- 5. Remove the small conifer.
- 6. Remove 3x small conifers.
- 7. Smaller evergreen and deciduous trees to be removed. I'd love to remove them all but am more concerned about safety than aesthetics.

 At the very least these should be limbed and thinned and then reviewed.
- 9. The limited amount of pinnable area has long been a topic of discussion. The green seems to handle the wear and tear. Once again its a small target, so doesn't get hit that often. There never seems to be excessive pitch mark damage. Currently I don't see any need to modify the green. Needs to be monitored.
- 10. Relocate cart path further to rear of green to loop around 4th tees. Remove existing path (10a)









Par 4

General Comments

- A fun, short par 4.
- Good size tee with plenty of options to adjust as required for Blue and White.
- Gravel cart path crowds tee and impacts on the aesthetics.
- A bit busy around the tee with timber bollards, chains and rubbish bins,.
- Quite a carry for the forward yellow tees, similar off the white tees, for the mid to high handicapper. This forces then to align and hit slightly left to hit the fairway.
- Hitting the fairway requires an escarpment to be 'carried'. A miss right ends up on a lower terrace 5-6m below the fairway, resulting in the second short being blind. A miss left ends up either in the trees or on the 3rd fairway, once again a blind shot to the green.
- Fairway starts narrow but then widens significantly. Agronomy is under pressure in the narrow strip as it serves as cart access. No irrigation in this area compounds the problem.
- Slumped trenches are noticeale in the landing zone.
- The removal of trees and rebuilding the 14th tees has created more space to the right of the fairway.
- The green is small, 245m2, elevated and is protected on two sides by shape with a bank on the front right side.

Specific Recommendations

Note: This area is very tight for circulation and safety. The recommendations focus on trying to improve this without impacting too much on how each hole is played.

- 1. Form new cartpath beside 12th green and extend as shown, to the right side of existing tee (1a), relevel and widen tees (to the left) as necessary.
- 2. Rethink bollards and chain aesthetic as it appears to compound, rather than alleviate wear and tear. Rethink rubbish bins and whether they are needed at all. Bollards won't be required as the cart path will be lower then the tees by approx 500mm, if it gets relocated.
- 3. Control cart access to the new path, away from the 11th fairway for safety reasons. Carts go to lower level, away from in bound balls off the 12th. Consider relocation existing cart path (3a) to a new location at (3b)
- 4. Consider relocating forward yellow tee to an elevated area, enabling an easier carry and hopefully allows them to aim a little more to the right.
- 5. Consider extending white tee forward to enable a more achievable 'carry' over the gully. This might require fill and some earthworks, so best done in conjunction with cart path formation.
- 6. Re level sunken irrigation/ drainage trenches in fairway.
- 7. Control cart access in relation to proximity to green ie they should park beside the 14th tees, no closer.
- 8. Green is small, of minimal contour, but has sufficient pins.
- 9. Remove remaining trees as they do not add anything to the golf hole.
- 10. Potential alternate 14th tee identified behind 13th green.











Par 4

General Comments

- Another short par 4, but such a good looking hole off the tee.
- New tees built in 2020 with the removal of a large grouping of trees.
- New tees are long and allow multiple teeing opportunities.
- Access paths showing signs of wear and tear due to carts
- The golf hole has an upper fairway and a lower gully as the landing zones.
- Upper shelf is mown, but receives 20-25% of the play.
- Lower gully has drainage issues, plays as rough and receives 75-80% of play.
- The further down the gully the golfer gets, the tougher the recovery shot is, as rocky outcrops appear as 'defence' around the green.
- Gully has 5 large sump covers which effect the golf holes aesthetics.
- A challenging short from the gully as the golfer can only see the top half of the flag.
- The green is 275m2, is quite flat, has a good number of pin positions and sits on a bench with rocky low ridge on the right hand side.
- The surrounds are very tight for space and constrained by rocky outcrops. Cart access in front of and around the green is compounding the wear and tear on the agronomy. This needs addressing.

Specific Recommendations

- 1. Cart path wear and tear seems to be made worse by the horizontal timber sleepers. Suggest path be constructed in a permanent hard surface.
- 2. Control cart access for the first 65m of the fairway. there's a natural location for this.
- 3. Review whether stormwater is working efficiently as it still appears very wet. There are sub surface stormwater devices for storage, which might improve the situation and we could reconsider whether these sump covers are required. The sumps and gravel surrounds detract from an otherwise classic Arrowtown golf hole.
- 4. Consider irrigating a portion of the gully area and making it fairway, as this is where 80%+ of the golf is played from. The mown fairway (4a) is very seldom hit.
- 5. Construct path to control cart access as it approaches the green.
- 6. Widen walk off 'short grass' as per the original plan to spread wear and tear.
- 7. Re level surrounds in front of green as there are many little depressions.
- 8. The Atlantic cedar should be removed as it adds nothing to the golf hole.
- 9. Likewise the birch and oregon trees, they should also be removed.
- 10. And the two briches at the back of the green should go. A shade tree should be placed near the seat on the 15th tees.
- 11. Another tee location was identified behind the 13th green. This changes the angle into the hole and would mean the upper terrace would be hit more often than the lower one (4) and spread the divoting. It would also make the hole driveable for the risk taker. Feedback from when there was a temporary tee in play, which made the green driveable, was that the members I spoke with liked the option. Needs further discussion.

Note: The new tee box was built as a long continuous tee so that the tee markers could move significantly, to once again, spread the divoting area on the lower fairway (4).











Par 3

General Comments

- Short to medium par 3.
- Two teeing options: one from an elevated tee over a gully, with good visibility of the green. The 2nd option from a lower tier, with no visibility of the green.
- The green to the eye is flattish.
- The tees were rebuilt and enlarged in 2018.
- A miss to the left ends up on the 14th fairway rough, resulting in arguably the toughest recovery shot on the course.
- Trees short right only serve to tighten up the target and probably save the miss hit from a worse fate.

Specific Recommendations

- 1. Consider simplifying the arrangement of golf furniture around the tee. The bollard and chain aesthetic appears to compound, rather than alleviate, wear and tear. Removal will distribute the wear more evely.
- 2. Construct a permanent hard surface cart path.
- 3. Remove last portion of cart path, from past the 16th tees as there is insufficient turn around area and the agronomy is suffering. The carting golfer should be able to park by the water tap and walk in.
- 4. Remove birch trees (4a-4d). This will improve the quality of the agronomy in the 'miss' area. Make this part of the surrounds to be irrigated.
- 5. Consider enlarging the surround to the right as this is the bail out area.
- 6. Remove remaining tree.
- 7. Native shrubland is present in the backdrop. This is made up of matagouri and coprosma propinqua. Its generally called 'Grey Shrubland'.
- 8. The last larch (3 or 4 were removed previously from the bank), gives some protection to the 16th tees from a shank off the 15th tees and might need to stay. Replacement trees should be planted and plan for the larch's eventual removal.

Note: The green has ample pins and is not under any pressure.











Par 4

General Comments

- A fabulous short, driveable par 4 of 298m. Plays from an elevated tee down into a valley with steep banks either side.
- Another classic Arrowtown gem...... 'easy bogey'
- New toilets have been added and located in a discrete location.
- Fairway is wide, however due to the elevation, it is easy to miss right, or left and have a recovery shot out of the rough. The recovery has been made a lot easier since the conifers were removed on the right. The removal also really highlighted the rugged topography
- Group of trees in the valley on the left side of the fairway are very much in play and represent the major hazard impacting play and recovery.
- Other poplars and confiers are present on the hole, but do not add any strategic value or aesthetic appeal, in fact they detract from the holes stunning topography and simple elegance.
- The only negative on the aesthetics is the presense of cars behind the green.
- The green is 'flat', quite appropriate being in a valley floor, with plenty of pins, some with very subtle borrow.

- 1. A hole which would benefit from having another tee from a different angle, which would totally change the set up for the hole. This has been discussed in the past and should be back on the table for discussion. It is non urgent.
- 2. Suggest removal of the poplar on the left as it adds nothing to the golf hole, except leaves in autumn.
- 3. Tidy up the 'hag' on the left escarpment, at 175m-225m, as it is the source of many lost balls. Possibly increase the rough cut line further up the bank
- Trees to eventually be removed to left of the green. Yes it will make the hole easier, which I have no problem with. It is stroke 18.
- 5. Suggest 1.5m mounding at back of green to block views and noise of the road. This may impact the green so design will be required. It may have to slide forward by 5-7m to allow the mound to fit in. Low planting of approx 3m on top of the mound will screen the road.
- 6. Remove conifers, pine (6a) and larch (6b).
- 7. Consider placing cart path further down. This would enable access to some potential new tees for the 17th, which may be required for safety reasons.
- 8. Direct all cart golf access to the main path and leave a narrower short cut (8a) for walking golfers. The lower portion (8b) should be cut and surfaced to meet up with the bottom of the cart track. The area at the bottom of the short cut is vey wet over winter (8c) and gets a bit cut up with traffic. This needs a permanent solution.











Par 4

General Comments

- Another short par 4 playing back to the north.
- Two teeing areas allow different angles of play. The one on the left (southern side) brings the road more into play.
- A great little par 4 with humps and bumps in the fairway, a large deep gully on the left and the OB of the road on the right.
- The fairway tapers at 175m as the left side gully starts to cut in toward the fairway, compressing the fairway between the gully and the road.
- The road is very much in play and is a safety concern, especially for the far left tees. Tees are slowly slumping at the back (16th fairway side) of the tee.
- The fairway experiences isloated drainage issues after large rain events, however, it dissipates within 48 hours or so.
- The green sits at the base of some shape with a strategically placed mound at the front which adds difficulty to middle and right hand pins. You can play long to the back of the green and most of the times the ball will release off the shape back to the green. Note the words 'most of the time', less likely in winter.
- It's a small green of 225m2, with lots of shape that results in only a small handful of pin placements through the valley portion, with the left side of the green enabling 3-4 pin locations.
- Cart access gets very close to the left side of the green complex, affecting the quality of the surrounds.

- 1. Consider re-planning the tee location to enable strategic options off the tee. Relocating the tees closer to the road will result in the golfer 'playing away' from it (red line) and improve safety. The white line represent the current angle. The hole will change from a slight dog-leg left hole to a dog leg right.
- 2. The tees will need to be high enough so the golfer can see the fairway off the tee. The cart path could be positioned in behind the tees.
- 3. Consider mounding the entire length of the boundary to remove the visible road corridor from the aesthetics of the golf hole. It will also serve to contain an errant ball. Consider planting the road side of this mound.
- 4. Add more irrigated fairway to the left side as we want to encourage play away from the road.
- 5. Consider cutting a portion of the gully at fairway height, as a lot of member play on this hole is from here. Upgrade the drainage and agronomy accordingly, as it gets quite wet in winter.
- 6. Reposition cart path away from the green and reinstate old path (6a) back to turf. Cart access to be constructed in hard surface.
- This is a very small green and consideration might be required as to how it could be enlarged to allow for more pin positions. This exercise will need to be very sensitive so as to preserve the character of the green, its surrounds and its features. First impressions suggests expansion to the left.
- 8. Consider removing some of the poplars along the cart path. Leave the ones near the walk in to the 18th tees, as they provide a bit of shade. Remove oregon(8a) and cherry trees (8b).











Par 4

General Comments

- This is the most elevated tee on the golf course with an incredible view to match. Access is via 'heart attack' hill.
- Three separate teeing areas exist, with the most elevated being the Blue tee
- The hole plays as a dog-leg left.
- A soft gully, running perpendicular to the tee shot, must be carried in order to hit the fairway, which is one the widest on the back nine and runs at 15-20 degrees to the angle of play, giving the appearance of a wider target.
- The fairway is a flat terrace with a steep escarpment on the left, which plays as a lateral hazard all the way up the left to the green. The right side has some mounds with trees, which separate the fairway from the practise area. These have the 'dead elephant' appearance and slightly out of character with Arrowtown.
- A lone gum tree on the left, at 200m, is somewhat of a magnet for golf balls.
- Due to the firmness of the ground near the gum, combined with a slight right to left slope of the fairway in this location, means any balls within 10m of the escarpment end up going over the edge.
- The green sits on the edge of the escarpment, in a small bowl.
- The green is on the small side, 345m2, with limited pins due to internal green contours. It is a difficult target to hit and is rightly stroke hole 5.
- The greens surrounds are very small and tight which concentrates circulation for both maintenance equipment and golfers..
- A penalty area to the left of the green and an internal Out of Bounds to the right add weight and gravity to the second shot.
- A sump back left by the green edge appear to drain a very small area, but suspect shape may have been added to stop golf balls running through to the lateral hazard.

- 1. Remove gum from the knob near the tees.
- 2. Construct cart part as per location shown, out of sight off the tee.
- 3. Remove gum on the left of the fairway.
- 4. Reshape fairway to fall slightly back toward the line of play and shape this to be a concave shape, rewarding the player who plays this line. Irrigate and mow as fairway (red area). NB. The best line to the back right pin is from the left of the fairway, which is currently high risk due to the conditions created by the gum tree, mentioned above in the General Comments.
- 5. Possibly 'tighten' the playable fairway on the right, which would allow the width of the practice area to be extended. 'Move' existing mounds (5a) toward 18th (as per red area) and plant the practise range side. this should make for a more sizable practice area. The existing trees (5b) can be re moved and replaced with mounding (2.5m-3.0m+)
- 6. The green and its surrounds are fine. The green is on the small side, but that is 'Arrowtown'. It appears to handle the traffic despite limited pins. Carts and trundlers access the Clubhouse through the carpark (6a), not via the back of the green which assists in alleviating a lot of traffic exiting beside the green.

APPENDICES

Appendix A Proposed 5 year Golf Club Plan: 2022-2027

Golf Course

- * Greens Conversion of greens & surrounds to sand, thru coring and topdressing with sand.
- * Tees Conversion of tees to sand thru coring and sand top dressing with sand.
- * Tees Continue levelling tees
- * Drainage improve fairway drainage in areas where needed.
- * Increase pin placement on greens thru subtle reshaping
- * Practice Facilities needs upgrading to be fit for purpose. Exact scope to be indetified.
- * Cart paths- define alignment and material. Complete 6 holes per year. Exact scope to be identified and costed.
- * Irrigation Lake Expansion 2022-2023.
- * Earthworks on 6th-8th holes relating to Tewa Banks development.
- * Prioritise work on the golf course related to safety.
- * NB. Which work identified in the document, other than safety related work, needs to be undertaken in the next 5 years?

Clubhouse & Environment

- * <u>Clubhouse</u> potential need for renovation/ upgrade depending on demand/ membership increases etc.
- * <u>Carts & Cart Shed</u> need to identify future cart demand and plan accordingly for additional fleet and storage of.
- * <u>Car Park</u> identify future demand and plan accordingly.

Landscape

- * Tree removal identify trees for removal, produce plan and enact
- * Planting Plan prepare overall planting strategy for the golf course. Quantify, plan and enact.
- * Wilding Species Eradication by 2027-2028
- * Wilding Species River Corridor Club to engage with DoC.

Appendix B Draft Plant Schedule

NB. An overall landscape planting plan needs to be prepared as a guide for long term planning.

Botanical Name	Common Name	Native/ Exotic	Notes	
Grey Shrubland			Revegetation species.	
Chinochloa rubra	Red Tussock	Native		
Coprosma propinqua	Mingi mingi	Native	Mass planting on mounds along road boundaries	
Discaria toumatou	Matagouri	Native	Mass planting on mounds along road boundaries	
Oleria lineata	Oleria	Native	Mass planting on mounds along road boundaries	
Pond/ Wetland				
Carex Secta	Carex	Native	Plant along pond edge in swathes	
Phormium cookianum	Mt Flax	Native	Great for birds	
Salix babylonica	Green Willow	Exotic	Plant in groups near pond extension. Use sparingly. Use to replace 'crack willow'	
Sophora microphylla	Kowhai		Plant by new pond. Great for birds, plant in groups.	
Trees				
Fraxinus excelsior	Golden Ash	Exotic	Medium sized tree. Autumn colour.	
Fraxinus oxycarpa 'raywoodi'	Claret Ash	Exotic	Medium sized tree. Autumn colour in a few locations on the course eg between 6th & 7th	
Fuscospora cliffortioides Mt Beech		Native	Plant in groups. Plant for screening. Plant sparingly. Will need water for establishment	























Appendix C RBT Design Limited

Brett Thomson - Design Manager/ Director

- * Bachelors degrees in Science and Landscape Architecture
- * Harvard University 2002- Executive Education in Golf Residential Site Planning, Golf Course Development, Clubhouse Programming
- * Involved in master planning and golf couse design for over 20 years.
- * Previously worked for Darby Partners Ltd as Design Manager during the design and construction of Clearwater, The Hills and Jacks Point.
- * Master planner and landscape architect for a new two course destination golf facility at Te Arai Links north of Auckland (2019-current).
- * Master planner, golf course architect, golf course contractor and landscape architect for \$10m renovation at Lochiel Golf Course in Hamilton (2018-2021). The golf course is now called Tieke Golf Estate
- * Master Planner, golf course architect and landscape architect for Windross Farm. Completed September 2016 and hosted LPGA Sept 2017.
- * Member of the Society of Australian Golf Course Architects since 2017.