



WINSTON LAKE GOLF COURSE

WINSTON-SALEM, NORTH CAROLINA

PREPARED FOR: CITY OF WINSTON-SALEM, NORTH CAROLINA

GOLF COURSE RENOVATION BUSINESS PLAN REPORT

OCTOBER 30, 2024



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		NOTE OF GUIDANCE:	
		As one reviews the following Renovation Business Plan Report for Winston Lake Golf Course, please know this document presents a variety of approaches to implement the Renovation Business Plan, not a linear path forward. One should not look upon the Report as a single step by step approach. Each section presents varying approaches to implement the RBP based on available funds and time frames which best fit the City's mission.	
		Portions of this report suggest prioritized General Design Solutions as well as itemized priorities on a hole by hole basis. Additional portions offer other avenues to restoration, such as prioritizing tee complex projects separately, sand bunkers separately (by hole), and greens complexes ranked in order of priority.	
		The approaches to prioritization outlined herein are not expected to be implemented in a specific order. Rather, they shall be evaluated separately as possible restoration programs based on funds available and timing. The City may decide to tackle the General Design Solutions list as an over-arching approach. As an alternative approach, the City may prefer to focus on greens complexes over a period of time, following the prioritization as presented in this report. Or it may choose to restore one or more holes at a time based on the report's hole priorities. Finally, Winston-Salem may decide to pursue one or more of the alternative projects as itemized herein, mixing and matching project addenda as funds allow.	

WINSTON LAKE GOLF COURSE RENOVATION BUSINESS PLAN EXECUTIVE SUMMARY

THE EXISTING WINSTON LAKE GOLF COURSE WAS BUILT IN TWO NINE-HOLE PHASES, WITH THE FIRST NINE LAID OUT BY F. ELLWOOD ALLEN (WITH ASSISTANCE FROM JAMES COLGATE JEROME) AND OPENED IN 1956 (TODAY'S 10TH, 11TH, 12TH, 18TH, 1ST, 2ND, 7TH, 8TH, AND 9TH) AND THE SECOND NINE IN 1964, DESIGNED BY ELLIS MAPLES. OVER TIME, PLAY AT WINSTON LAKE HAS DIMINISHED DESPITE ITS LOYAL FOLLOWING. MOSTLY THIS IS DUE TO AN AGING INFRASTRUCTURE BUT THERE ARE UNIVERSAL DESIGN/PLAYABILITY ISSUES THAT HAVE COST THE CITY OF WINSTON-SALEM ROUNDS AND REVENUE. FIRST AND FOREMOST IS THAT THE COURSE MEASURES ONLY 6,214 YARDS FROM THE BACK TEES, MEANING MANY GOLFERS WILL NOT CONSIDER PLAYING THE COURSE BECAUSE IT IS PERCEIVED TO BE TOO SHORT. IN ADDITION, WITH ONLY FOUR SETS OF TEES TO PLAY FROM, THERE IS A MARKET OF GOLFERS THAT ARE NOT REPRESENTED BETWEEN 5,842 YARDS AND 4,391 YARDS.

DESPITE ITS SHORT LENGTH, THE GOLF COURSE IS STILL CONSIDERED CHALLENGING DUE TO THE NARROW FAIRWAYS AND ROLLING TOPOGRAPHY. YET THOSE TWO ITEMS ARE A DOUBLE-EDGED SWORD BECAUSE NEITHER CHARACTERISTIC IS ENOUGH TO ATTRACT THOSE WHO WANT TO PLAY A LONGER COURSE AND THOSE CHALLENGES ARE GENERALLY TOO DIFFICULT FOR THE MAJORITY OF GOLFERS. MANY OF THE FAIRWAYS ARE SO NARROW THAT IT IS IMPOSSIBLE FOR GOLFERS TO KEEP A TEE SHOT IN PLAY BECAUSE THOSE SAME FAIRWAYS ARE SO SEVERELY SLOPED THAT A TEE SHOT HIT TO ONE SIDE WILL NOT BE ABLE TO STOP BEFORE ROLLING INTO THE WOODS ON THE OPPOSITE SIDE. GOLFER MEETINGS AND COURSE WALK-THROUGHS REVEALED THE HOLES THAT ARE MOST TROUBLESOME ARE #1, #5, #7, #8, #9, #11, AND #13.

THE TREES CREATE SHADE ISSUES ON ALMOST EVERY HOLE IN ADDITION TO CREATING SUCH NARROW TARGETS. FINALLY, BLIND TEE SHOTS ON HOLES 8, 10, 11, 14 AND 17 ARE UNPOPULAR WITH THE GOLFERS AND SLOW PLAY DOWN, MINIMIZING THE ABILITY TO MAXIMIZE ROUNDS PLAYED ON A DAILY BASIS.

RICHARD MANDELL GOLF ARCHITECTURE'S PRELIMINARY RENOVATION BUSINESS PLAN STARTS WITH EXTENDING THE LENGTH OF THE COURSE TO 6,512 YARDS AND ADDING ADDITIONAL TEES SO GOLFERS HAVE SIX CHOICES OF TEE LENGTH TO PLAY THE COURSE. SOME TEE BOXES HAVE BEEN MOVED TO HELP RESTORE A HIGH POINT TO HIGH POINT ROUTING. NATURAL DRAINAGE PATTERNS ARE PRESERVED AND DON'T INTERFERE WITH HIGH-PLAY AREAS SUCH AS TEES, LANDING AREAS, AND GREENS. OTHER TEE BOXES HAVE BEEN MOVED LEFT OR RIGHT IN ORDER TO MINIMIZE CROSS-SLOPE SHOTS THAT MAY KICK BALLS INTO WOOD LINES WITHOUT A CHANCE TO STAY IN THE FAIRWAYS. IN SITUATIONS WHERE SEVERE

CROSS-SLOPES CANNOT BE SOFTENED, RMGA PROPOSES GRASS HOLLOWES ON THE LOW SIDES TO KEEP AS MANY BALLS OUT OF THE WOODS AS POSSIBLE.

THE RENOVATION BUSINESS PLAN ALSO FEATURES NEW GREENS COMPLEXES FOR ALL EIGHTEEN HOLES AND THE ELIMINATION OF ALL SAND BUNKERS ON THE GOLF COURSE (WITH THE EXCEPTION OF THE PROPOSED SHORT-GAME PRACTICE AREA). RMGA UTILIZED A 1966 AERIAL PHOTOGRAPH TO RECAPTURE THE SHAPE OF THE GREENS WHICH HAVE CHANGED OVER TIME.

CONSIDERING THE GOLF COURSE'S SEVERE TOPOGRAPHY AND RED CLAY SUB-SURFACE, IT IS RMGA'S CONTENTION THAT SAND BUNKERS AT WINSTON LAKE ARE AN UNNECESSARY AND HIGH-MAINTENANCE EVIL. THERE IS A HIGH LIKELIHOOD THAT RED CLAY WILL SOONER THAN LATER CONTAMINATE NEW BUNKER SAND DESPITE THE BEST OF INTENTIONS. THE LIMITED LABOR AVAILABLE AND SEVERE TOPOGRAPHY WILL PUT A STRAIN ON THE QUALITY OF THE BUNKER SAND AFTER JUST A FEW YEARS.

THE CHARACTER AND CHALLENGE OF WINSTON LAKE GOLF COURSE COMES IN THE AFOREMENTIONED TOPOGRAPHY AND NARROWNESS OF THE GOLF COURSE, WHICH WILL STILL RING TRUE AFTER TREE REMOVAL. THERE WERE ONLY FIFTEEN BUNKERS ON THE GOLF COURSE IN 1966 AND THERE ARE ONLY TWENTY-THREE BUNKERS TODAY. ELIMINATING THE BUNKERS AT WINSTON LAKE WILL NOT ONLY IMPROVE PLAYABILITY FOR THE MAJORITY OF GOLFERS AND MINIMIZE MAINTENANCE, IT WILL ALLOW THE CITY TO BOAST OF A ONE OF A KIND GOLF COURSE THAT DEMONSTRATES HOW A GOLF COURSE CAN BE JUST AS CHALLENGING WITHOUT SAND. EACH GREEN COMPLEX WILL INCLUDE A VARIETY OF MOUNDS, HOLLOWES, SWALES AND OTHER TOPOGRAPHIC FEATURES TO CREATE EIGHTEEN DISTINCT, CHALLENGING PUTTING SURFACES THAT ARE FUN TO PUTT FOR ALL AGES. THIS IS THE MOST ECONOMICALLY-RESPONSIBLE SOLUTION FOR THE LONG-TERM SUCCESS OF WINSTON LAKE GOLF COURSE.

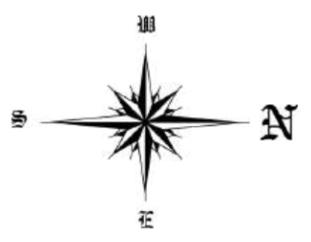
WINSTON LAKE GOLF COURSE WAS ADDED TO THE NATIONAL REGISTER OF HISTORIC PLACES IN DECEMBER 2023 DUE TO ITS SIGNIFICANCE IN THE AREAS OF BLACK ETHNIC HERITAGE AND ENTERTAINMENT/ RECREATION. THE PERIOD OF SIGNIFICANCE IS 1956 TO 1973. THE GOLF COURSE IS A CONTRIBUTING SITE CHARACTERIZED BY HILLY TERRAIN, NARROW FAIRWAYS FLANKED BY WOODED AREAS, STEEP CART PATHS, AND HAZARDS INCLUDING BRUSHY FORK AND FRAZIER CREEKS AT THE BASE OF RAVINES. NONE OF THESE FEATURES WILL BE AFFECTED BY THE PROPOSED RENOVATIONS TO THE GOLF COURSE AS OUTLINED WITHIN THIS RENOVATION BUSINESS PLAN REPORT.

EXISTING CONDITIONS

Hole	Tees (SF)	Fairways (AC)	Greens (SF)	Bunkers (Each)	Bunkers (SF)
1	1,313	1.34	4,136	0	0
2	2,378	0.15	2,854	2	1,834
3	2,111	0.91	4,460	1	1,483
4	1,492	0.10	2,938	3	1,550
5	3,124	1.17	2,910	2	1,456
6	2,115	0.60	3,154	1	1,656
7	1,676	1.18	3,474	1	892
8	2,082	2.16	3,698	0	0
9	2,708	1.56	3,227	1	711
10	2,335	2.16	3,535	0	0
11	1,275	0.97	2,613	0	0
12	2,176	0.16	3,019	1	988
13	1,095	0.63	2,901	1	1,009
14	2,933	2.15	3,338	0	0
15	1,739	1.06	3,597	2	1,794
16	1,739	0.09	3,589	3	2,786
17	2,042	0.53	3,510	2	1,909
18	2,713	1.28	3,166	2	2,538
Subtotal	38,024	18.20	60,119	22	20,606
Driving Range	13,529	4.24	3,198	1	604
Putting Green	0	0.00	8,166	0	0
Chipping Green	0	0.00	0	0	0
Subtotal	13,529	4.24	11,364	1	604
TOTAL	51,553	22.44	71,483	23	21,210



HOLE	1	2	3	4	5	6	7	8	9	OUT	10	11	12	13	14	15	16	17	18	IN	TOTAL
PAR	4	3	5	3	4	4	4	5	4	36	4	4	3	4	5	4	3	4	4	35	71
BLUE	403	205	471	153	389	301	381	482	408	3,193	408	362	207	372	544	341	158	322	356	3,070	6,263
WHITE	385	196	373	143	382	289	367	473	391	2,999	392	353	179	320	513	324	143	288	333	2,845	5,844
RED	377	188	329	133	373	275	364	463	367	2,869	382	346	91	285	440	231	121	217	323	2,436	5,305



GENERAL DESIGN AND MAINTENANCE OBSERVATIONS

Through a systematic analysis of the golf course accomplished by walk-throughs with golfers and staff, Richard Mandell Golf Architecture has identified general design and maintenance observations which require consideration when assessing the short-term and long-range future of Winston Lake Golf Course:

GENERAL GOLF COURSE DESIGN OBSERVATIONS:

- The golf course extends to only 6,214 yards from the back tees which does not attract a large segment of the golfing population.
- Fairway cross-slopes on many holes make it difficult for tee shots to remain in play. Shots hit to the high side of many holes roll into the rough on the low side no matter how well they are hit.
- There are blind shots on 8, 10, 11, 14, and 17, which slows down play. People don't like long rounds, which is a major reason why they may not play at Winston Lake.
- Because the ditches throughout the golf course are overgrown golfers can't play out of them.
- Cart path crosses the fairway on eight holes.
- Cart path also comes into play on many holes because they are located on the bottom of slopes which places them too close to the fairway.
- Yardage markers are old and hard to read.



FAIRWAY CROSS-SLOPES MAKE IT DIFFICULT FOR TEE SHOTS TO STAY IN PLAY (HOLE #7).



BLIND TEE SHOTS SLOW DOWN PLAY (HOLE #10).

GENERAL MAINTENANCE, INFRASTRUCTURE, AND AESTHETIC OBSERVATIONS:

- Brushy Fork Branch, which runs through holes 3, 5, 14, and 17, is eroding in many places.
- Overall surface drainage has positive flow but the fairways are uneven and have many potholes. Runoff has a long way to get out from playing areas and often slows down.
- There are no catch basins to convey water quickly. The lack of subsurface drainage on clay limits golf carts to cart paths only which slows down pace of play.
- Many fairway areas have exposed clay because of shade. The red clay washes across holes in heavy rains, further damaging turf.
- Fairway swales are narrow with steep sides which make mowing and cart travel difficult.
- Ditches are overgrown throughout the golf course.



BRUSHY FORK BRANCH IS ERODING IN MANY PLACES (HOLE #3).



MANY FAIRWAY AREAS HAVE EXPOSED CLAY (HOLE #1).

IRRIGATION SYSTEM OBSERVATIONS:

- The irrigation system only has 512 sprinkler heads for coverage which limits the ability to target sprinkler coverage, resulting in overwatering in places and under watering in other spots. The average golf course has over 1,000 irrigation sprinkler heads.
- Greens irrigation heads are limited in coverage, resulting in overwatering the surrounds and creating wet conditions for the golfers. Most golf courses have targeted heads that irrigate the putting surface paired with heads that target the surrounds separately, ensuring even coverage.
- The irrigation system lacks isolation valves, which means that the system must be turned off to repair just a few heads at a time. More isolation valves allows for holes to be shut off individually when needed.
- Irrigation pipe needs to be replaced.

TEE COMPLEX OBSERVATIONS:

- RMGA recommends a 360-yard spread between tee boxes (total for 18 holes; 20 yards per hole), which requires a minimum of five sets of tees (but not necessarily the same number of tee boxes) and a maximum of seven tee boxes (but not necessarily the same number of tee boxes) per hole in order to gain Tee Shot Distance Equity for the greatest variety of golfer swing speeds.
- There are four sets of tee boxes at Winston lake Golf Course that provide the following spacing:
 - Blue - Championship (6,214 yards) to White - Regular (5,842 yards): 372 yards.
 - White - Regular (5,842 yards) to Red - Ladies (4,391 yards): 1,451 yards.
 - Red - Ladies (4,391 yards) to Gold - Seniors (4,267 yards): 124 yards.
- The TSDE spread between the Blue - Championship and White - Regular tees is acceptable (21 yards/ hole).
- The TSDE spread between the White - Regular and Red - Ladies tees is much too far apart (81 yards per hole) and could fit three more tee boxes between each of those sets.
- The TSDE spread between the Red - Ladies and Gold - Seniors tees is also too close together to provide any meaningful difference in playability (7 yards per hole) but the only difference between each set is that the first hole plays to a par five for the Ladies (376 yards) and a par four for the Seniors (252 yards).
- The tee box gap from 5,842 to 4,391 yards limits playability for many golfer talent levels.
- The third hole is a par five on the scorecard but in reality it is a par four.
- All tee box surfaces are uneven.
- Many tee boxes are not aligned to the fairway properly.
- Many of the forward tees are too small. Some have steep slopes that don't fit into the ground easily and others are just mown out of the rough. Either way, they look like after-thoughts.





FAIRWAY SWALES MAKE MAINTENANCE AND PLAYABILITY DIFFICULT (HOLE #12).



MANY TEES ARE JUST CUT OUT OF THE ROUGH AS AFTER-THOUGHTS (HOLE #5).

SAND BUNKER OBSERVATIONS:

- Many sand bunkers hold water.
- There is little to no sand left in the bunkers. What sand remains has been contaminated with red clay subsurface and is washing off the slopes.
- The lower ends of bunkers are artificially built up.
- Bunker shapes are circles or ovals that have no relationship to the ground or other golf course features. They lack any aesthetic appeal.
- Most bunker faces recede into the horizon due to edging practices over the years.
- Many fairway bunkers are lost within the encroaching tree lines.
- Many bunkers sit on top of mounds so few balls actually roll into them. Instead, balls can only land in them on the fly, limiting their effectiveness.



MOST BUNKERS SIT ON TOP OF MOUNDS AND ARE PENAL, NOT STRATEGIC (HOLE #15).



BUNKER SHAPES ARE OVALS WITH NO RELATIONSHIP TO THE GROUND (HOLE #14).

GREEN COMPLEX OBSERVATIONS:

- Greens have shrunk since their re-grassing in 2014. The average square footage is 3,340.
- The greens are simple circle or oval shapes. Because the greens are so small, there is no opportunity to create slopes or contouring to make them interesting.
- Shade issues are still a problem for growing an acceptable stand of turf on many holes.



MANY GREENS LACK VISUAL AND STRATEGIC INTEREST (HOLE #10).



GREENS ARE PLAIN CIRCLES THAT HAVE SHRUNKEN SIGNIFICANTLY (HOLE #13).

TREE OBSERVATIONS:

- The golf course is lined with woods that limit sunlight and airflow. These limitations limit grass growth.
- Trees narrow the playing corridors which is the primary defense of the golf course.
- The woods edges are full of pine trees and scrub trees that limit the growth of the taller Oaks, Tulip Poplars, and other hardwoods.
- The density of the woods along the fairway edges make ball retrieval very difficult, slowing play down.

AGE OF GOLF COURSE FEATURES:

All golf course features eventually break down due to the effects of nature and maintenance practices. The length of their life cycles is directly related to the quality of the materials used in construction, proper installation, and original construction specifications directing that installation. Winston Lake Golf Course has never undergone a complete renovation of the golf course at one time since the second nine was built in 1964.

Following is a list of golf course features and their age (with recommended life span as determined in a joint-venture study by the USGA Green Section, Golf Course Builders Association of America, and the American Society of Golf Course Architects in parentheses, based on the golf course's opening year of 1933, renovation of 1965, and availability of additional information and study of historical aerial photographs):

• Majority of Tee Boxes:	60 years	(15 - 20 years)
• Practice Range Tee Box Surface:	3 years	(5 - 10 years)
• Irrigation Control System:	44 years	(10 - 15 years)
• Irrigation Mainline PVC:	44 years	(10 - 30 years)
• Irrigation PVC Laterals:	44 years	(10 - 30 years)
• Irrigation Heads:	4 years	(10 - 15 years)
• Irrigation Pump System:	15 years	(15 - 20 years)
• Cart Paths	6 years	(15 - 30 years)
• Sand Bunker Construction & Drainage:	60 years	(5 - 15 years)
• Sand Bunker Sand:	60 years	(5 - 15 years)
• Sand Bunker Liner:	N/A	(5 - 15 years)
• Putting Greens:	60 years	(15 - 30 years)
• Putting Green Turf:	10 years	(15 - 30 years)

The life cycle of golf course features is unrelated to design issues that may require re-construction or availability of better products to replace those products currently in the ground, both of which are subjective conditions.





1958 AERIAL
(NOT TO SCALE)



1966 AERIAL
(NOT TO SCALE)



1993 AERIAL
(NOT TO SCALE)

2002 AERIAL
(NOT TO SCALE)





**2013 AERIAL
(NOT TO SCALE)**

2024 AERIAL
(NOT TO SCALE)



~ CARD OF THE COURSE ~

HOLE	PAR	YARDAGE					
		A	B	C	D	E	F
1	4	398	377	354	332	290	267
2	3	188	178	168	157	136	125
3	5	506	478	450	422	357	339
4	3	171	162	152	143	116	114
5	4	420	398	375	364	297	269
6	4	345	328	305	290	249	229
7	4	370	351	330	311	249	247
8	5	534	505	472	443	385	338
9	4	443	418	393	370	321	296
OUT	36	3,375	3,195	2,999	2,832	2,400	2,224
10	4	412	389	366	344	298	275
11	4	313	296	279	262	223	219
12	3	211	199	187	176	153	141
13	5	512	484	456	427	371	343
14	4	406	384	361	339	294	271
15	4	382	362	340	318	277	255
16	3	155	147	138	129	112	103
17	4	356	337	315	295	257	237
18	4	390	368	347	325	282	261
IN	35	3,137	2,966	2,789	2,615	2,267	2,105
TOTAL	71	6,512	6,161	5,788	5,447	4,667	4,329



WINSTON LAKE GOLF COURSE RENOVATION BUSINESS PLAN

WINSTON LAKE GOLF COURSE RENOVATION BUSINESS PLAN PUNCHLIST NOTES

- A. Move first hole forward in order to move the landing area out of the swale at the bottom of the fairway and into the upward slope.
- B. Move #2 tees slightly left to provide buffer from new first green location.
- C. Push #3 tees back along ridge to extend hole and make it a true par-five hole.
- D. Reduce size of the pond in the second landing area to eliminate forced carries and widen the fairway to the right.
- E. Extend #5 tees back and to the right to lengthen the golf hole. Utilize the flatter portion of the fairway for the landing area to keep balls from rolling into the woods on the left. Grass hollows along that side will keep more balls in play.
- F. Move #6 tees uphill and back to utilize the flatter area of the fairway for the landing area.
- G. Push #6 green back and to the left to lengthen hole. New green location on plateau surrounded by downward slopes on the back and left will make the hole a more heroic challenge as well.
- H. Move #7 tees to the right to allow tee shots to play more directly into the fairway slope instead of along the slope. This will keep more tee shots from running into the trees and the sixth hole on the right.
- I. Create a grass hollow to the right of the seventh fairway as a collection area to keep balls out of the trees and the sixth hole.
- J. Create a grass hollow to the left of the eighth fairway as a collection area to minimize the number of tee shots going into the woods on that side.
- K. Build new eighth green up the hill and to the left to lengthen the golf hole.

- L. Move #9 tees back to lengthen hole which will also move the landing area out of the swale and back toward a flatter area of the fairway.
- M. Re-shape tenth fairway to repair sinkhole. Create a two-tier fairway to create a heroic tee shot that rewards golfers who choose to carry the lower tier.
- N. Move #11 tees forward to lessen congestion with ten green and fourteen tees.
- O. Move #11 landing area up to existing ridge to minimize tee shots rolling into the trees and #13 fairway on the right.
- P. Move #13 tees back and to the left to re-capture the ridge in the fairway as the landing area.
- Q. Convert thirteenth hole to a par-five by moving green to low area where exiting fourteen forward tees sit. The hole will play as a heroic hole reachable in two shots for those who decide to carry the low to the left of the hole.
- R. Move #14 tees up the hill to eliminate blind tee shot and convert the hole to a straight par-four.
- S. Cut down fourteenth fairway to raise the green for better air circulation and lessen a blind second shot.
- T. Push fifteenth green back to lengthen hole.
- U. Shorten sixteenth hole to create variety in lengths of par threes and provide buffer from new seventeenth tees.
- V. Move #17 tees down the slope to the left to visually bring creek into play more off the tee.
- W. Lengthen #18 hole by pushing tees back. Keep landing area on the far side of the swale at the bottom of the fairway.
- X. Enlarge practice green to spread out wear and tear as well as provide another profit center.
- Y. Eliminate abandoned road and move practice tee back into hillside. This will create more tee space and lengthen the driving range fairway so golfers can hit longer clubs on a regular basis.
- Z. Create short-game area on flat area to the west of the First Tee Building as a joint-venture to be shared by both the City golfers and First Tee of the Triad participants.

GENERAL RENOVATION SOLUTIONS

- Undertake a tree removal project for the entire golf course to decrease shaded areas within the layout and improve grass-growing conditions, widen golf holes, allow golfers the opportunity to find their golf balls and attempt recovery shots, and provide larger specimen trees with enough room to thrive (IM).
- Lengthen the golf course to play 6,512 yards from the Championship tees to attract a larger segment of the golfing public. Accordingly build six separate sets of larger tees (6,512 - 6,161 - 5,788 - 5,447 - 4,667 – 4,329 yards) to attract a greater range of golfers through Tee Shot Distance Equity. Larger tees will maximize usable tee area and provide a flat, properly-draining playing surface (MT).
- Build new greens complexes to improve growing conditions and internal drainage. Re-designed greens will also create more strategic and visual interest to attract golfers of all talent levels (IM).
- Eliminate all greenside sand bunkers as part of a greens complex re-design and replace with strategic mounds, hollows, swales, and other landforms which will require less daily maintenance and not require re-construction as quickly as new sand bunkers (IM).
- Eliminate all fairway bunkers and reshape fairways with an emphasis on grass hollows to keep more balls in play and serve as strategic challenges. Improve surface drainage by softening swales and add subsurface drainage to increase speed of runoff away from playing areas (IM).
- Widen fairways to better reflect the rolling topography of each hole, counterbalance the natural slopes to increase playability, and create strategic options for all talent levels (IM).
- Re-grass entire golf course (fairways, rough, greens, tees, etc.) with modern climate-appropriate turfgrasses that are more disease resistant and more heat, shade, drought, and water tolerant (IM).
- Install concrete wall to wall cart paths to increase rounds during rainy weather and minimize tree root damage (MT).
- Install a new irrigation system for the golf course that maximizes efficiencies and minimizes water waste. A new system shall include a new pump station, pump house, and fertigation system to balance the City water being used. An increase in irrigation heads from 512 to 1,127 heads will more efficiently apply water and bring the course up to standards typically utilized at similar courses elsewhere (IM).

HOLE BY HOLE OBSERVATIONS AND SOLUTIONS (NOT TO SCALE)

EACH SOLUTION IS CLASSIFIED AS FOLLOWS:

IM (Immediate): The most pressing needs which are major playability and maintenance issues.

MT (Mid-Term): Items which require attention the next few years that can greatly improve playability and maintenance.

LT (Long-Term): Future work undertaken as part of the RBP recommendations but doesn't inhibit play or maintenance on a daily basis.

*Items already referenced in the General Renovation Solutions above will not specifically be repeated in the following hole by hole solutions unless noted for design emphasis.



No. 1

The first tee shot at Winston Lakes defines what the golf course is all about. The challenge (and character) at Winston is about hitting your tee ball along the slopes of the fairway in such a way that it ends up still in play. The specific task for hole number one is to carry the swale halfway up the hill and then get your approach onto the blind putting surface up above.

DESIGN OBSERVATIONS:

- Tees don't line up with the fairway. They aim toward the trees to the left.
- Treeline on the left narrows the fairway.
- Severe left to right fairway slope makes keeping tee shots in fairway a challenge.
- Ladies tees were moved forward so they could play over the swale that crosses the fairway.
- The ditch in the left woods collects a lot of tee shots but is overgrown and unplayable.
- Green surface is blind from the fairway.

MAINTENANCE OBSERVATIONS:

- There are many bare spots in the rough.
- Little bumps in the fairway exacerbate wet spots and create standing water issues.



EXISTING AERIAL

EXISTING HOLE #1



CURRENT VIEW FROM TEES



CURRENT VIEW FROM LANDING AREA



PAR 4: 402 - 381 - 376 - 252 YARDS

(Championship Tees - Regular Tees - Ladies Tees - Senior Tees)

MOVING THE FIRST HOLE FORWARD NOT ONLY CREATES MORE SPACE AROUND THE CLUBHOUSE BUT GETS THE LANDING AREA PAST THE SWALE IN THE FAIRWAY AND INTO THE UPSLOPE.

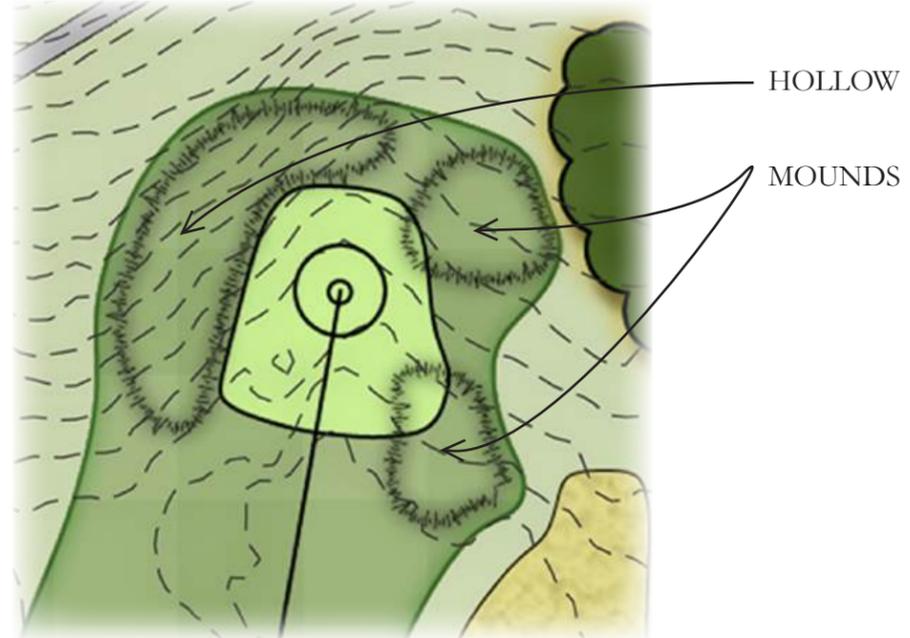
PROPOSED HOLE #1



RMGA PROPOSAL

DESIGN SOLUTIONS:

- Move tees forward to create more space between the clubhouse and the hole (MT).
- Move landing area forward beyond the swale crossing the fairway to keep tee shots out of the primary drainage pattern (MT).
- Move green back and to the right to lengthen hole and provide buffer from new #8 green (IM).



PAR 4: 398 - 377 - 354 - 332 - 290 - 267 YARDS

No. 2

The second hole is a long par three whose green fades into the horizon, making it difficult to gain depth perception. The front bunker does not fit into the landscape well as it also fades into the horizon, but not in a good way. It also blocks traffic from the cart path. The other bunker on the right side is blind.

DESIGN OBSERVATIONS:

- Front tee is just a cut-out on a side slope.
- Shots hit short of the green will roll into the woods on the left.
- Visually, the cart path moves out to the left in front of the right greenside bunker.
- Tree stumps on right need to be removed.
- Front right greenside bunker has no horizon line or framing.
- Back right greenside bunker is blind from tees.
- Both right greenside bunkers affect access and egress from cart path, creating eroded paths along their edges.
- Access road on left can create playability issues.

MAINTENANCE OBSERVATIONS:

- Tree stumps on right need to be removed.
- Access road on left create playability issues.

EXISTING HOLE #2



EXISTING AERIAL

CURRENT VIEW FROM TEES



CURRENT VIEW OF APPROACH

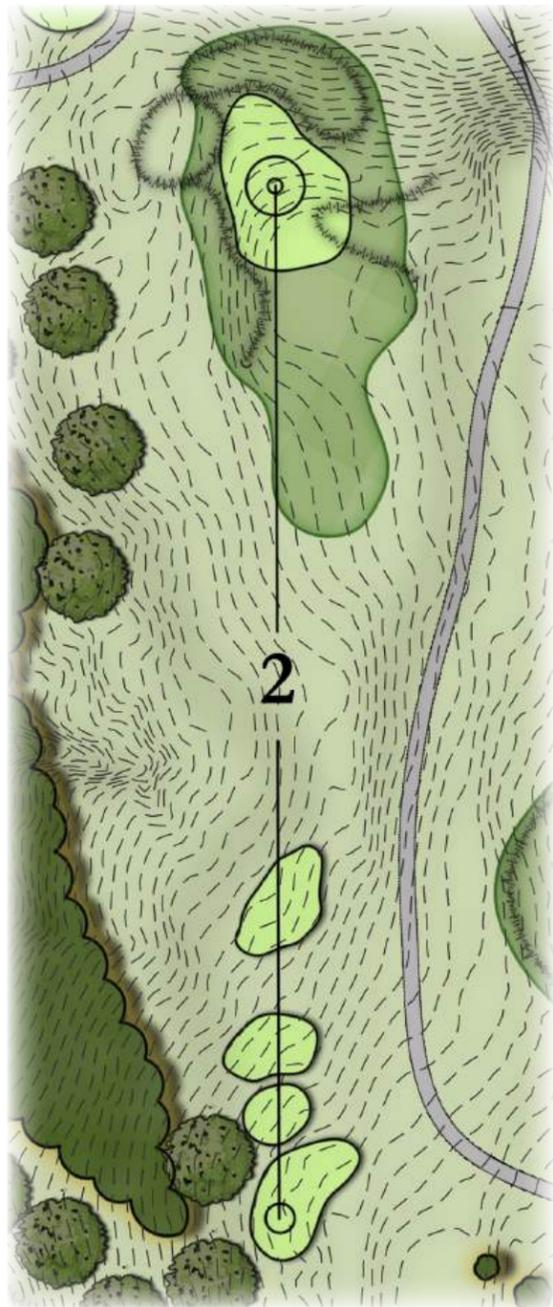


PAR 3: 197 - 187 - 152 - 152 YARDS

(Championship Tees - Regular Tees - Ladies Tees - Senior Tees)

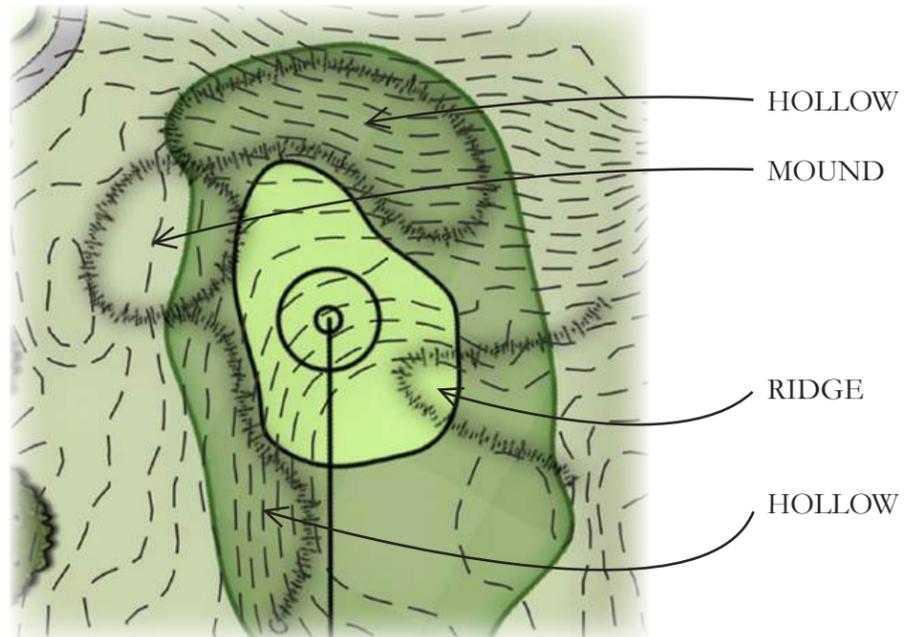
MOVING THE TEES DOWNHILL COMBINED WITH GRASS HOLLOWES BEHIND AND LEFT WILL REDUCE THE EFFECT THE SEVERE RIGHT TO LEFT SIDE SLOPE HAS ON THE PLAYABILITY OF THE HOLE YET STILL MAINTAIN THE CHALLENGE OF A LONG PAR THREE.

PROPOSED HOLE #2



DESIGN SOLUTIONS:

- Move tees down the hill to provide more buffer from number one green and allow more shots to play into the side slope rather than the along the side slope (MT).
- Move cart path farther right so it does not block the view of the hole from the tees (MT)



RMGA PROPOSAL

PAR 3: 188 - 178 - 168 - 157 - 136 - 125 YARDS

No. 3

Despite the scorecard saying so, the third hole is not a par five. Despite the hole being laid out as a dogleg-left, it instead really plays like a straight hole off the tee because the trees along the left side force most tee shots to the right side, limiting opportunity to cut the corner to gain an advantage.

DESIGN OBSERVATIONS:

- The tee boxes are aligned toward the woods on the right.
- The ladies tee box on the left was blocked in by the trees so they were moved.
- Corner of the dogleg is blocked by trees.
- Cart path is too close to the fairway in the landing area.
- The pond in front of the green was built and the hole re-designed in 1983. Pond is silted up, especially near the inlet on the right side.
- Greenside bunker is out of scale with the putting surface.

MAINTENANCE OBSERVATIONS:

- The sides of Brushy Fork Branch, which crosses the hole between the tees and fairway, are eroding and the bottom has silt.
- Bridge needs replacement.
- The right side of rough before the landing areas has exposed clay on its slopes.
- Water sits at the base of the green and between the bunker and the pond.

EXISTING HOLE #3



EXISTING AERIAL

CURRENT VIEW FROM TEES



CURRENT VIEW OF APPROACH



PAR 5: 447 - 409 - 325 - 325 YARDS

(Championship Tees - Regular Tees - Ladies Tees - Senior Tees)

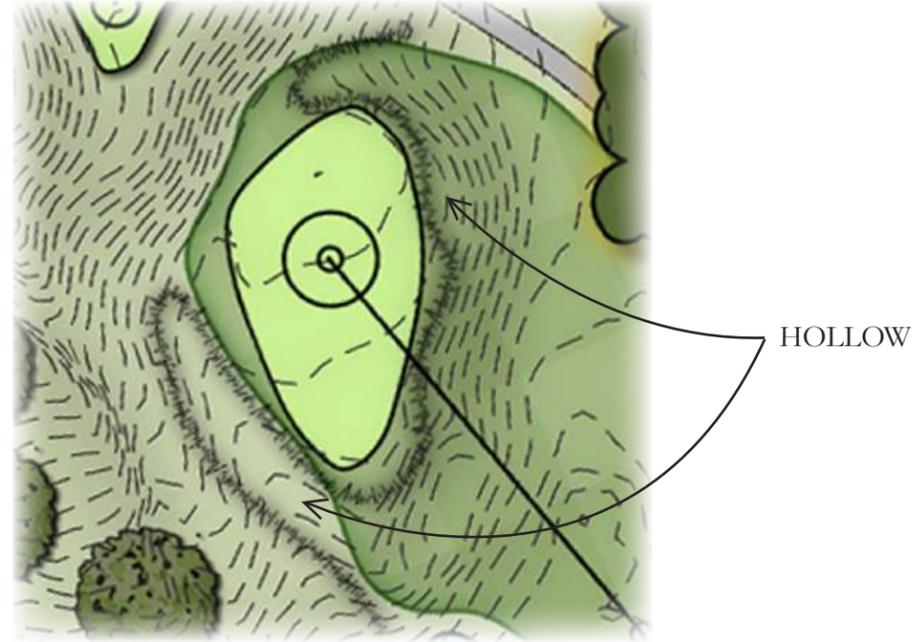
PRESERVING THE ORIGINAL TREELINE DOWN THE LEFT SIDE OF THE HOLE CAN BE ACCOMPLISHED BY SHIFTING THE FAIRWAY TO THE RIGHT. A RESTORED ROSS LEFT FAIRWAY BUNKER WON'T INTERFERE WITH THE TREES.

PROPOSED HOLE #3



DESIGN SOLUTIONS:

- Push tees back along the ridge to extend hole and make it a true par-five hole (MT).
- Replace bridge (IM)
- Restore Brushy Fork Branch slopes to eliminate erosion (IM).
- Create swale crossing fairway between landing area to convey runoff from right side slope (MT).
- Reduce size of the pond in the second landing area to eliminate forced carries; Widen the fairway to the right (MT).
- Move cart path further right from the pond and green.(MT).



RMGA PROPOSAL

PAR 5: 506 - 478 - 450 - 422 - 357 - 339 YARDS

No. 4

The second par-three in the first four holes, number four's green is a bit more concealed than the second green. This concealment adds a bit of mystery to an otherwise poorly-designed hole. In addition to the cart path crossing straight down the fairway, a partially-blind bunker far to the left of the target only serves as penalty for poor shots.

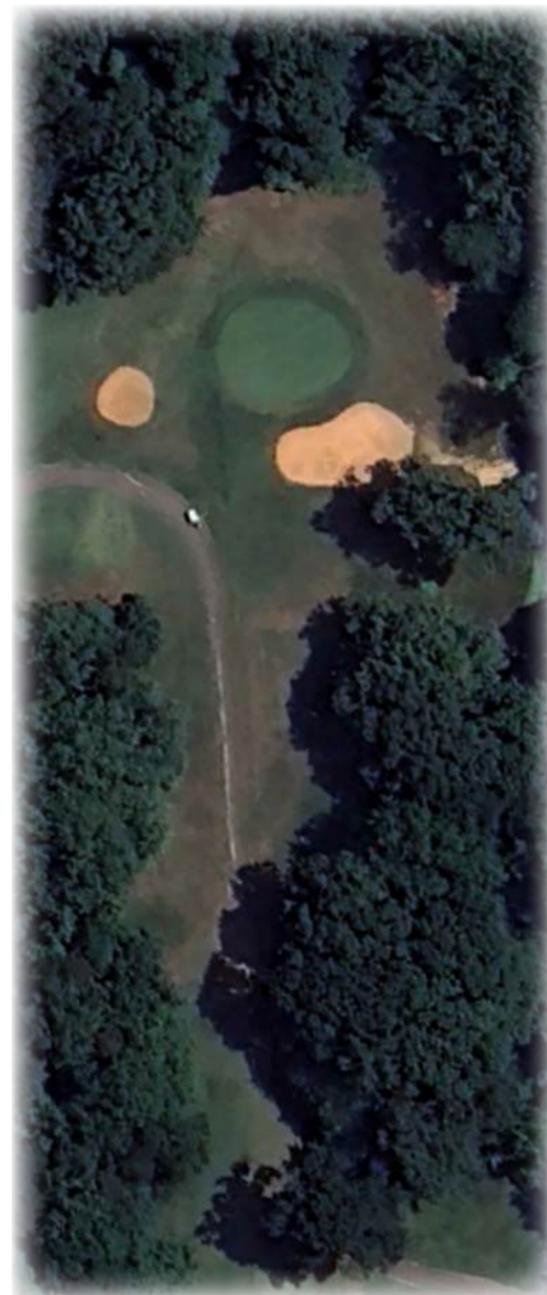
DESIGN OBSERVATIONS:

- Cart path crosses hole between tee and green.
- Short tee shots run downhill into the woods to the right.
- Left greenside bunker is far from the green out of play and is penal.
- Right greenside bunker is artificially built up.
- Putting surface is mostly blind from the tees.

MAINTENANCE OBSERVATIONS:

- Tees are mostly in shade.

EXISTING HOLE #4



CURRENT VIEW FROM TEES



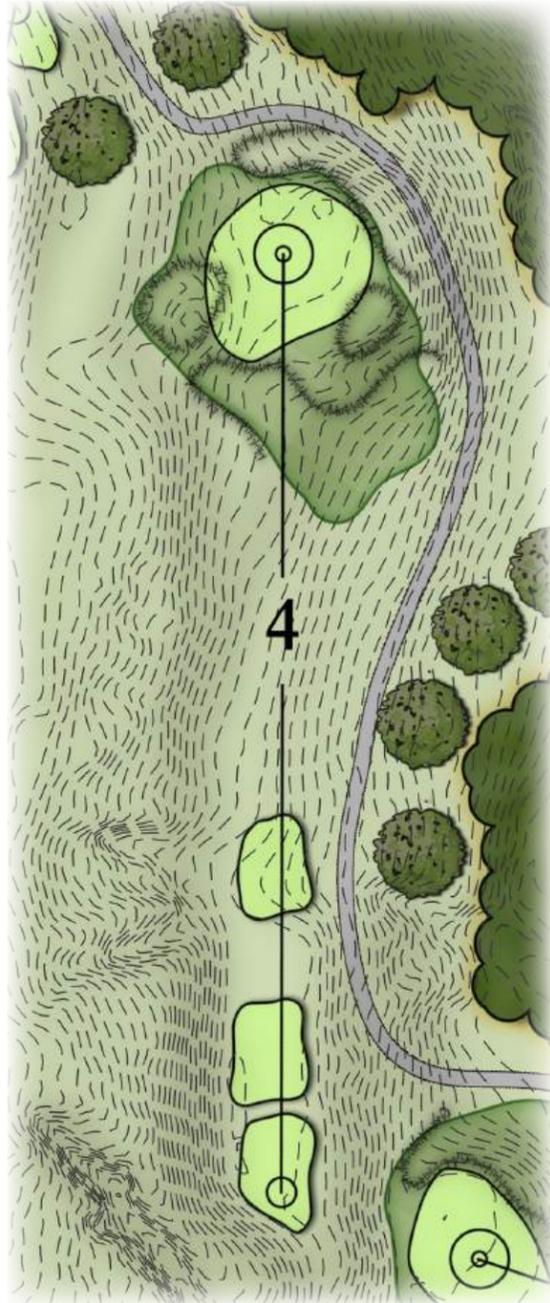
CURRENT VIEW FROM IN FRONT OF #5 TEES



PAR 3: 155 - 138 - 89 - 89 YARDS
(Championship Tees - Regular Tees - Ladies Tees - Senior Tees)

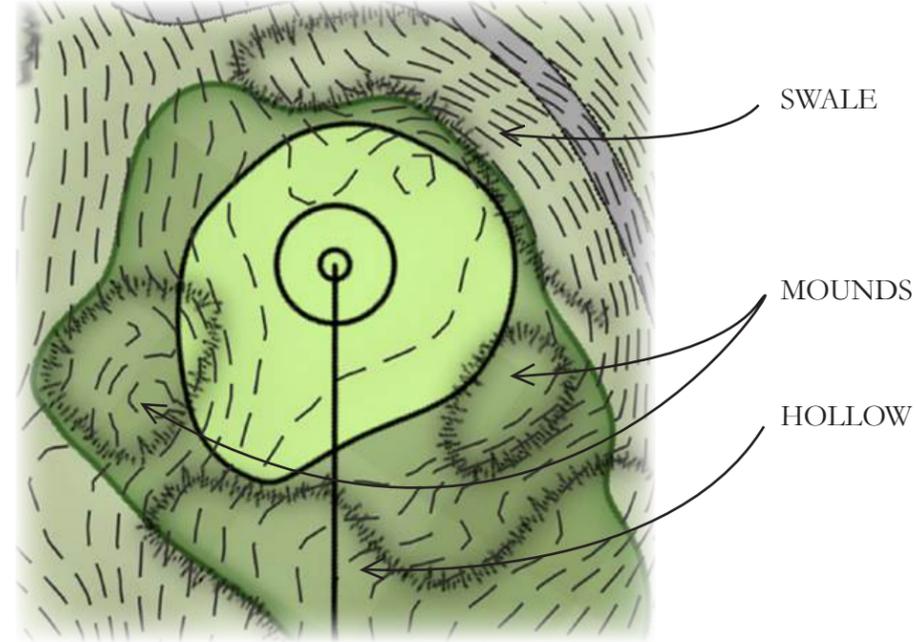
RE-SHAPING THE GREEN COMPLEX SO IT FITS MORE NATURALLY INTO THE TOPOGRAPHY WILL GO A LONG WAY TO MAKING THE HOLE VISUALLY INTERESTING. KEEPING THE PUTTING SURFACE PARTIALLY CONCEALED WILL PRESERVE ITS CHARACTER AND CHALLENGE.

PROPOSED HOLE #4



DESIGN SOLUTIONS:

- Re-shape approach to minimize short tee shots from rolling into the right side woods (MT).
- Move cart path to the right side of the hole and behind the green (MT).



RMGA PROPOSAL

PAR 3: 171 - 162 - 152 - 143 - 116 - 114 YARDS

No. 5

This short par-four is one of the more challenging holes at Winston Lake. In addition to the blind tee shot, the golfer must keep tee shots from rolling into the left woods and then hit their approach to a postage stamp green over Brushy Fork Branch.

DESIGN OBSERVATIONS:

- Blind tee shot.
- Mounds on left don't keep balls in the fairway.
- Left greenside bunker is too close to the bridge and the cart path.
- Back left greenside bunker is out of play.

MAINTENANCE OBSERVATIONS:

- Erosion down the hill on the left extends into Brushy Fork Branch. The white rocks don't stop the erosion. They also create playability issues and are a visual distraction.



EXISTING AERIAL

EXISTING HOLE #5



CURRENT VIEW FROM TEES



CURRENT VIEW FROM LANDING AREA



PAR 4: **393** - **379** - **225** - **225** YARDS

(Championship Tees - Regular Tees - Ladies Tees - Senior Tees)

THE BEST WAY TO KEEP TEE SHOTS FROM FINDING THE WOODS IS TO CONVERT THE MOUNDS ON THE LEFT INTO HOLLOW. THAT WAY CARRYING BRUSHY FORK BRANCH WILL BE THE FOCUS OF THE HOLE.

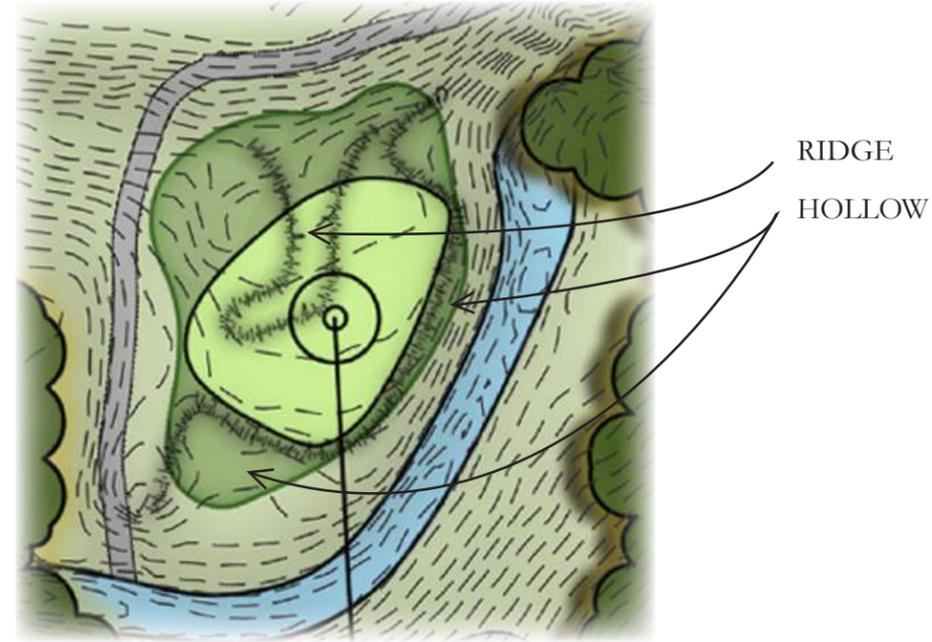
PROPOSED HOLE #5



RMGA PROPOSAL

DESIGN SOLUTIONS:

- Extend tees back and right to lengthen the golf hole and bring the flatter portion of the fairway into play as the landing area. This will minimize balls from rolling into the woods on the left (IM).
- Replace the mounds down the left of the fairway with grass hollows to catch more balls from going into the woods (IM).
- Install catch basins along the rough on the high, right side of the fairway before runoff crosses the landing area (IM).
- Re-grade left side of hole and re-grass. Install basins above slope into creek to divert runoff and minimize future erosion (IM).
- Replace bridge (IM).



PAR 4: 420 - 398 - 375 - 364 - 297 - 269 YARDS

No. 6

Similar to the third hole, number six can be a great heroic dogleg-left but encroaching trees along the left side force all golfers to play tee shots straight down the fairway. This is especially disappointing since the hole's yardage really promotes a high-risk/high-reward tee shot.

DESIGN OBSERVATIONS:

- The corner of the dogleg is blocked by trees.
- The cart path crosses the hole at the bottom of the fairway.
- Regardless of how far someone hits their tee shot, the uphill slope often pulls balls back down to the bottom of the fairway so there is little incentive to hit driver.
- Trees along the left side of the hole force all approaches toward the bunker to the right of the green.
- The putting surface is blind from the bottom of the fairway.
- The right greenside bunker is also blind from the fairway.
- Right greenside bunker directs all traffic from the cart path to its high edge.

MAINTENANCE OBSERVATIONS:

- Many tee shots find the swale at the bottom of the hill, which is often wet.

EXISTING HOLE #6



EXISTING AERIAL

CURRENT VIEW FROM FAIRWAY



CURRENT VIEW FROM LANDING AREA

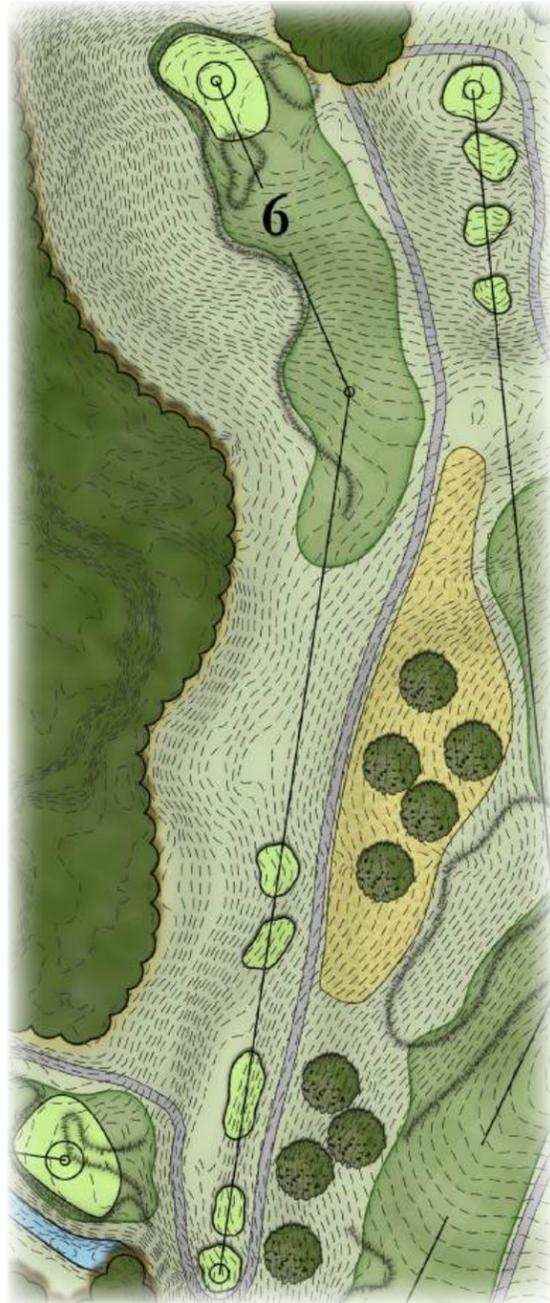


PAR 4: 293 - 282 - 271 - 271 YARDS

(Championship Tees - Regular Tees - Ladies Tees - Senior Tees)

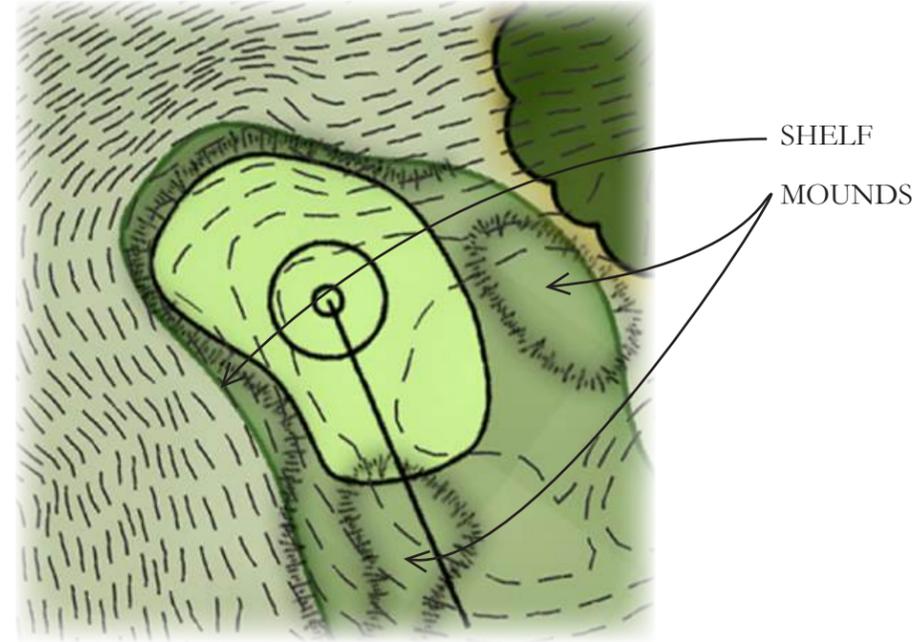
CLEARING TREES ALONG THE LEFT SIDE WILL ALLOW THE FAIRWAY TO MOVE TO THAT SIDE AND CREATE A HEROIC RISK-REWARD HOLE, ESPECIALLY WHEN THE GREEN SLIDES TO THE NATURAL FLAT PENINSULA OVERLOOKING THE HILLSIDE.

PROPOSED HOLE #6



DESIGN SOLUTIONS:

- Move the tees uphill and back to incorporate the flatter area of the fairway as the landing area (MT).
- Move the cart path above the tees and down the right side all the way to the green (MT).
- Bring the fairway to the left to give golfers a target to cut the corner (MT).
- Push green back and to the left to lengthen hole. New green location on plateau surrounded by downward slopes on the back and left will make the hole a more heroic challenge as well (MT).
- Build a large mound partially concealing the front left corner of the green to create additional challenge from that side of the fairway (MT).



RMGA PROPOSAL

PAR 4: 345 - 328 - 305 - 290 - 249 - 229 YARDS

No. 7

The seventh fairway may be the most severely-sloped one on the golf course. The positioning of the tee boxes aligns tee shots parallel along the slope rather than perpendicularly into the slope, which makes it even more difficult to keep tee shots from rolling into the trees on the right.

DESIGN OBSERVATIONS:

- Cart path crosses the hole between the tees and fairway.
- Ladies tee is too close to the green and is aligned to the trees on the left.
- Tee shots played to the left side of the fairway roll all the way to the woods on the right.
- Too many shots hit to the right of the green go into the woods.

MAINTENANCE OBSERVATIONS:

- Tee boxes are too small and too shaded.
- Ditch to the right of the fairway is unplayable.



EXISTING AERIAL

EXISTING HOLE #7



CURRENT VIEW FROM TEES



CURRENT VIEW OF APPROACH



PAR 4: 370 - 357 - 196 - 196 YARDS

(Championship Tees - Regular Tees - Ladies Tees - Senior Tees)

RESTORING THE ROSS GREEN COMPLEX WILL NOT ONLY IMPROVE THE CHARACTER OF THE GOLF COURSE BUT ALLOW FOR A WIDER APPROACH TO THE PUTTING SURFACE.

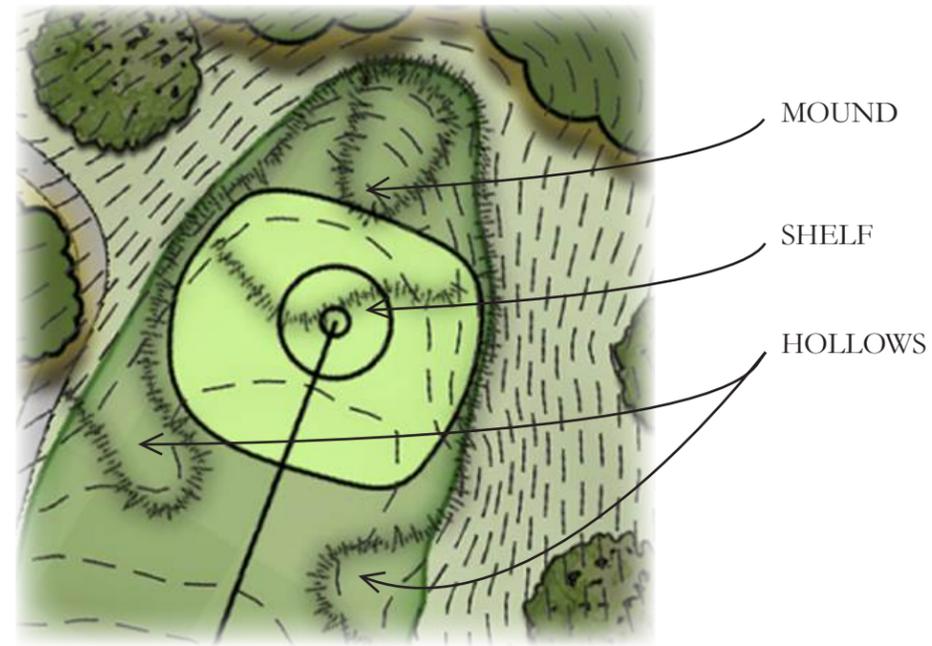
PROPOSED HOLE #7



RMGA PROPOSAL

DESIGN SOLUTIONS:

- Move tees to the right to allow tee shots to play more perpendicularly into the fairway slope instead of parallel along the slope. This will keep more tee shots from running into the trees and the sixth hole on the right (MT).
- Create a grass hollow to the right of the fairway as a collection area to keep balls out of the trees and the sixth hole (IM).
- Create a defined tier in the fairway to give the longer golfers a benefit to hitting driver off the tee (IM).
- Create self-draining hollows in front of the green to keep mis-hits from running too far down the hill on both sides (MT).



PAR 4: 370 - 351 - 330 - 311 - 249 - 247 YARDS

No. 8

The eighth hole is another very short par-five. Unlike number three, though, the tee shot is blind. The first landing area severely slopes right to left so golfers don't get the opportunity to see their tee shots run into the woods. From there, the hole settles down and is straightforward with the green set on a ridge.

DESIGN OBSERVATIONS:

- Blind tee shot.
- Cart path crosses fairway in front of tees.
- Severe right to left fairway slope forces most tee shots into the woods on the left.
- Round green doesn't fit into the topography well. It just sits on top of the ground.
- Green slopes from back to front and balls run back downhill.

MAINTENANCE OBSERVATIONS:

- Mounds to left of hollow in the bottom of the hill block runoff and are hard to maintain.
- Swales in fairway have severe side slopes.

EXISTING HOLE #8



EXISTING AERIAL

CURRENT VIEW FROM TEES



CURRENT VIEW FROM FIRST LANDING AREA



PAR 5: 479 - 466 - 282 - 282 YARDS

(Championship Tees - Regular Tees - Ladies Tees - Senior Tees)

MOVING THE GREEN BACK AND TO THE LEFT CREATES RISK AND REWARD TO THE EIGHTH HOLE, SETTING UP GOLFERS WHOSE TEE SHOTS WILL NATURALLY FIND THE LEFT SIDE OF THE HOLE.

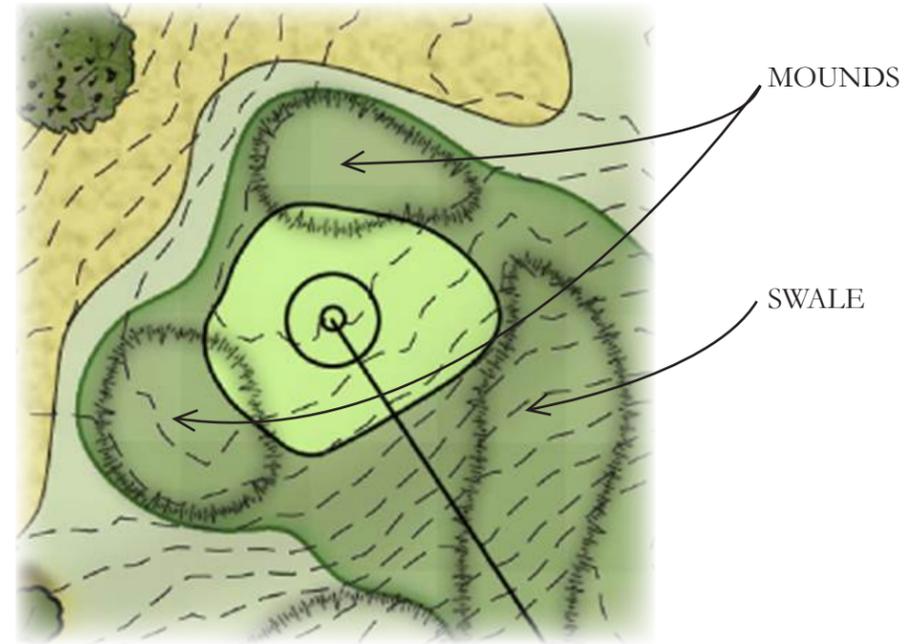
PROPOSED HOLE #8



RMGA PROPOSAL

DESIGN SOLUTIONS:

- Move cart path to the left side of the tees (IM).
- Create a grass hollow to the left of the eighth fairway as a collection area to minimize the number of tee shots going into the woods on that side.
- Reshape fairway to soften swales and mounds (IM).
- Build new eighth green up the hill and to the left to lengthen the golf hole and introduce strategy to the second shot (IM).
- Create mound complex to the right of the second landing area to protect new ninth tees (IM).



PAR 5: 534 - 505 - 472 - 443 - 385 - 338 YARDS

No. 9

The ninth is yet another hole with a severe right to left cross-slope. Many tee shots run into the swale that crosses the hole and end up in the ditch between nine and hole number one. The tee shot is mostly blind as well because most shots go over the flat that used to be the landing area when the course was first open.

DESIGN OBSERVATIONS:

- Tee boxes align golfers to the right side woods.
- Cart path crosses fairway in front of tees.
- Landing area is on downslope and blind off the tees.
- Severe right to left fairway slope makes keeping tee shots in fairway a challenge. Trees on right force golfers to the left without any way of keeping balls in the fairway.
- Front greenside bunker makes it difficult to keep approaches on shallow green.
- Front greenside bunker is artificially built up too high.
- Back right greenside bunker is too close to the cart path.

MAINTENANCE OBSERVATIONS:

- Runoff and shade make it impossible to grow grass along the left side of the hole.
- Ditch between nine and one needs to be cleaned out and made playable.

EXISTING HOLE #9



EXISTING AERIAL

CURRENT VIEW FROM TEES



CURRENT VIEW FROM LANDING AREA



PAR 4: 407 - 391 - 376 - 376 YARDS

(Championship Tees - Regular Tees - Ladies Tees - Senior Tees)

LENGTHENING THE NINTH HOLE BY MOVING THE TEES BACK WILL RESTORE THE FLAT THAT WAS ORIGINALLY THE LANDING AREA, MAKING THE HOLE LONGER FOR THE BETTER GOLFERS BUT KEEPING MORE TEE SHOTS FROM FOLLOWING THE SLOPE INTO THE WOODS ON THE LEFT.

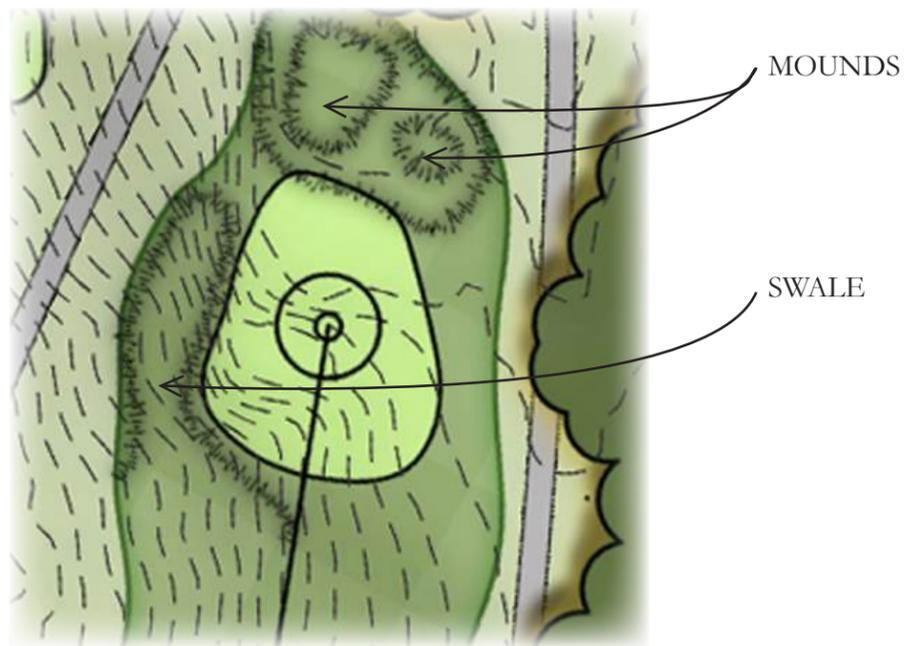
PROPOSED HOLE #9



RMGA PROPOSAL

DESIGN SOLUTIONS:

- Move tees back to lengthen hole which will also move the landing area out of the swale and back toward a flatter area of the fairway (IM).
- Re-shape fairway to minimize cross-slope (IM).
- Clean out and grass ditch between holes nine and one (IM).



PAR 4: 443 - 418 - 393 - 370 - 321 - 296 YARDS

No. 10

The tenth hole at Winston Lake is somewhat blind both from the tees and the landing area. But there is enough definition off the tee to direct golfers comfortably. The flagstick is visible from the fairway as well. The character of the hole is in the blindness of both shots but the relatively short distance balances out the visibility challenge.

DESIGN OBSERVATIONS:

- The cart path crosses the fairway in front of the tees.
- The landing area is blind from the tees.
- The green is blind from the landing area.
- Short shots hit left of the green go all the way through eleven fairway towards fourteen tee.
- Mis-hit approaches to the right and to the back run into the woods.

MAINTENANCE OBSERVATIONS:

- The right side of the fairway landing area has a sinkhole that narrows the landing area.



EXISTING AERIAL

EXISTING HOLE #10



CURRENT VIEW FROM TEES



CURRENT VIEW FROM LANDING AREA



PAR 4: 407 - 386 - 263 - 263 YARDS

(Championship Tees - Regular Tees - Ladies Tees - Senior Tees)

FIXING THE SINKHOLE IN THE LANDING AREA AND CREATING A FEW HOLLOWES AROUND THE GREEN WILL IMPROVE THIS QUIRKY HOLE WITHOUT LOSING ITS CHARACTER BY ELIMINATING THE BLINDNESS

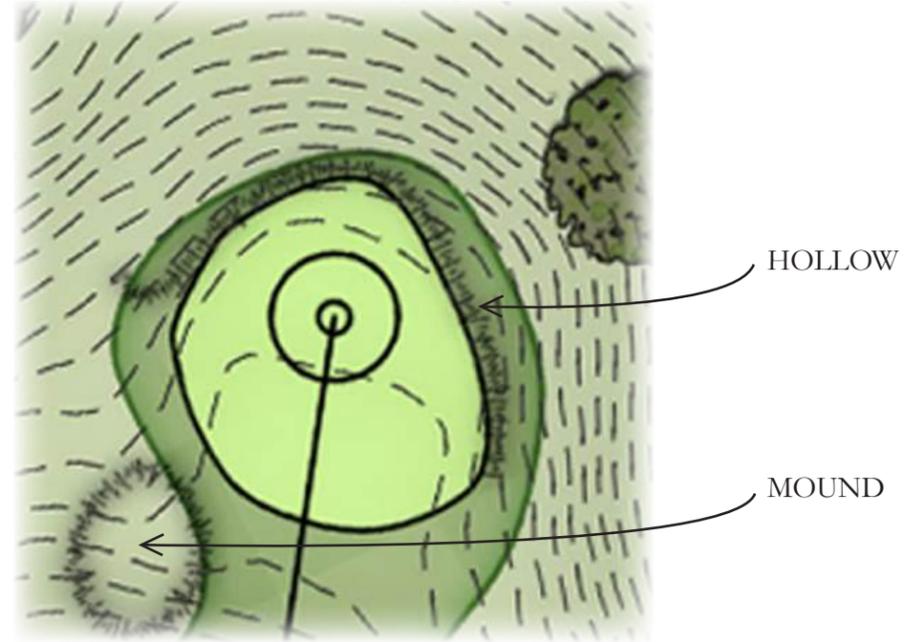
PROPOSED HOLE #10



RMGA PROPOSAL

DESIGN SOLUTIONS:

- Move cart path to the left side of the tees (MT).
- Re-shape fairway to repair sinkhole. Create a two-tier fairway to create a heroic tee shot that rewards golfers who choose to carry the lower tier (IM).
- Build grass hollows on the left and right sides of the green as well as behind to keep mis-hits from being too penal (MT).



PAR 4: 412 - 389 - 366 - 344 - 298 - 275 YARDS

No. 11

Number eleven is another quirky blind hole that, combined with its green location, epitomizes the character of Winston Lake Golf Course more so than other holes or blind shots that are longer. Whereas the landing area is not blind, the green is for most golfers.

DESIGN OBSERVATIONS:

- The cart path crosses the fairway in front of the tees.
- A severe left to right fairway slope makes keeping tee shots in the fairway a challenge.
- The smallest green on the course is very shallow and blind for most approaches.

MAINTENANCE OBSERVATIONS:

- The forward tee box is poorly tied into grade.
- Tree shade along the left side of the tees limits grass growth and promotes erosion.
- Swales crossing the fairway have poor grass growth due to erosion.



EXISTING AERIAL

EXISTING HOLE #11



CURRENT VIEW FROM TEES



CURRENT VIEW OF APPROACH

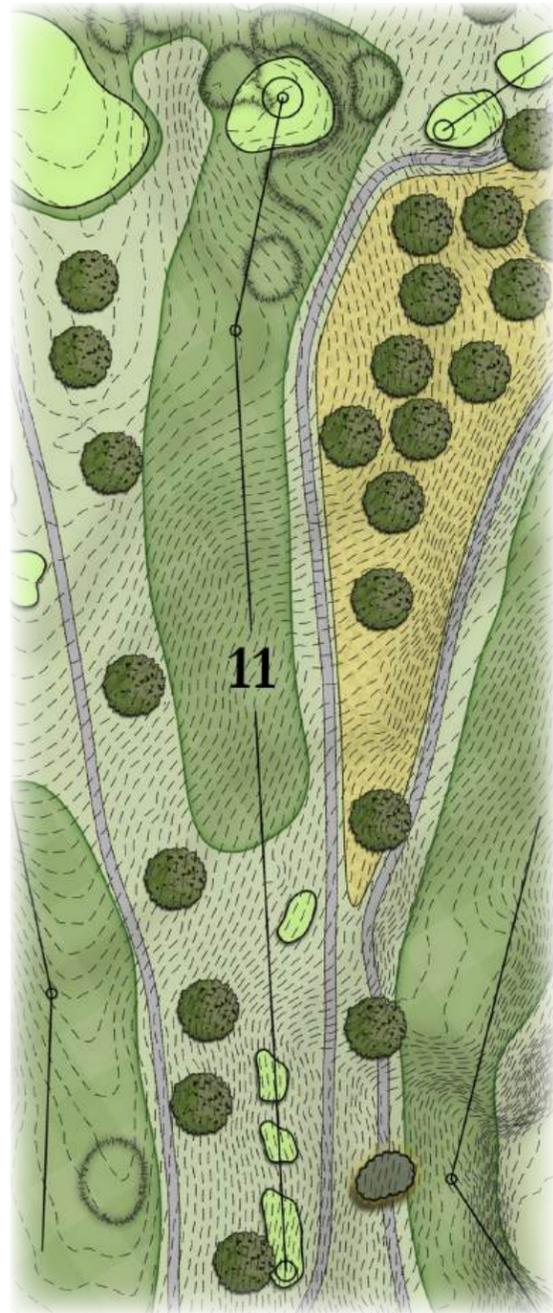


PAR 4: 356 - 347 - 208 - 208 YARDS

(Championship Tees - Regular Tees - Ladies Tees - Senior Tees)

LITTLE NEEDS TO BE CHANGED TO THIS HOLE OTHER THAN IMPROVING GRASS-GROWING CONDITIONS AND SOFTENING THE FAIRWAY SLOPES.

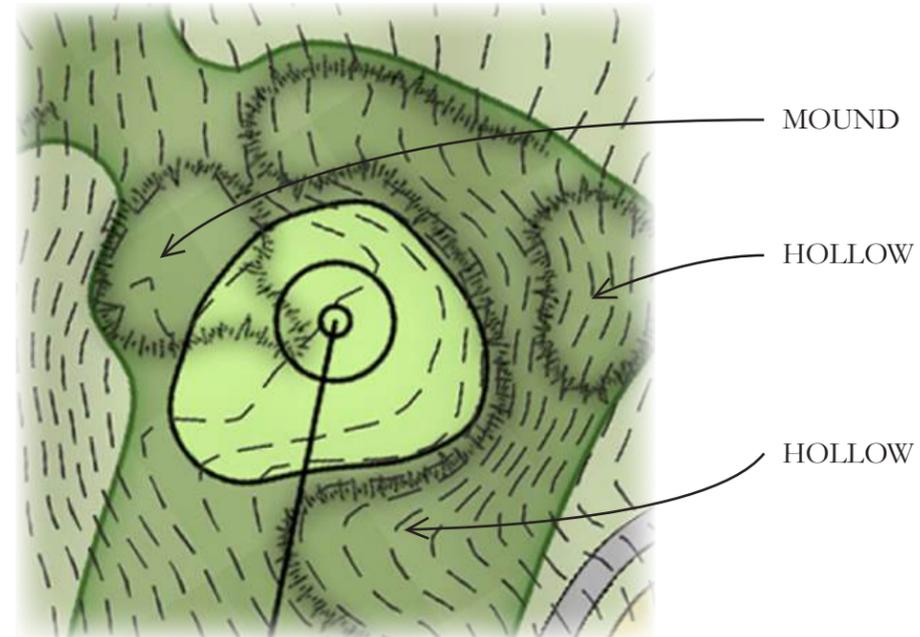
PROPOSED HOLE #11



RMGA PROPOSAL

DESIGN SOLUTIONS:

- Move tees forward to lessen congestion with ten green and fourteen tees (MT).
- Move cart path to the right side of the tees (MT).
- Move landing area forward to the existing ridge in order to minimize tee shots rolling into the trees and thirteen fairway on the right (MT).
- Make right side of the green more receptive to mis-hit shots with a grass hollow (MT).



PAR 4: 313 - 296 - 279 - 262 - 223 - 219 YARDS

No. 12

The twelfth hole may be the toughest hole on the course. In addition to being the longest par-three at Winston, its green is not receptive to most lower-trajectory tee shots because of the front greenside bunker and a shallow green, which make it very difficult to keep any wood or low-irons on the putting surface.

DESIGN OBSERVATIONS:

- Trees on the left off the tee block the view of the left side of the pond.
- The forward tee is aligned to the right edge of the green.
- There is no tee on the green side of the pond.
- Front greenside bunker does not allow for any run-up shots.
- The green is too shallow to keep most aerial tee shots on the putting surface.
- Front greenside bunker is artificially built up on all sides and repels any ground-game shots.

MAINTENANCE OBSERVATIONS:

- Swales crossing the fairway have poor grass growth due to erosion.
- Tree shade along the left side of the tees limits grass growth and promotes erosion.

EXISTING HOLE #12



EXISTING AERIAL

CURRENT VIEW FROM TEES



CURRENT VIEW OF GREEN FROM RIGHT SIDE

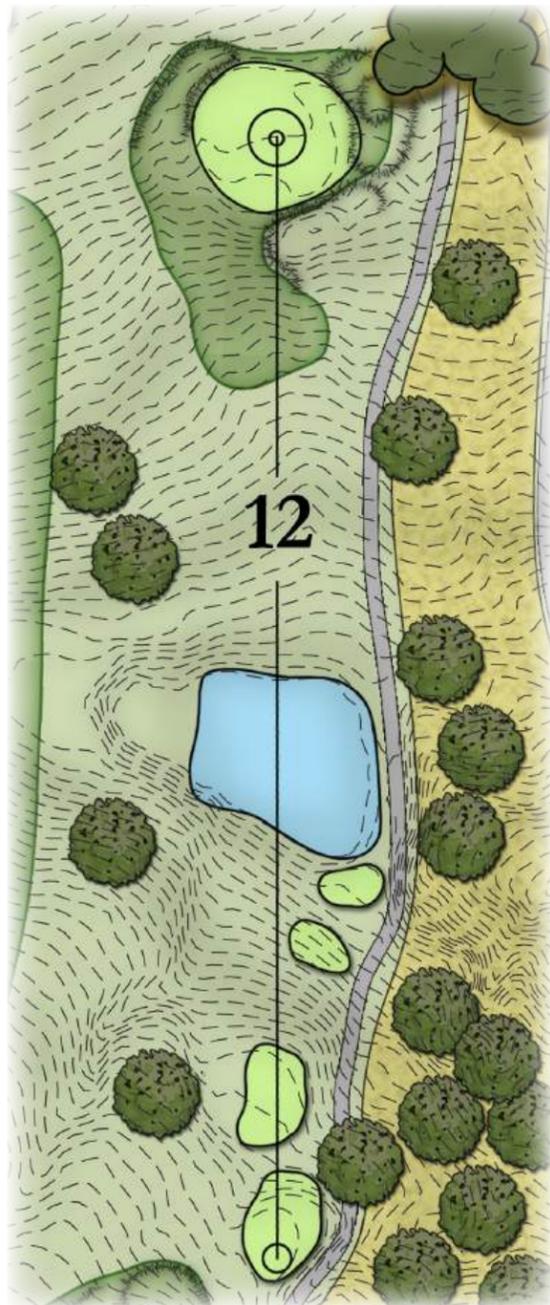


PAR 3: 204 - 180 - 78 - 78 YARDS

(Championship Tees - Regular Tees - Ladies Tees - Senior Tees)

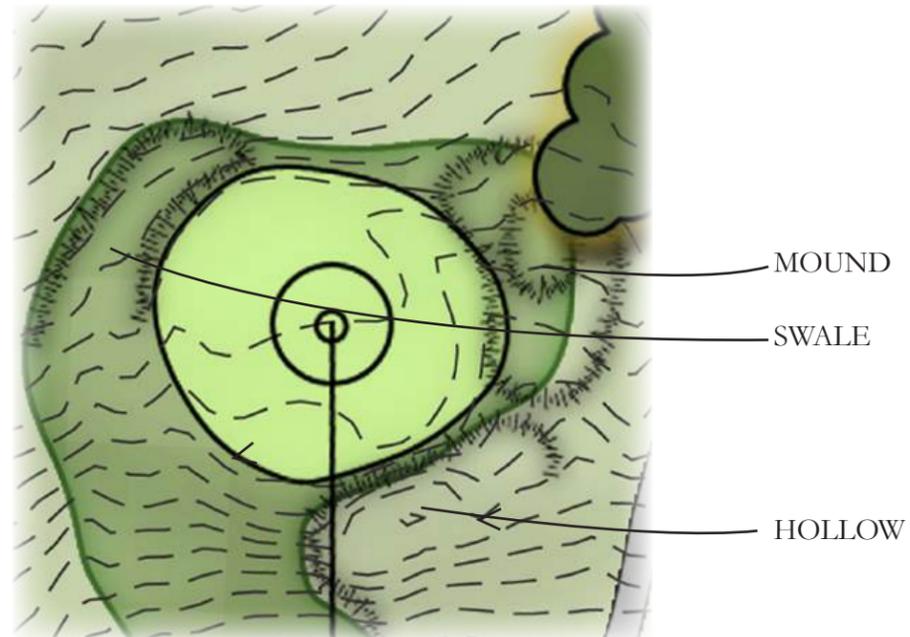
ADDING ADDITIONAL TEE BOXES AND CREATING A GREEN TO BE MORE RECEPTIVE TO LOWER-TRAJECTORY TEE SHOTS WILL MAKE THE LONGEST PAR-THREE AT WINSTON LAKE GOLF COURSE MORE PLAYABLE FOR MORE TALENT LEVELS.

PROPOSED HOLE #12



DESIGN SOLUTIONS:

- Add multiple tee boxes to the tee side of the pond to promote Tee Shot Distance Equity (MT).
- Re-shape green to be more receptive to fairway woods and low-irons off the tee (MT).



RMGA PROPOSAL

PAR 3: 211 - 199 - 187 - 176 - 153 - 141 YARDS

No. 13

Topographically, number thirteen is a dogleg-left par-four hole along a ridge. But trees along the left side of the hole force golfers to play straight off the tee without much chance to cut the corner to gain an advantage. Instead of being a risk-reward hole, it plays the same way for everyone.

DESIGN OBSERVATIONS:

- Trees prevent golfers from using both sides of the tee boxes.
- The corner of the dogleg is blocked by trees, forcing all golfers to play straight ahead instead of cutting the corner of the hole.
- Visually, the cart path is too close to the center of the fairway from the tee to the ridge.
- Fairway bunker keeps shots from going into the woods but doesn't reward cutting the corner.
- Severe right to left slope between the fairway and the green sends short left approaches into the woods.

MAINTENANCE OBSERVATIONS:

- Water sits at the base of the hill at the front left corner of the green.
- The area to the right of the green at the base of the cart path remains wet.

EXISTING HOLE #13



EXISTING AERIAL

CURRENT VIEW FROM TEES



CURRENT VIEW FROM LANDING AREA

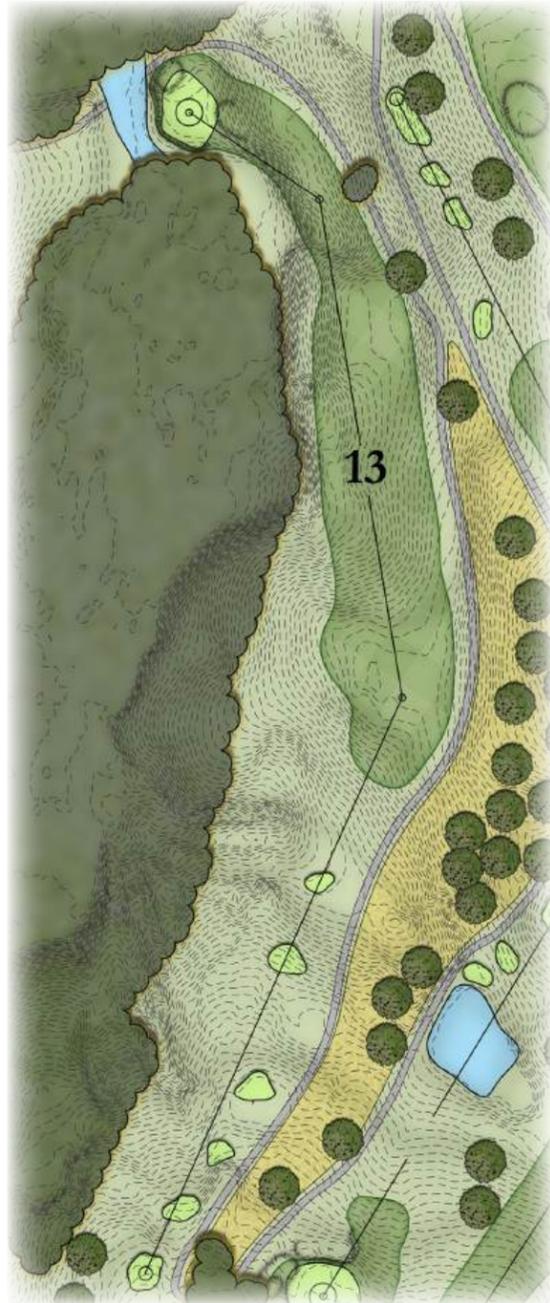


PAR 4: 366 - 321 - 285 - 285 YARDS

(Championship Tees - Regular Tees - Ladies Tees - Senior Tees)

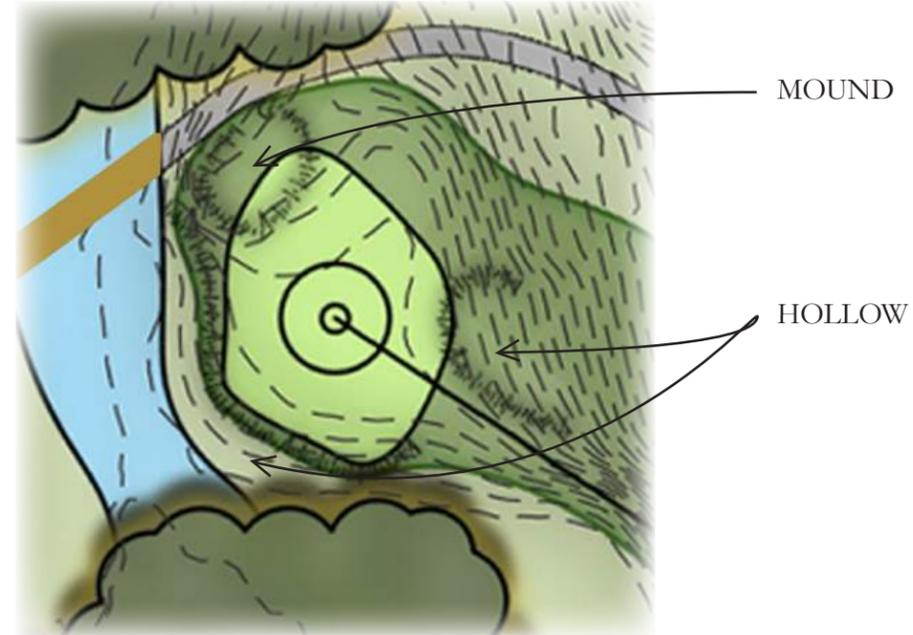
THERE IS A GREAT OPPORTUNITY TO CONVERT THE THIRTEENTH HOLE TO A PAR FIVE AND INCORPORATING THE WETLAND AS A CARRY HAZARD TO CHALLENGE THE GOLFER TO REACH THE GREEN IN TWO SHOTS.

PROPOSED HOLE #13



DESIGN SOLUTIONS:

- Move tees back and to the left to re-capture the ridge in the fairway as the landing area (MT).
- Move cart path between tees and fairway further to the right (LT).
- Convert hole to a par-five by moving green to low area where exiting fourteen forward tees sit. The hole will play as a heroic hole reachable in two shots for those who decide to carry the low to the left of the hole (MT).



RMGA PROPOSAL

PAR 5: 512 - 484 - 456 - 427 - 371 - 343 YARDS

No. 14

The fourteenth hole is a decent dogleg-left par five playing over Brushy Fork Branch but overgrown trees minimize the heroic challenge off the tees. The second shot is somewhat blind, slowing pace of play.

DESIGN OBSERVATIONS:

- Corner of the dogleg is blocked by trees.
- Alternate white tee isn't used because of overhanging trees.
- Cart path crosses hole between the tees and the fairway.
- Right fairway bunker is built on top of a mound against the treeline and doesn't catch many shots.
- Second shot is blind.
- Mounds on the left in the second landing area send balls into the left woods.

MAINTENANCE OBSERVATIONS:

- The sides of Brushy Fork Branch, which crosses the hole between the tees and fairway, are eroding.
- Green complex lack sunlight and air circulation.

EXISTING HOLE #14



EXISTING AERIAL

CURRENT VIEW FROM TEES



CURRENT VIEW FROM SECOND LANDING AREA

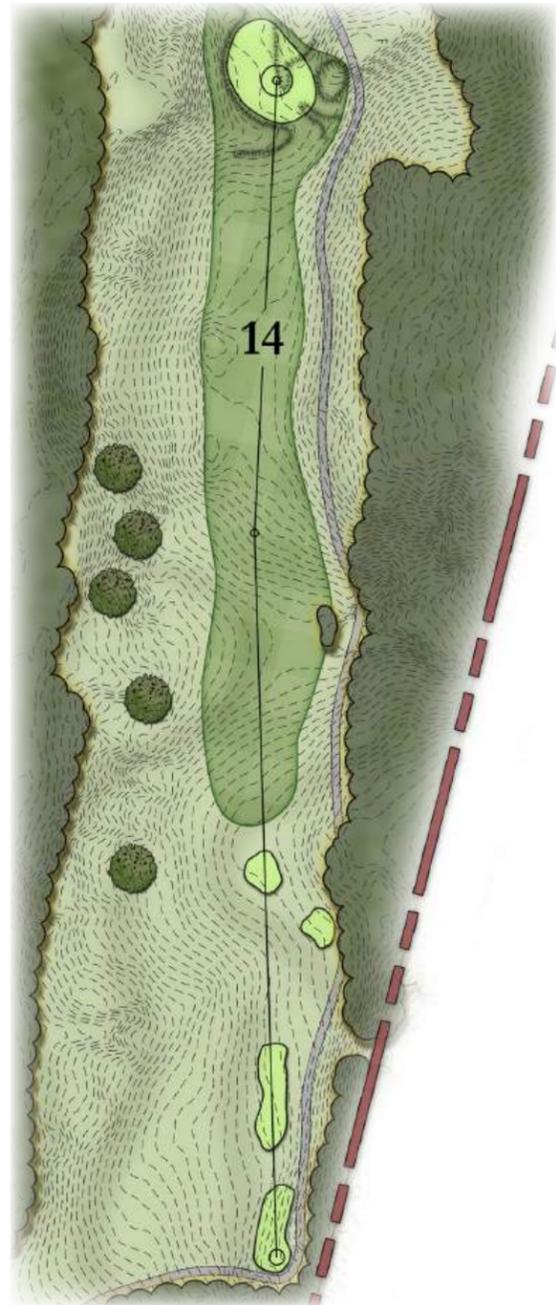


PAR 5: **549** - 502 - **408** - **408** YARDS

(Championship Tees - Regular Tees - Ladies Tees - Senior Tees)

MOVING THE TEES TO THE OTHER SIDE OF BRUSHY FORK BRANCH TO MAKE ROOM FOR THE NE 13TH GREEN WILL CREATE A STRONG PAR-FOUR ALONG A NATURAL RIDGE AND IMPROVE VISIBILITY.

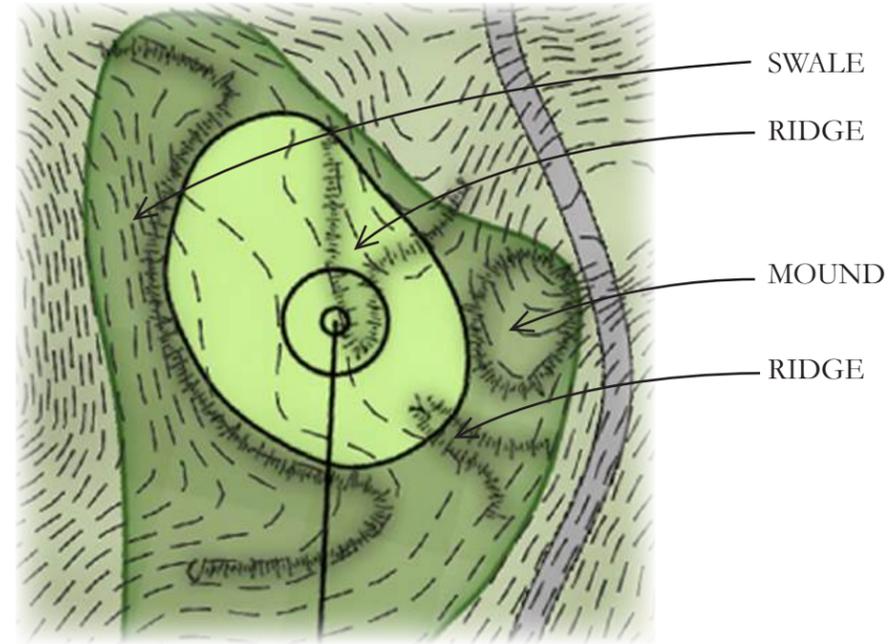
PROPOSED HOLE #14



RMGA PROPOSAL

DESIGN SOLUTIONS:

- Move tees up the hill to convert the hole to a straight par-four and eliminate a blind second shot (MT).
- Replace mounds along the left side of the fairway with grass hollows to catch mis-hit shots (MT).
- Cut the fairway down and use material to raise the green for better air circulation (MT).



PAR 4: 406 - 384 - 361 - 339 - 294 - 271 YARDS

No. 15

Fifteen is a straight-forward short par-four but the landing area is just past the high point in the fairway. The hole is visually dominated from the tees by the cart path.

DESIGN OBSERVATIONS:

- Overhanging trees on left side off the tee block the left side of the fairway.
- Walk from cart path to the back tees is steep.
- Blind tee shot from ladies tee.
- Cart path crosses hole between the tees and the fairway.
- “Volcano” mound on left the fairway doesn’t stop shots going left.
- Bottom of the hole, where many tee shots land, is blind from the tees.
- Small green deflects all approaches.

MAINTENANCE OBSERVATIONS:

- Standing water in swale between hillside on right and the tees.
- Trees left of approach inhibit grass growth.



EXISTING AERIAL

EXISTING HOLE #15



CURRENT VIEW FROM TEES



CURRENT VIEW FROM LANDING AREA



PAR 4: 334 - 317 - 220 - 220 YARDS

(Championship Tees - Regular Tees - Ladies Tees - Senior Tees)

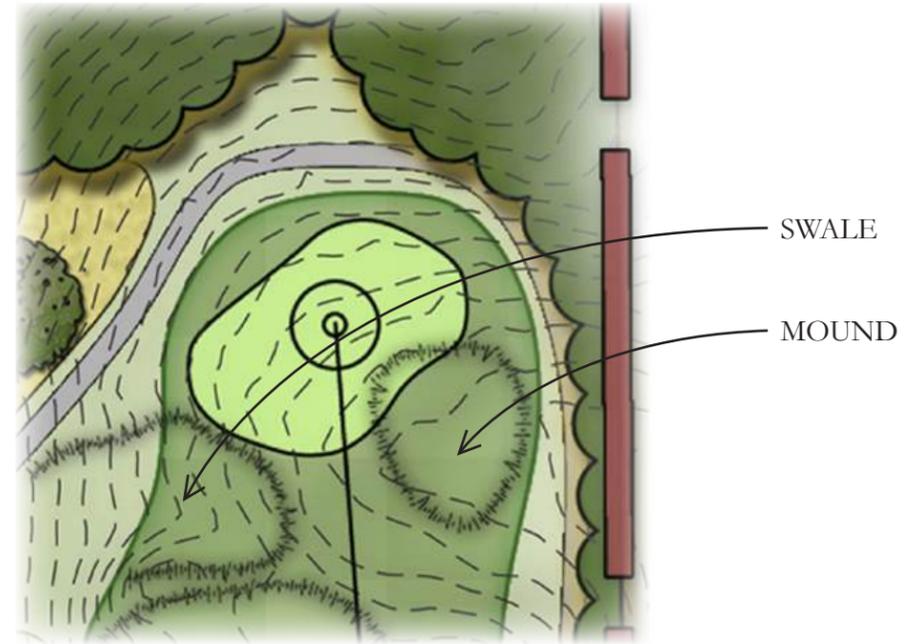
SIMPLY RE-STRUCTURING THE GRASSING LINES TO REFLECT THE TOPOGRAPHY CAN MAKE THIS HOLE ONE OF THE MORE SPECTACULAR CHALLENGES AT WINSTON LAKE BOTH VISUALLY AS WELL AS STRATEGICALLY.

PROPOSED HOLE #15



DESIGN SOLUTIONS:

- Move cart path to the right from tee to green (MT).
- Re-shape fairway to be more receptive to tee shots (MT).
- Replace mounds along left edge of fairway with grass hollows (MT).
- Push green back to lengthen hole (MT).



RMGA PROPOSAL

PAR 4: 382 - 362 - 340 - 318 - 277 - 255 YARDS

No. 16

The final par three at Winston Lake is an excellent high point to high point challenge, leaving the primary drainage pattern between the tees and the green complex. Unfortunately the green complex is shoehorned into a small area surrounded by trees and limited by cart path.

DESIGN OBSERVATIONS:

- Forward tee box is aligned to the woods on the right.
- Cart path crosses hole between tee and green.
- Far left bunker serves no purpose, especially when everyone is trying to avoid the two bunkers on the right.
- All three greenside bunkers are artificially built-up.

MAINTENANCE OBSERVATIONS:

- Cart path access/egress on right is inhibited by bunkers protecting the green on that side.
- Surrounding trees severely affect air circulation and creates shade issues.
- Limited pin placements because of the mound coming off the left greenside bunker into the putting surface.



EXISTING AERIAL

EXISTING HOLE #16



CURRENT VIEW FROM TEES



CURRENT VIEW OF RIGHT GREENSIDE SAND BUNKERS

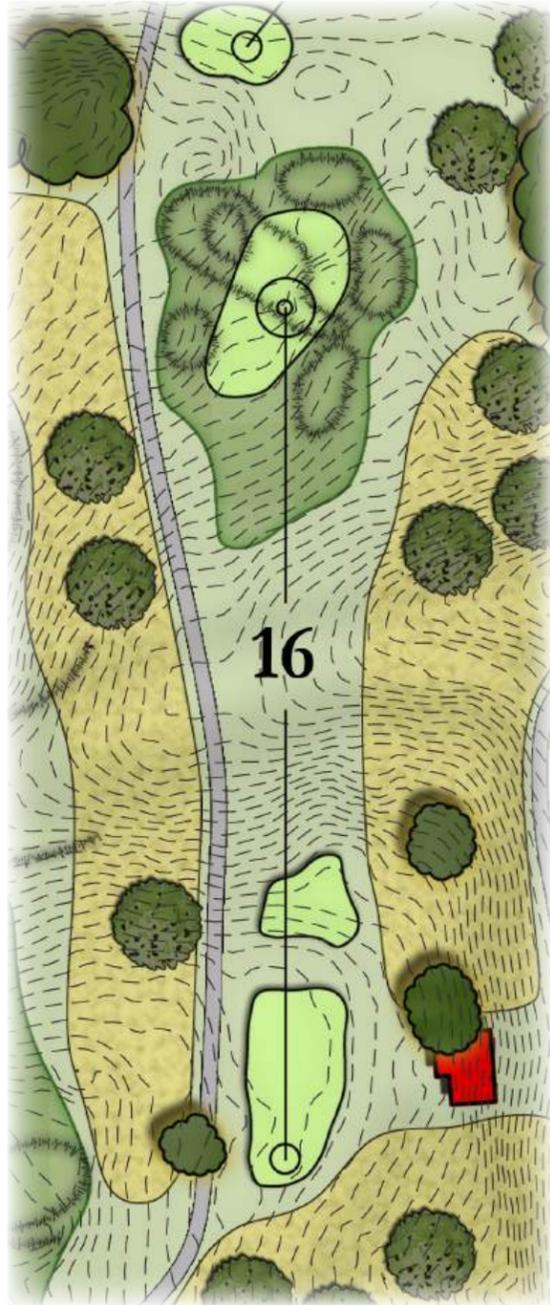


PAR 3: 183 - 176 - 154 - 154 YARDS

(Championship Tees - Regular Tees - Ladies Tees - Senior Tees)

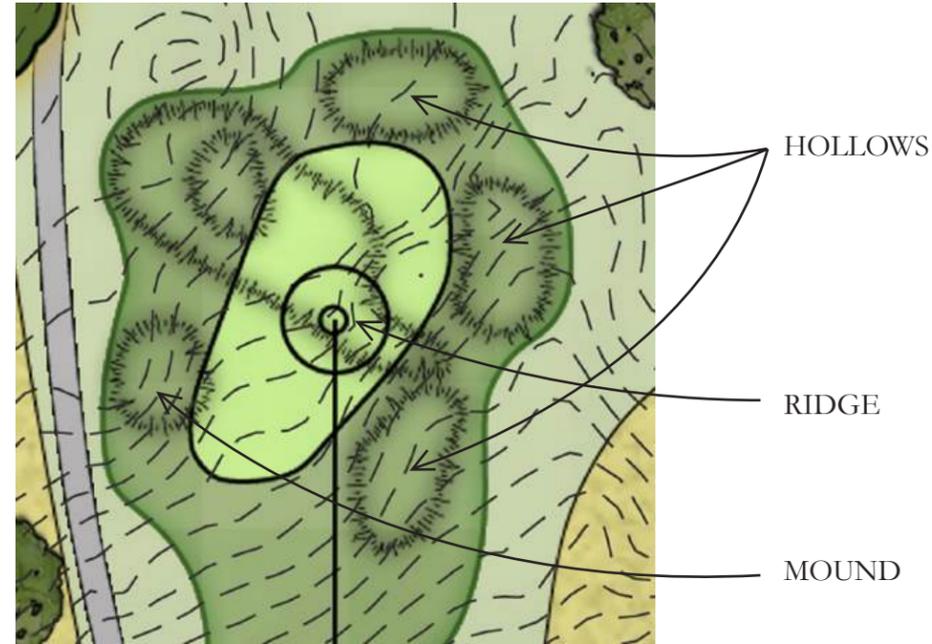
LARGER TEES, TREE CLEARING, AND A MORE RECEPTIVE PUTTING SURFACE WILL CREATE A CHALLENGING TARGET FOR GOLFERS.

PROPOSED HOLE #16



DESIGN SOLUTIONS:

- Bring cart path down the left side of the hole (MT).
- Shorten sixteenth hole by bringing green back to the tees. This will ensure distance variety in the par threes and provide buffer from new seventeenth tees (MT).
- Cut green into hillside and incorporate grass hollows surrounding the putting surface to keep short shots from rolling down the hill (MT).
- Move green slightly left to avoid trees on the right side (MT).



RMGA PROPOSAL

PAR 3: 155 - 147 - 138 - 129 - 112 - 103 YARDS

No. 17

Seventeen is the shortest par-four on the course but lacks any heroic strategic features. It is just another slight dogleg par-four with cart path dominating the view from the tees.

DESIGN OBSERVATIONS:

- Tee boxes are aligned to woods on the right.
- Overhanging trees on the right side of the hole forces golfers to play to the left off the tee yet there is no place to hit their tee shot.
- Cart path crosses hole between tee and green.
- There is very little room for a flat lie on such an undulating fairway.
- The left to right swale becomes the only collection spot for tee shots that roll back down the hill.
- The right to left swale above the first swale is a bit softer but dominates the shaping of the fairway and catches many short shots.
- Greenside bunkers only catch mis-hit approaches and are not strategic.
- Bunker to the right of the green is just a sand-topped mound that kicks balls toward green.

MAINTENANCE OBSERVATIONS:

- All the surface drainage on the hole is served by two swales that cross the entire fairway and convey water down the fairway, creating occasional standing water issues.

EXISTING HOLE #17



EXISTING AERIAL

CURRENT VIEW FROM TEES



CURRENT VIEW FROM LANDING AREA

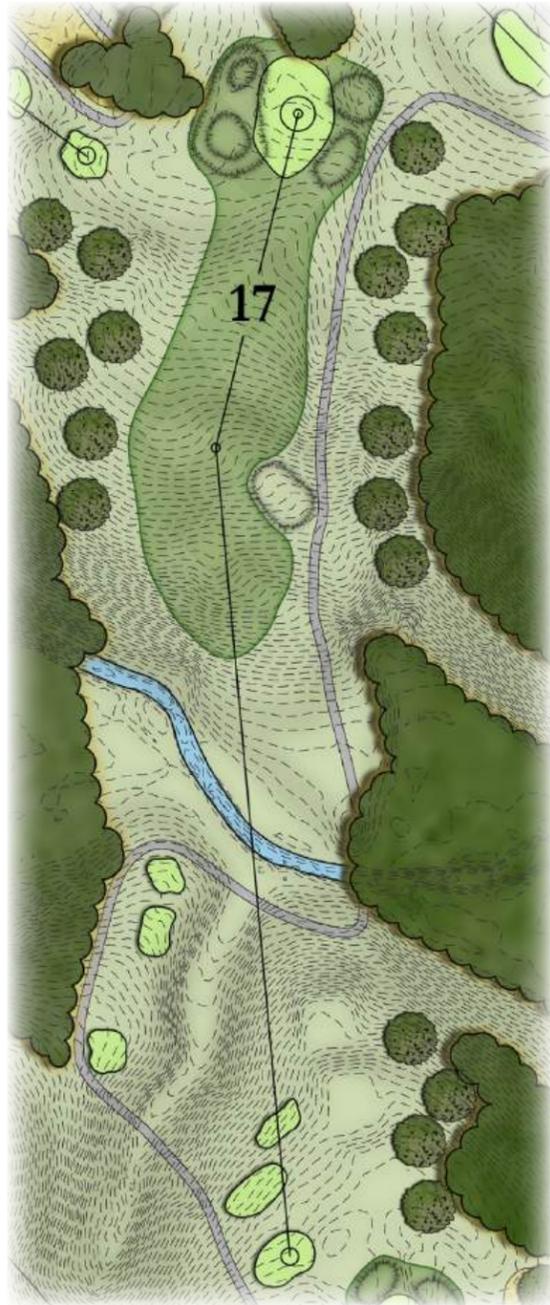


PAR 4: 314 - 290 - 215 - 215 YARDS

(Championship Tees - Regular Tees - Ladies Tees - Senior Tees)

INTRODUCING A STRATEGIC CARRY HOLLOW INTO A RESHAPED FAIRWAY WILL GIVE GOLFERS INCENTIVE TO CUT THE CORNER TO A GREEN THAT WILL BE MORE RECEPTIVE FROM THAT SIDE.

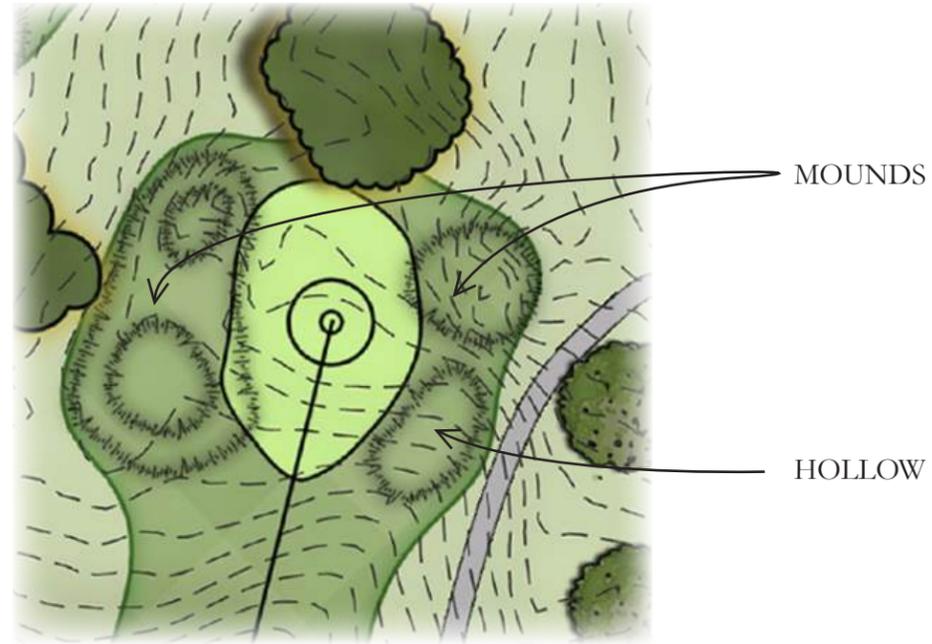
PROPOSED HOLE #17



RMGA PROPOSAL

DESIGN SOLUTIONS:

- Move tees down the slope to the left to visually bring the creek into play more off the tee (MT).
- Bring cart path down the left side of the tees, then cut it back sharply before the creek before running it down the right side of the hole to the green (MT).
- Reshape the fairway and install subsurface drainage to minimize cross-slopes and create a variety of flats for tee shots to stop (MT).
- Cut grass hollow into right corner of the dogleg as a strategic carry hazard for golfers to gain an advantage off the tee (MT).
- Angle the putting surface from front left to back right along the long axis of the natural grade to create a heroic target (MT).



PAR 4: 356 - 337 - 315 - 295 - 257 - 237 YARDS

No. 18

Number eighteen is another straight par-four played to an up-slope landing area. The green complex is completely blind from the fairway.

DESIGN OBSERVATIONS:

- Cart path crosses hole between tee and green.
- Only the flagstick is visible from the bottom of the hill, providing no clues as to the extent of the green surrounds.
- Practice green is just a few feet from the far edges of the back greenside bunkers, all of which are blind from the fairway.

MAINTENANCE OBSERVATIONS:

- • Bottom of the fairway is consistently wet.



EXISTING AERIAL

EXISTING HOLE #18



CURRENT VIEW FROM TEES



CURRENT VIEW OF APPROACH

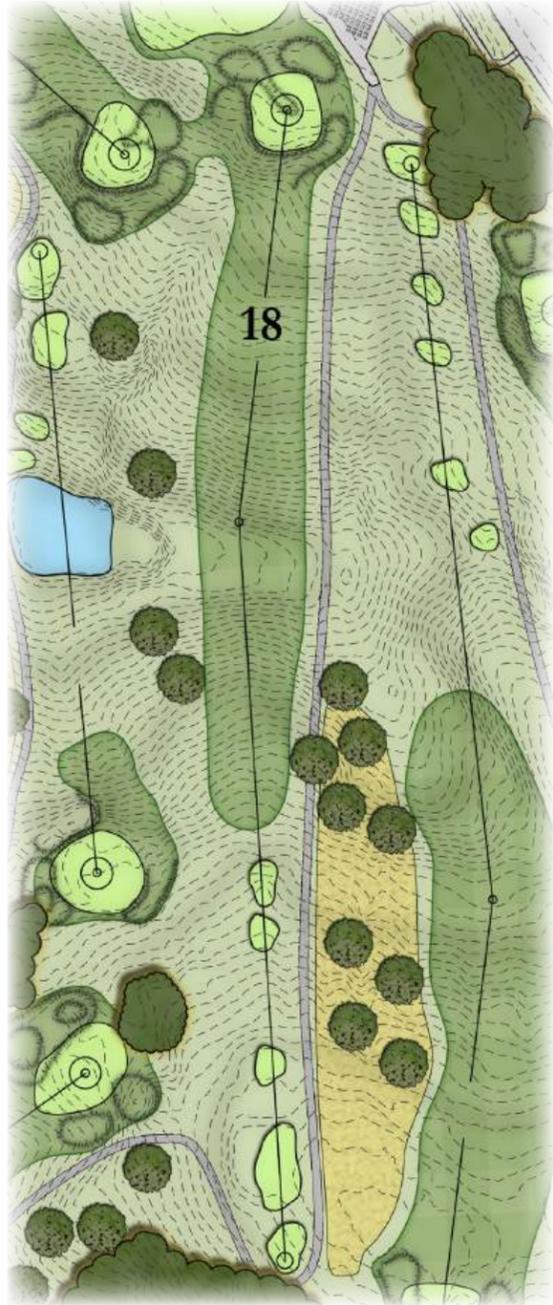


PAR 4: 358 - 333 - 268 - 268 YARDS

(Championship Tees - Regular Tees - Ladies Tees - Senior Tees)

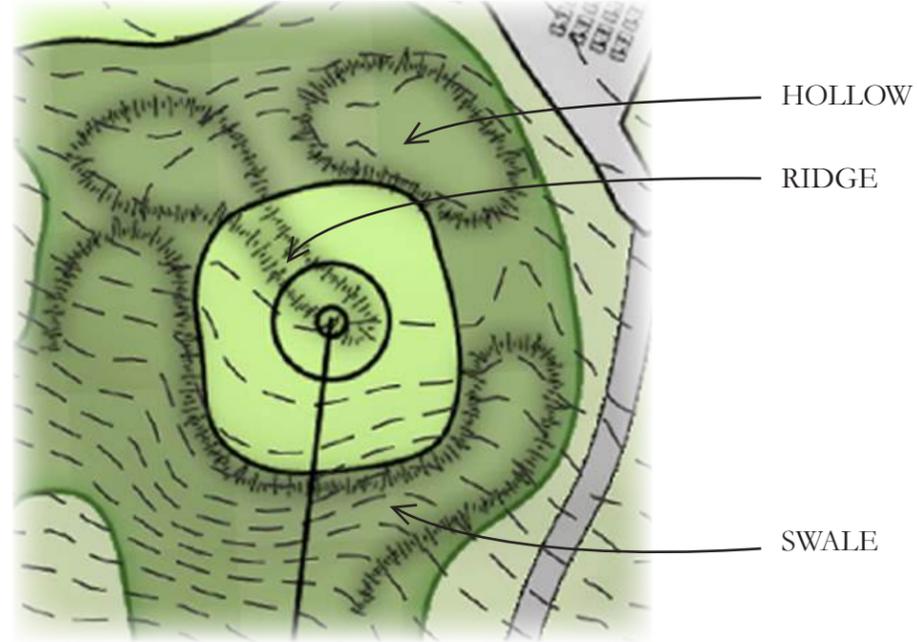
LOWERING THE GREEN MAY INCREASE VISIBILITY FROM THE FAIRWAY AND ALSO CREATE BUFFER FROM THE PUTTING GREEN AND STAGING AREA.

PROPOSED HOLE #18



DESIGN SOLUTIONS:

- Lengthen hole by pushing tees back but keep landing area on the green side of the swale at the bottom of the fairway (IM).
- Move cart path to the right side of the hole from tee to green (IM).
- Lower greens complex to increase visibility from the fairway and create visual and physical separation from the putting green and staging area (IM).
- Spectator mounding behind the green will create even more protection from the practice green (IM).



RMGA PROPOSAL

PAR 4: 390 - 368 - 347 - 325 - 282 - 261 YARDS

DR

Winston Lake Golf Course lacks a real short-game practice area which is particularly needed for junior summer camps and other clinics. The green near the driving range does not offer any room for chipping practice.

The range itself is too short to allow for much full tee shot practice and has struggled to maintain an acceptable stand of grass on top of the dredged material that came from Winston Lake.

DESIGN OBSERVATIONS:

- The driving range was renovated in 2014 with material dredged from Winston Lake.
- The range tee running parallel to the tenth hole is not practical for safety reasons.
- Practice bunker was eliminated after the dredge material filled the range.
- The range experience lack visual stimulation.
- There are no target greens.
- The netting is too low.

MAINTENANCE OBSERVATIONS:

- Can't pick balls off the range floor because of poor drainage and grading.

EXISTING DRIVING RANGE & SHORT-GAME AREA



EXISTING AERIAL

CURRENT VIEW OF CHIPPING GREEN



CURRENT VIEW FROM RANGE TEES

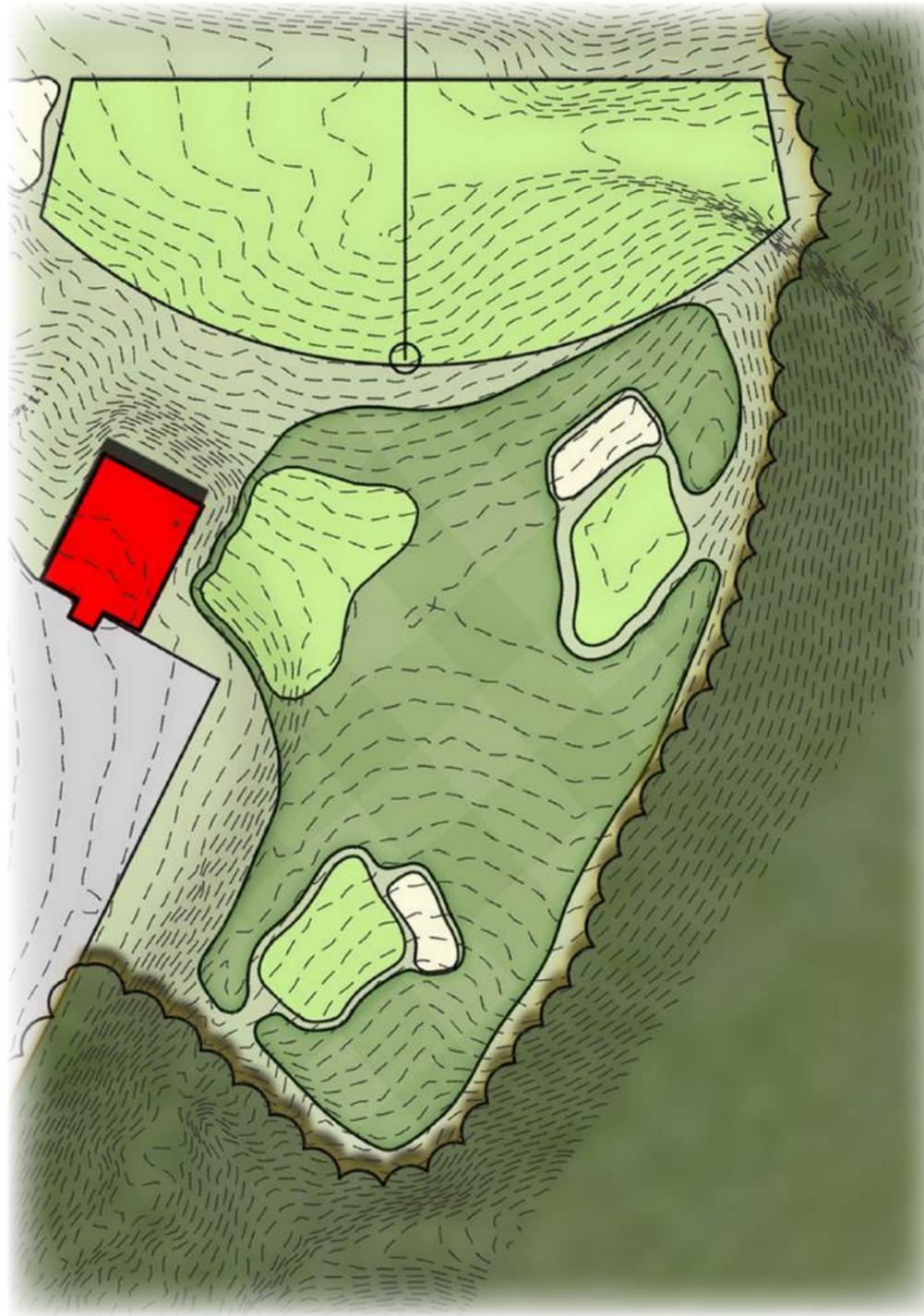


PROPOSED DRIVING RANGE & SHORT GAME AREA

CREATING ONE CENTRAL SHORT-GAME PRACTICE FACILITY WILL HELP GREATLY WITH JUNIOR PROGRAMS AND ALLOW LOCALS TO PRACTICE ALSO. ELIMINATING THE ROAD BEHIND THE RANGE WILL ALLOW THE TEE TO BE PUSHED BACK.



RMGA PROPOSAL



RMGA PROPOSAL

DESIGN SOLUTIONS:

- Enlarge practice green behind clubhouse to spread out wear and tear as well as provide another profit center. Center green between eighteen green and ten tees (IM).
- Eliminate abandoned road and move practice tee back into hillside. This will create more tee space and lengthen the driving range fairway so golfers can hit longer clubs on a regular basis (IM).
- Re-grade driving range fairway. Possibly bring in clean material as a good grass-growing medium (IM).
- Create a central short-game area on flat area to the west of the First Tee Building as a joint-venture to be shared by both the City golfers and First Tee of the Triad participants (IM).

WINSTON LAKE GOLF COURSE DESIGN STYLE

The original Winston Lake Golf Course was built in two nine-hole phases, with the first nine laid out by F. Ellwood Allen (assisted by James Colgate Jerome) and opened in 1956 (today's 10th, 11th, 12th, 18th, 1st, 2nd, 7th, 8th, and 9th). The second nine opened in April of 1964, designed by Ellis Maples. Both designers leaned on the topography of the property to govern the layout of their nines. That original eighteen holes remain intact today and the very same topography is the overwhelming contributor to the character of the golf course. It also the primary contributor to the difficulty of the course as well.

Although one of the defining characteristics of Ellis Maples' design work are his flashed-sand bunkers, the continued maintenance of these hazards has been a costly endeavor for the Winston Lake maintenance staff. In addition to a dearth of labor, the clay-based soils and extreme topography contribute to inevitable washing and contamination of the bunker sand as it has continuously over the past decades. The most modern construction techniques and materials will not stop the inevitable erosion of these hazards in the future and is not a good use of the City's funds now or in the future.

Therefore, it is Richard Mandell Golf Architecture's recommendation that no sand bunkers are a part of the re-imagined Winston Lake Golf Course. They are not a contributing factor to the attraction of the golf course as golfers reference the topography of the layout as the contributing character that attracts golfers.

The proposed design style for Winston Lake Golf Course will restore the original putting surface shapes created by F. Ellwood Allen and Ellis Maples but rather than restore the original Ellis Maples bunkers, the greens complexes will be surrounded by a combination of grass hollows, mounds, ridges, and swales to challenge golfer's short games and keep balls in play. In addition, grass hollows will be strategically placed in fairways to challenge golfers to gain a strategic advantage and keep balls from rolling into the woods as well. Generally speaking, all the features will tie into the existing topography with the intention of being indistinguishable from the original shaping of the golf course and maintained with machinery without the need for hand labor for daily tasks.

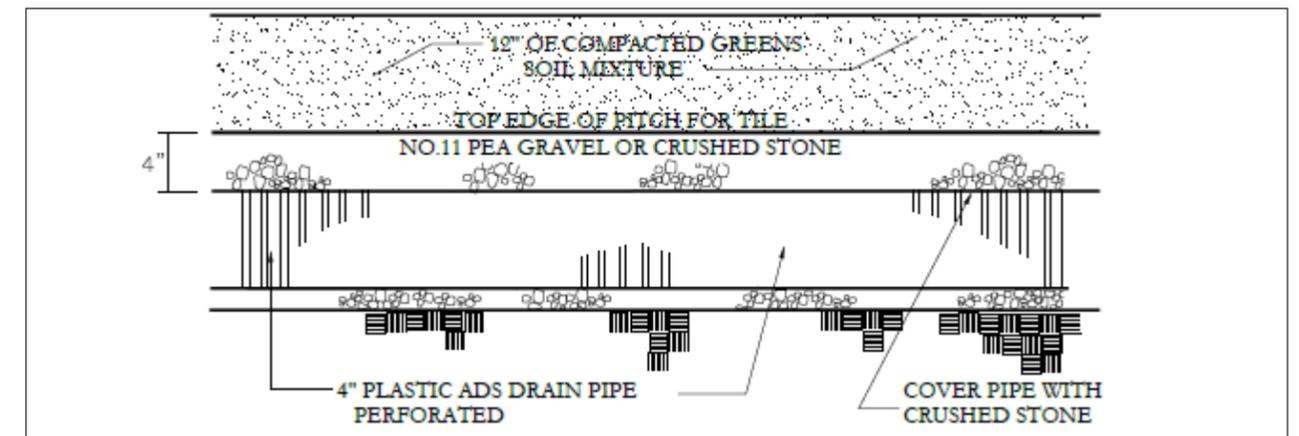
PROPOSED COURSE SETUP

Richard Mandell Golf Architecture's proposed course setup for Winston Lake Golf Course will be based on maintenance efficiency and playability rather than difficulty and visual contrast. Knowing that the challenge in the golf course comes in the topography and elevation change, deep rough and transition rough heights will only contribute to slow play and needless maintenance that will not contribute to the bottom line.

RMGA proposes only three grass heights for Winston Lake Golf Course: tees and fairways, low rough, and putting green surfaces. Tee boxes and fairways should be mown at 0.75 inches to ensure enough turf coverage for playability. Rough should be mown on a regular basis at no more than 2.25 inches. Putting surfaces should be maintained at a stimp meter reading of no more than 9 and a height ranging from .135-.155 inches. The focus should be more on creating interesting putting surfaces and not speed. Approaches and collars should be a continuation of the fairways, also mown at 0.75 inches. The appearance will be that all green surrounds will be mown at fairway height to promote multiple short-game options with a variety of clubs from low irons to the putter.

PUTTING GREEN RENOVATION PRIORITIES

The greens at Winston Lake Golf Course are a series of simple circles and ovals that average 3,340 square feet (average greens measure 6,000 sf). Many greens have somewhat severe slopes that limit possible pin placements when combined with such sizes. Because the greens are so small, there is no opportunity to create slopes or contouring to make them interesting. Although the greens were re-grassed as recently as 2014, they have never been rebuilt since they were initially constructed. Since that time, greens construction technology has improved greatly to make it easier to maintain putting surfaces in terms of consistent drainage and percolation as well as the ability to provide a better growing medium rather than the straight clay subsurface the greens likely have.



RECOMMENDED GREENS CONSTRUCTION DETAIL

MODERN GREENS CONSTRUCTION CONSISTS OF 4" DRAIN PIPE COVERED BY 4" OF GRAVEL, COVERED BY 12" OF GREENS MIX FOR OPTIMAL GROWING CONDITIONS AND EVEN DISTRIBUTION OF IRRIGATION AND DRAINAGE.

It is Richard Mandell Golf Architecture's recommendation that all greens at Winston Lake Golf Course should be rebuilt at some point in the short to mid-term. Greens should be built to modified USGA Greens Construction recommendations (above) which include subsurface drainage, a gravel layer of drainage above the subsurface drainage, and a sufficient amount of greens mix material on top (a combination of sand and organic material) for which to plant a warm-season Tifdwarf grass in such as Sunday Bermuda grass.

RMGA recommends the following prioritization based on the Renovation Business Plan in three general categories (Only if the City chooses not to build all the greens as one project or nine greens at a time at a minimum, which is the recommendation of RMGA):

- IM:** Greens considered for immediate re-construction for reasons of extreme playability issues (very small greens and/or severe slopes) or those that have recently (past few years) shown poor grass-growing issues likely due to poor subsurface structure and materials (if any).
- MT:** Mid-term greens require reconstruction due to less-than-desired size and poor subsurface structure and materials (if any).
- LT:** Long-term greens can be completed with a longer outlook that do not affect everyday play.



PROPOSED GREENS FOR IMMEDIATE (IM) CONSIDERATION:

1. #16 - (Existing: 3,589 SF): The sixteenth green is in the poorest grass-growing environment and is surrounded by penal sand bunkers. The left greenside bunker only catches extremely poor shots.
2. #9 - (Existing: 3,227 SF): Number nine's green is too small and undulating for the average length of approach shot played into this green. In addition, the front greenside bunker won't allow for run-up shots.
3. #12 - (Existing: 3,019 SF): Similar to nine green, the front greenside bunker also prohibits run-up shots. Combined with such a shallow shape, it is very difficult for such a long tee shot to stay on the putting surface.
4. #2 - (Existing: 3,227 SF): This green is blind from the tees and slopes from front to back with tee shots hit too long rolling down a large hillside.
5. #4 - (Existing: 2,938 SF): The fourth green also runs from front to back away from the tees into the woods. A large greenside bunker blocks the view of the putting surface and inhibits run-up shots. The left greenside bunker only catches extremely poor shots.
6. #5 - (Existing: 2,910 SF): This very small green has no bailout with bunkers left and creek in front and to the right. It's high point is in the middle so balls can easily roll into the hazards.
7. #8 - (Existing: 3,698 SF): Moving the eighth green back and to the left will create a longer and more strategic par-five hole.
8. #1 - (Existing: 4,136 SF): The first green needs to be moved in conjunction with moving the eighth green as part of one project.
9. #14 - (Existing: 3,338 SF): The fourteenth green sits in a low that minimizes sunlight and air circulation. Proper construction materials and techniques will increase the ability to grow a decent stand of turf for better playing conditions.
10. #11 - (Existing: 2,613 SF): Although the hole is short, this green is too small for the amount of play Winston Lake Golf Course should be able to handle.
11. #13 - (Existing: 2,901 SF): Extending this hole will create convert it to a par five, utilizing the wetland as a challenge hazard on the second shot.

PROPOSED GREENS FOR MID-TERM (MT) CONSIDERATION:

12. #6 - (Existing: 3,154 SF): Moving the sixth green to the left will provide more buffer from the new seventh tee complex. It will also fit better on a natural ridge and create a strategic angle for those who cut the corner of the dogleg off the tee.
13. #7 - (Existing: 3,474 SF): This green surrounds deflects every off-line approach into woods behind and down hills on both sides.

14. #3 - (Existing: 4,460 SF): The bunker in front of the green serves no real strategic purpose and the green is artificially built-up too much.
15. #10 - (Existing: 3,535 SF): This green's surrounds also deflects any mis-hits into the woods on the right and back and down hill to the eleventh tees on the left.
16. #17 - (Existing: 3,510 SF): The bunkers on both sides of this green only serve as penalty and look artificial. The putting surface is only defined by the flagstick.
17. #15 - (Existing: 3,597 SF): The fifteenth green is very similar to the fourth green and is only 18 yards deep from front to back. Moving the green back can add forty-eight yards to the hole.
18. #18 - (Existing: 3,166 SF): This green is blind from the fairway, too small for the approach, and too close to the putting green behind.
19. PG - (Existing: 8,166 SF): The putting green should be rebuilt at the same time as the eighteenth green as one contiguous project.

PROPOSED GREENS FOR LONG-TERM (LT) CONSIDERATION:

20. CG - (Existing: 3,198 SF): The proposed short game area west of the First Tee of the Triad Building should be built in conjunction with the driving range.



TEE RENOVATION PRIORITIES

The goal of tee box relocation to achieve Tee Shot Distance Equity (TSDE) is to allow each golfer to experience the same, or very similar, approach shots using the same club (provided average tee shots are played from the correct set of tees). In other words, instead of everyone being the same yardage from the green on a specific hole, everyone has the same club to the green on a specific hole (but from different distances).

TSDE is based upon how far golfers hit the golf ball, which is based on how fast different golfer types swing the golf club rather than their actual handicap. RMGA has analyzed the typical swing speed guidelines for golfers based upon age and gender. These guidelines help determine the need for specific tee boxes for the majority of golfers at Winston Lake along with the design goal of utilizing as many clubs in one's bag from hole to hole:

- 120+ mph: Male Tour Pro.
- 110-119 mph: Male Club Pro.
- 100-109 mph: 18-35 year old male.
- 90-99 mph: 30-55 year old male and Lady Tour Pro.
- 80-89 mph: 50-60 year old male and Lady Club Pro.
- 75-79 mph: 20-30 year old female.
- 70-79 mph: 60-70 year old male and 30-45 year old female.
- 65-69 mph: 70-80 year old male and 45-60 year old female.
- 60-65 mph: 60-70 year old female.

After undergoing Tee Shot Distance Equity (TSDE) analysis for Winston Lake it is apparent there are not enough tee boxes for the wide range of golfer swing speeds. Typically, there should be a 360-yard spread (for eighteen holes) between each set of tees. Upon completion of our TSDE analysis, new tee boxes will yield more equity than the existing tee boxes by spreading out overall distances from each box. There will be variation of actual yardage differences among each tee box due to topographical limits yet more equity will be achieved, particularly for golfers playing from the front tees (currently 4,267 yards long).

In order to maximize tee boxes for the largest number of golfers and because there is overlap of swing speeds and golfer demographics, RMGA suggests six tee markers (but not necessarily six separate boxes). Following is each tee box and the golfer swing speed types who should be playing from each:

- A Tees (6,512 yards): Golfers swing speeds of 95 mph or higher (new tee marker set).
- B Tees (6,161 yards): Golfers swing speeds of 85-95 mph (currently 6,214 yards).
- C Tees (5,788 yards): Golfers swing speeds of 80-85 mph (currently 5,842 yards).
- D Tees (5,447 yards): Golfers swing speeds of 75-80 mph (new tee marker set).
- E Tees (4,667 yards): Golfers swing speeds of 65-75 mph (new tee marker set).
- F Tees (4,329 yards): Golfers swing speeds of 60-65 mph (currently 4,267 and 4,391 yards).

Creating Tee Shot Distance Equity will be accomplished by establishing new tees at 6,512 yards, 5,447 yards, and 4,667 yards. Other tees will be moderately increased or decreased to maintain TSDE. Below is the distance variation breakdown of the proposed tee boxes:

- A Tees (6,512 yards) to B Tees (6,161 yards): 351 yards.
- B Tees (6,161 yards) to C Tees (5,788 yards): 373 yards.
- C Tees (5,788 yards) to D Tees (5,447 yards): 341 yards.
- D Tees (5,447 yards) to E Tees (4,667 yards): 780 yards.
- E Tees (4,667 yards) to F Tees (4,329 yards): 338 yards.

The gap between the D & E tees is a result of minimizing the total number of tees to six. Golfers who may fit the median yardage between the two (5,057 yards) can adapt by playing either the D or E tees more easily than others with a gap elsewhere.

The proposed shape of all tee boxes maximizes usable square footage while adapting to the topography of the site as best as possible. Following is a prioritized listing of tee complexes for renovation consideration if a complete tee renovation project is *not* undertaken at one time. Each tee complex is prioritized in three ways: Immediate (IM), Mid-Term (MT), and Long-Term (LT).

IM: Renovating these tees will have an immediate impact on one of three considerations below or better utilize the City's funds by being part of a related, more immediate project:

- Safety** - These tees need to be moved because they are too close to other course features.
- Maintenance** - These features most likely have major drainage issues surrounding them or are located in such an environment that grass can not grow properly or simple mowing can not be performed without excessive effort. These tee complexes may also be too small.
- Playability** - These tees have the greatest TSDE disparity. Playability for golfers who can not

reach a green in regulation regularly can be greatly improved. These tees can also be moved to greatly improve sight lines to fairways.

MT: These tee complexes will benefit from improvement based on both maintenance and playability or may be better completed as part of other projects that best utilize the City's funds.

LT: These tee complexes can be completed with a long-term outlook. They do not have the same impact in terms of maintenance, playability, or TSDE but eventually need renovation. Certain tees may have a more urgent impact in terms of maintenance, playability, and even safety, but renovation of these features is dependent upon larger and more long-range renovation tasks. Some of these tees could be moved up in the priority list based upon other priority choices at a later date.

TEE COMPLEXES FOR IMMEDIATE (IM) CONSIDERATION:

1. #7 - Moving the tees to the right will align tee shots to play more directly into the hillside landing area rather than along the hillside. Tee shots coming into the fairway at that angle will have a better chance of remaining in the fairway rather than running into the rough on the right.
2. #9 - Adding thirty-six yards to the hole by pushing the tees back will keep more tee shots in the fairway rather than running into the swale and rolling into the woods on the left. Now golfers have to play to the right and hope tee shots stay out of those woods on the left.
3. #11 - Moving the tees forward not only provides more buffer from ten green but also restores the natural high point landing area.
4. #1 - Moving the first set of tees forward minimizes the left to right natural slope that runs tee shots into the trees on the right. More forward tees also relieve congestion with number eighteen green and the clubhouse staging area.
5. #2 - Done in conjunction with the new first green location to create more buffer, new tees for the second hole creates a slightly uphill tee shot playing into the hillside rather than along the hillside.
6. #5 - This blind tee shot can be mitigated by moving the tee boxes back and uphill to the right.
7. #12 - The twelfth hole desperately needs more tee space and tee boxes near the pond to create Tee Shot Distance Equity.
8. #3 - Moving the tees back into the hillside right of the second green will fit well into the natural side slopes and make the hole a true par five.
9. DR - A new driving range tee will lengthen the range so golfers can hit full tee shots but should be completed in conjunction with an entire range reconstruction and short-game area project west of the First Tee of the Triad Building.



TEE COMPLEXES FOR MID-TERM (MT) CONSIDERATION:

- 10. #13 - Pushing these tees back up into the hillside will restore the natural high point in the fairway as the landing area. Since the golf course opened in 1964, golf equipment technology has allowed golfers to hit tee shots past this intended target.
- 11. #18 - The finishing hole at Winston Lake can be extended by thirty-two yards by pushing the tees back and uphill. New tees will provide more visibility of the hole but still allow most tee shots to play over the swale at the bottom of the landing area.
- 12. #17 - New tees to the left of the existing tees straightens the hole out a bit yet provides more visibility of Brushy Fork Branch at the bottom.
- 13. #14 - Many golfers struggle off the tees with overhanging trees along the left side. Moving the tees to the right along the natural ridge on the other side of Brushy Fork Branch creates a straight par four as contrast to the many dogleg holes. It also makes room for a new thirteen green, allowing it to become a par five and fourteen to become a par four. The longer tee shots can take advantage of a speed slot to gain extra distance.
- 14. #15 - Expanded tees for Tee Shot Distance Equity and the opportunity to move the cart path down the right side of the hole will improve playability and visibility.
- 15. #6 - An extra fifty-two yards can be gained on number six and the cart path can be redirected behind the tees and down the right side of the hole instead of cutting between the tees and fairway.
- 16. #16 - Expanded tee boxes improves TSDE for the majority of golfers at Winston and provides increased square footage to spread out wear.



TEE COMPLEXES FOR LONG - TERM (LT) CONSIDERATION:

- 17. #4 - Expanded tee boxes improves TSDE for the majority of golfers at Winston and provides increased square footage to spread out wear on number six as well.
- 18. #8 - Although the hole will become fifty-five yards longer, the back tees will remain in place. Additional forward tees will provide TSDE for golfers and be located to minimize visibility issues from tees further back.
- 19. #10 - Additional tee boxes will spread out wear. The access road that cuts in front of the tees back to the parking lot will be eliminated to improve visibility from the tees.

PROPOSED QUANTITIES

Hole	Tee Complexes (SF)	Greens (SF)	Total Fairways (AC)	Sand Bunkers TBR (EA)	Sand Bunkers TBR (SF)	New Sand Bunkers (EA)	New Sand Bunkers (SF)	Total LOD (AC)	No-Mow Area (AC)	Tree Removal (AC)	8' New Cart Path (LF)	New Cart Path (SF)	4" Solid Tee Outlet Pipe (LF)	4" Solid Green Outlet Pipe (LF)
1	5,642	5,676	2.00	0	0	0	0	7.11	1.16	0.40	1,343	n/a	289	17
2	6,657	5,057	0.45	2	1,834	0	0	3.67	0.00	0.06	415	n/a	288	30
3	6,200	5,915	1.90	1	1,483	0	0	5.78	0.00	0.27	1,671	n/a	546	19
4	6,049	6,560	0.31	3	1,550	0	0	2.37	0.00	0.00	667	n/a	315	19
5	6,917	6,125	1.86	2	1,456	0	0	5.65	0.00	0.00	1,714	n/a	539	18
6	6,175	5,580	0.88	1	1,656	0	0	4.20	0.00	0.00	1,316	n/a	530	92
7	6,187	5,850	1.93	1	892	0	0	7.51	0.87	0.00	1,355	n/a	340	69
8	9,039	6,270	2.86	0	0	0	0	10.49	0.77	0.00	1,494	n/a	492	16
9	6,335	5,344	2.33	1	711	0	0	6.97	0.00	0.91	2,027	n/a	761	21
10	9,342	5,292	1.83	0	0	0	0	4.65	0.00	0.00	1,222	n/a	713	15
11	4,200	4,909	1.59	0	0	0	0	6.43	1.26	0.00	1,037	n/a	127	29
12	5,292	6,143	0.28	1	988	0	0	5.19	1.73	0.00	852	n/a	108	24
13	6,011	4,609	2.25	1	1,009	0	0	5.54	0.00	0.16	1,895	n/a	808	22
14	7,760	7,098	1.87	1	501	0	0	6.45	0.00	0.31	1,705	n/a	664	14
15	7,164	5,919	1.64	2	2,200	0	0	6.47	0.88	0.67	1,450	n/a	502	36
16	6,884	5,336	0.38	3	2,786	0	0	3.90	2.00	0.00	642	n/a	315	15
17	8,075	6,392	1.47	2	1,909	0	0	5.67	0.00	0.39	1,606	n/a	427	20
18	7,375	4,932	1.71	2	2,538	0	0	4.58	0.00	0.00	1,461	n/a	577	95
Practice Putting Green	n/a	15,127	0.18	1	604	n/a	n/a	1.90	0.00	n/a	n/a	n/a	n/a	42
Chipping Green	n/a	16,730	1.34	n/a	n/a	2	2,729	2.69	0.00	3.54	n/a	n/a	n/a	145
DR/Practice Facility	50,257	n/a	7.43	n/a	n/a	1	2,626	14.47	1.90	0.60	69	4,030	80	n/a
Clubhouse Area	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.00	n/a	n/a	13,018	n/a	n/a
Maintenance Entrance Road	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.00	n/a	n/a	n/a	n/a	n/a
Golf Course Total	171,561	1	36.49	61	64,130	3	52,287	105.91	10.57	7.31	23,914	17,048	8,421	758



RENOVATION BUSINESS PLAN PHASING OPTIONS

There are many ways to implement a Renovation Business Plan, yet all options fall into one of two general applications: The Horizontal Application and the Vertical Application. All clubs adopt one of these options, yet many times a blend of each application is utilized, especially with a Renovation Business Plan approach.

HORIZONTAL APPLICATION (SINGLE TASKS APPLIED TO ENTIRE COURSE):

The horizontal approach to phasing tasks implements each project element (greens, tees, bunkers, drainage, etc.) throughout all eighteen holes. The advantage of the horizontal approach is that construction costs can be spread out and all the golf holes can remain open for play with limited disturbance depending upon the chosen task. Specific problems can be solved without affecting other areas. This method is only effective when a specific element is at issue (i.e. all the bunkers need renovation).

The disadvantage of the horizontal approach is that there is more disruption spread throughout the golf course at one time and when the next phase of renovation occurs (i.e. tee renovation) the same areas are disturbed again, spreading out the amount of time it takes to complete renovation. Other disadvantages with this method are that previously completed areas run the risk of being disturbed by new construction activities and that a golf hole never looks finished (i.e. bunkers are new, yet the green or tees are still outdated).

Undergoing a horizontal approach never creates the best final product because of the difficulty of tying in new construction with existing conditions. Also, limiting the disturbance always impedes the ability to produce a final product which absolutely solves all of the issues. This mostly applies to safety and maintenance in the sense that a larger area to work with will allow for proper grade changes and re-location of all affected areas as well as address a drainage issue from its genesis to its final outlet. Only in specific cases where one element (just bunkers, for example) is at issue and there is absolutely no plan for further renovation should a horizontal approach be considered.

VERTICAL APPLICATION (MULTIPLE TASKS TO SPECIFIC AREAS OF COURSE):

The vertical approach to phasing a renovation project is to implement all tasks at once in a specific area of the golf course. This approach will effectively close down the area for a period of time in which no golf would be available.

The advantage of this approach is that an area is completely shut down and the limits of disturbance are not haphazardly spread throughout the golf course. Golfers are not subject to continually encounter construction throughout their rounds. The chosen limits of disturbance are affected only once and not subject to construction activities on a recurring basis. The project is completely finished and appears as a cohesive product.

The vertical approach allows the contractor to tie the disturbed areas into their surrounds more effectively and provides the freedom to properly grade all features, guaranteeing the success of the project in regards to safety, drainage, and overall appearance. This approach is more cost-effective in the long run. Mobilization costs, grow-in costs, and repair work are kept at an absolute minimum. By completing work in one defined area, there is no chance of damage from future construction activities. The disadvantage to the vertical approach is that a defined area is shut down for a period of time without any access for golf.



GOLF COURSE RENOVATION OPTIONS FOR WINSTON LAKE GOLF COURSE

Following is a series of possible renovation projects that can be undertaken based on the most pressing needs as outlined in this Report. RMGA's recommendation is to undertake Option A, which is the City's comprehensive approach to address all issues. Option A can be broken into three phases (B - front nine, C - back nine, D - practice facility). The City may choose to address partial solutions such as Greens Complexes Only (E), Fairway Drainage (F), and Tee Complexes Only (G). RMGA has also identified individual projects that may be adopted by the City as stepping stones to a more comprehensive solution (Options I, J, and K).

OPTION A: COMPLETE RENOVATION PROJECT TO ADDRESS ALL ISSUES

Item	Unit Cost	Unit	Quantity	Total
PROJECT PREPARATION				
Layout/Staking	\$ 75,000.00	LS	1.00	\$ 75,000.00
CLEARING/DEMOLITION				
Spray and Rotovate Existing Turf (AC)	\$ 2,250.00	AC	109.08	\$ 245,430.00
Selective Clearing (AC)	\$ 7,500.00	AC	7.38	\$ 55,350.00
Removal of 8' Cart Path (Onsite LF)	\$ 11.36	LF	20,382.00	\$ 231,539.52
Removal of Cart Path Areas (Onsite SF)	\$ 1.42	SF	2,684.00	\$ 3,811.28
Removal of Hardscape around Clubhouse (Onsite SF)	\$ 1.42	SF	11,893.00	\$ 16,888.06
Removal of Road (Onsite LF)	\$ 30.00	LF	1,010.00	\$ 30,300.00
EROSION CONTROL				
Erosion Control (LS)	\$ 200,000.00	LS	1.00	\$ 200,000.00
BULK EARTHWORK/SHAPING				
Golf Course Feature Shaping	\$ 250,000.00	LS	1.00	\$ 250,000.00
Earthwork (CY)	\$ 3.75	CY	50,000.00	\$ 187,500.00
DRAINAGE				
4" Solid HDPE Pipe (N-12 ADS) - Green Outlets	\$ 8.62	LF	758.00	\$ 6,533.96
4" Solid HDPE Pipe (N-12 ADS) - Sand Bunker Outlets	\$ 8.62	LF	180.00	\$ 1,551.60
4" Solid HDPE Pipe (N-12 ADS) - Tee Outlets	\$ 8.62	LF	8,422.00	\$ 72,597.64
4" Solid HDPE Pipe (N-12 ADS)	\$ 8.62	LF	189.00	\$ 1,629.18
6" Solid HDPE Pipe (N-12 ADS)	\$ 10.76	LF	5,608.00	\$ 60,342.08
8" Solid HDPE Pipe (N-12 ADS)	\$ 14.27	LF	4,070.00	\$ 58,078.90
10" Solid HDPE Pipe (N-12 ADS)	\$ 19.61	LF	1,955.00	\$ 38,337.55
12" Solid HDPE Pipe (N-12 ADS)	\$ 28.55	LF	1,660.00	\$ 47,393.00
15" Solid HDPE Pipe (N-12 ADS)	\$ 34.07	LF	755.00	\$ 25,722.85
18" Solid HDPE Pipe (N-12 ADS)	\$ 40.00	LF	701.00	\$ 28,040.00
24" Solid HDPE Pipe (N-12 ADS)	\$ 58.59	LF	246.00	\$ 14,413.14
Drop Inlets	\$ 566.52	EA	116.00	\$ 65,716.32

TEE CONSTRUCTION				
Tee Complex Construction w/ Internal Drainage (SF)	\$ 2.25	SF	121,303.00	\$ 272,931.75
Driving Range Tee 4" Perforated Pipe w/ gravel (SF)	\$ 2.25	SF	50,257.00	\$ 113,078.25
GREENS CONSTRUCTION				
USGA Greens Construction (SF)	\$ 7.57	SF	134,890.00	\$ 1,021,117.30
SAND BUNKER CONSTRUCTION				
Bunker Construction with Sod Liner (SF)	\$ 3.50	SF	5,355.00	\$ 18,742.50
IRRIGATION				
Irrigation System Improvements (LS)	\$ 2,366,700.00	LS	1.00	\$ 2,366,700.00
Pump Station/ Wet Well/ Intake (LS)	\$ 325,000.00	LS	1.00	\$ 325,000.00
CART PATH CONSTRUCTION				
8' Concrete Cart Path Const. (LF)	\$ 48.96	LF	23,580.00	\$ 1,154,476.80
Concrete Staging Area	\$ 6.12	SF	17,018.00	\$ 104,150.16
SEEDBED PREPARATION				
Seedbed Prep (AC)	\$ 3,182.00	AC	101.62	\$ 323,354.84
Soil Amendments (AC)	\$ 1,324.70	AC	101.62	\$ 134,616.01
GRASSING				
Sprigging Fairway Areas with TifTuf Bermuda (AC)	\$ 3,700.00	AC	36.50	\$ 135,050.00
Sprigging Rough Areas with TifTuf Bermuda (AC)	\$ 3,700.00	AC	32.61	\$ 120,657.00
Sprigging Tees with TifTuf Bermuda (SF)	\$ 0.27	SF	171,560.00	\$ 46,321.20
Sprigging Greens with Sunday Bermuda (SF)	\$ 0.84	SF	134,890.00	\$ 113,307.60
Sod Tee Surrounds with TifTuf Bermuda (SF)	\$ 0.70	SF	686,240.00	\$ 480,368.00
Sod Green Surrounds with TifTuf Bermuda (SF)	\$ 0.70	SF	269,780.00	\$ 188,846.00
Seed No-Mow Areas (AC)	\$ 3,000.00	AC	10.56	\$ 31,680.00
MISCELLANEOUS				
Bridge Removal	\$ 6,000.00	EA	4.00	\$ 24,000.00
New Bridge #1 (50' X 10')	\$ 33,800.00	LS	1.00	\$ 33,800.00
New Bridge #2 (60' X 10')	\$ 40,560.00	LS	1.00	\$ 40,560.00
New Bridge #3 (115' X 10')	\$ 77,740.00	LS	1.00	\$ 77,740.00
New Bridge #4 (40' X 10')	\$ 27,040.00	LS	1.00	\$ 27,040.00
Pairs of Bridge Abutments	\$ 8,800.00	EA	4.00	\$ 35,200.00
Driving Range Net Construction (40' Tall)	\$ 200.00	LF	1,137.00	\$ 227,400.00
SUBTOTAL				\$9,132,312.49
SOFT COSTS				
Mobilization	\$ 273,969.37	3%	1.00	\$ 273,969.37
Golf Course Design Fees/Civil Engineering/Permitting	\$ 475,000.00	LS	1.00	\$ 475,000.00
Bonding**	\$ 136,984.69	1.5%	1.00	\$ 136,984.69
TOTAL ESTIMATED CONSTRUCTION COSTS				\$ 10,018,266.56



**OPTION B:
FRONT 9 ONLY**

Item	Unit Cost	Unit	Quantity	Total
PROJECT PREPARATION				
Layout/Staking	\$ 40,000.00	LS	1.00	\$ 40,000.00
CLEARING/DEMOLITION				
Spray and Rotovate Existing Turf (AC)	\$ 2,250.00	AC	50.88	\$ 144,480.00
Selective Clearing (AC)	\$ 7,500.00	AC	1.71	\$ 12,825.00
Removal of 8' Cart Path (Onsite LF)	\$ 11.36	LF	9,850.00	\$ 111,896.00
EROSION CONTROL				
Erosion Control (LS)	\$ 100,000.00	LS	1.00	\$ 100,000.00
DRAINAGE				
4" Solid HDPE Pipe (N-12 ADS)	\$ 8.62	LF	4,100.00	\$ 35,342.00
6" Solid HDPE Pipe (N-12 ADS)	\$ 10.76	LF	2,673.00	\$ 28,761.48
8" Solid HDPE Pipe (N-12 ADS)	\$ 14.27	LF	2,562.00	\$ 36,559.74
10" Solid HDPE Pipe (N-12 ADS)	\$ 19.61	LF	954.00	\$ 18,707.94
12" Solid HDPE Pipe (N-12 ADS)	\$ 28.55	LF	1,035.00	\$ 29,549.25
15" Solid HDPE Pipe (N-12 ADS)	\$ 34.07	LF	625.00	\$ 21,293.75
18" Solid HDPE Pipe (N-12 ADS)	\$ 40.00	LF	701.00	\$ 28,040.00
24" Solid HDPE Pipe (N-12 ADS)	\$ 58.59	LF	246.00	\$ 14,413.14
Drop Inlets	\$ 566.52	EA	68.00	\$ 38,523.36
TEE CONSTRUCTION				
Tee Complex Construction w/ Internal Drainage (SF)	\$ 2.25	SF	59,202.00	\$ 133,204.50
GREENS CONSTRUCTION				
USGA Greens Construction (SF)	\$ 7.57	SF	52,377.00	\$ 396,493.89
IRRIGATION				
Irrigation System Improvements (LS)	\$ 1,150,000.00	LS	1.00	\$ 1,150,000.00
Pump Station/ Wet Well/ Intake (LS)	\$ 325,000.00	LS	1.00	\$ 325,000.00
CART PATH CONSTRUCTION				
8' Asphalt Cart Path Const. (LF)	\$ 48.96	LF	11,888.00	\$ 582,036.48
SEEDBED PREPARATION				
Seedbed Prep (AC)	\$ 3,182.00	AC	47.73	\$ 151,876.86
Soil Amendments (AC)	\$ 1,324.70	AC	47.73	\$ 63,227.93
GRASSING				
Sprigging Fairway Areas with TifTuf Bermuda (AC)	\$ 3,700.00	AC	14.31	\$ 52,947.00
Sprigging Rough Areas with TifTuf Bermuda (AC)	\$ 3,700.00	AC	22.78	\$ 84,286.00
Sprigging Tees with TifTuf Bermuda (AC)	\$ 0.27	SF	59,202.00	\$ 15,984.54
Sprigging Greens with Sunday Bermuda (SF)	\$ 0.84	SF	52,377.00	\$ 43,996.68
Sod Tee Surrounds with TifTuf Bermuda (SF)	\$ 0.70	SF	236,808.00	\$ 165,765.60
Sod Green Surrounds with TifTuf Bermuda (SF)	\$ 0.70	SF	104,745.00	\$ 73,327.80
Seed No-Mow Areas (AC)	\$ 3,000.00	AC	2.80	\$ 8,400.00

MISCELLANEOUS				
Bridge Removal	\$ 6,000.00	EA	2.00	\$ 12,000.00
New Bridge #1 (50' X 10')	\$ 33,800.00	LS	1.00	\$ 33,800.00
New Bridge #2 (60' X 10')	\$ 40,560.00	LS	1.00	\$ 40,560.00
Pairs of Bridge Abutments	\$ 8,800.00	EA	2.00	\$ 17,600.00
SUBTOTAL				\$ 4,199,648.94

SOFT COSTS				
Mobilization	\$ 125,461.47	3%	1.00	\$ 125,461.47
Golf Course Design Fees/Civil Engineering/Permitting	\$ 250,000.00	LS	1.00	\$ 250,000.00
Soft Costs (Design/Engineering/Permitting)	\$ 62,730.73	1.5%	1.00	\$ 62,730.73

TOTAL ESTIMATED CONSTRUCTION COSTS				
				\$ 4,638,633.14

**OPTION C:
BACK 9 ONLY**

Item	Unit Cost	Unit	Quantity	Total
PROJECT PREPARATION				
Layout/Staking	\$ 40,000.00	LS	1.00	\$ 40,000.00
CLEARING/DEMOLITION				
Spray and Rotovate Existing Turf (AC)	\$ 2,500.00	AC	48.89	\$ 110,002.50
Selective Clearing (AC)	\$ 7,500.00	AC	1.53	\$ 11,475.00
Removal of 8' Cart Path (Onsite LF)	\$ 11.36	LF	10,128.00	\$ 115,054.08
Removal of Cart Path Areas (Onsite SF)	\$ 1.42	SF	2,684.00	\$ 3,811.28
Removal of Hardscape around Clubhouse (Onsite SF)	\$ 1.42	SF	11,893.00	\$ 16,888.06
EROSION CONTROL				
Erosion Control (LS)	\$ 125,000.00	LS	1.00	\$ 125,000.00
BULK EARTHWORK/SHAPING				
Golf Course Feature Shaping	\$ 100,000.00	LS	1.00	\$ 100,000.00
Earthwork (CY)	\$ 3.75	CY	15,000.00	\$ 56,250.00
DRAINAGE				
4" Solid HDPE Pipe (N-12 ADS) - Green Outlets	\$ 8.62	LF	312.00	\$ 2,689.44
4" Solid HDPE Pipe (N-12 ADS) - Tee Outlets	\$ 8.62	LF	4,241.00	\$ 36,557.42
4" Solid HDPE Pipe (N-12 ADS)	\$ 8.62	LF	189.00	\$ 1,629.18
6" Solid HDPE Pipe (N-12 ADS)	\$ 10.76	LF	1,838.00	\$ 19,776.88
8" Solid HDPE Pipe (N-12 ADS)	\$ 14.27	LF	1,275.00	\$ 18,194.25
10" Solid HDPE Pipe (N-12 ADS)	\$ 19.61	LF	1,092.00	\$ 21,414.12
12" Solid HDPE Pipe (N-12 ADS)	\$ 28.55	LF	203.00	\$ 5,795.65
15" Solid HDPE Pipe (N-12 ADS)	\$ 34.07	LF	195.00	\$ 6,643.65
18" Solid HDPE Pipe (N-12 ADS)	\$ 40.00	LF	21.00	\$ 840.00
24" Solid HDPE Pipe (N-12 ADS)	\$ 58.59	LF	246.00	\$ 14,413.14



Drop Inlets	\$ 566.52	LF	38.00	\$ 21,527.76
TEE CONSTRUCTION				
Tee Complex Construction w/ Internal Drainage (SF)	\$ 2.25	SF	62,102.00	\$ 139,729.50
GREENS CONSTRUCTION				
USGA Greens Construction (SF)	\$ 7.57	SF	65,758.00	\$ 497,788.06
IRRIGATION				
Irrigation System Improvements (LS)	\$ 1,500,000.00	LS	1.00	\$ 1,500,000.00
CART PATH CONSTRUCTION				
8' Concrete Cart Path Const. (LF)	\$ 48.96	LF	11,834.00	\$ 579,392.64
Concrete Staging Area	\$ 6.12	SF	17,018.00	\$ 104,150.16
SEEDBED PREPARATION				
Seedbed Prep (AC)	\$ 3,182.00	AC	45.58	\$ 145,035.56
Soil Amendments (AC)	\$ 1,324.70	AC	45.58	\$ 60,379.83
GRASSING				
Sprigging Fairway Areas with TifTuf Bermuda (AC)	\$ 3,700.00	AC	13.22	\$ 48,914.00
Sprigging Rough Areas with TifTuf Bermuda (AC)	\$ 3,700.00	AC	4.41	\$ 16,317.00
Sprigging Tees with TifTuf Bermuda (SF)	\$ 0.27	SF	62,102.00	\$ 16,767.54
Sprigging Greens with Sunday Bermuda (SF)	\$ 0.84	SF	65,758.00	\$ 55,236.72
Sod Tee Surrounds with TifTuf Bermuda (SF)	\$ 0.70	SF	248,408.00	\$ 173,885.60
Sod Green Surrounds with TifTuf Bermuda (SF)	\$ 0.70	SF	131,516.00	\$ 92,061.20
Seed No-Mow Areas (AC)	\$ 3,000.00	AC	8.91	\$ 26,730.00
MISCELLANEOUS				
Bridge Removal	\$ 6,000.00	EA	2.00	\$ 12,000.00
New Bridge #3 (115' X 10')	\$ 77,740.00	LS	1.00	\$ 77,740.00
New Bridge #4 (40' X 10')	\$ 27,040.00	LS	1.00	\$ 27,040.00
Pairs of Bridge Abutments	\$ 8,800.00	AE	2.00	\$ 17,600.00
SUBTOTAL				\$ 4,318,730.22

SOFT COSTS				
Mobilization	\$ 129,561.91	3%	1.00	\$ 129,561.91
Golf Course Design Fees/Civil Engineering/Permitting	\$ 250,000.00	LS	1.00	\$ 250,000.00
Bonding**	\$ 64,780.95	1.5%	1.00	\$ 64,780.95

TOTAL ESTIMATED CONSTRUCTION COSTS				
				\$ 4,763,073.08

**OPTION D:
DRIVING RANGE AND PRACTICE FACILITY**

Item	Unit Cost	Unit	Quantity	Total
PROJECT PREPARATION				
Layout/Staking	\$ 15,000.00	LS	1.00	\$ 15,000.00
CLEARING/DEMOLITION				
Spray and Rotovate Existing Turf (AC)	\$ 2,250.00	AC	14.58	\$ 32,805.00
Selective Clearing (AC)	\$ 7,500.00	AC	4.15	\$ 31,125.00
Removal of Road (Onsite SF)	\$ 30.00	SF	1,010.00	\$ 30,300.00
EROSION CONTROL				
Erosion Control (LS)	\$ 25,000.00	LS	1.00	\$ 25,000.00
BULK EARTHWORK/SHAPING				
Golf Course Feature Shaping	\$ 40,000.00	LS	1.00	\$ 40,000.00
Earthwork (CY)	\$ 3.75	CY	10,000.00	\$ 37,500.00
DRAINAGE				
4" Solid HDPE Pipe (N-12 ADS) - Green Outlets	\$ 8.62	LF	145.00	\$ 1,249.90
4" Solid HDPE Pipe (N-12 ADS) - Sand Bunker Outlets	\$ 8.62	LF	331.00	\$ 2,853.22
4" Solid HDPE Pipe (N-12 ADS) - Tee Outlets	\$ 8.62	LF	80.00	\$ 689.60
6" Solid HDPE Pipe (N-12 ADS)	\$ 10.76	LF	1,080.00	\$ 11,620.80
8" Solid HDPE Pipe (N-12 ADS)	\$ 14.27	LF	656.00	\$ 9,361.12
12" Solid HDPE Pipe (N-12 ADS)	\$ 28.55	LF	331.00	\$ 9,450.05
15" Solid HDPE Pipe (N-12 ADS)	\$ 34.07	LF	130.00	\$ 4,429.10
Drop Inlets	\$ 566.52	EA	14.00	\$ 7,931.28
TEE CONSTRUCTION				
Driving Range Tee 4" Perforated Pipe w/ gravel (SF)	\$ 2.25	SF	50,257.00	\$ 113,078.25
GREENS CONSTRUCTION				
USGA Greens Construction (SF)	\$ 7.57	SF	16,730.00	\$ 126,646.10
SAND BUNKER CONSTRUCTION				
Bunker Construction with Sod Liner (SF)	\$ 3.50	SF	5,355.00	\$ 18,742.50
IRRIGATION				
Irrigation System Improvements (LS)	\$ 170,000.00	LS	1.00	\$ 170,000.00
CART PATH CONSTRUCTION				
8' Asphalt Cart Path Const. (LF)	\$ 48.96	LF	69.00	\$ 3,378.24
Concrete Parking Area	\$ 6.12	SF	4,000.00	\$ 24,480.00
SEEDBED PREPARATION				
Seedbed Prep (AC)	\$ 3,182.00	AC	12.35	\$ 39,297.70
Soil Amendments (AC)	\$ 1,324.70	AC	12.35	\$ 16,360.05
GRASSING				
Sprigging Fairway Areas with TifTuf Bermuda (AC)	\$ 3,700.00	AC	4.00	\$ 14,800.00
Sprigging Rough Areas with TifTuf Bermuda (AC)	\$ 3,700.00	AC	1.57	\$ 5,809.00
Sprigging Tees with TifTuf Bermuda (SF)	\$ 0.27	SF	50,257.00	\$ 13,569.39



Sprigging Greens with Sunday Bermuda (SF)	\$ 0.84	SF	47,185.00	\$ 39,635.40
Sod Tee Surrounds with TifTuf Bermuda (SF)	\$ 0.70	SF	201,028.00	\$ 140,719.60
Sod Green Surrounds with TifTuf Bermuda (SF)	\$ 0.70	F	94,370.00	\$ 66,059.00
MISCELLANEOUS				
Driving Range Net Construction (40' Tall)	\$ 200.00	LF	1,137.00	\$ 227,400.00
SUBTOTAL				\$ 1,279,290.30

SOFT COSTS				
Mobilization	\$ 38,378.71	3%	1.00	\$ 38,378.71
Golf Course Design Fees/Civil Engineering/Permitting	\$ 80,000.00	LS	1.00	\$ 80,000.00
Soft Costs (Design/Engineering/Permitting)	\$ 19,189.35	1.5%	1.00	\$ 19,189.35

TOTAL ESTIMATED CONSTRUCTION COSTS				\$ 1,416,858.36
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**OPTION E:
GREENS COMPLEXES ONLY**

Item	Unit Cost	Unit	Quantity	Total
PROJECT PREPARATION				
Layout/Staking	\$ 40,000.00	LS	1.00	\$ 40,000.00
CLEARING/DEMOLITION				
Spray and Rotovate Existing Turf (AC)	\$ 2,250.00	AC	13.09	\$ 29,452.50
Selective Clearing (AC)	\$ 7,500.00	AC	2.53	\$ 18,975.00
Removal of 8' Cart Path (Onsite LF)	\$ 11.36	LF	4,500.00	\$ 51,120.00
Removal of Cart Path Areas (Onsite SF)	\$ 1.42	SF	1,000.00	\$ 1,420.00
EROSION CONTROL				
Erosion Control (LS)	\$ 50,000.00	LS	1.00	\$ 50,000.00
BULK EARTHWORK/SHAPING				
Golf Course Feature Shaping	\$ 140,000.00	LS	1.00	\$ 140,000.00
Earthwork (CY)	\$ 3.75	CY	12,500.00	\$ 46,875.00
DRAINAGE				
4" Solid HDPE Pipe (N-12 ADS) - Green Outlets	\$ 8.62	LF	758.00	\$ 6,533.96
6" Solid HDPE Pipe (N-12 ADS)	\$ 10.76	LF	1,500.00	\$ 16,140.00
8" Solid HDPE Pipe (N-12 ADS)	\$ 14.27	LF	1,000.00	\$ 14,270.00
10" Solid HDPE Pipe (N-12 ADS)	\$ 19.61	LF	500.00	\$ 9,805.00
12" Solid HDPE Pipe (N-12 ADS)	\$ 28.55	LF	250.00	\$ 7,137.50
Drop Inlets	\$ 566.52	EA	41.00	\$ 23,227.32
GREENS CONSTRUCTION				
USGA Greens Construction (SF)	\$ 7.57	SF	118,135.00	\$ 894,281.95
IRRIGATION				
Irrigation Improvements (Per Head)	\$ 2,100.00	EA	180.00	\$ 378,000.00

CART PATH CONSTRUCTION				
8' Concrete Cart Path Const. (LF)	\$ 48.96	LS	4,500.00	\$ 220,320.00
SEEDBED PREPARATION				
Seedbed Prep (AC)	\$ 3,182.00	AC	10.38	\$ 33,029.16
Soil Amendments (AC)	\$ 1,324.00	AC	10.38	\$ 13,750.39
GRASSING				
Sprigging Greens with Sunday Bermuda (SF)	\$ 0.84	AC	118,135.00	\$ 99,233.40
Sod Green Surrounds with TifTuf Bermuda (SF)	\$ 0.70	AC	452,000.00	\$ 316,400.00
SUBTOTAL				\$ 2,409,971.18

SOFT COSTS				
Mobilization	\$ 72,299.14	3%	1.00	\$ 72,299.14
Golf Course Design Fees/Civil Engineering/Permitting	\$ 180,000.00	LS	1.00	\$ 180,000.00
Bonding**	\$ 36,149.57	1.5%	1.00	\$ 36,149.57

TOTAL ESTIMATED CONSTRUCTION COSTS				
				\$ 2,648,419.88

**OPTION F:
FAIRWAY DRAINAGE ONLY**

Item	Unit Cost	Unit	Quantity	Total
PROJECT PREPARATION				
Layout/Staking	\$ 35,000.00	LS	1.00	\$ 35,000.00
CLEARING/DEMOLITION				
Spray and Rotovate Existing Turf (AC)	\$ 2,500.00	AC	45.13	\$ 101,542.50
Selective Clearing (AC)	\$ 7,500.00	AC	0.74	\$ 5,550.00
EROSION CONTROL				
Erosion Control (LS)	\$ 150,000.00	LS	1.00	\$ 150,000.00
BULK EARTHWORK/SHAPING				
Golf Course Feature Shaping	\$ 125,000.00	LS	1.00	\$ 125,000.00
Earthwork (CY)	\$ 3.75	CY	50,000.00	\$ 187,500.00
DRAINAGE				
4" Solid HDPE Pipe (N-12 ADS)	\$ 8.62	LF	189.00	\$ 1,629.18
6" Solid HDPE Pipe (N-12 ADS)	\$ 10.76	LF	5,608.00	\$ 60,342.08
8" Solid HDPE Pipe (N-12 ADS)	\$ 14.27	LF	4,070.00	\$ 58,078.90
10" Solid HDPE Pipe (N-12 ADS)	\$ 19.61	LF	1,955.00	\$ 38,337.55
12" Solid HDPE Pipe (N-12 ADS)	\$ 28.55	LF	1,660.00	\$ 47,393.00
15" Solid HDPE Pipe (N-12 ADS)	\$ 34.07	LF	755.00	\$ 25,722.85
18" Solid HDPE Pipe (N-12 ADS)	\$ 40.00	LF	701.00	\$ 28,040.00
24" Solid HDPE Pipe (N-12 ADS)	\$ 58.59	LF	246.00	\$ 14,413.14
Drop Inlets	\$ 566.52	LF	116.00	\$ 65,716.32



IRRIGATION				
Irrigation System Improvements (LS)	\$ 2,100.00	EA	689.00	\$ 1,446,900.00
SEEDBED PREPARATION				
Seedbed Prep (AC)	\$ 3,182.00	C	43.98	\$ 139,944.36
Soil Amendments (AC)	\$ 1,324.70	AC	43.98	\$ 58,260.31
GRASSING				
Sprigging Fairway Areas with TifTuf Bermuda (AC)	\$ 3,700.00	AC	30.00	\$ 111,000.00
Sprigging Rough Areas with TifTuf Bermuda (AC)	\$ 3,700.00	AC	11.95	\$ 44,215.00
Seed No-Mow Areas (AC)	\$ 3,000.00	AC	2.03	\$ 6,090.00
SUBTOTAL				\$ 2,750,675.19

SOFT COSTS				
Mobilization	\$ 82,520.26	3%	1.00	\$ 82,520.26
Golf Course Design Fees/Civil Engineering/Permitting	\$ 195,000.00	LS	1.00	\$ 195,000.00
Bonding**	\$ 41,260.13	1.5%	1.00	\$ 41,260.13

TOTAL ESTIMATED CONSTRUCTION COSTS				
				\$ 3,069,455.57

**OPTION G:
TEE COMPLEXES ONLY**

Item	Unit Cost	Unit	Quantity	Total
PROJECT PREPARATION				
Layout/Staking	\$ 20,000.00	LS	1.00	\$ 20,000.00
CLEARING/DEMOLITION				
Spray and Rotovate Existing Turf (AC)	\$ 2,250.00	AC	15.48	\$ 34,830.00
Selective Clearing (AC)	\$ 7,500.00	AC	2.27	\$ 17,025.00
Removal of 8' Cart Path (Onsite LF)	\$ 11.36	LF	6,805.00	\$ 77,304.80
Removal of Cart Path Areas (Onsite SF)	\$ 1.42	SF	2,684.00	\$ 3,811.28
EROSION CONTROL				
Erosion Control (LS)	\$ 50,000.00	EA	1.00	\$ 50,000.00
BULK EARTHWORK/SHAPING				
Golf Course Feature Shaping	\$ 50,000.00	CY	1.00	\$ 50,000.00
Earthwork (CY)	\$ 3.75	CY	15,000.00	\$ 56,250.00
DRAINAGE				
4" Solid HDPE Pipe (N-12 ADS) - Tee Outlets	\$ 8.62	LF	8,422.00	\$ 72,597.64
6" Solid HDPE Pipe (N-12 ADS)	\$ 10.76	LF	720.00	\$ 7,747.20
8" Solid HDPE Pipe (N-12 ADS)	\$ 14.27	LF	689.00	\$ 9,832.03
10" Solid HDPE Pipe (N-12 ADS)	\$ 19.61	LF	199.00	\$ 3,902.39
12" Solid HDPE Pipe (N-12 ADS)	\$ 28.55	LF	361.00	\$ 10,306.55

15" Solid HDPE Pipe (N-12 ADS)	\$ 34.07	LF	87.00	\$ 2,964.09
18" Solid HDPE Pipe (N-12 ADS)	\$ 40.00	LF	421.00	\$ 16,840.00
24" Solid HDPE Pipe (N-12 ADS)	\$ 58.59	LF	246.00	\$ 14,413.14
Drop Inlets	\$ 566.52	EA	35.00	\$ 19,828.20
TEE CONSTRUCTION				
Tee Complex Construction (sf)	\$ 2.20	SF	121,303.00	\$ 272,931.75
IRRIGATION				
Irrigation Improvements (Per Head)	\$ 2,100.00	SF	108.00	\$ 266,800.00
CART PATH CONSTRUCTION				
8' Asphalt Cart Path Const. (LF)	\$ 48.96	LF	8,291.00	\$ 405,927.36
SEEDBED PREPARATION				
Seedbed Prep (AC)	\$ 3,182.00	AC	14.70	\$ 46,775.40
Soil Amendments (AC)	\$ 1,324.70	AC	14.70	\$ 19,473.09
GRASSING				
Sprigging Tees with Celebration Bermuda (AC)	\$ 0.27	LF	121,303.00	\$ 32,751.81
Sod Tee Surrounds with Celebration Bermuda (SF)	\$ 0.70	SF	519,176.84	\$ 363,423.79
SUBTOTAL				\$ 1,835,735.52

SOFT COSTS				
Mobilization	\$ 55,072.07	3%	1.00	\$ 55,072.07
Golf Course Design Fees/Civil Engineering/Permitting	\$ 125,000.00	LS	1.00	\$ 125,000.00
Bonding**	\$ 27,536.03	1.5%	1.00	\$ 27,536.03

TOTAL ESTIMATED CONSTRUCTION COSTS				\$ 2,043,343.62
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**OPTION H:
TREE REMOVAL PROJECT (ALREADY IN PROGRESS)**

Item	Unit Cost	Unit	Quantity	Total
SELECT TREE STUMP REMOVAL				
Stump Removal	\$ 150.00	EA	100.00	\$ 15,000.00
BULK TREE REMOVAL				
Area (B) A	\$ 11,773.71	AC	1.06	\$ 12,480.13
Area (B) B	\$ 11,773.71	AC	3.98	\$ 46,859.37
Area (B) C	\$ 11,773.71	AC	1.47	\$ 17,307.35
Area (B) D	\$ 11,773.71	AC	1.68	\$ 19,779.83
Area (B) E	\$ 11,773.71	AC	2.34	\$ 27,550.48
Area (B) F	\$ 11,773.71	AC	1.12	\$ 13,186.56
Area (B) G	\$ 11,773.71	AC	0.47	\$ 5,533.64
Area (B) H	\$ 11,773.71	AC	0.76	\$ 8,948.02



Area (B) I	\$ 11,773.71	AC	0.87	\$ 10,243.13
Area (B) J	\$ 11,773.71	AC	1.65	\$ 19,426.62
Area (B) K	\$ 11,773.71	AC	2.06	\$ 24,253.84
Area (B) L	\$ 11,773.71	AC	5.00	\$ 58,868.55
Area (B) M	\$ 11,773.71	AC	0.25	\$ 2,943.43
Area (B) N	\$ 11,773.71	AC	1.41	\$ 16,600.93
Area (B) O	\$ 11,773.71	AC	2.22	\$ 26,137.64
Area (B) P	\$ 11,773.71	AC	0.87	\$ 10,243.13
Area (B) Q	\$ 11,773.71	AC	0.68	\$ 8,006.12
Area (B) R	\$ 11,773.71	AC	1.68	\$ 19,779.83
Area (B) S	\$ 11,773.71	AC	1.73	\$ 20,368.52
Area (B) T	\$ 11,773.71	AC	0.19	\$ 2,237.00
Area (B) U	\$ 11,773.71	AC	0.26	\$ 3,061.16
Area (B) V	\$ 11,773.71	AC	2.55	\$ 30,022.96
Area (B) W	\$ 11,773.71	AC	0.89	\$ 10,478.60
Area (B) X	\$ 11,773.71	AC	6.05	\$ 71,230.95
Area (B) Y	\$ 11,773.71	AC	0.40	\$ 4,709.48
Area (B) Z	\$ 11,773.71	AC	0.39	\$ 4,591.75
Area (B) AA	\$ 11,773.71	AC	4.47	\$ 52,628.48
Area (B) AB	\$ 11,773.71	AC	0.43	\$ 5,062.70
Area (B) AC	\$ 11,773.71	AC	1.81	\$ 21,310.42
Area (B) AD	\$ 11,773.71	AC	0.99	\$ 11,655.97
SELECT TREE REMOVAL				
Area (S) A	\$ 400.00	EA	18.00	\$ 7,200.00
Area (S) B	\$ 400.00	EA	7.00	\$ 2,800.00
Area (S) C	\$ 400.00	EA	4.00	\$ 1,600.00
Area (S) D	\$ 400.00	EA	2.00	\$ 800.00
Area (S) E	\$ 400.00	EA	49.00	\$ 19,600.00
Area (S) F	\$ 400.00	EA	11.00	\$ 4,400.00
Area (S) G	\$ 400.00	EA	4.00	\$ 1,600.00
Area (S) H	\$ 400.00	EA	2.00	\$ 800.00
Area (S) I	\$ 400.00	EA	1.00	\$ 400.00
SILT FENCE				
Area (B) B	\$ 5.80	LF	516.00	\$ 2,992.80
Area (B) C	\$ 5.80	LF	377.00	\$ 2,186.60
Area (B) E	\$ 5.80	LF	1,281.00	\$ 7,729.80
Area (B) F	\$ 5.80	LF	660.00	\$ 3,828.00
Area (B) I	\$ 5.80	LF	178.00	\$ 1,032.40
Area (B) J	\$ 5.80	LF	1,218.00	\$ 7,064.40
Area (B) M	\$ 5.80	LF	191.00	\$ 1,107.80
Area (B) W	\$ 5.80	LF	383.00	\$ 2,221.40
Area (B) X	\$ 5.80	LF	201.00	\$ 1,165.80
Area (B) Y	\$ 5.80	LF	638.00	\$ 3,700.40

Area (B) Z	\$ 5.80	LF	104.00	\$ 603.20
Area (B) AA	\$ 5.80	LF	279.00	\$ 1,618.20
SKIMMER SEDIMENT BASIN				
Skimmer Sediment Basin (SB1)	\$ 3,833.33		1.00	\$ 3,833.33
Skimmer Sediment Basin (SB2)	\$ 3,833.33		1.00	\$ 3,833.33
Skimmer Sediment Basin (SB3)	\$ 3,833.33		1.00	\$ 3,833.33
Skimmer Sediment Basin (SB4)	\$ 3,833.33		1.00	\$ 3,833.33
Skimmer Sediment Basin (SB5)	\$ 3,833.33		1.00	\$ 3,833.33
Skimmer Sediment Basin (SB6)	\$ 3,833.33		1.00	\$ 3,833.33
Skimmer Sediment Basin (SB7)	\$ 3,833.33		1.00	\$ 3,833.33
Skimmer Sediment Basin (SB8)	\$ 3,833.33		1.00	\$ 3,833.33
Skimmer Sediment Basin (SB9)	\$ 3,833.33		1.00	\$ 3,833.33
Skimmer Sediment Basin (SB10)	\$ 3,833.33		1.00	\$ 3,833.33
Skimmer Sediment Basin (SB11)	\$ 3,833.33		1.00	\$ 3,833.33
Skimmer Sediment Basin (SB12)	\$ 3,833.33		1.00	\$ 3,833.33
SUBTOTAL				\$720,657.36

TOTAL ESTIMATED CONSTRUCTION COSTS				\$ 720,657.36
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OPTION I:

NEW GREEN COMPLEXES ON HOLES 1 AND 8, NEW TEE BOXES ON HOLES 2 AND 9

Item	Unit Cost	Unit	Quantity	Total
PROJECT PREPARATION				
Layout/Staking	\$ 15,000.00	LS	1.00	\$ 15,000.00
CLEARING/DEMOLITION				
Spray and Rotovate Existing Turf (AC)	\$ 2,250.00	AC	7.89	\$ 17,752.50
Selective Clearing (AC)	\$ 7,500.00	AC	0.40	\$ 3,000.00
Removal of 8' Cart Path (Onsite LF)	\$ 11.36	LF	1,768.00	\$ 20,084.48
EROSION CONTROL				
Erosion Control (LS)	\$ 30,000.00	LS	1.00	\$ 30,000.00
BULK EARTHWORK/SHAPING				
Golf Course Feature Shaping	\$ 50,000.00	LS	1.00	\$ 50,000.00
Earthwork (CY)	\$ 3.75	CY	7,000.00	\$ 26,250.00
DRAINAGE				
4" Solid HDPE Pipe (N-12 ADS) - Green Outlets	\$ 8.62	LF	33.00	\$ 284.46
4" Solid HDPE Pipe (N-12 ADS) - Tee Outlets	\$ 8.62	LF	1,049.00	\$ 9,042.38
6" Solid HDPE Pipe (N-12 ADS)	\$ 10.76	LF	790.00	\$ 8,500.40
8" Solid HDPE Pipe (N-12 ADS)	\$ 14.27	LF	423.00	\$ 6,036.21
12" Solid HDPE Pipe (N-12 ADS)	\$ 28.55	LF	138.00	\$ 3,939.90
15" Solid HDPE Pipe (N-12 ADS)	\$ 34.07	LF	126.00	\$ 4,292.82



Drop Inlets	\$ 566.52	EA	9.00	\$ 5,098.68
TEE CONSTRUCTION				
Tee Complex Construction w/ Internal Drainage (SF)	\$ 2.25	SF	12,992.00	\$ 29,232.00
GREENS CONSTRUCTION				
USGA Greens Construction (SF)	\$ 7.57	SF	11,946.00	\$ 90,431.22
IRRIGATION				
Irrigation Improvements (Per Head)	\$ 2,100.00	EA	55.00	\$ 115,500.00
CART PATH CONSTRUCTION				
8' Concrete Cart Path Const. (LF)	\$ 48.96	LF	1,646.00	\$ 80,588.16
SEEDBED PREPARATION				
Seedbed Prep (AC)	\$ 3,182.00	AC	7.79	\$ 24,787.78
Soil Amendments (AC)	\$ 1,324.70	AC	7.79	\$ 10,319.41
GRASSING				
Sprigging Fairway Areas with TifTuf Bermuda (AC)	\$ 3,700.00	AC	4.00	\$ 14,800.00
Sprigging Rough Areas with TifTuf Bermuda (AC)	\$ 3,700.00	AC	2.05	\$ 7,585.00
Sprigging Tees with TifTuf Bermuda (AC)	\$ 0.27	SF	12,992.00	\$ 3,507.84
Sprigging Greens with Sunday Bermuda (SF)	\$ 0.84	SF	11,946.00	\$ 10,034.64
Sod Tee Surrounds with TifTuf Bermuda (SF)	\$ 0.70	SF	51,968.00	\$ 36,377.60
Sod Green Surrounds with TifTuf Bermuda (SF)	\$ 0.70	SF	23,892.00	\$ 16,724.40
SUBTOTAL				\$ 639,169.88

SOFT COSTS				
Mobilization	\$ 19,175.10	3%	1.00	\$ 19,175.10
Golf Course Design Fees/Civil Engineering/Permitting	\$ 55,000.00	LS	1.00	\$ 55,000.00
Bonding**	\$ 9,587.55	1.5%	1.00	\$ 9,587.55

TOTAL ESTIMATED CONSTRUCTION COSTS				\$ 722,932.53
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**OPTION J:
COMPLETE RENOVATION OF HOLES 13 AND 14**

Item	Unit Cost	Unit	Quantity	Total
PROJECT PREPARATION				
Layout/Staking	\$ 30,000.00	LS	1.00	\$ 30,000.00
CLEARING/DEMOLITION				
Spray and Rotovate Existing Turf (AC)	\$ 2,500.00	AC	11.17	\$ 25,132.50
Selective Clearing (AC)	\$ 7,500.00	AC	0.46	\$ 3,450.00
Removal of 8' Cart Path (Onsite LF)	\$ 11.36		2,998.00	\$ 34,057.28
EROSION CONTROL				
Erosion Control (LS)	\$ 30,000.00	LS	1.00	\$ 30,000.00
BULK EARTHWORK/SHAPING				
Golf Course Feature Shaping	\$ 100,000.00	LS	1.00	\$ 100,000.00
Earthwork (CY)	\$ 3.75	CY	10,000.00	\$ 37,500.00
DRAINAGE				
4" Solid HDPE Pipe (N-12 ADS) - Green Outlets	\$ 8.62	LF	36.00	\$ 310.32
4" Solid HDPE Pipe (N-12 ADS) - Tee Outlets	\$ 8.62	LF	1,472.00	\$ 12,688.64
6" Solid HDPE Pipe (N-12 ADS)	\$ 10.76	LF	205.00	\$ 2,205.80
Drop Inlets	\$ 566.52	EA	2.00	\$ 1,133.04
TEE CONSTRUCTION				
Tee Complex Construction w/ Internal Drainage (SF)	\$ 2.25	SF	13,770.00	\$ 30,982.50
GREENS CONSTRUCTION				
USGA Greens Construction (SF)	\$ 7.57	SF	11,707.00	\$ 88,621.99
IRRIGATION				
Irrigation System Improvemnts (LS)	\$ 2,100.00	EA	74.00	\$ 155,400.00
CART PATH CONSTRUCTION				
8' Concrete Cart Path Const. (LF)	\$ 48.96	EA	3,600.00	\$ 176,256.00
SEEDBED PREPARATION				
Seedbed Prep (AC)	\$ 3,182.00	AC	10.71	\$ 34,079.22
Soil Amendments (AC)	\$ 1,324.70	AC	10.71	\$ 14,187.54
GRASSING				
Sprigging Fairway Areas with TifTuf Bermuda (AC)	\$ 3,700.00	AC	4.13	\$ 15,281.00
Sprigging Rough Areas with TifTuf Bermuda (AC)	\$ 3,700.00	AC	4.78	\$ 17,686.00
Sprigging Tees with TifTuf Bermuda (SF)	\$ 0.27	SF	13,770.00	\$ 3,717.90
Sprigging Greens with Sunday Bermuda (SF)	\$ 0.84	SF	11,707.00	\$ 9,833.88
Sod Tee Surrounds with TifTuf Bermuda (SF)	\$ 0.70	SF	55,080.00	\$ 38,556.00
Sod Green Surrounds with TifTuf Bermuda (SF)	\$ 0.70	SF	23,414.00	\$ 16,389.80
MISCELLANEOUS				
Bridge Removal	\$ 6,000.00	EA	1.00	\$ 6,000.00
New Bridge #3 (115' X 10')	\$ 77,740.00	LS	1.00	\$ 77,740.00



Pairs of Bridge Abutments	\$ 8,800.00	EA	1.00	\$ 8,800.00
SUBTOTAL				\$ 970,009.41
SOFT COSTS				
Mobilization	\$ 29,100.28	3%	1.00	\$ 29,100.28
Golf Course Design Fees/Civil Engineering/Permitting	\$ 65,000.00	LS	1.00	\$ 65,000.00
Bonding**	\$ 29,100.28	1.5%	1.00	\$ 14,550.14
TOTAL ESTIMATED CONSTRUCTION COSTS				\$ 1,078,659.83

**OPTION K:
COMPLETE RENOVATION OF HOLE 3**

Item	Unit Cost	Unit	Quantity	Total
PROJECT PREPARATION				
Layout/Staking	\$ 10,000.00	LS	1.00	\$ 10,000.00
CLEARING/DEMOLITION				
Spray and Rotovate Existing Turf (AC)	\$ 2,500.00	AC	5.23	\$ 11,767.50
Selective Clearing (AC)	\$ 7,500.00	AC	0.42	\$ 3,150.00
Removal of 8' Cart Path (Onsite LF)	\$ 11.36		1,625.00	\$ 18,460.00
EROSION CONTROL				
Erosion Control (LS)	\$ 10,000.00	LS	1.00	\$ 10,000.00
BULK EARTHWORK/SHAPING				
Golf Course Feature Shaping	\$ 50,000.00	LS	1.00	\$ 50,000.00
Earthwork (CY)	\$ 3.75	CY	15,000.00	\$ 56,250.00
DRAINAGE				
4" Solid HDPE Pipe (N-12 ADS) - Green Outlets	\$ 8.62	LF	19.00	\$ 163.78
4" Solid HDPE Pipe (N-12 ADS) - Tee Outlets	\$ 8.62	LF	547.00	\$ 4,715.14
6" Solid HDPE Pipe (N-12 ADS)	\$ 10.76	LF	201.00	\$ 2,162.76
8" Solid HDPE Pipe (N-12 ADS)	\$ 14.27	LF	208.00	\$ 2,968.16
15" Solid HDPE Pipe (N-12 ADS)	\$ 34.07	LF	195.00	\$ 6,643.65
18" Solid HDPE Pipe (N-12 ADS)	\$ 40.00	LF	21.00	\$ 840.00
Drop Inlets	\$ 566.52	EA	8.00	\$ 4,532.16
TEE CONSTRUCTION				
Tee Complex Construction w/ Internal Drainage (SF)	\$ 2.25	SF	6,200.00	\$ 13,950.00
GREENS CONSTRUCTION				
USGA Greens Construction (SF)	\$ 7.57	SF	5,915.00	\$ 44,776.55
IRRIGATION				
Irrigation System Improvemnts (LS)	\$ 2,100.00	EA	45.00	\$ 94,500.00
CART PATH CONSTRUCTION				
8' Concrete Cart Path Const. (LF)	\$ 48.96	EA	1,653.00	\$ 80,930.88
SEEDBED PREPARATION				
Seedbed Prep (AC)	\$ 3,182.00	AC	4.98	\$ 15,846.36

Soil Amendments (AC)	\$ 1,324.70	AC	4.98	\$ 6,597.01
GRASSING				
Sprigging Fairway Areas with TifTuf Bermuda (AC)	\$ 3,700.00	AC	1.90	\$ 7,030.00
Sprigging Rough Areas with TifTuf Bermuda (AC)	\$ 3,700.00	AC	2.24	\$ 8,288.00
Sprigging Tees with TifTuf Bermuda (SF)	\$ 0.27	SF	6,200.00	\$ 1,674.00
Sprigging Greens with Sunday Bermuda (SF)	\$ 0.84	SF	5,915.00	\$ 4,968.60
Sod Tee Surrounds with TifTuf Bermuda (SF)	\$ 0.70	SF	24,800.00	\$ 17,360.00
Sod Green Surrounds with TifTuf Bermuda (SF)	\$ 0.70	SF	11,830.00	\$ 8,281.00
MISCELLANEOUS				
Bridge Removal	\$ 6,000.00	EA	1.00	\$ 6,000.00
New Bridge #3 (115' X 10')	\$ 33,800.00	LS	1.00	\$ 33,800.00
Pairs of Bridge Abutments	\$ 8,800.00	EA	1.00	\$ 8,800.00
SUBTOTAL				\$ 534,455.55
SOFT COSTS				
Mobilization	\$ 16,033.67	3%	1.00	\$ 16,033.67
Golf Course Design Fees/Civil Engineering/Permitting	\$ 30,000.00	LS	1.00	\$ 30,000.00
Bonding**	\$ 8,016.83	1.5%	1.00	\$ 8,016.83
TOTAL ESTIMATED CONSTRUCTION COSTS				\$ 588,506.05

RENOVATION OPTIONS SUMMARY

1. Option A- Complete Renovation Project:	\$ 10,018,266.56
2. Option B- Front 9 Only:	\$ 4,638,633.14
3. Option C- Back 9 Only:	\$ 4,763,073.08
4. Option D- Driving Range and Practice Facility:	\$ 1,416,858.36
5. Option E- Green Complexes Only:	\$ 2,648,419.88
6. Option F- Fairway Drainage Only:	\$ 3,069,455.57
7. Option G- Tee Complexes Only:	\$ 2,043,344.62
8. Option H- Tree Removal Project: (ALREADY IN PROGRESS)	\$ 720,657.36
9. Option I- New Greens on #1 and #8, New Tee Boxes on #2 and #9:	\$ 722,932.53
10. Option J- Complete Renovation of Holes 13 and 14:	\$ 1,078,659.83
11. Option K- Complete Renovation of Hole 3:	\$ 588,506.05





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