

COURSE CONSULTING SERVICE

Onsite Visit Report

Glendale Golf & Country Club Edmonton, Alberta

Visit Date: May 24, 2018

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Mr. Ken Donnelly, Board of Directors
Mr. Chuck Jolicoeur, Green Committee
Mr. Greg McGarry, Head Professional
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The USGA Green Section develops and disseminates sustainable management practices that produce better playing conditions for better golf.

Background

It was a pleasure to visit Glendale Golf & Country Club on May 24, 2018, on behalf of the USGA Green Section. While this was the first visit to Glendale by this agronomist, former USGA agronomist Matt Nelson visited the golf course in 2006 following a very difficult winter resulting in major turf loss on the putting surfaces. The focus of his report addressed the many trees that not only surrounded many of the *Poa annua*-dominated surfaces; but were extremely close to the putting greens. The resulting excess shade, lack of air movement and root invasion was the main reason why the turf on the putting greens failed.

Fortunately, the correct course of action was taken after the visit and many trees have been removed around the greens in the past decade. Having viewed the photos from the 2006 report and learning that Arborcom was also involved in assisting in the removal of the trees, the decision makers at the time made a very good decision that has literally transformed the putting greens from weaker surfaces comprised of *Poa annua* into much healthier creeping bentgrass. The combination of more sunlight and the programs currently being conducted by Mr. Prodahl (including resodding with improved T1 creeping bentgrass that is more winter hardy) has created creeping bentgrass-dominated surfaces that just survived as well as any putting greens following your historic amounts of ice and snow coverage. A “Well done!” is deserved for the work completed with tree removal for both the maintenance staff and decision makers at the club during the past decade.

Executive Summary

This visit focused on both agronomic and playing conditions for the golf course. We also spent time reviewing damage to the golf course due to winter stress and discussed new technologies to further improve staff efficiency, player enjoyment and economic sustainability. The report is divided into the following parts:

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Putting Greens

Observations

As mentioned, the putting surfaces at Glendale came through an extremely difficult winter in very good condition. Other than small areas of turf loss due to “collar dams” and excess shade (No. 6), the creeping bentgrass-dominated surfaces were in excellent spring condition. In addition, the sodded T1 green (No. 7) was in excellent condition, with the latest additions (Nos. 4 and 14) opened on the day of this visit despite having limited time to create an extensive root system.

Recommendations

Several topics were discussed regarding the putting surfaces with both agronomic and playing conditions the primary focus. The main topics included the following:

- 1. Open tine vs. solid tine aeration – which is best for your greens?** It was mentioned by Mr. Prodahl that the putting greens receive aeration (any solid or open tine that impacts ball roll) in the spring and fall. During one of these aerations, cores are removed with lower-lying materials brought to the surface and removed. As mentioned, some creeping bentgrass putting greens have been viewed that have not had cores removed for over two decades with very positive results. Based on the excellent profile found in the top 4 inches shown in the right photo, and undesirable material found below, stopping open tine aeration can be considered. The key to success with solid tine aeration using 1/2-inch tines is providing more sand during the growing season to dilute excess organic material. This can be completed with a regular program of venting (1/4-inch solid tines that do not impact ball roll) monthly, along with an alternating two-week program of vertical mowing. Both of these operations allow the application of more sand than normal, which is needed should regular core aeration be eliminated. If this extra sand is not applied, do not consider green aeration without core removal at least once annually.



While removal of poor soil below the upper 3 inches would be helpful, it also promotes *Poa annua*.

If you decide to make this change in the aeration program, it was also suggested to take annual physical samples, with a focus on the upper 1 to 2 inches of the profile. If the percentage of organic material begins to change significantly, then open tine aeration should be conducted during the spring months. Also, the annual deep aeration should be continued with 1/2-inch solid tines to produce deeper aeration through the layers found under the putting greens.

- 2. Give Nos. 4 and 14 time to withstand the traffic near the holes.** While the No. 7 putting surface sodded with T1 was in good condition with roots extending through the upper sand zone, the new sod on Nos. 4 and 14 had only had a few weeks of active growth since it was laid in early October. For this reason, it was recommended to give this sod a chance to be healthy in

the areas where holes are utilized. In this regard, it was suggested to use locations that will not be considered when the putting green reaches the desired green speed later this year. Also, during the next month it was suggested to possibly move the hole during the day if high traffic is expected and no tournaments are being conducted. With only 1 to 2 inches of roots noted on the day of this visit, the heavily used hole locations are the only areas of concern.



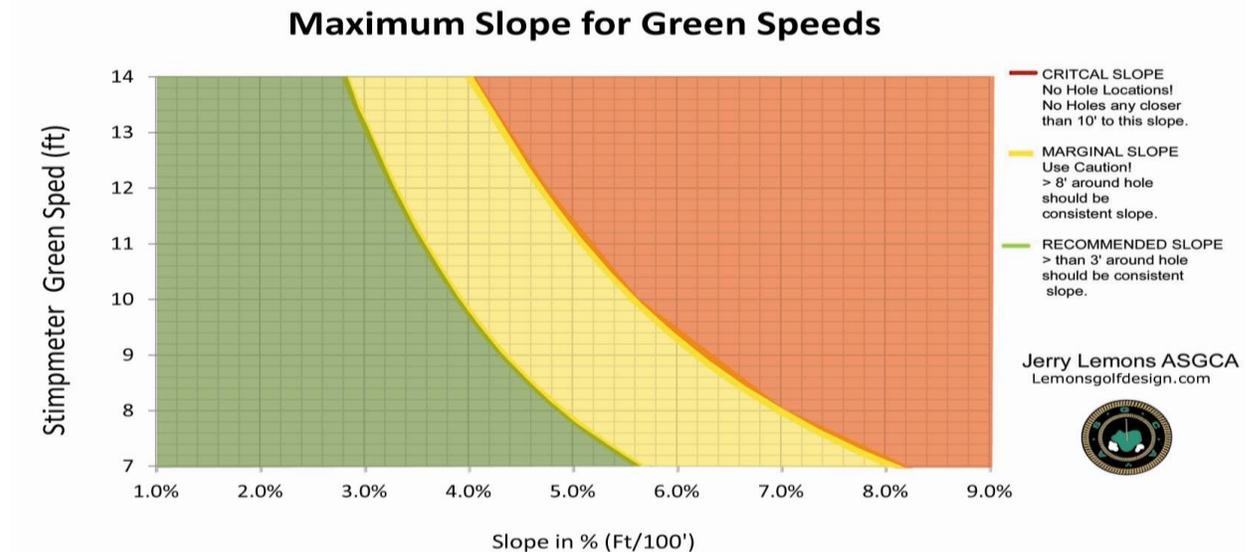
Give No. 4 time to be a healthier surface by using unusual hole locations and reducing heavy traffic around the hole.

3. Continue selective tree removal where needed.

Outstanding results have been achieved on multiple holes with the selective removal of trees causing shade, reduced air flow or root encroachment. With most of the trees around the putting greens being addressed, only No. 6 appeared to need some assistance for the back part of this green. Several trees to the back, right and left were discussed for possible removal if safety is not compromised on adjoining holes.

4. Green speed and slopes are interconnected. Perhaps the single most significant way to impact the speed of play on a golf course is the combination of fast greens with hole locations on slopes. For example, it is estimated that an extra shot for one player may take up to 30 seconds based on his or her preparation and understanding of the game. If all four players in a group take one extra shot due to fast green speeds and hole locations on severe slopes, an additional two minutes is added per hole. Over 18 holes, this adds up to 36 minutes, thus great care must be taken when determining hole locations combined with green speed.

Maximum Slope for Green Speeds



As can be noted in the preceding template, with the pace of the greens at 11 feet, hole locations need 8 feet of consistent slope when 3.6 percent is reached. When a slope reaches just over 5 percent, the area should be avoided. The entire point of this discussion is that while hole locations are certainly available and can be used with faster green speed, the hole locations are minimized with more speed and if placed in the wrong position, the pace of play can and will be impacted. It was recommended to always have a digital level available for those setting holes along with a complete knowledge of this chart. The entire article explaining this issue is [Putting Greens, Slopes and Non-Conforming Hole Locations](#).

- 5. Continuation of sod replacement is worthwhile.** While all the putting greens have become dominated by creeping bentgrass, newer varieties such as T1 can produce a surface with less grain and far more winter hardiness. Mr. Prodahl correctly mentioned that extending the “recarpeting” of greens at a two-per-year pace is very difficult from a maintenance standpoint and impacts playing conditions for at least one year as the new greens mature. For this reason, if the budget allows, it would be very beneficial to expand from two to four greens annually. This would complete this process in four more years, rather than eight.

Green Surrounds

Observations

The putting greens always require the highest level of attention with very sound programs currently being conducted for creeping bentgrass. However, the other area on a golf course that also demands “touch” is the area that surrounds the putting greens. This includes the collars, approaches, bunkers and nearby rough. Unfortunately, these areas suffered significantly from ice and winter damage with recovery underway.

Recommendations

Specific recommendations for the areas that surround the greens included the following:

- 1. Focus recovery by overseeding collars and approaches with T1 creeping bentgrass.** Based on the damage noted, there is no question that creeping bentgrass has far more tolerance to ice and snow coverage when compared to *Poa annua* and Kentucky bluegrass that is mowed lower than this grass can withstand. For this reason, it was good to learn that Mr. Prodahl plans to utilize a new seeder to begin overseeding these important areas with this grass. Best results can be expected as temperatures rise since *Poa annua* becomes less competitive. This is a very important program as observations throughout your course (and others in Alberta) indicate that *Poa annua* does not compete well with creeping bentgrass when mowing heights rise above 0.325 inch.

Creeping bentgrass (left) survived the winter far better than *Poa annua* and Kentucky bluegrass on the collars. Overseeding with T1 is a step in the right direction and will offer a deterrent to invading *Poa annua* onto the putting surfaces.



- 2. Increase sand topdressing on approaches.** In addition to aeration programs to minimize excess organic material, it was recommended to increase the amount of sand applied to the approaches. This is especially important to allow those with less skill and shot trajectory to play “bump-and-run” shots to the putting surfaces. Also, as creeping bentgrass continues to expand,

this thatch-forming grass will need more aggressive programs than other grasses. The addition of annual deep vertical mowing can be expected with more creeping bentgrass on the collars and approaches.

- 3. Improving bunker drainage and sand quality – the next project worthy of attention.** It was mentioned that Glendale currently does not have a long-range plan in place for course enhancements. After learning of the age of the bunker sand and the test being conducted for the two bunkers on No. 4 with the Better Billy Bunker™ method of bunker liner, this is an area where the use of a qualified golf course architect is advised. The potential for truly improving the entire visual and playing characteristics of the course could occur if you decide to go in this direction. This recommendation is given due to the age of the sand and the need for improved drainage that can be achieved with this effective liner. The liner should be tested for at least one year with work started on the creation of a master plan to address this issue along with the following minor addition that can have major positive results for pace of play, golfer enjoyment and economic sustainability.
- 4. Slightly widen the approaches where possible.** Several approaches need widening to allow those with less skill and trajectory to play “bump-and-run” shots to your challenging putting surfaces. A good example was noted on the left approach for No. 10 shown in the photo.

Providing approach widths as wide as possible or to the outside of the greens/collars where possible is a good way to provide far more enjoyment for those with lower trajectory shots. No. 10 is a good example with the left side recommended for narrowing.



While the right-side approach width is appropriate, those with less skill that can only hit a low shot are required to hit this shot through rough on an already difficult green. This topic is discussed in the recent USGA web page update [Pinch Points](#).

- 5. Consider this method when reestablishing bunker faces.** As mentioned during the visit, Mr. Jim McGarvey at Seymour Golf & Country Club in Vancouver and Mr. Barry Evans at Kelowna Golf & Country Club have had very good success using the technique described in [It's In The Bag](#). Note the photos below showing the use of burlap bags placed on the edge of the bunkers at Seymour (left) and Kelowna (right) where three bags are stacked for this deep bunker.

Bunker edge results can be improved with burlap bags filled with a quality sand/soil to eliminate bunker contamination.



Tees

Observations

It was mentioned that the options for players with less swing speed make the golf course extremely difficult. Two new tools have been introduced that were shown during this visit to assist in showing the need for a complete set of forward tees as another option for players with less swing speed. Now viewed at many facilities, these tees have proven very positive and beneficial for pace of play, economic sustainability and player enjoyment when properly placed and constructed.

Recommendations

Perhaps the most important topic discussed during this visit to advance pace of play, add more fun to the game and enhance economic sustainability is the addition of properly placed and constructed forward tees. The following was recommended in this regard:

- 1. Use the following charts to position the tees along with your golf course architect.** USGA agronomists are not golf course architects; however, the USGA has and will continue to promote improved pace of play initiatives, making the game more fun and reducing overall resource inputs that are making the game more expensive. One of our recent efforts (Resource Management Tool) directly relates to showing the positive impact of forward tees for your golf operation and will be discussed later in this section of the report.

In conjunction with results put forward by the PGA, the USGA has taken data from thousands of golfers and found a very simple and understandable way to promote teeing surfaces at distances associated with players' swing speeds. Forward tees should no longer be equated with gender, as both younger and aging players that wish to play the game should have the comparable feeling of joy when a par or birdie putt goes in the hole.

More importantly, adding more forward tees on holes where appropriate will significantly improve the pace of play and the "fun factor" on the course. With the preceding in mind, the chart above shows the distance from your forward tees on every hole as well as the silver tees used by most of your male players.

Course Name: **Glendale**

Female Tee: **Forward** Male Tee: **Silver**
 Swing Speed: **Average** Swing Speed: **Average**

Female - Scorecard Distance from Forward			Male - Scorecard Distances from Silver		
Hole	Par	Length	Hole	Par	Length
1	5	401	1	5	500
2	3	145	2	3	190
3	4	288	3	4	382
4	3	114	4	3	175
5	5	422	5	5	562
6	4	320	6	4	349
7	3	135	7	3	203
8	4	332	8	4	415
9	5	405	9	5	486
10	4	330	10	4	428
11	4	345	11	4	425
12	4	306	12	4	360
13	3	135	13	3	180
14	5	407	14	5	490
15	4	320	15	4	400
16	3	155	16	3	190
17	5	415	17	5	536
18	4	320	18	4	355
OUT	36	2562	OUT	36	3262
IN	36	2733	IN	36	3364
TOT	72	5295	TOT	72	6626

Female Handicap to Swing Speed Reference	
Pro	= >85
0-5	= 81-85
6-10	= 76-80
11-15	= 71-75
16-20	= 66-70
21-25	= 61-65
26+	= <60

Handicap (left), MPH (right)

Male Handicap to Swing Speed Reference	
Pro	= >110
0-5	= 101-110
6-10	= 91-100
11-15	= 81-90
16-20	= 71-80
21-25	= 61-70
26+	= <60

Handicap (left), MPH (right)

The maximum distances for male and female golfers and approximate club distance are outlined directly below. Note: The maximum recommended hole length for female golfers is provided by PGA of America recommendations in their publication [Setting Up Golf Courses for Success](#). The charts below these tables compare the estimated approach shot distance and estimated approach clubs for the average male (13 handicap) and average female golfers (25 handicap). They also show whether the female and male golfers are expected to reach the putting green in regulation.

Figure 1: Maximum recommended hole distances for average female and average male golfers.

	Par 3	Par 4	Par 5
Female (25 hdcp)	140	260	380
Male (13 hdcp)	210	400	590

Figure 2: Approximate club distances for average female and average male golfers.

Club	Female Golfers (25 hdcp)	Male Golfers (13 hdcp)
Driver	140	210
Fwy Wood	120	190
Long Iron/Hybrid	105	170
Mid-Iron	100	140
Short Iron	80	120
Wedge	60	100

The charts below identify where there may be distance issues for players using each set of markers. The following can be surmised after studying these charts:

Female Golfers - Forward Tee Handicap - 25 Swing Speed - 60 MPH						
Hole	Par	Length	Yards Over Rec. Max.	Est. Approach Shot Distance	Est. Approach	Shot Club
1	5	401	✗ 21	141		Fwy Wood+
2	3	145	✗ 5	145		Fwy Wood+
3	4	288	✗ 28	148		Fwy Wood+
4	3	114	✓ --	114		Fwy Wood
5	5	422	✗ 42	162		Fwy Wood+
6	4	320	✗ 60	180		Fwy Wood+
7	3	135	✓ --	135		Fwy Wood+
8	4	332	✗ 72	192		Fwy Wood+
9	5	405	✗ 25	145		Fwy Wood+
10	4	330	✗ 70	190		Fwy Wood+
11	4	345	✗ 85	205		Fwy Wood+
12	4	306	✗ 46	166		Fwy Wood+
13	3	135	✓ --	135		Fwy Wood+
14	5	407	✗ 27	147		Fwy Wood+
15	4	320	✗ 60	180		Fwy Wood+
16	3	155	✗ 15	155		Fwy Wood+
17	5	415	✗ 35	155		Fwy Wood+
18	4	320	✗ 60	180		Fwy Wood+
OUT	36	2,562	✗ 222			
IN	36	2,733	✗ 393			
TOT	72	5,295	✗ 615			

Male Golfers - Silver Tee Handicap - 13 Swing Speed - 81-90 MPH						
Hole	Par	Length	Yards Over Rec. Max.	Est. Approach Shot Distance	Est. Approach	Shot Club
1	5	500	✓ --	100		Short Iron
2	3	190	✓ --	190		Fwy Wood+
3	4	382	✓ --	172		Fwy Wood
4	3	175	✓ --	175		Fwy Wood
5	5	562	✓ --	162		Hybrid/Long Iron
6	4	349	✓ --	139		Mid Iron
7	3	203	✓ --	203		Fwy Wood+
8	4	415	✗ 15	205		Fwy Wood+
9	5	486	✓ --	86		Wedge
10	4	428	✗ 28	218		Fwy Wood+
11	4	425	✗ 25	215		Fwy Wood+
12	4	360	✓ --	150		Hybrid/Long Iron
13	3	180	✓ --	180		Fwy Wood
14	5	490	✓ --	90		Wedge
15	4	400	✓ --	190		Fwy Wood+
16	3	190	✓ --	190		Fwy Wood+
17	5	536	✓ --	136		Mid Iron
18	4	355	✓ --	145		Hybrid/Long Iron
OUT	36	3,262	✓ --			
IN	36	3,364	✓ --			
TOT	72	6,626	✓ --			

- **The current forward tees are too long except for three of the par 3s.** The chart shows that the overall length needs to be reduced by 615 yards just to reach the **maximum length** with new tees added on 14 holes, if desired. Also, these distances are calculated at sea level with Glendale having very little difference, thus the sea level altitudes were used for this discussion. In addition to the obvious lack of ability to reach most greens in regulation, note the variety of clubs used by those using the silver tees ranging from wedge to fairway wood to reach the putting greens in regulation. On the left chart, every hole requires the use of a fairway wood, with many not being close to reaching the greens in regulation.
- **The challenge for average female golfers and average male golfers is not proportional.** The golf course is much more difficult for the average female player. Every par 4 and par 5 is unreachable for the average female player. This results in longer round times (more shots) and less enjoyment for these players. There are many examples of facilities that have

addressed this through the creation of more forward tees. Round times have decreased, and golfer satisfaction has gone up. This is good for business and good for the reputation of the facility.

- **What does the + sign behind the “Estimated Approach Shot Club” mean?** This sign simply shows that shots with fairway woods on these holes will end up short of the putting green for each hole by the distance shown titled “Yards Over Recommended Maximum.” Obviously, players with less swing speed will consistently end up well short of the putting greens on most holes in regulation, resulting in more shots, a reduced pace of play and less fun.
- **Overall distance is not the only determining factor for adding forward tees.** All of the above data shows where forward tees are needed for average players with less swing speed. However, in many cases, the placement of the forward tee at the desired length is not possible due to topography, hazards and other factors. In some cases, the existing forward tee may be the only choice, while others may still be too long or too short. Regardless, this can be addressed with a qualified golf course architect to provide the best experience for your players.

2. **Additional tips for the forward tees.** In addition to the above numerical values that provide a very good blueprint for the future, it is worth reviewing several other recommendations that will further improve the forward tees at Glendale. These include:

- **Position the tees on the fairways where possible.** Many top clubs have added forward tees at the proper distance without causing major differences in labor or mowing time. As discussed during the visit, many of the proposed forward tees can be placed on the fairways, similar to San Francisco Golf Club in the right photo. Also, the positioning of the tees should always have safety and the topography of the area in mind.



- **Build the tees out of soil similar to the surrounding area.** Another trend that has been noted with positive results is building these tees out of soil that requires the same type of irrigation as the surrounding area. A combination of soil and sand will provide adequate drainage during the winter months but will not result in excess drought during the summer that would occur with a sand-based tee.
- **Build the tees of adequate size.** One of the mistakes often seen with forward tees is building a tee by simply mowing out an area or creating a small “bump-up” tee. It is best to create a new tee with at least 500 to 600 square feet if possible with no more than a 6- to 8-inch lift. The sides of the tees need to simply flow into the fairway contours to avoid scalping.

3. **Use the USGA Resource Management tool when it becomes available to assist in reducing overall maintenance costs and show proper forward tee placement.** In addition to

the forward tee calculator, the USGA is also diligently working to release a web-based app that will help reduce resource inputs (materials, energy and equipment) while moving labor into down-the-middle portions of the golf course as described in [New Technology is a Game-Changer for Golf Facilities](#). In addition to showing where players are and are not on your golf course, this tool is especially helpful in showing where forward tees are needed and can immediately calculate how much can be saved for your budget with the addition of these tees.

Fairways

Observations

While the green surrounds suffered relatively severe turf loss and need to be addressed as the highest priority, the fairways were also another area that lost considerable turf coverage. However, recovery was well underway, with *Poa annua*, bentgrass and Kentucky bluegrass all showing signs of returning as soil temperatures climb. Also, as with the green surrounds, it appeared that the most adapted grass at Glendale on the fairways is bentgrass with a natural competitive advantage over *Poa annua* at the current mowing height.

Recommendations

Specific recommendations for the fairways included the following:

1. **Continue fairway topdressing habitual wet areas.** The photo below shows how much sand has been added to No. 1 fairway during the past several years with regular topdressing. However, as noted in research conducted in the Northeast U.S. ([Topdressing Fairways: More Is Better](#)) it is most important to have a greater frequency and amount of sand topdressing than being concerned with particle size. For this reason, it was good to learn that coarser sand is being used, but more frequent applications will produce improved results as it will eliminate sand and organic layers noted on this fairway.



2. **Give serious consideration to GPS sprayers.** New GPS spray technology has been viewed during visits the last two years with very positive results reported by all that have made this cost-saving change. This would involve an upgrade of your spray equipment; however, the return on investment could be as little as one year due to savings in material costs and dramatically faster

application capabilities with these units. With GPS control units being used with great success in regular agriculture for well over a decade, it was good to learn that this technology is being considered when your spray equipment is upgraded in the future. Also, a good source of information in the golf industry is Mr. James Beebe at Priddis Greens.

Miscellaneous Topics

Observations and Recommendations

In addition to viewing and discussing the main playing areas on the golf course, several other topics were discussed with the following recommendations offered:

- 1. Selectively remove plant material that is not needed.** While selective tree removal can continue where needed, the amount of funds being used on planter beds appears high at Glendale. There is nothing wrong with providing ample color through beds around and near the clubhouse; however, spending a considerable amount of labor for flower and planter beds near the tees is an area where this labor and materials can be moved into the golf course.

Two examples of flower beds and out-of-place plants are noted in the photos below. The large planter bed next to No. 18 requires significant time for preparation, weed control and other gardening tasks. Since it has nothing to do with the play of the game, its removal was suggested along with several other beds, if desired. The second example was noted on No. 7 where the shrubs surrounding the forward tee only serve to distract from a great green site and visually block the bunkers and front of the green. The removal of these shrubs was highly recommended as they serve no purpose.

The removal of the shrubs on No. 7 will enhance and bring back views of the greenside bunkers and front of the green. Also, excessive planter beds are taking valuable labor and materials away from the playing areas.



- 2. Consider minor tree removal on two holes.** The removal of trees around the putting greens has been a definite move in the right direction. In addition to the negative agronomic aspects trees have on turf, there are three other factors that must be considered when contemplating tree removal – safety, impact on playing conditions and visual characteristics. In each case, there are both positives and negatives associated with each of these conditions. With the preceding in mind, two holes were noted where tree removal is worthy of consideration.

The two trees on the corner of No. 10 are recommended for removal and a view of the lake is possible with one or two trees being removed between Nos. 1 and 18.



The first is No. 10 where the two trees that block the left side of this dogleg left hole have no impact on those with more ability. They only make an already very difficult hole even harder for those with less length and the ability to hit a golf ball with a higher trajectory. If removed, making the rough more penal on the left side or adding to impact those with more length could be considered as part of a master plan completed by your golf course architect.

The second location is found to the left of No. 9 green and left of No. 1 tee. The view of the lake on this hole could be exceptional; however, care must be taken to not remove too many trees as safety concerns for those playing No. 1 would increase. However, it does appear that the selective removal of only a few trees could create a window of the lake from the finishing hole. Again, this should be done as part of a master plan.

3. **Add asphalt to the maintenance area.** For the protection of your maintenance equipment and to assure all mowing equipment leaves the maintenance facility in proper adjustment, the addition of an asphalt apron was recommended for the maintenance facility.
4. **Consider lower compression golf balls for the driving range.** When safety concerns are noted due to the length of a practice area, a decision must be made to put up very high nets that are very costly or consider the use of lower compression golf balls. Many top private clubs in the Pacific Northwest have opted for the less expensive golf ball approach with several reporting a reduction in ball theft as these balls do not travel as far when hit by woods and long irons.
5. **Maintenance Mondays – the key to golf course maintenance efficiency.** With an ever-increasing demand to play your golf course and warmer weather finally arriving, there is always a natural desire to have every available daylight hour open for your players. However, due to the critical nature of many basic maintenance programs conducted in your high-play areas, the inevitable conflict between workers trying to avoid players and players enjoying a round of golf will ensue. For this reason, it was very good to learn that time is provided on Mondays to complete maintenance programs that need to have no player interference. Since this is so critical for the golf course maintenance operation, any changes to this policy would be a step in the wrong direction.
6. **Another policy that improves pace of play should continue.** While some may disagree, studies conducted at golf courses in Colorado showed that driving a beverage cart around a golf course in reverse order can increase playing time by as much as 20 minutes. By providing a stationary position there is no change in the pace of play. This was noted during the visit, with no change in this policy recommended.

Summary

As mentioned at the start of this report, the maintenance staff and decision makers have done a good job in making the correct choices regarding tree removal over the past decade. Due to these actions, the putting greens at Glendale have been converted from a *Poa annua*-dominated site to creeping bentgrass. When a winter comes along like the past one, those with creeping bentgrass are pleased as this grass can withstand ice far better than other grasses. For this reason, expanding the use of creeping bentgrass to the collars, approaches and fairways should be considered.

Also, now is a good time to consider the completion of a master plan. Addressing the bunkers and the possible addition of properly placed forward tees will enhance the reputation of the club while further improving pace of play, player enjoyment and economic sustainability. While all the recommendations in this report may not be attainable in the near future, it is hoped they will provide a foundation for positive improvement.

Thank you for your support of the USGA Green Section through the use of our Course Consulting Service. Again, should you have any questions or comments concerning this visit or report, please do not hesitate to contact our office. We look forward to being of assistance again in the future.

If you would like to receive the USGA's electronic publication, the *Green Section Record*, [click here](#). It is free, informative and sent directly to you via email every two weeks.

Respectfully submitted;



Larry Gilhuly, Agronomist
USGA Green Section

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About the USGA Course Consulting Service

As a not-for-profit agency that is free from commercial connections, the USGA Course Consulting Service is dedicated to providing impartial, expert guidance on decisions that can affect the playing quality, operational efficiency and sustainability of your course.

First started in 1953, the USGA Course Consulting Service permits individual facilities to reap the benefits of on-site visits by highly skilled USGA agronomists located in Green Section offices throughout the country.



For questions regarding this report or any other aspect of the USGA Course Consulting Service, please do not hesitate to contact our office.

