DECISION PAPER



Date: December 27, 2018

Issue:

The General Plan Committee and the Golf Course Subcommittee are evaluating potential improvements to golf course design and layout for enhanced playability, enriched golfer experience, improved player usage, and increased pace of play.

Background:

Tahoe Donner is operating under the 2001 Golf Course Master Plan, authored by Cary Bickler, Inc., see attached. To initiate a Master Plan update in 2019, a proposed list of improvements was drafted by the Golf Course Subcommittee, which provided necessary guidance for Kelly Biological Consulting to prepare the attached Wetland Evaluation of Tahoe Donner Golf Course, dated July 2018. Subsequent wetland boundaries and detailed constraints were obtained ahead of this winter season and are now reflected in attached reports dated September 4 and 7, 2018. From these studies, the Golf Course Subcommittee provided further detail in the attached document, *Improvements and Long-Term Planning for TD Golf Course*, updated on October 15, 2018.

Estimated costs for such improvements are included in the 2019 Tahoe Donner Annual Budget and are listed as The Fairways & Rough Remodel – Agency & Construction Costs; not to exceed \$500,207 from Replacement Reserve – Capital Funds. With detailed drawings and agency permit approvals required ahead of the anticipated construction schedule in late 2019, Board members approved an acceleration of up to \$14,000 from this 2019 RRF budget, to be utilized in late 2018 for required wetland feasibility studies and initial site consultations with Cary Bickler, Inc. Both consultants were successful in their feasibility studies, and professional fees remain within budget.

Looking ahead for construction cost estimates and required civil drawings for Agency permitting, Staff is prepared to work with the golf course designer and consulting firms, to prepare drawings and specifications for detailed construction cost estimates.

Recommendation:

Staff requests Board approval to proceed with necessary detailed drawings and specifications that are required for accurate project cost estimates, construction scheduling, agency approvals, construction administration, and preparation of the Master Plan update. Once completed, the list of potential improvements for 2019 will be prioritized within available budget by the Golf Course Subcommittee and General Plan Committee. This final recommendation will be reviewed by the Board for necessary approvals prior to contractor award and construction in the Fall of 2019.

Prepared By: Forrest Huisman	
Reviewed By: Michael Salmon	
Board Meeting Date:January 26, 2019	
General Manager Approval to place on agenda:	Date:





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EXECUTIVE SUMMARY

Tahoe Donner Golf Course GOLF COURSE RENOVATION MASTER PLAN

Prepared For The Tahoe Donner Association December, 2001

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I. INTRODUCTION

OPENING COMMENTS

We have proceeded through various stages of the Master Plan for The Tahoe Donner Golf Course, and the Tahoe Donner Association representatives and staff are to be complimented for dealing with the golf course planning process in an exemplary manner.

The Tahoe Donner Golf Course was well-conceived by a skillful design professional. The Club has the benefit of an original design that solidly encompasses all the fundamentals of responsible golf course planning and design, including but not limited to safety and course strategy. The physical body and soul of the golf course is strong.

The fundamental design element of a golf course is the routing placement of the golf holes on the land. This was done well at Tahoe Donner Golf Course. The layout has very narrow tree lined fairways that traverse the rolling terrain to create a wide variety of golf holes with many interesting and demanding golf shots. The original golf course construction appears to have not been completely realized, possibly due to budget constraints.

As a course grows older, it evolves with many influences that effect the design, playability, and golf environment. There are both positive and negative impacts, but nonetheless, they must be continually addressed. These impacts are discussed throughout this report.

An important concept for evaluating older courses is that the game of golf is played differently than when Joseph B. Williams designed the course in 1976. The design process is evolutionary. Good design is responsive to the present site conditions and state of the game of golf. As golf equipment, caliber of players and course conditions keep improving, older courses play shorter and hazards become obsolete for the better players.

Another factor that creates the need for course improvement is the constant development of new technology. Properly designed and constructed course drainage and irrigation, along with proper tee, bunker, and greens construction allows the Golf Course Superintendent to do a better job.

It is important to understand that golf courses are living organisms and they naturally go through continuous evolutionary changes. Additionally, manmade changes occur due to the fact that committees tend to modify golf courses.

Since home owner's associations undergo changes in leadership on a regular basis, the hard work and long-range plans mapped out by previous committees can easily be abandoned by the next regime in favor of an entirely different direction. This basic political structure inherently results in a "revolving door of authority".

Well-meaning association representatives may have waited for a turn to leave their special contribution behind. Often times however, representatives have a "personal pet-peeve" regarding

some physical aspect of the golf course that doesn't suit their particular game, not taking into account all the levels of play the golf course is supposed to address. As a result, adjustments and enhancements are made without the guidance of a professional golf course designer.

These ongoing large and small changes have an accumulated significant impact on the golf course. Some committee guided projects work out well, but unfortunately many others do not. The negative effects compound until the overall course integrity has been diminished. Many of the intended "enhancements" to the golf course unintentionally become "indignities".

The results of these projects can be very controversial, and often times are. Predictably, debates and politics come into play as association members begin to disagree. These debates cause members to tend to forget why they belong to a golf club in the first place.... to enjoy the game of golf and the camaraderie that comes with it, in an exclusive setting!

I praise any home owner's association with the leadership and intelligence to look at the big overview of their course through the eyes of a professional golf course designer by doing a Master Plan. This Master Plan shows your association how to reclaim and sustain the integrity of your golf course by addressing the things that need to be corrected and enhanced.

The Plan is phased in a prioritized fashion, over the next 2 years to bring safety, playing, and aesthetic standards up to the highest level possible, and bring the golf course design intent at the Tahoe Donner Golf Course back in to sharp focus.

In preparing a Master Plan, I also looked into the future of your golf course, to guide you away from potential problems that could arise. The real value of a Master Plan comes when the Plan is used as the guidebook for each and every committee in the years to come. In doing so, your association's direction will stay on purpose. Varying from or abandoning the Master Plan will put the destiny of your golf course back in the hands of ever-changing committee preferences.

In summary, I have analyzed shortcomings of the original construction and the impact of time and past alterations to your golf course, and presented a prioritized "Plan of Action". This Plan illustrates how to fine-tune the course, and thereby protect your financial and recreational investment.

In the progress of the Master Plan, I met with, and collected information from various Association groups and your staff. I also met with, and received valuable input from member representatives including the seniors, women, low, medium, and high handicappers. As would be expected, each group has their individual concerns, unlike the others.

REASONS FOR THE MASTER PLAN

The Master Plan process undertaken by Tahoe Donner Golf Course will start a progressive program of improvements. The Master Plan illustrates how best to maximize use of funds and meet requirements of the Association members and new marketplace in a prioritized fashion.

Renovation projects and maintenance programs often suffer due to the rapid turnover of committee members. Alister MacKenzie put it accurately in his book The Spirit of St. Andrews, when he wrote: "The history of most golf clubs is that a committee is appointed, they make mistakes, and just as they are beginning to learn by these mistakes they resign office and are replaced by others who make still greater mistakes, and so it goes on."

The Master Plan protects the future success of the Association as new courses are built in the area and existing courses upgrade their standards making other club memberships more competitive. To assure the future stability and popularity of the course, it is important to maintain the highest standards and best playing conditions possible and this is done progressively through the Master Plan and implementation of capital improvements.

We seek a top turfgrass standard year-round. Tees and particularly fairway roughs are without agronomic substance. It takes extra effort and skill on the part of the Greens Superintendent to continue to produce consistent results while working under current conditions.

The Master Plan serves to educate the Association representatives regarding the need for the capital improvement projects and the rational behind the recommendations being made. The Association representatives deserve to be kept informed.

The Master Plan will enhance the beauty of golf course while improving on the course interest and variety. It will also address the goal of achieving a high quality standard for the golf course equal to or better than the other courses in its marketplace in the greater Tahoe area.

THE GOLF COURSE DESIGNER'S GOALS

- Work with the Association to upgrade the character and style of the course while enhancing the playability for all levels.
- Maximize use of funds in a prioritized fashion.
- Guide and support the Association in achieving their goals.

THE ULTIMATE GOAL

The ultimate goal is to make Tahoe Donner Golf Club the greatest golfing experience possible, and support real estate values for the homeowners. We will achieve this through a variety of improvements to the golf course. The following is an overview of my Master Plan findings with recommendations.

II. EXECUTIVE SUMMARY OF THE MASTER PLAN

1. **BUNKER LAYOUT**

- A) Redesign & Rebuild Entire Bunker Layout
 - 60 Bunkers (Approximately 100,000 S.F.)

2. TREES

- A) Tag & Remove Trees For:
 - More sunlight to green complexes
 - Wider fairway landing areas where feasible
 - Diseased trees
 - Grind tree stumps
 - Vary tree line edge for a more natural appearance

3. **MOUNDING FEATURES**

A) Add mounding features to Holes #3, #6, #8, #9, #10, #11, #13, #14, #15, & #16.

4. FAIRWAY LANDING AREAS

- A) Reshape fairways and landing areas Holes #7 (eliminate blind spot), #10, #2, & #15.
- B) Hide maintenance road crossing Hole #5 fairway by elevating the fairway.

5. TEES

- A) New Forward Tees (Average Square Footage = 1,500 S.F.)
 - Front 9-Holes

16 New Forward Tees

Back 9-Holes

16 New Forward Tees

TOTAL

32 New Forward Tees

- B) Redesign and Rebuild Existing Tees
 - Front 9-Holes

4 Tees (Holes #4, #5, #7, & #8)

Back 9-Holes

No tees

- C) Add 2 New Back Tees
 - Holes #11 & #14
- D) Realign, Laser Level, Top With 6" Sand, & Re-sod
 - All Existing Tees/ Front & Back 9-Holes

6. ROCK ACCENTS

- A) Accent new tee construction with native rock walls where appropriate. Use native rock excavated during construction and near-by rock in out of play areas for accentuating.
- B) Remove all railroad ties from the course.

7. <u>COURSE TURF UNIFORMITY</u>

- A) Improve Course Turf Uniformity, Playability & Maintainability
 - Rough Grass (in fairway play corridor)
- B) Remove All Loose Surface Rock
 - Raise irrigation heads as necessary.
 - Cover imbedded rock with 4" of sand or acceptable soil. Re-seed rough area.
 - Limits of work confined to existing irrigation delineation and coverage.
- C) Rebuild ingress and egress wear areas between cart paths and fairways. Remove 1 (one) foot of native soil and replace with sub-drainage, sand and new sod. Regrade if too steep.

8. PRACTICE PUTTING & CHIPPING AREA

- A) Redesign and rebuild practice putting & chipping area by the club house.
 - Add a practice bunker area.
 - Enlarge 2 practice putting greens (<u>TOTAL = 8,000 S.F.</u>)
 Right Green = 2,000 S.F.
 Left Green = 6,000 S.F.

9. <u>CART PATH REMOVAL & REPLACEMENT</u>

- A) HOLE #2
 Realign 200 L.F. of cart path right of green. Remove, realign and replace.
- B) HOLE #5
 Demo 200 L.F. of asphalt cart path at angle point of fairway. Add 200 L.F. of asphalt cart path right.
- C) <u>HOLE #6</u>
 Remove and replace <u>200 L.F.</u> cart path right and forward of tee complex.

- D) HOLE #11
 Demo 900 L.F. of asphalt cart path right. Reshape right side and widen fairway.
 Retro-fit irrigation to fit new features. Add 1.100 L.F. of re-routed asphalt cart path left. Reshape 300 feet, add soil to the right side of the fairway just in front of the green.
- E) HOLE #12
 Add asphalt turn-around/ 100 L.F.
- F) HOLE #13
 Remove cart path left and replace 440 L.F. of cart path to right side of tee complex.
- G) HOLE #14
 Remove 1.000 L.F. of cart path and replace 900 L.F.
- H) HOLE #18
 Remove, realign and replace 200 L.F. cart path left of green.

TOTAL/ Cart Path Removal & Replacement (above holes) 3,000 L.F. @ 8 feet wide = 20,000 S.F.

9A). OPTION: REPLACE COMPLETE REMAINING 18-HOLE CART PATH

(Widen cart path to 8 feet when replacing)

- Front 9 = 12,600 L.F.
- Back 9 = 12,600 L.F.

TOTAL/ OPTION: Replace Complete Cart Path 25,200 L.F. @ 8 feet wide = 201,600 S.F. Less 20,000 S.F. (Item #9) = 181,600 S.F. (Remaining)

- 10. **BRIDGES** Restore and/or Replace
 - A) 8 Walking Bridges
 - B) 8 Cart Paths Crossing Ditches
- 11. DITCHES
 - A) Accent 8 Ditches With Native Rock and Native Grass.

ON-GOING "IN HOUSE" COURSE ENHANCEMENTS (Maintenance Budget)

- 1. Continue top-dressing fairways with top-dressing sand.
- 2. Continue to add native rock to worn cart path edges and walkways.
- 3. Improve fairway contour mowing patterns.
- 4. Screen out 2 pump houses with landscaping (Holes #5 & # 13).
- 5. Encourage more native grass areas around the course using Hole #12 as an example.
 - Out of play areas between tees, landing areas, and greens are the preferred locations to accent texture and contrast to the golf course. (Golf Course Designer to assist Course Superintendent in layout during construction site visits.)
- 6. Purchase tree stump grinder and add manpower to crew to grind tree stumps.
- 7. Enhance materials and maintain neat appearance to roped off turf areas.

III. NEW SCORE CARD

Adjust existing score card yardages and add 2 forward tees to derive the optimum golf course playability benefit for all members.

- Lengthen the Back Tee to 7,007 yards for maximum challenge and course image.
- Lengthen the Forward Back Tee to 6,645 yards.
- Lengthen the Middle Tee to 6,259 to appropriately accommodate the 2 new forward tees at 5,572 yards and 5,010 yards.

The new 5-tee arrangement will accomplish the following:

- Encourage players of varying skill to select the correct tee for their level of ability.
- Allow residents just taking up the game of golf a good experience on a length of course they can handle to encourage them to continue their enthusiasm for the game.
- Offer members varying degrees of difficulty for more fun and playing enjoyment.
- Bring the Club up to speed with newer area courses that offer multiple tees.
- Heighten the marketability and image of the golf course.
- Make the Club more attractive to new members and help support the financial security of the Club.

TAHOE DONNER GOLF COURSE MASTER PLAN - NEW SCORE CARD 11/2/01

HOLE	1	2	3	4	5	6	7	8	9	OUT
BACK TEE	450	513	439	201	377	357	163	464	550	3,514
FORWARD BACK TEE	432	483	430	192	369	349	156	439	542	3,392
PAR	4	5	4	3	4	4	3	4	5	36
MIDDLE TEE	422	471	359	147	308	340	146	429	520	3,142
BACK FORWARD	350	441	342	123	283	306	132	327	453	2,757
FORWARD TEE	328	397	300	87	261	265	110	305	417	2,470

10	11	12	13	14	15	16	17	18	IN	TOTAL
424	510	200	320	420	519	453	226	421	3,493	7,007
394	449	182	310	369	503	442	203	401	3,253 6,64	
4	5	3	4	4	5	4	3	4	36	72
385	441	152	301	352	491	433	182	380	3,117	6,259
349	407	130	285	333	450	356	165	340	2,815	5,572
324	382	96	275	330	401	303	142	287	2,540	5,010

IV. CAPITAL IMPROVEMENTS BUDGET ESTIMATE

1.	TEES \$410,000.
1A.	ROCK ACCENTS
2.	BUNKER LAYOUT \$350,000.
2A.	MOUNDING FEATURES \$350,000.
3.	COURSE TURF UNIFORMITY \$850,000.
4.	FAIRWAY LANDING AREAS
4A.	CART PATH REMOVAL & REPLACEMENT \$45,000.
5.	PRACTICE PUTTING & CHIPPING AREA \$80,000.
6.	TREES (Allowance)
7.	OPTION: REPLACE COMPLETE REMAINING \$265,000. 18-HOLE CART PATH
8.	BRIDGES (Allowance)
9.	DITCHES \$40,000.
TOTA	AL/ 18-HOLE CAPITAL IMPROVEMENTS
	STRUCTION PHASING APPROACH LEAST AMOUNT OF INTERRUPTION TO PLAY: 9-Holes Each Year
	1st YEAR
	2nd YEAR

MEMORANDUM

DATE:

12/7/01

TO:

THE TAHOE DONNER ASSOCIATION

FROM:

CARY BICKLER, ASGCA - Golf Course Architect

SUBJECT:

CAPITAL IMPROVEMENTS BUDGET ESTIMATE

The Capital Improvements Budget Estimate on the previous page is based on the Master Plan, my 18 Hole-By-Hole Comments, the Executive Summary, meetings, and on-site visits with Landscapes Unlimited, LLC (a golf course construction company).

This Budget Estimate is intended to assist you in your important decision making process in this first level of planning for the Home Owner's Association at Tahoe Donner.

To take the Master Planning process to the next level I will need to develop Construction Drawings per our Contract Agreement. The completed Drawings will allow us to value engineer the project and start pin-pointing our Scope of Work.

The next step will be to finalize the construction costs and arrive at budget number that is acceptable to The Tahoe Donner Association.

CONSTRUCTION BUDGET ESTIMATE

Submitted By: Landscapes Unlimited, LLC Golf Course Development



Landscapes Unlimited, LLC 1601 Old Cheney Road Lincoln, NE 68512 Phone (402) 423-6653 FAX (402) 423-4487

Fax

10;	Cary Bickler – Cary Bickler Go Design	of From: Dave Demerest
Fax:	619-221-5999	Pages: 3
Phone):	Date: November 27, 2001
Re:	Tahoe Donner Golf Club	CC:
J Urger	nt	□Please Comment □Please Reply

Comments:

Cary, Here is my first attempt at a budget for the work to be done at Tahoe Donner. Keep in mind this is based upon some assumptions (not actual bid prices or exact quantities) that we discussed during the site visit. Please take a look at what I have done and let's start the refinement process to get the number and work down to a more exact number. I hope we could get this number down closer to \$2.7 or \$2.8 Million with a contingency number that will keep it under \$3 Million.

So Cary, please review this and give me a call with any questions or concerns you may have. Then let's set up a meeting to start the finalizing process and be able to get back to the people at Tahoe Donner with some numbers. Thank you again for this opportunity and I'll talk with you once I get back from Hawaii.

Best regards,

Dave

ITEM/DESCRIPTION		ESTIMATE QUANTITY			UNIT COST	SI	UBTOTAL	E	XTENDED TOTAL
CONTRACTOR MOBILE a. Mobilization b. Supervision	ZATION / SUPERVISIO	1	LS LS	\$ \$	75,000 60,000	s s	75,000 60,000		
	ITEM TOTAL							\$	135,000
CLEARING a. Clearing Allowand	pe e	1	ALLOW	\$	80,000	\$	80,000		
	ITEM TOTAL							2	80,000
3 STAKING & LAYOUT								•	00,000
a. Lump Sum		1	LS	\$	45,000	s	45,000		
	ITEM TOTAL-				-			•	45 000
4. EARTHWORK					_			3	45,000
a. Topsoil Hauling		30,000	CV	s	2.50	er er	75.000		
b. Topsoil Import Alle	owance	20,000		\$	18.00	\$ \$	75,000 360,000		
c. Fill Material		10,000	CY	\$	14.00	\$	•		
d. Mass Excavation		15,000	CY	\$	1.25	\$	18,750		
	ITEM TOTAL-	w						\$	593,750
5 . SHAPING									
a. Lump Sum		1	LS	\$	295,000	\$	295,000		
	ITEM TOTAL-							\$	295,000
6. DRAINAGE									•
a. 4" Solid Pipe		2,400	LF	\$	5.00	S	12,000		
b. 6" Solid Pipe		2,000		\$	7.00	\$	14,000		
c. 12" Catch Basins		25	EA	\$	250.00	\$	6,250		
d. 12" Catch Basins in	n Cart Paths	25	EA	\$	300.00	\$	7,500		
	ITEM TOTAL-							\$	39,750
7. GREENS CONSTRUCTIO) _W								
a. Greens Construction		8,000	SF	\$	5.50	\$	44,000		
	ITEM TOTAL-						 →	\$	44,000

CONSTRUCTION PROPOSAL PAGE 2 OF 2

8. BUNKER CONSTRUCTION a. Bunker Construction		·			2.40				
	ITEM TOTAL-							> \$	216,000
9. TEE CONSTRUCTION a. Topsoil and laser level	ITEM TOTAL-		SF	\$	1.50	\$	225,000	. €	225,000
10 . FINISH GRADING a. Finish Grading			LS	\$	195,000	\$	195,000	•	223,000
	ITEM TOTAL-		. <u> </u>					S	195,000
11 CART PATH CONSTRUCTION a. 8' Wide Asphalt Cart Pa	•		LF	\$	12.50	\$	315,000	- \$	315,000
11 . GRASSING									
a. Seedbed Prep b. Fertilizer			LS ALLOW		175,000 By Owner		175,000 By Owner		
c. Greens		8,000		\$	0.15		1,200		
d. Blue / Rye Sod		1,000,000				S	380,000		
	ITEM TOTAL				-, -, · · · · · ·			- \$	556,200
12 . IRRIGATION a. Allowance		1	ALLOW	\$	200,000	\$	200,000		
	ITEM TOTAL-		 -					- \$	200,000
13 . SPECILITY WORK a. Foot Bridge Allowance		1	ALLOW		50,000		50,000		
	ITEM TOTAL-							- \$	50,000
GR	AND TOTAL-							\$ 2	,989,700

Exhibit "A"

MISSION & OBJECTIVES OF THE MASTER PLAN

MISSION OF THE MASTER PLAN

- 1. Improve the golf course to provide greater playing benefits for the members and support real estate value for homeowners.
- 2. Enhance the beauty and efficient maintenance of the golf course and facilities.
- 3. Maximize the use of funds.

OBJECTIVES OF THE MASTER PLAN

- 1. Minimize the problem areas.
- 2. Maintain top conditions throughout the golfing season.
- 3. Plan for minimum interruption of play.
- 4. Maintain the aesthetics of the landscape surrounding the entire Club.
- 5. Address improvements that support increased marketability and revenues, and create sustaining interest in the facility for years to come.

Exhibit "B"

SUMMARY OF HOLE-BY-HOLE COMMENTS

HOLE #1

ADD NEW FORWARD TEES

ADD NATIVE ROCK TO CART PATH EDGES WHERE WORN TO SOFTEN AESTHETIC APPEAL

MANAGE CART PATH INGRESS & EGRESS WEAR WITH NATURAL ROPE AND NATIVE LOG POLE FOR CONSISTENT LOOK AND AESTHETICS

REMODEL LEFT GREENSIDE BUNKER

TOP DRESS ROUGH GRASS AREA TO COVER SURFACE ROCK, IMPROVE PLAYABILITY AND MAINTAINABILITY

HOLE #2

ADD 2 NEW FORWARD TEES AT HIGHER ELEVATION

RESHAPE MOUND IN MIDDLE OF FAIRWAY SHORT OF GREEN

REALIGN CART PATH RIGHT OF GREEN, WIDENING SECOND LANDING AREA ON THIS NARROW PAR 5

GRIND TREE STUMPS (ALL 18-HOLES)

WIDEN SECOND FAIRWAY LANDING AREA LEFT

HOLE #3

ADD 2 NEW FORWARD TEES

ADD MOUNDING AT 200 YARD MARKER RIGHT SIDE OF FAIRWAY TO IMPROVE FAIRWAY SHAPE, ACCENTUATING SLIGHT DOGLEG LEFT TO RIGHT

RAISE RIGHT GREENSIDE BUNKER FOR IMPROVED VISIBILITY. MOUND REAR OF BUNKER, FLASH SAND

MOVE GREENSIDE BUNKERS CLOSER TO GREEN

IMPROVE FAIRWAY CONTOUR MOWING PATTERN

DRAINAGE DITCH CROSSING FRONT OF TEE AREA, ACCENT CORNERS WITH NATIVE ROCK RESULTING IN A SENSE OF CHALLENGE TO CARRY THE DITCH

WIDEN FAIRWAY LANDING AREA LEFT. REMOVE SELECT TREES. BRING DRAINAGE DITCH HAZARD IN TO PLAY

HOLE #4

REDESIGN AND RECONFIGURE GREENSIDE BUNKERING, STAIR-STEPPING THE BUNKERS TO FIT INTO THE SURROUNDING CONTOURS

ADD 1 TEE COMBINING 2 NEW FORWARD TEE POSITIONS WITH AMPLE SPACE LEFT TO WORK BALL LEFT TO RIGHT INTO THE GREEN

REDESIGN AND RECONFIGURE EXISTING BACK TEE AND FORWARD TEE POSITIONS TO ACCOMMODATE INCREASED USE

HOLE #5

ADD 2 NEW FORWARD TEES

ADD FAIRWAY BUNKER LEFT FOR IMPROVE TARGET FRAMING

SCREEN OUT PUMP HOUSE WITH LOW GROWING SHRUB TO IMPROVE NATURAL LOOK OF THE HOLE

REPAIR AND WIDEN CART PATH TURN-AROUND BETWEEN BACK TEES

REBUILD AND REALIGN EXISTING FORWARD TEE

REDESIGN 2 SMALL BUNKERS RIGHT OF GREEN

ENHANCE HOLE EXPERIENCE BY REALIGNING AND REPLACING 200 FEET OF CART PATH AT ANGLE POINT. MOVE CART PATH RIGHT TO HIDE FROM VIEW AT TEE.

HOLE #6

ADD 2 NEW FORWARD TEES

REDESIGN AND RAISE LEFT BUNKER FOR VISIBILITY FROM TEE

WIDEN CART PATH TURN-OUT LEFT OF GREEN TO ACCOMMODATE CART PARKING

ADD GREENSIDE BUNKER RIGHT FRONT

ELIMINATE BACK RIGHT GREENSIDE BUNKER

ELIMINATE TREE IN CENTER OF FAIRWAY. ADD THREE FAIRWAY BUNKERS.

HOLE #7

RAISE AND CONVERT EXISTING TEE INTO 3 TIERS FOR IMPROVED VISIBILITY TO GREEN

ADD 1 NEW FORWARD TEE

ELIMINATE BLIND HOLE BY LOWERING AND REGARDING HIGH POINT OF FAIRWAY. USE EXPORT MATERIAL TO RAISE TEE COMPLEX

ADD GREENSIDE BUNKER LEFT FRONT

HOLE #8

MOVE BACK TEE RIGHT 8 YARDS TO FIT DOG-LEG LEFT TO RIGHT ON THE CORRECT DIAGONAL. REMOVE 2 TREES

ENHANCE VISTA OF FAIRWAY BY LOWERING AND REALIGNING. TIER TEE INTO 2 LEVELS

LOWER AND REDESIGN EXISTING FORWARD TEE INTO 2 TEE POSITIONS TIERED. ADD 5 FOOT MOUND FEATURE TO REAR OF TEE TO SOFTEN AND HIDE THE CART PATH

BREAK UP STRAIGHT ROAD LINES BY REDESIGNING AND RECONFIGURING MOUNDING TO LEFT OF LANDING AREA TO MIRROR MOUNTAIN VISTA TO REAR

ADD GREENSIDE BUNKER RIGHT FRONT

ELIMINATE RIGHT REAR GREENSIDE BUNKER

REDESIGN LEFT REAR GREENSIDE BUNKER FOR SIGNATURE STATEMENT AT ROAD EXPOSURE

HOLE #9

ADJUST EXISTING BACK TEE YARDAGES

ADD 1 NEW FORWARD TEE

ENHANCE VISIBILITY 2 LEFT FAIRWAY BUNKERS AT FIRST LANDING AREA

ADD AIMING BUNKER RIGHT AT 300 YARDS. LOWER FAIRWAY AT ENTRY OF AIMING BUNKER AND RAISE BUNKER FEATURE FOR SHARPNESS

ENHANCE AND REDESIGN 2 SAVE BUNKERS LEFT AT SECOND LANDING AREA

ENHANCE VIEW OF LEFT FAIRWAY BUNKER SHORT OF GREEN AND GREENSIDE BUNKER LEFT REAR BY RAISING FEATURES

ADD 1 GREENSIDE BUNKER LEFT FRONT

ELIMINATE 4 GREENSIDE BUNKERS TO REAR AND CONVERT TO GRASS DEPRESSION

HOLE #10

ADD 1 NEW FORWARD TEE

WIDEN AND SOFTEN FAIRWAY LANDING AREAS AND RESHAPE MOUNDING LEFT

ELIMINATE BACK LEFT GREENSIDE BUNKER

ADD NEW GREENSIDE BUNKER LEFT FRONT

ENHANCE HOLE AESTHETICS BY REMOVING 200 FEET OF CART PATH RIGHT OF NEW FORWARD TEE. REALIGN CART PATH TO EXISTING MAINTENANCE ROAD ALIGNMENT

HOLE #11

ADD NEW BACK TEE AT 510 YARDS

ADD 2 NEW FORWARD TEES

ELIMINATE APPROXIMATELY 900 LINEAL FEET OF ASPHALT CART PATH RIGHT. RESHAPE INTO ATTRACTIVE MOUNDING FEATURE RESULTING IN A WIDER FAIRWAY, IMPROVED AESTHETICS AND PLAYABILITY.

REROUTE CART PATH LEFT OF FAIRWAY HIDING IT FROM VIEW

ADD 3 FAIRWAY BUNKERS INTO THE 3 EXISTING FAIRWAY MOUNDS.

RAISE LEFT FAIRWAY BUNKER SHORT OF GREEN TO IMPROVE VISIBILITY

RESHAPE APPROXIMATELY 300 FEET, ADD SOIL TO THE RIGHT SIDE OF THE FAIRWAY JUST IN FRONT OF THE GREEN

ADD 1 GREENSIDE BUNKER LEFT FRONT OF GREEN

MOVE 2 EXISTING LEFT GREENSIDE BUNKERS CLOSER TO GREEN

HOLE #12

REMOVE RAILROAD TIES AND REPLACE WITH NATIVE ROCK STAIRCASE

ADD ON TO THE FRONT OF THE EXISTING MIDDLE TEE FOR A NEW BACK FORWARD TEE OF 130 YARDS

ADD 1 NEW FORWARD TEE

ADD TWO NEW GREENSIDE BUNKERS - 1 LEFT FRONT AND 1 BACK RIGHT

REMOVE LANDSCAPE AND LODGE POLES FROM RIGHT SIDE OF MIDDLE TEE AND REPLACE WITH TEE AND NATIVE GRASSES

ENCOURAGE MORE NATIVE GRASS AREAS AROUND THE COURSE USING HOLE #12 AS AN EXAMPLE. PREFERRED LOCATIONS OUT OF PLAY TO ACCENT TEXTURE AND CONTRAST OF GOLF COURSE

ENHANCE HOLE BEAUTY BY ELIMINATING 250 FEET OF CART PATH ON THE RIGHT SIDE OF FORWARD TEE. REROUTE GOLFER CART TRAFFIC TO THE FRONT AND LEFT SIDE OF MIDDLE TEE. INSTALL A TURN-AROUND BACK LEFT OF MIDDLE TEE. CART PATH WILL NO LONGER BE IN VIEW FROM BACK TEE. RESHAPE AND REALIGN MIDDLE TEE TO FIT HOLE ALIGNMENT.

HOLE #13

ADD 2 NEW FORWARD TEES. RAISE 3 FEET. COMBINE INTO 2 TIERS

SCREEN PUMP HOUSE WITH LOW SHRUB TYPE TREE

ADD 2 NEW BUNKERS AT FAIRWAY ANGLE POINT. INCORPORATE INTO EXISTING MOUNDING

REDESIGN AND RAISE ELEVATION OF EXISTING FAIRWAY BUNKER

REDESIGN AND IMPROVE VISIBILITY OF LEFT GREENSIDE BUNKER

MOVE EXISTING RIGHT GREENSIDE BUNKER CLOSER TO GREEN

HOLE #14

ADD NEW BACK TEE 420 YARDS

ADD 2 NEW FORWARD TEES TWO LEVELS

RELOCATE LEFT FAIRWAY BUNKER 8 YARDS TOWARD FAIRWAY CENTER LINE FOR IMPROVED PROXIMITY

ADD NEW FAIRWAY BUNKER FOR FRAMING AND DIRECTION ON RIGHT OF FAIRWAY

MOVE 2 LEFT GREENSIDE BUNKERS CLOSER TO GREEN

ENHANCE HOLE AESTHETICS AND BEAUTY BY ELIMINATING 1,000 LINEAL FEET OF EXISTING CART PATH THAT RUNS ON THE LEFT AND IN FRONT OF THE TEE COMPLEX. REROUTE AND INSTALL 900 LINEAL FEET OF CART PATH IN FRONT OF NEW BACK TEE ON THE RIGHT SIDE OF TEE COMPLEX IN THE CURRENT LOCATION OF THE MAINTENANCE ROAD.

HOLE #15

ADD 2 NEW FORWARD TEES

ADD 1 NEW FAIRWAY BUNKER AT FIRST LANDING AREA RIGHT AND REDESIGN 2 EXISTING BUNKERS

RELOCATE LEFT GREENSIDE BUNKER CLOSER TO FRONT OF GREEN

MOUND AND RAISE BACK RIGHT GREENSIDE BUNKER

REDESIGN AND MOVE LEFT FRONT GREENSIDE BUNKER CLOSER TO GREEN

REDESIGN FIRST LANDING AREA BETWEEN THE 2 DRAINAGE DITCHES. REGRADE TO SOFTEN TILT OF FAIRWAY

HOLE #16

ADD 1 NEW FORWARD TEE

REBUILD EXISTING FORWARD TEE

RESHAPE RIGHT FAIRWAY MOUND APPROXIMATELY 160 YARDS FROM BACK TEE

MOVE LEFT HAND BUNKER CLOSER TO GREEN

STAIR-STEP AND OPEN VIEW WINDOW TO LEFT GREENSIDE BUNKERS

ELIMINATE AND CONVERT BACK GREENSIDE BUNKER TO GRASS SWALE

HOLE #17

ADD 2 NEW FORWARD TEES

ADD NEW GREENSIDE BUNKER RIGHT

MOVE LEFT GREENSIDE BUNKER CLOSER TO GREEN

HOLE #18

ADD 2 NEW FORWARD TEES

SPLIT FRONT GREENSIDE CROSSING BUNKER INTO 2 BUNKERS ALLOWING FOR A BUMP AND RUN SHOT TO THE GREEN

ADD 1 GREENSIDE BUNKER TO BACK REAR OF GREEN

REMOVE, REALIGN AND REPLACE 200 LINEAL FEET OF CART PATH LEFT OF GREEN.

DRIVING RANGE

ASSIST WITH INTEGRATION OF DRIVING RANGE PLAN INTO THE GOLF COURSE MASTER PLAN

PRACTICE PUTTING & CHIPPING AREAS

ENLARGE LEFT PRACTICE PUTTING GREEN TO 6,000 SQUARE FEET. ENLARGE RIGHT PRACTICE PUTTING GREEN 2,000 SQUARE FEET.

PUTTING GREENS & THE FIRST TEE

REALIGN AND WIDEN 100 LINEAL FEET OF ENTRY CART PATH TO 15 FEET WIDE TO ACCOMMODATE TWO-WAY TRAFFIC.

REDESIGN AND REBUILD PRACTICE CHIPPING GREEN, BUNKER AND TEE. REPLACE SCREEN NETTING.

ADD LANDSCAPE TO SCREEN OUT PROPANE TANK RIGHT OF PRACTICE CHIPPING AREA.

ADDRESS FUNCTION AND CREATE AN INVITING OPENING TO THE FIRST TEE BY WIDENING THE NARROW CART PATH TO 15 FEET WIDE AND ROUNDING OUT THE RIGHT SQUARE CORNER. REMOVE AND REPLACE THE EXISTING ROCK WALL IN NEW ALIGNMENT.

Exhibit "C"

CASE STUDIES IN GOLF COURSE REMODELING

By Cary Bickler, ASGCA

CASE STUDY IN GOLF COURSE REMODELING

LA CUMBRE GOLF & COUNTRY CLUB

4015 Via Laguna Santa Barbara, California 93110

COURSE DESCRIPTION:

18-Hole Championship Golf Course Private Country Club

Blue Tees 6,363 Par 70 White Tees 6,122 Par 71 Red Tees 5,789 Par 72

Note: Because the fairways are 100% kikuyugrass, the ball does not get much roll and the course plays considerably longer than the 6,363 yards from the back tees.

SITE DESCRIPTION & ISSUES:

This project was a complete 18-Hole Master Plan and remodel. Included was a Hole-by-Hole Analysis and Colored Rendering. Plans also encompassed a new driving range, practice facility, maintenance yard, and nursery green.

La Cumbre Golf & County Club is located on the exclusive Hope Ranch in Santa Barbara, where the foothills of the Santa Ynez Mountains cascade to the Pacific Ocean. The course is characterized by lush green landscaping and stately palm trees. La Cumbre Golf & Country Club is a well-maintained course with a 30 acre lake coming into play on the back nine. Five holes border the lake.

The golf course pre-dates the exclusive estate homes of the Hope Ranch Residential Development that surround it. La Cumbre Golf & Country Club was originally designed by William Bell in the 1920's. It closed during Word War II, and was completely redesigned by William Bell, Jr. in 1957 before it reopened. When the course was redesigned there were insufficient funds to build the greens on other than native clay soil. Over the years the greens slowly deteriorated. Moreover, the greenside bunkering, not a strength to begin with, was altered by various Green Committees.

Because the course had lost a lot of the distinctive characteristics over the years, the task was to redesign all greens, greenside bunkers, fairway bunkers, practice areas, and some fairways and tees.

The challenge was to develop and implement a design that would be consistent with the traditional nature of the course, but would still improve its aesthetics and playability.

The greens were small, averaging 3,500 square feet. They were severely sloped, in some cases

5 to 6 percent, disallowing any cup-set positions in these areas. The small greens lacked drainage and were under considerable stress.

A grading permit was required by the County of Santa Barbara, and environmental requirements were met.

MEMBERS CONCERNS & OBJECTIVES:

A primary concern of the members was to have quality green conditions year-round, and the objective was to rebuild the greens to USGA Specifications. The well water used for irrigation was high is salts and salt levels rose even higher during drought years. After implementing USGA Specifications, drainage was brought up to standards which allowed the leaching of salts as necessary.

Most of the bunkers were round and lacked interest. The members wanted to implement a more artistic flair to the bunkers, similar to the Valley Club of Montecito, California, designed by Alister MacKenzie.

Upon accessing the course there were a limited number of bunkers for a total of only 36. The remodel included the reshaping of the existing bunkers and the addition of 20 bunkers for a course total of 56.

Prior to the remodel, the golf course had too many blind holes to offer strategic variety. The number of blind holes was reduced from 7 holes to 3 holes. This was done by the recontouring and realigning some fairways, and adjusting some tee elevations.

PLANNING & DESIGN SOLUTIONS:

The course remained open during the renovation. First class temporary bentgrass greens were designed and constructed. They were strategically located in areas outside the construction zone. The temporary greens were shaped and built with greens mix and drainage, sodded with bentgrass, and were well-maintained prior to the transition of closing the regular course. Use of first class temporary greens was a big selling point to the membership during the inconvenience of the renovation. The members showed great interest in observing the progress of the renovation while still enjoying the temporary course.

CONCLUSIONS:

The redesign significantly improved every single hole on the course. The greens and bunkers are now far more interesting in shape and contour. The mounding and bunkering are now consistent in design and not only have markedly improved the beauty of the course, but also have added strategic variety.

Members take pride in this prestigious course and all the goals were accomplished. The membership entry fees and the waiting list both increased measurably.

CASE STUDY IN GOLF COURSE REMODELING

LA JOLLA COUNTRY CLUB

P.O. Box 1760 La Jolla, California 92038

COURSE DESCRIPTION:

18-Hole Championship Golf Course Private Country Club

Blue Tees	6,685	Par 72
White Tees	6,260	Par 72
Red Tees	5,970	Par 74
New Green Tees	5,335	Par 74

Note: Because the fairways are 100% kikuyugrass, the ball does not get much roll and the course plays considerably longer than the 6,685 yards from the back tees.

SITE DESCRIPTION & ISSUES:

This project was a complete 18-Hole Master Plan and remodel. Included was a Hole-by-Hole Evaluation and Colored Rendering. Plans also encompassed a new driving range, practice facility, maintenance yard, and nursery green. A separate Tree Master Plan was a second phase of the work.

La Jolla Country Club is situated above the small Southern California village of La Jolla on a magnificent site with Pacific Ocean views, canyons, and natural rolling terrain. The original golf course, designed by William Bell in 1927, is a glistening example of his classic golf course architecture.

The 18-Hole Master Plan placed emphasis on 6 holes that had previously been redesigned over the years, and had been taken out of character from Mr. Bell's original theme.

A primary consideration was to redesign new greens with contours that were playable, manageable, and congruent with the original design intent and character of the traditional style golf course.

The tree theme at La Jolla Country Club was expressed by Canary Island pine and eucalyptus. The pines gave masses of dense dark green background, while the skyline and horizon was defined by the eucalyptus. These theme trees combined well to present a good design basis, however due to the random planting of a large variety of other plant and tree species by Green Committees throughout the years, the landscaping had become a botanical collection of misplaced trees.

Open space between trees is of equal aesthetic importance in tree and landscaping composition.

Due to tree groupings growing into each other there was a lack of positive and negative space balance. Beautiful trees and plantings that were hidden by the overgrowth of other trees were defined and brought into view by removing and pruning trees. This enhanced the overall value of the course plant and tree-scape. It also reclaimed the original course strategy by eliminating trees that interfered with the corridors of play.

MEMBERS CONCERNS & OBJECTIVES:

The Club's primary concerns were the replacement of all 18 greens to upgrade to USGA Standards, and the re-implementation of previously remodeled green contours to achieve continuity of the overall original design theme.

In the process, maximum cup-set locations were addressed while maintaining emphasis on the La Jolla Country Club tradition of smaller greens. This was accomplished by enlarging greens where it conformed, and/or softening slopes, while minimizing impact of foot traffic patterns. Some bunkering adjustments were necessary to accomplish this. Original greenside bunkers were re-built, and some additional bunkers were added where appropriate.

USGA Greens Specifications were implemented for all putting green replacement. Contractor workmanship was closely monitored, and materials were lab tested as they arrived at the site to insure the quality control of construction.

PLANNING & DESIGN SOLUTIONS:

The following strategy was the approach used in gaining membership approval for the course renovation work.

An educational and promotional campaign was launched that was specific to the Club's renovation needs. A strong but diplomatic leader was appointed to be the "flag bearer" and direct the campaign.

Just prior to the general meeting and membership vote, a group of 40 members who were in favor of the renovation were selected by the Green Committee. The group was briefed with the facts, and afterward they defined the exact goals, and created a Mission Statement.

The selected group of 40 members met for educational sessions. The Course Superintendent discussed the causes of unfavorable course conditions. Samples were taken from the course and laboratory test were preformed which provided accurate analysis of the pre-renovation conditions.

After the selected group of 40 members fully comprehended the facts supporting the need for renovation, they developed an outline to promote the renovation to the membership.

During the general membership meeting, slides of USGA greens cross-sections were shown and compared to cross-sections of the Club's existing greens. The 40 supporters imparted their historic and recent knowledge to those present at the general membership meeting.

Next, each of the 40 supporters selected 10 members to contact personally via an active telephone campaign. They imparted more information to substantiate the remodel and create enthusiasm. The active telephone campaign took place immediately over the few days following the general membership meeting while the ballot process was beginning.

The Club found there is no substitute for personal contact. This was the primary key to the success in gaining approval of the project. The vote count resulted in 90% of the membership in favor of the renovation.

CONCLUSIONS:

All the goals for La Jolla Country Club were successfully accomplished. The course renovation and Tree Master Plan brought the original design theme back into sharp focus at this extraordinary historic country club. Membership entry fees and the waiting list increased measurably. Implementation of the Tree Master Plan is on-going. The Club retained the Golf Course Architect to work directly with the Green Committee to maintain consistency through the "revolving door of authority" as Club leadership and politics change.

Exhibit "D"

CREATING A TWO TEE SYSTEM FOR WOMEN

Researched & Developed By:
Alice Dye, Past President
American Society of Golf Course Architects

CREATING A TWO TEE SYSTEM FOR WOMEN

IT'S TIME TO MOVE FORWARD.

BY ALICE DYE MEMBER OF THE AMERICAN SOCIETY OF GOLF COURSE ARCHITECTS



Men have a choice of playing from different teeing grounds to accommodate their various abilities. Women have no choice - it is like asking them all to wear the same dress size. As the number of women golfers increases, the interest in providing two teeing areas for these golfers increases as well. Golf course personnel who recognize the fact that women make up a main source of weekday golf need to assess their yardages to create a manageable course for women golfers.

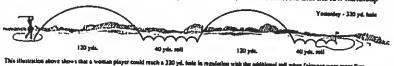
There are about 1% of women golfers capable of playing a 5800 (the national average) yard golf course. The average woman needs a more manageable 4800 - 5200 yardage. The longer yardage should not be taken away, but rather new forward toes should be in addition to the longer yardage.

Addition of new forward toes to the existing tees used by women provides a challenging, yet pleasurable golfing experience for both the low handicap female golfer and for those players who are not as long off the tee.

- CURRENT RESEARCH

 According to the National Golf Foundation, one in four golfers is a woman and 41% of all new golfers are women. According to the newest research the average woman drives the ball 130 yards.

 USGA information indicates that the average course length for women is 5800 yards and for men 6400 yards. This same research shows that low handicap women hit the ball 85% as far as the men do and the average woman hits the ball 75% as far as men do. Using these statistics, it would indicate that the low handicap



woman golfer would be most comfortable playing a course that is approximately 5,440 yards long and the average woman golfer would find golf most pleasurable on a course that is 4,800 yards. Todays average course length of 5,800 yards is much longer than either of these lengths.

Todays lush, watered courses have reduced the roll of the ball, which was expected when the holes were
designed. On firm fairways 33% roll was expected and designed into the hole.



WHY THE TWO TEE SYSTEM IS GAINING MOMENTUM

There is now a greater diversity among women players. The type of player has changed and more women with less previous experience are playing. Because of this disparity, two tees should be created to accommodate the various types of women players. The longer yardage tee should provide for a course yardage from 5400 to 5800 yards, while the shorter yardage forward tee should provide for a course that measures from 4600 to 5400 yards.

Women are not the only consideration. The use of the golf cart has prolonged the playing activity of 2 Women are not the only consideration. The use of the gots can the provinces to have a challenging, yet playable cliderly players. They too would be able to use the forward toes to have a challenging, yet playable course that would accommodate their difference in strength. Courses have extended holes for stronger players, but have neglected shortening holes for those with lesser strength.

Junior golf programs are not limited to the teen players, who have burgeoning strength and need to 3

Junior goli programs are not immed to the leest prayers, who have ourgeousing according according to the same at younger and younger ages, sharpen their accuracy skills. Instead, junior golfers are learning the game at younger and younger ages, by offering them a shorter distance forward tee placement, these young junior golfers will find golf more enjoyable, and will be more likely to continue to find golf both rewarding and interesting throughout their lives.

The new forward tee system would return playability of the course to the original intent of the design The new forward tees system would return prayability of the before watered fairways. The new forward tees should be placed so that they not only cut the yardage of the course, but so that they provide the best placement to maintain interest and playability for the golfers

By making the holes more playable for a variety of players, it is entirely possible that the course will play faster. If even six holes decrease by one shot, and it takes one minute a shot, a foursome will ice playing time by 24 minutes.

Forward tees make it possible to reduce the amount of fairway mowing and spraying by reducing the fairway in front of the forward tee. This savings could be utilized to provide for the creation of the new



- HOW TO CREATE NEW FORWARD TEES

The most important point to remember is that forward tees are an addition not a replacement for the existing tees. Women must have a choice of playing either a long or shorter yardage as men do. In creating new forward tees, it is not the intent to take the challenge out of the game. Rather, it is to adapt the playing charac-

teristics of the holes to the major segment of players. Average women players are not overly strong and do not generate enough clubhead speed for long carries or shots with backspin.

ADDING FORWARD TEES TO EXISTING COURSES

Par Four Holes

● U.S.G.A. Yarduge Guidance

■ Suggested playing yarduge for back tees for women

 Suggested playing yardage for forward tees for women 240-340 yardı

Usually the best place to start adding new tees to an existing golf course is with the par 4 holes. Most courses have reachable par 3s and the par 5s are not much over the regulation 401 yards.

Todays watered golf courses are playing longer than the architect intended. The distance of par 4s originally was designed to include roll on the unwatered fairways and thus allow the player to reach the green in the regulation two shots. Holes of 380 yards originally reached with two shots of 150 yards plus 50 yards of

Todays average woman golfer hits a drive of approximately 130 yards and a second wood about 120 yards. Any hole that measures more than 250 yards is unreachable in regulation. A hole that measures up to 340 yards will leave the golfer an iron approach and a chance at a one putt par. Holes longer than 340 yards will require 3 woods and little chance of success.

Par Three Holes

 U.S.G.A. Yardage Guidance Up to 210 Yards

 Suggested playing yardage for back tees for women 120 yards to 200 yards

Suggested playing yardages for forward tees for women 60 yards to 150 yards

A par 3 with a forced carry over water or a ravine should not require more than a 75 yard carry for women. The yardage could be longer, but the carry should not exceed 75 yards.



Par 3 holes with a sand bunker completely guarding the green should not require more than 100 yards carry. A wood shot will probably be needed, but failure to make the carry may not be a penalty women are able to hit out of a sand bunker



Par 3 holes with a fairway and an entrance to the green may run up to 150 yards. They may not be reachable with the tee shot, but would leave only a short pitch from a fairway lie. Your average woman golfer does not like all short par three holes, and will accept the challenge of a 150 yard par 3.



• U.S.G.A. Yardage Guldance

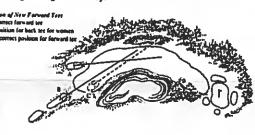
Par Five Holes Suggested playing yardage for back tees for women 420 yards-540 yards

 Suggested playing yardage for forward tees for women 401-420 Yurda

Par 5 holes are usually unreachable in 3 shots by the average woman golfer. For instance, this golfer would hit a 130 yard drive; a 120 yard second wood shot and a 120 third wood shot, for a total of 370 yards. Par 5s require 401 yards so the forward tee yardage should not be much more than the regulation 401 yards.

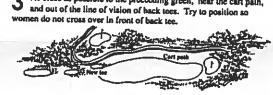
Several considerations should be addressed when determining the position of the forward tees:

Proper Angle - Shooting Away from Angles. The proper playing angle must be considered. If the hole is a dog leg, the tee should be placed on the side that diminishes the dog leg so that a longer shot does not go through the fairway.



POSITION OF THE NEW FORWARD TEES

As close as possible to the proceeding green, near the cart path,



Place the tee beside the water instead of behind it.



CONSTRUCTION OF THE NEW FORWARD TEES

On new golf courses, the architect should plan two toeing grounds for women. On an existing golf course, if there is a feasible flat spot that would make the hole play well, this area may be moved short and the women encouraged to try playing the hole from this position before building a permanent tee. The ideal tee size is approximately 20 feet long so that it can be easily mowed. This size will require 40

yards of sand or good topsoil to allow for 600 square feet of top surface plus the slope of the sides.

Tees on par 3 holes should be larger, and where this tee tends to be used as a drop area for the rear tees, a lower level in fairway grass should be constructed to be used as a drop area.

COST The following cost breakdown represents the ave

al of creating a new 600 square foot forward tee: 40 Yards good sand or topsoil @ \$12.00 per yard \$480.00 SUBTOTAL \$1340.00 600 sq. ft. bent grass sod (surface) @ \$0.30/ft. laid 180,00 Labor costs (Approx. 50% of Materials costs) 670.00 600 sq. ft. blue grass sod (sides) @ \$0.30/ft. laid 180.00 \$2,010.00 New irrigation heads, plus installation 500.00

HOW WILL THIS CHANGE EFFECT HANDICAPS, TOURNAMENTS AND DAILY PLAY?

The USGA rating handbook recommends rating from two different tees for women. A rating and slope for women from each set should be given by the rating committee. The men's rating committee may consider giving a rating and slope for men from all tees.

Intra-club events can be handled by flights which may contain an unequal number of players. For example, the Championship flight might only have 7 players who would play the back tees for women. The other flights might have 13, 20, 31 players according to handicaps, and they would play the forward yardage. Prizes could be awarded in value equated to the number of players in each flight.

If a course is rated and aloped correctly, the handicap index will not go down. When going to another club which is more difficult, more strokes will be given. Conversely, when high handicap players from a high slope course come to play the easier course, some of their strokes will be taken away.

Keep in mind that a high course rating should not be a status symbol. Remember, if a course was rated for the touring professionals, it would be about 64. Why should women golfers play something so much more difficult when there is a solution to the problem?

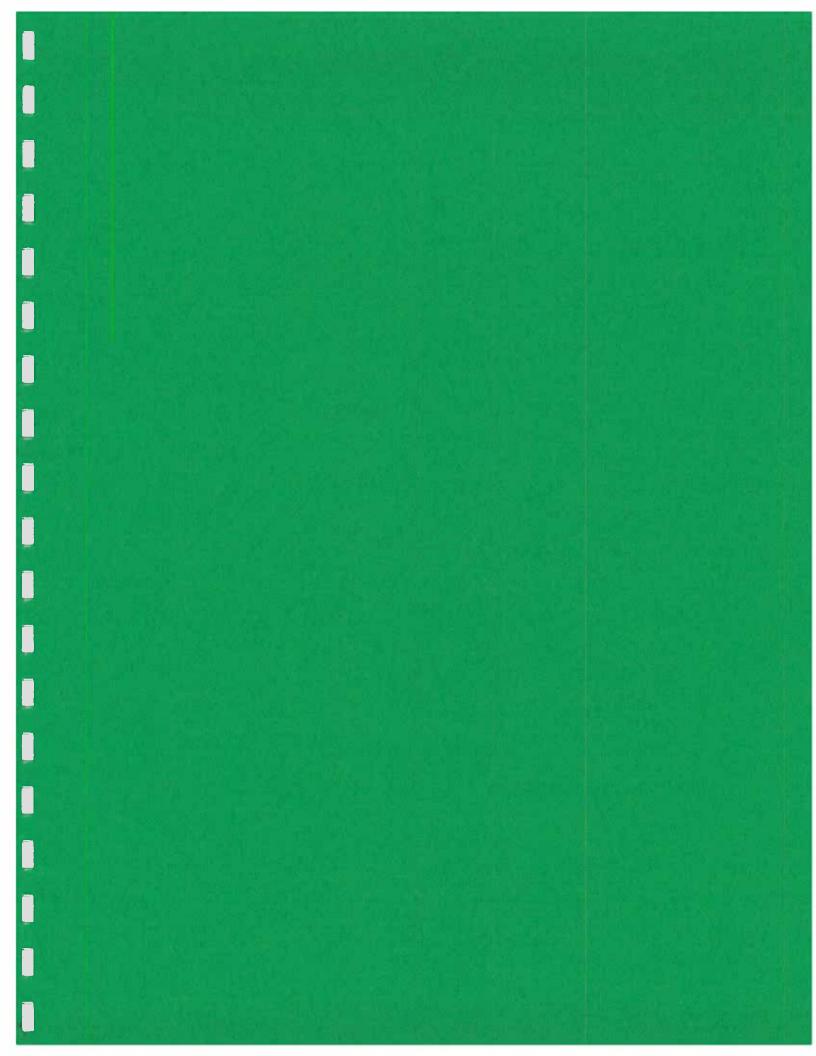
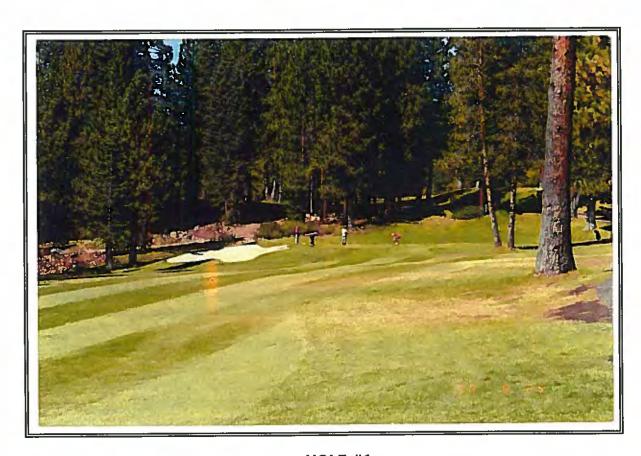




Exhibit "F"

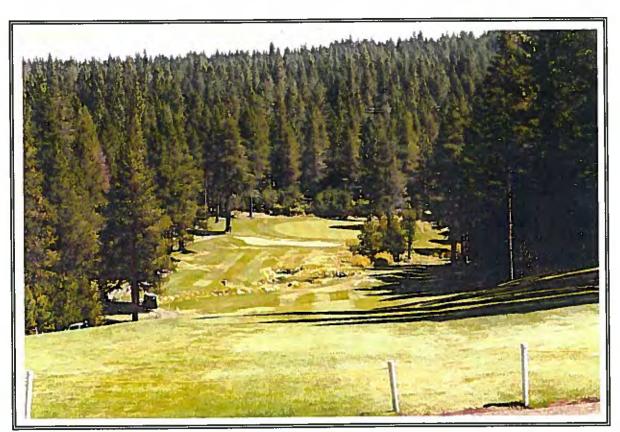
PHOTOS WITH HOLE-BY-HOLE COMMENTS

Tahoe Donner Golf Course



HOLE #1

Example of wear from golf cart traffic. Remove 1 foot of soil, add sub-drainage and replace with uniform sand. Rope off and alternate frequently to allow turf to recover.



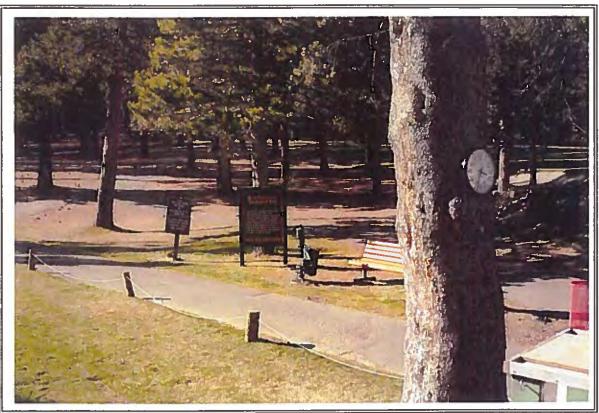
HOLE #18

Crossing bunker very punitive for average player. Split bunker and allow the opportunity for a bump and run shot to reach the green.

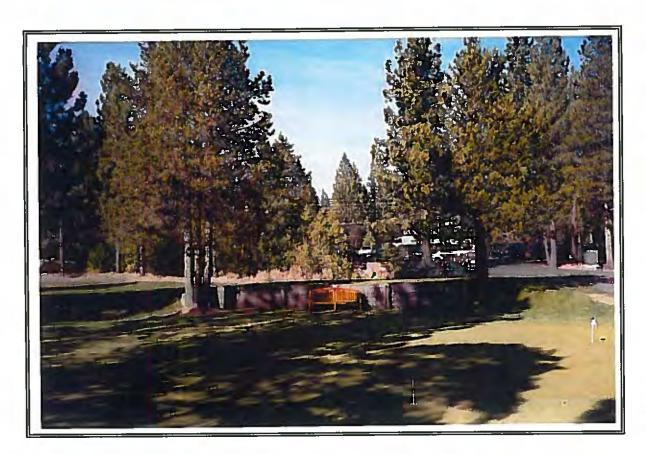


HOLE #1

Example of materials being used to rope off areas for high golfer traffic. The native logs are appealing and fit the theme of the site, however synthetic rope should be replaced with a more natural rope to remain consistent with the theme of materials used.



Because the logs must be removed and replaced weekly for mowing they tend to lean and fall over due to the difficult stabilization of the rocky soil. Research alternatives and application for best results.



<u>HOLE #1</u> Example of out of theme railroad ties.

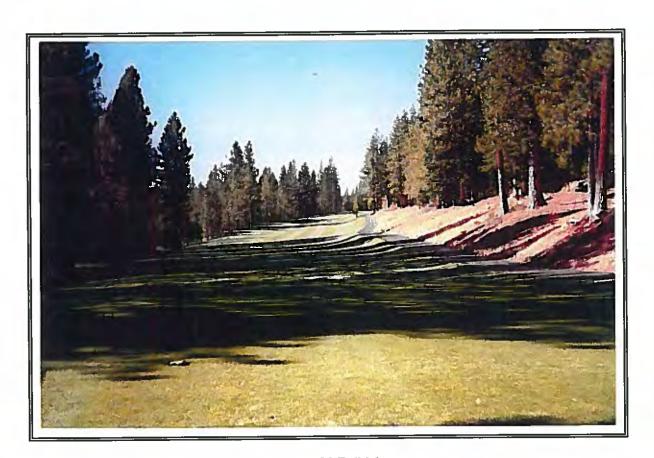


HOLE #1 Example of desirable theme rock wall constructed of native rock.

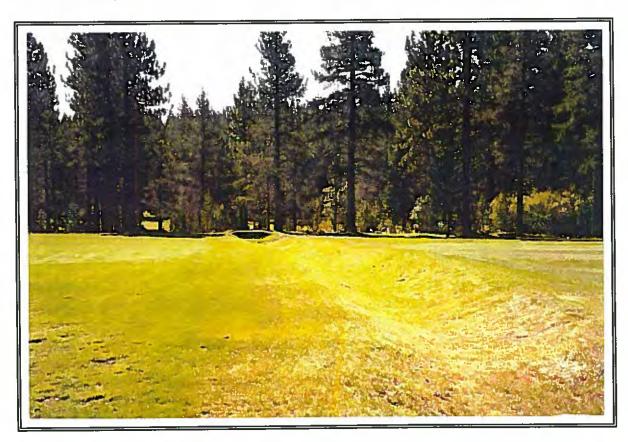


HOLE #6

Example of cart path that is not wide enough for turn-out parking at #6 green. Cart path requires more width and needs to be replaced. Area left of cart path could be landscaped with ground cover to beautify the golf experience.



HOLE #11 Misplaced cart path. Relocate left of fairway out of view. Regrade right slope and widen fairway corridor.



HOLE #11 Example of one of many crossing drainage ditches on the golf course. These ditches add to the interest and character of the course.



HOLE #12

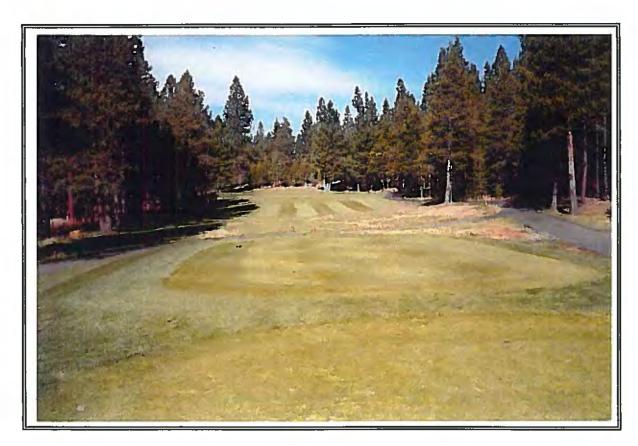
Rail road ties out of theme. Remove and replace with a native rock staircase.



HOLE #12
Landscape right of tee is out of theme and distracts from continuity of the hole.
Replace with turf and native grasses.



HOLE #12
Remove landscape and replace with turf and native grasses.

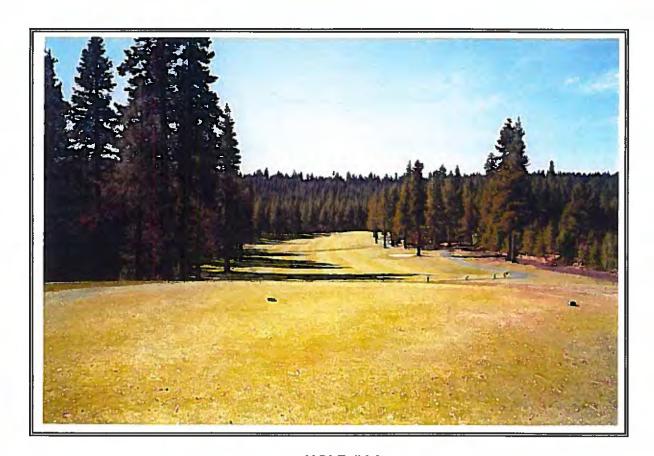


HOLE #12

Examples of desirable landscape. The introduction of native grasses adds contrast, texture and color for definition and beauty. This theme carried out throughout the golf course in out of play areas will greatly enhance the look and interest of the layout.



HOLE #12
Expand the center of the fairway opening to improve playability.

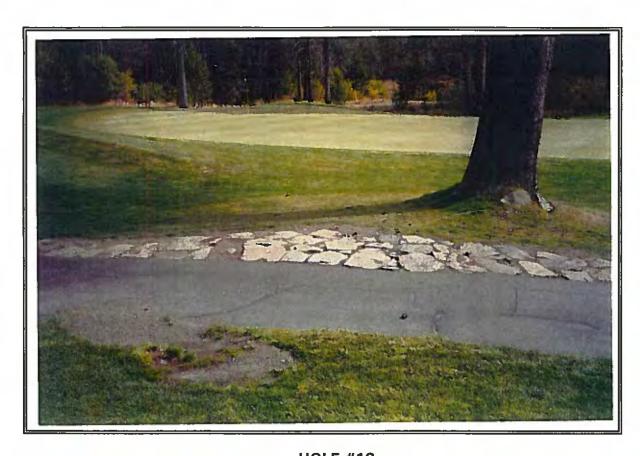


HOLE #14 Example of undesirable bunkering. Fairway bunker short right only in play for high handicapper. Fairway bunker left not visible.

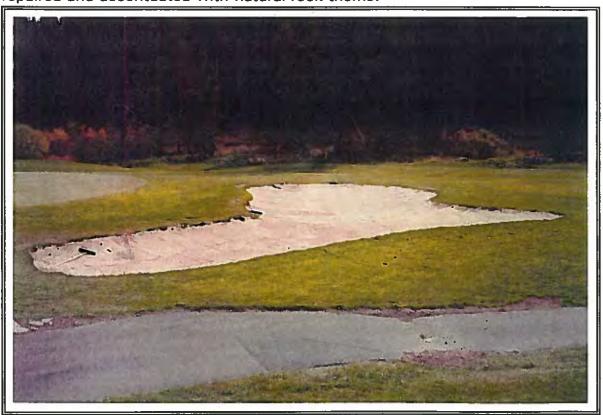


HOLE #15

First fairway landing area between the two ditches slopes severely from right to left. Soften and regrade.



HOLE #18
Example of desirable improvement. Cart path edges and pull-outs by greens can be repaired and accentuated with natural rock theme.



HOLE #18

Example of worn cart path edges. 6 Foot width is too narrow for cart and maintenance use. All new cart paths installed should be a minimum of 8 feet wide. Widen and repair existing cart paths as shown above.



Example of desirable use of native rock in high traffic areas.



Desirable use of native rock.



PUMP HOUSE

Hide the pump house at the left edge of the fairway for visual improvement and aesthetics.



Top-dressing fairways is example of good maintenance practice. Note the stakes in right hand corner of photo. The two yellow stakes and 150 yard marker are directly in the line of play. Relocate to the right side of the cart path.



Example of on-site soil and rock that will be encountered during the golf course remodel.



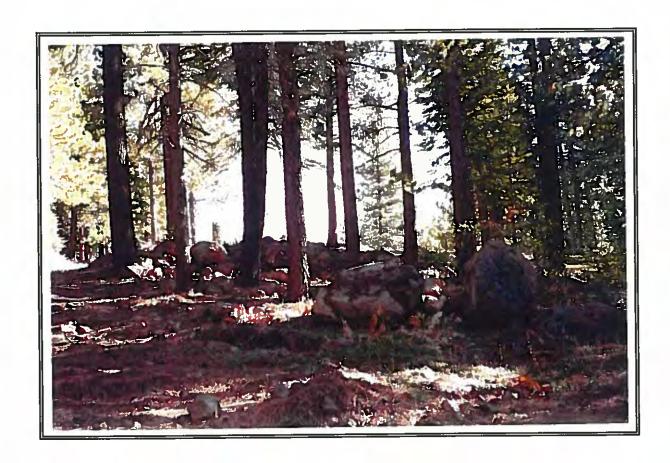
Example of rock and soil on-site.



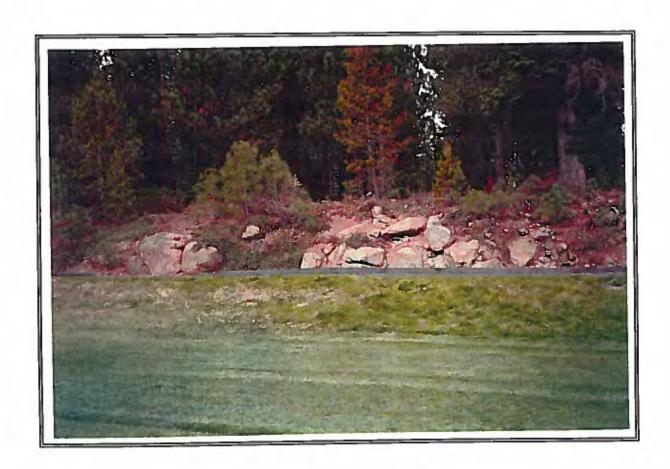
Examples of on-site soil and rock that will be encountered during the golf course remodel.

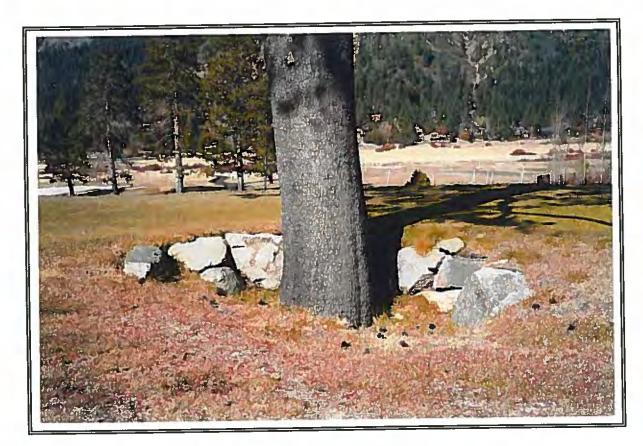


Example of rock in soil.

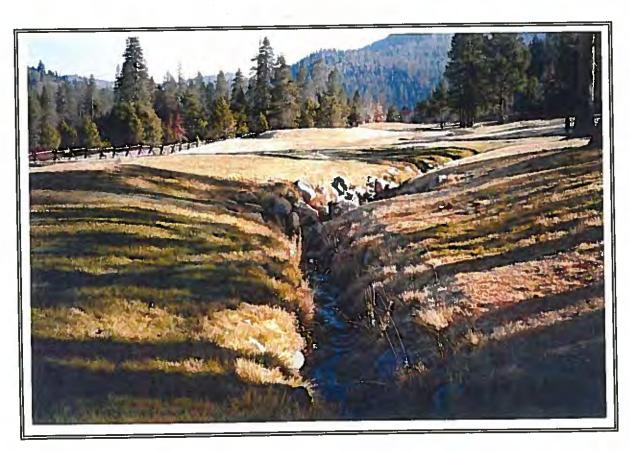


Example of native rock in out of play areas that can be cleaned up and incorporated into remodel theme.

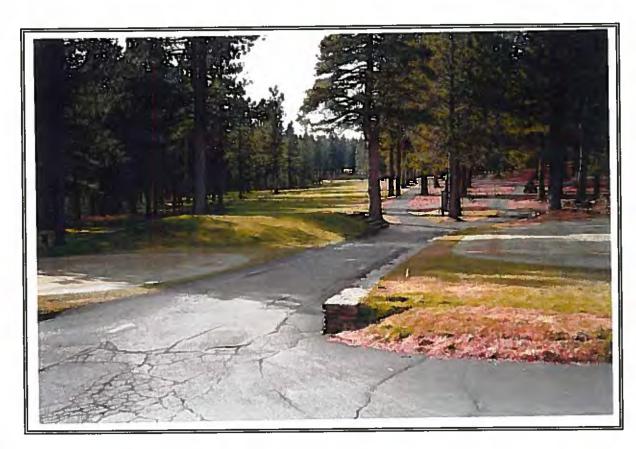




Example of a desirable rock accent at a tee area.



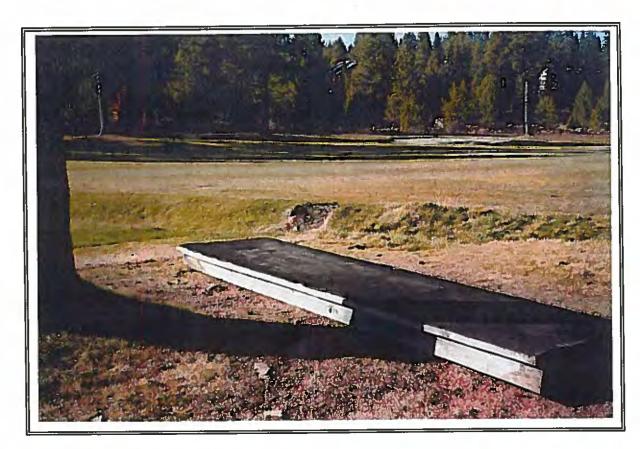
Example of a desirable rock accent at a drainage ditch area.



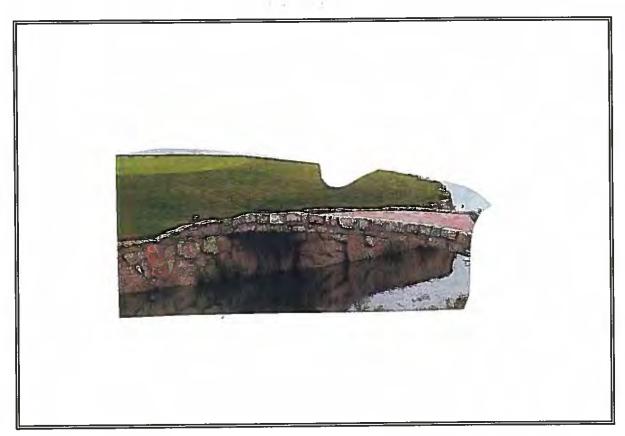
ENTRY TO FIRST TEE

The entry to the first tee is undesirable and lacks optimum function. Solution: Widen cart path to 15 feet wide. Round out the right square corner. Remove and replace the existing rock wall in new alignment.





WALKING BRIDGE
Replace walking bridge with a more desirable look.



Example of a desirable walking bridge.



RIGHT PRACTICE PUTTING GREEN

Enlarge right practice putting green by 2,000 square feet.



LEFT PRACTICE PUTTING GREEN

Enlarge left practice putting green to 6,000 square feet.



HOLE #15
Example of undesirable bunkering.



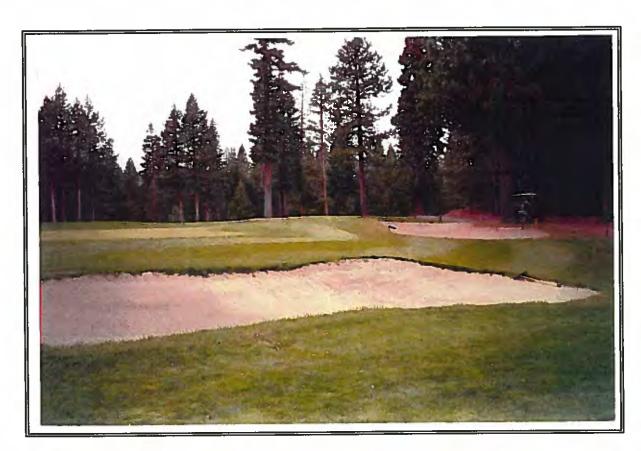
HOLE #15
Example of undesirable bunkering.



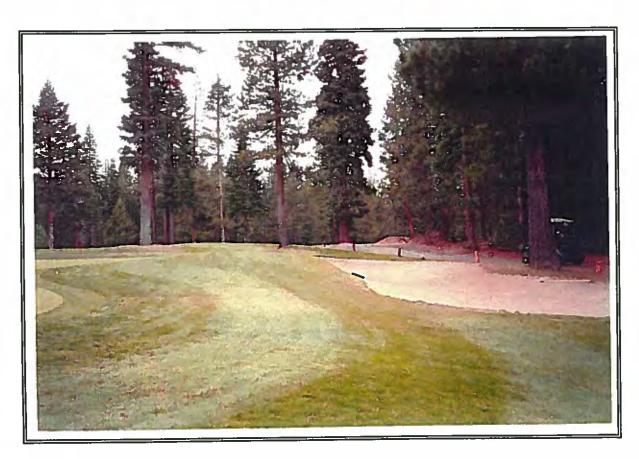
HOLE #6
Example of undesirable bunkering.



HOLE #6
Example of undesirable bunker to rear of #6 green. Convert to grass swale.



Example of undesirable bunkering.

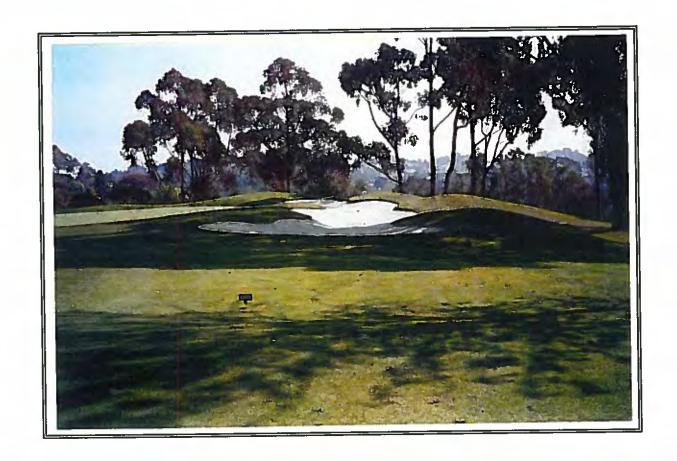


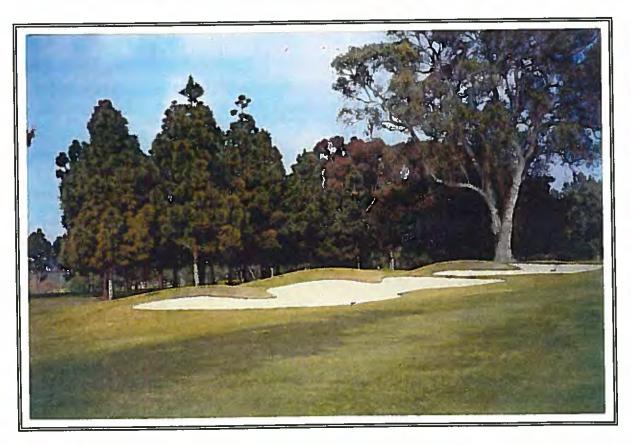
Example of undesirable bunkering.

Exhibit "G"

PHOTOS

Examples of Desirable Bunkering

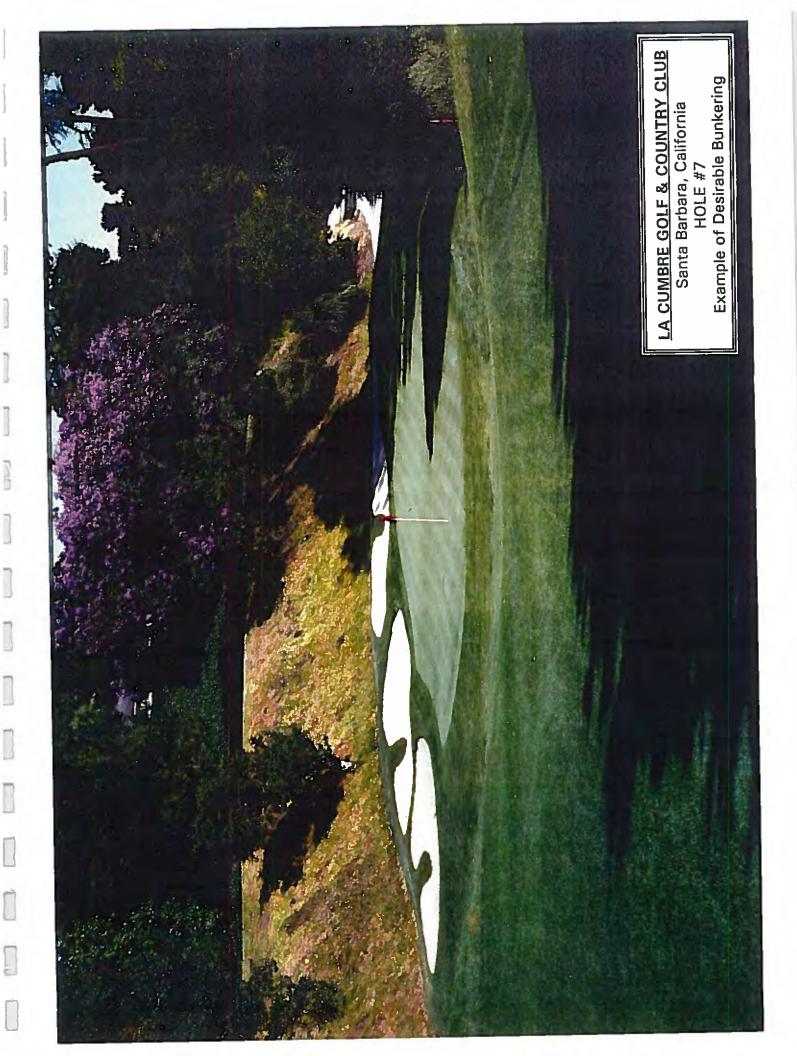




EXAMPLES OF DESIRABLE BUNKERING

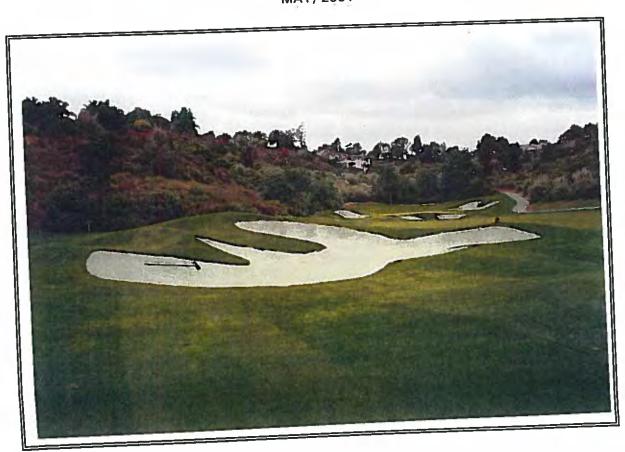
LA JOLLA COUNTRY CLUB

La Jolla, California





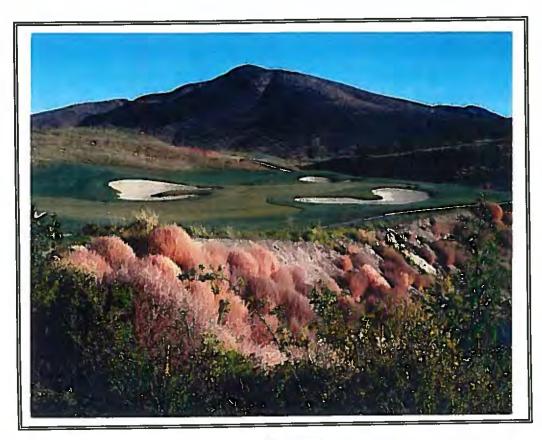
DEL MAR COUNTRY CLUB RANCHO SANTA FE, CALIFORNIA 18-HOLE BUNKER RENOVATION MAY, 2001



EXAMPLES OF DESIRABLE BUNKERING

THE AULD COURSE

Chula Vista, California (Course Opened January, 2001)



HOLE #3 - PAR 3

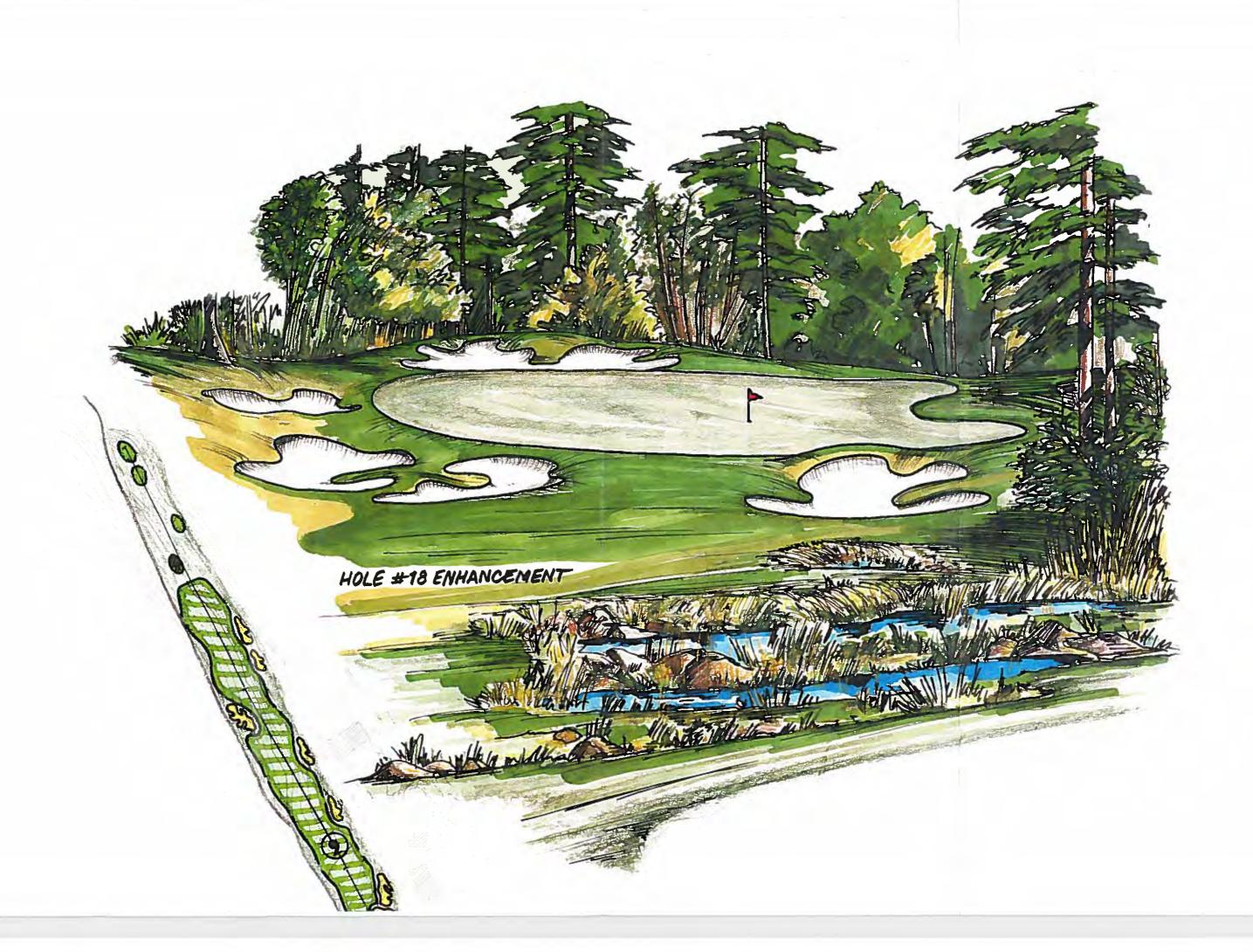


HOLE #8 - PAR 4

Exhibit "H"

COLOR RENDERING

• Hole #18 - Enhancement



Wetland Evaluation Tahoe Donner Golf Course

Truckee, CA



Prepared for:

Tahoe Donner Association
Forrest Huisman, Director of Capital Projects
11509 Northwoods Boulevard
Truckee, California 96161
530-587-9487



Prepared by:

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July 2018

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1.0 Introduction

A reconnaissance level evaluation was conducted to determine potential wetland constraints in the vicinity of several holes mentioned in a memo prepared by the Tahoe Donner Men's and Women's Golf Clubs' (dated January 21, 2018). The primary focus of Kelly Biological Consulting's effort was an evaluation of the wet areas on Holes 9, 10, 11, 14, and 15. Kevin Kuehne, Tahoe Donner Golf Course Superintendent, provided a tour of the areas on June 20, 2018, distilling the primary focus to key spots on Holes 10 and 11. Figure 1 provides an aerial overview of the course.

Project Site Location: The site is located in the northwest part of the Town of Truckee, within the eastern most portion of Nevada County, California. It is on the Truckee California USGS Quads. It is at roughly 39.5313 N latitude and 120.2339 W longitude.

Owner:

Tahoe Donner Association 11509 Northwoods Blvd., Truckee, CA 96161 Contact: Forrest Huisman (530) 587-9487 FHuisman@tahoedonner.com

Work conducted by:

Micki Kelly, PWS Kelly Biological Consulting (530) 582-9713 Kellybio@att.net

2.0 Regulatory Context

2.1 Wetlands and Waters of the U.S.

The U.S. Army ACOE of Engineers (ACOE) regulates "Waters of the United States" pursuant to Section 404 of the Clean Water Act (CWA). "Waters of the US" are defined broadly as waters potentially used in commerce, including interstate waters and wetlands, all other waters (intrastate waterbodies, including wetlands), and their tributaries (33 CFR 328.3). Potential wetland areas are determined by the three criteria stated in the ACOE of Engineers Wetlands Delineation Manual (1987) and the Western Mountains, Valleys, and Coast Regional Supplement (2010). Those criteria are hydrophytic vegetation, hydric soils, and wetland hydrology. Areas that are inundated for sufficient duration and depth to exclude growth of upland and hydrophytic vegetation are subject to Section 404 of the CWA jurisdiction as "other waters" and are often characterized by an ordinary high water line. "Other waters" generally include lakes, rivers, streams, and their tributaries. The placement of fill material into Waters of the US (including wetlands) generally requires authorization from the ACOE under Section 404.

2.2 Waters of the State

Waters of the State are regulated by the Regional Water Quality Control Board (RWQCB) pursuant to the State Water Quality Certification Program, which regulates discharges of fill and dredged material under Section 401 of the CWA and the Porter-Cologne Water Quality Control Act. "Waters of the State" are defined by the Porter-Cologne Act as "any surface water or groundwater, including saline waters, within the boundaries of the state". RWQCB protects all waters in its regulatory scope, but has special responsibility for wetlands, riparian areas, and headwaters. These waterbodies have high resource value, are vulnerable to filling, and are not systematically protected by other programs. RWQCB jurisdiction includes wetlands and waters that may not be regulated by the ACOE pursuant to Section 404.

Projects that require an ACOE permit, or fall under other federal jurisdiction, and have the potential to impact Waters of the State, are required to comply with the terms of the Water Quality Certification determination. If a proposed project does not require a federal permit, but does involve dredge or fill activities that may result in a discharge to Waters of the State, the RWQCB has the option to regulate the dredge and fill activities under its state authority in the form of Waste Discharge Requirements.

2.3 California Department of Fish and Wildlife

Streams and lakes, as habitat for fish and wildlife species, are subject to jurisdiction CDFW's under Sections 1600-1607 of the State Fish and Game Code. Substantial alterations to the bed, bank, or channel of a stream, river, or lake generally require a Lake and Streambed Alteration Agreement. The term stream, which includes creeks and rivers, is defined in the California Code of Regulations (CCR) as follows: "a body of water that flows at least periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life. This includes watercourses having a surface or subsurface flow that supports or has supported riparian vegetation" (14 CCR 1.72). In addition, the term stream can include ephemeral drainages, dry washes, watercourses with subsurface flows, canals, aqueducts, irrigation ditches, and other means of water conveyance, if they support aquatic life, riparian vegetation, or stream-dependent terrestrial wildlife. Riparian is described as, "on, or pertaining to, the banks of a stream"; therefore, riparian vegetation is defined as, "vegetation which occurs in or adjacent to a stream, is dependent on, and occurs because of, the stream itself". Alterations to a drainage with a bed and bank may require a Lake and Streambed Alteration Agreement from CDFW.

3.0 Methods

3.1 Background Review

The following sources were reviewed prior to fieldwork.

- Aerial base map and topo maps documenting the existing conditions (Google Earth 2018, Earth Point Topo 2018)
- Soil Survey (http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx)
- Lidar maps from the TDA Trail Plan

3.2 Field Assessments

On June 20, 2018, Ms. Kelly conducted a site visit with Kevin Kuehne. Mr. Kuehne provided a tour of the course focusing on possible areas of concern, primarily possible certain wet areas on Holes 9, 10, 11, 14, and 15.

4.0 Results

4.1 Study Area Vegetation, Soils, and Hydrology

As mentioned above the Study Area consisted of several holes within Tahoe Donner's golf course. Potential work at Hole 9 has been in the heavily managed fairway, which would not be a wetland. The ditches and the wetland roughs adjacent to them at Holes 14 and 15 will be avoided. So the primary focus was on Holes 10 and 11.

Vegetation

The golf course contains a mosaic of upland and wetland habitats. Upland habitats include Ruderal Disturbed/Developed areas comprised of managed fairways, greens, and tees, cart paths, and other areas that have been heavily disturbed. The upland areas next to the holes are generally Sierran Mixed Conifer, which is similar to the Jeffery Pine Forest (*Pinus jeffreyi* Forest Alliance) discussed in the Manual of California Vegetation (Sawyer, et. al. 2009). The major tree species found in this habitat are Jeffrey pine, white fir (*Abies concolor*), and lodgepole pine (*Pinus contorta*).

The mesic habitats include Montane Riparian similar to a blend of Aspen (*Populus tremuloides* Forest Alliance), various Willow (*Salix* spp.) Shrubland Alliances, and Black Cottonwood Forest (*Populus trichocarpa* Forest Alliance). Montane Riparian is found along Trout Creek. Montane Wet Meadow can also be found along Trout Creeks, as well as flat and sloped areas with a shallow groundwater table or seeps. There are also ditches and adjacent roughs in the vicinity of some holes that are vegetated with emergent wetland grasses and forbs.

Soils Summary

The golf course fairway soils have been altered by grading, soil amendments, and other modifications. The native soils on the property generally originated from volcanic parent material. Figure 2 provides a map of the soils in the vicinity of the golf course as shown in the Web Soil Survey (USDA 2018). Table 1 identifies the soils shown in the figure. The soil survey indicates that the primary soils on the golf course are FRE (Fugawee-Rock outcrop-Tahoma complex, 2 to 30 percent slopes), FTE (Fugawee-Tahoma complex, 2 to 30 percent slopes), with AQB (Aquolls and Borolls, 0 to 5 percent slopes) near Trout Creek.

Fugawee series is identified by a dark-brown, sandy loam surface layer and a reddish-brown gravelly clay loam subsoil. These soils are well drained, with permeability rated moderate to moderately slow, and are found on slopes of 2 to 50 percent. Most of the holes were built on this soil series.

Aquolls and Borolls are made up of alluvium derived from igneous, metamorphic and sedimentary rock. They are typically associated with wet areas (wetlands, swales, etc.). They are poorly drained. In the Study Area these soils are near Trout Creek and its riparian zone.

Hydrology Overview

The Study Area's hydrologic sources are direct precipitation (typically in the form of snowfall, snowmelt run-off from adjacent areas, and rainfall), groundwater daylighting (seeps), and irrigation. There is one blue-line perennial stream, Trout Creek, and numerous intermittent and ephemeral drainages. In addition, there are seeps and areas of shallow ground water.

Figure 3 provides a LiDAR map, which is based on remote sensing data. It shows potential drainage locations given the topography (prepared by Balance Hydrologics, Inc. as part of the 5-Year Trail Plan). Actual drainage patterns and locations may vary. However, it can be useful as a preliminary tool in understanding hydrological patterns.

4.2 Waters of the US (Including Wetlands) and Waters of the State on the Site

Waters of the United States (including wetlands) and Waters of the State are protected by the Clean Water Act and California Porter Cologne Act. Trout Creek and its tributary ditches flow through portions of the Study Area. The creek, tributary ditches, and adjacent wetlands and portions of the riparian zone would fall within the ACOE and the RWQCB jurisdiction in accordance the CWA. They would also be considered Waters of the State. In addition any the small drainages or ditches that have a defined bed and bank and/or ordinary high water mark, would likely fall within the ACOE and RWQCB jurisdiction.

<u>Hole 10</u>

At Hole 10, potential wetlands include the ditch, its wetland fringe, the drainage that flows into the ditch, the rough that is on the northwest edge of the ditch, and most of the Trout Creek riparian zone and its adjacent wet meadow.

<u> Hole 11</u>

Near Hole 11 potential wetlands include seeps along the north side of the cart path. Trout Creek riparian zone and its adjacent wet meadow (approximately 60 yards to the southeast) are also jurisdictional.

4.3 California Department of Fish and Wildlife

Trout Creek, it tributaries ditches (such as the one on Hole 10), and any of the small ephemeral drainages that feed into them (provided that the drainage has a defined bed and bank) would fall within the CDFW jurisdiction. In addition the riparian zone near Trout Creek would be within their jurisdiction.

Hole 10

At Hole 10, potential CDFW jurisdiction includes the ditch, the drainage that flows into the ditch and the Trout Creek riparian zone.

<u>Hole 11</u>

Near Hole 11 potential CDFW jurisdictional areas include the drainage associated with the seep along the north side of the cart path.

5.0 Summary and Recommendations

Drainages and Wetlands

Hole 9 does not have wetlands in the fairway, where work has occurred. Holes 14 and 15 have ditches that cross them. The ditches and wetland vegetated rough adjacent to them are potential wetlands within ACOE and RWQCB jurisdiction as well as CDFW jurisdiction.

Holes 10 and 11 have wetlands and riparian zones in or near them as discussed above. These areas are potential wetlands (ACOE and RWQCB jurisdiction) as well as CDFW jurisdiction.

Fairway Uplands

The potion of the fairways, tees, and putting greens that are actively managed and seeded with turf grass species are generally uplands. Work in these areas would not require an ACOE, RWQCB, or CDFW permit. Work should be restricted to the fairway, tees, and putting green turf grass footprint and avoid ditches, wetland roughs, or riparian zones. It should not alter the hydrologic pattern of the nearby wetlands or riparian zones.

Nesting Birds

Federal and State regulations protect nesting/breeding birds. Birds may nest in the vegetation in the roughs, on the edges of the ditches, or in the riparian zone. To protect active nests, eggs, and/or young of nesting birds from project-related construction activities, such as earthwork or vegetation trimming, the following should be implemented. To the extent possible, ground-disturbing activities and/or removal of vegetation (not including standard fairway, tee, and green mowing) should occur during the non-nesting season (defined as September 1 through March 14) to avoid impacts to active nests. No surveys or other avoidance measures for nesting bird species

would be necessary for construction activities conducted during the period of September 1 through March 14.

If any ground-disturbing activities or vegetation removal is to occur during the avian breeding season (March 15 through August 31) breeding bird surveys should be conducted by a qualified biologist. Typically, pre-construction breeding bird surveys should be conducted within 14 days of ground disturbance. Surveys would detect the nests of special-status as well as non-special-status birds, which are protected under the California Fish and Game Code. Often an exclusion buffer is established around any active nests that have the potential to be directly or indirectly impacted by the proposed project.

Figures and Tables





Figure 2. Soils Occurring in the Vicinity of the Study Area (See Table 1 for soils symbols) (Source: USDA Web Soil Survey 2018)

Table 1. Soils Symbols

Map Unit Symbol	Map Unit Name
AQB	Aquolls and Borolls, 0 to 5 percent slopes
FME	Fugawee sandy loam, 2 to 30 percent slopes
FME5	Fugawee sandy loam, 2 to 30 percent slopes, altered
FRE	Fugawee-Rock outcrop-Tahoma complex, 2 to 30 percent slopes
FTE	Fugawee-Tahoma complex, 2 to 30 percent slopes
FTF	Fugawee-Tahoma complex, 30 to 50 percent slopes
FVE	Fugawee-Tahoma-Aquolls complex, 2 to 30 percent slopes
JWF	Jorge-Waca-Tahoma complex, 30 to 50 percent slopes
SIE	Sierraville-Trojan-Kyburz complex, 2 to 30 percent slopes
WAE	Waca-Windy complex, 2 to 30 percent slopes

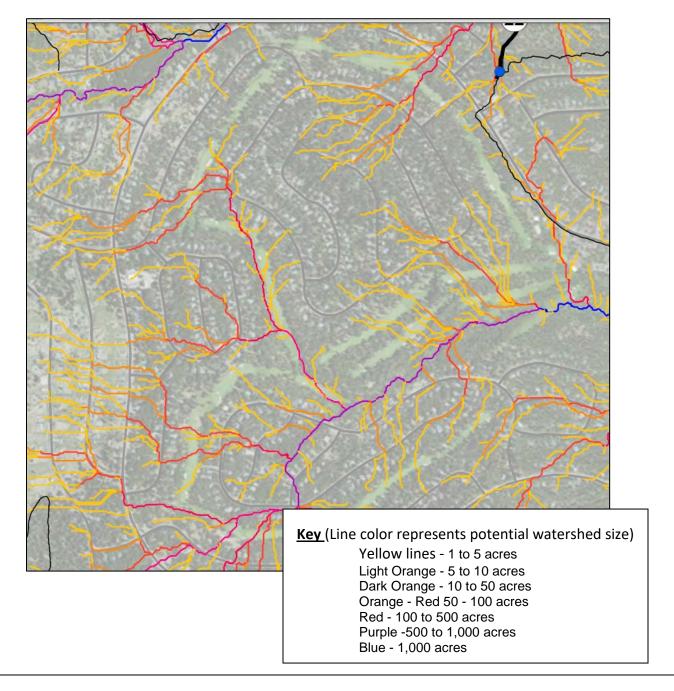


Figure 3. Lidar Map Showing Drainage Lines by Watershed Area

(Source: TDA 5-Year Trail Implementation Plan 2015).

Please note this is representative, actual drainage locations, flows, and other dynamics may vary.

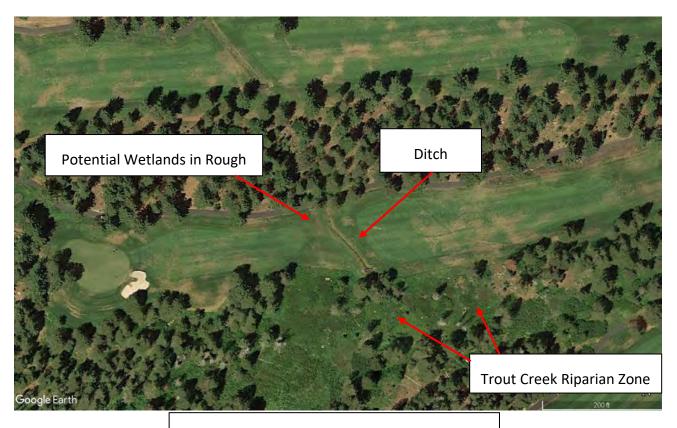


Figure 4. Hole 10 (Source: Google Earth 2018)

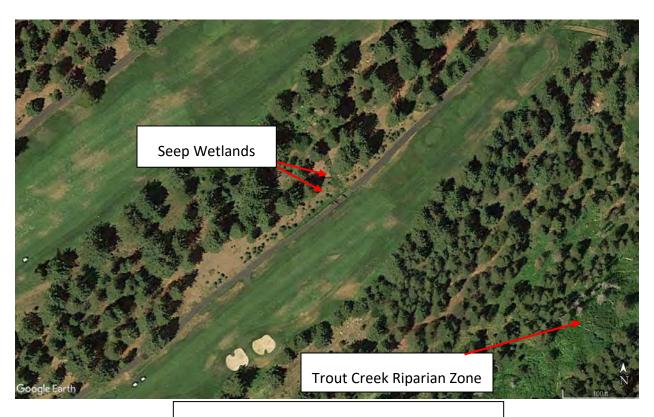


Figure 5. Hole 11 (Source: Google Earth 2018)

References

Balance Hydrologics Inc. 2015. Hydrology report for the Tahoe Donner 5Year Implementation Plan.

Baldwin, B., D. Goldman, D. Keil, R. Patterson, T. Rosatti, and D. Wilken. 2011. The Jepson Manual, Vascular Plants of California, Second Edition. University of California Press.

Cronquist, A., A.H. Holmgren, N.H. Holmgren, J.L. Reveal, and P.K. Holmgren. 1972-2005. Intermountain Flora. Volumes 1, 2b, 3-6. New York Botanical Garden. New York City.

Environmental Laboratory. 1987. ACOE of Engineers Wetlands Delineation Manual. Department of the Army, Waterways Experiment Station, Vicksburg, Mississippi.

Google Earth. 2018.

Graf, M. 1999. Plants of the Tahoe Basin. University of California Press.

Sawyer, et.al. 2009. A Manual of California Vegetation 2nd Edition. California Native Plant Society, Sacramento, California.

U.S. Army ACOE of Engineers. 2010. Regional Supplement to the ACOE of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (Version 2.0).

USDA. Web Soil Survey. http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx. (Accessed: June 2018)

Weeden, N.F. 2005. Sierra Nevada Flora. Wilderness Press, Berkeley.

Representative Photos



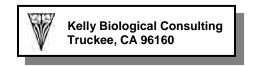
Hole 10 (taken June 20, 2018)



Hole 11 (taken June 20, 2018)



Trout Creek Riparian Zone and Wetlands Adjacent to the Fairway on Hole 10



TO: Forrest Huisman, Director of Capital Projects, Tahoe Donner Association

FROM: Micki Kelly, PWS, Kelly Biological Consulting

DATE: September 7, 2018

RE: Wetland constraints

The purpose of this memo is to address the regulatory constraints involved in removing vegetation and accumulated silt from the Hole 18 area of Trout Creek. As mentioned in the July 2018 Wetland Evaluation Report, Trout Creek and wetlands within and adjacent to the golf course are subject to state and federal regulations.

Background

Golf course run-off can include nitrogen, phosphorus, and other amendments, including pesticides such as fungicides. In addition, grass clipping contribute nitrogen and organic matter. These compounds can be detrimental to the aquatic environment. Agencies often prefer a vegetated wetland buffer between a golf course and a drainage, because the wetland filters the golf course runoff and improves water quality.

Steps required to proceed

- 1. Removing the vegetation and accumulated silt, would require that Tahoe Donner:
 - Conduct sensitive plant and wildlife surveys.
 - > Determine the location of the 100yr flood plain level.
- 2. Assuming that the plant and wildlife surveys do not find species that are protect by state or federal regulations, the next step would be to obtain approval from the following agencies:
 - Regional Water Quality Control Board (RWQCB) (Several permits may be required. One for the silt and vegetation removal, such as R6T-2003-0004, small construction projects; and one for activities within the 100-year floodplain.)
 - California Department of Fish and Wildlife (Lake and Stream Alteration Agreement)
 - <u>U.S. Army Corps of Engineers</u> (ACOE) (A permit would be require if there is any material placed in the wetland. If the work only removes vegetation and silt, with no side casting, it's possible that an ACOE permit would not be required.)

<u>Schedule.</u> The plant and wildlife surveys should be conducted during the time of year when the species would be present and identifiable. Then, the detailed permit applications must be prepared. The applications include text prepared by professionals (such as biologists and

hydrologists) that discuss CEQA, biological, and other environmental issues. The application process would also include coordinating with the agencies to determine, what if any, mitigation might be required. All of this typically takes 1-2 years, depending on the project.

<u>Costs</u>. It's difficult to estimate costs at this point. The RWQCB and CDFW applications must be accompanies by fees (roughly \$500-\$5000 depending the square feet of impacts). The species surveys, floodplain determination, and permit applications might cost \$10,000 to \$30,000 (based a very preliminary estimate). As I mentioned on the conference call, mitigation typically costs \$100,000 to 500,000/acre.

Longterm issues

One other thing to consider is that the vegetation encroaching on the open water is a native rhizomatous sedge. (Rhizomatous means it spreads by sprouting new shoots/plants from its roots). If the vegetation and silt were removed, there is a possibility that the plants would recolonize the area in 5-10 years. So there may be a need to go through the permit process and expenses again at that point. Alternatively, there are permitting mechanisms for longer-term silt and vegetation removal, but obtaining those permits can be more complex and expensive.

October 15, 2018

To: Tahoe Donner Board of Directors & General Plan Committee

From: Golf Task Force

Re: Improvements and Long Term Planning for the Golf course

This is a revision to the original document entitled "Improvements and Long Term Planning for the TD Golf Course that was submitted to the TD Board of Directors and the General Plan Committee (GPC) for consideration last January. It was an expansion and update of the original course improvements document submitted by Cary Bickler, Inc. Golf Course Design in 2012. Since then a Golf Task Force was appointed as a subgroup of GPC to move discussions and possible implementation of golf course improvements forward. The task force met a number of times, with steps taken as described below.

- The Golf Task Force met several in spring 2018 to further discuss the improvement document, eventually asking the TDA Board of Directors to consider funding an environmental study to determine specific environmental issues related to moving forward.
- The TDA Board of Directors voted 4-1 on May 26th to fund a feasibility study to assess environmental issues concerning potential future course improvements and restoration, part of a golf course reserve replacement project.
- Kelly Biological Consultants was hired to do the environmental study, with an initial report submitted in July, 2018 (TDA Golf Course Wetland Evaluation 7-2018), with a supplemental document detailing wetland boundaries submitted in early September (Preliminary Wetland Reconnaissance Golf Course Hole 10, 11, 18), followed by a note about wetland constraints (Golf Course Wetland Constraints 9-2018). These three documents are attached to this document.

This revision represents an update to the original document based on discussions of the task force after review of the environmental documents submitted by Kelly Biological Consultants, and is intended to serve as a reference document to be submitted to Cary Bickler, Inc. Golf Course Design for estimation of specific work to be done along with a cost analysis.

Attachments:

Bickler Estimate & Schedule.pdf (Summary of plans from 2011-12 by Cary Bickler)
2018-2022 Golf Maintenance-5 Year Plan.xlsx (5-year maintenance plan from Superintendent Kuehne)
TDA Golf Course Wetland Evaluation 7-2018.pdf
Preliminary Wetland Reconnaissance Golf Course Hole 10, 11, 18.pdf
Golf Course Wetland Constraints 9-2018.pdf

Major Project for Course Improvement

The Tahoe Donner Golf Course has long been known as one of the premiere golf courses in the high sierra and is an important amenity for Tahoe Donner homeowners, raising property values compared to locations without a golf course. With the development of numerous golf courses in the Truckee area within housing projects, many of which offer limited or full public access, we believe the Tahoe Donner course has slipped in public perception, and in some cases actual quality of the course, when compared to some of the other newer courses. The last major improvements to the course were completed in the 2004-6 time period, when substantial changes to fairways, tee boxes, and sand traps improved course playability and public perception. To maintain the value of the course to homeowners and property values it is imperative that Tahoe Donner continue its high standards for course operation and maintenance and that the course be periodically updated to counteract natural aging of the course and reflect modern design standards. We believe it is imperative that consideration be given to fund major capital improvements to the course to accomplish this, and our suggestions are detailed below.

Property Values

The importance of a golf course to property values is clear from the research and anecdotal evidence available. Grudniski¹ (2003) found price premiums in Las Vegas to be 12.5% for houses located in private golf course communities, 6% for houses located in semiprivate golf course communities (the category Tahoe Donner would fit into), and 5.7% for houses located in public golf course communities. Lutzenhiser & Netusil², (2001) found that homes within 1500 feet of one of 8 golf courses in Portland, OR had 13.4% higher home values than those further away. Preliminary results from a study by Johnson³ (2017) indicate that having property adjacent to a golf course in Palm Beach, Broward and Miami-Dade counties in Florida adds between 8 and 12 percent, on average. Owusu-Edusei & Espey⁴ (2003) found that homes in Greenville, SC abutting a golf course sold for 27% more than homes greater than 1100 feet away, and homes between 300-1100 feet were 15% higher in value. Nicholls & Crompton⁵ (2007) found that there was a premium of 26% for prices for homes in College Station, TX adjacent to a golf course compared to others in the same development not next to the course, and surmised that the difference would have been even greater if the comparison had been made to homes in nearby subdivisions that did not have a golf course. There are also many anecdotal examples of home values dropping precipitously when a golf course influence on property values.

Improvements to Course Quality

We are fully in support of the practices and efforts of Kevin Kuehne, Superintendent, and James Murtagh, Golf Operations Manager, whose diligent and creative work is greatly appreciated by club members and the public. Despite the difficult challenges resulting from the heavy snow in the 2016-17 winter we enjoyed a very successful golf season, and while the course ended up in very good condition, there were obvious deficiencies, some of which persisted throughout the season. There are a number of issues that affect the quality of the course and playability, and improved maintenance resources and capital improvements can largely mitigate this loss of quality. We believe there would also be additional benefits linked to playability that could improve the time it takes to play the course, benefitting everyone. We would like to make sure adequate planning is being done for the near and long-term future and that the resources necessary to keep the course at the highest quality possible are being made available to the course and golf operations staff.

1 Grudniski, G., Golf Course Communities: The Effect of Course Type on Housing Prices. Appraisal Journal, 71(2), 2003.

² Lutzenheiser, M. & N. Netusil, The Effect Of Open Spaces On A Home's Sale Price, *Contemporary Economic Policy*, 19(3) 2001

³ Johnson, K. Golf Courses Boost Home Prices and Draw Potential Buyers, Florida Atlantic University,

https://www.prnewswire.com/news-releases/fau-study-shows-golf-courses-boost-home-prices-and-provide-a-positive-draw-for-potential-property-buyers-300396026.html, 2017

⁴ Owusu-Edusei, K. & M. Espey, Does Proximity to a Golf Course Matter? *Working Paper*, Department of Ag & Applied Economics, Clemson University, 2003.

Nicholls, S and J.L. Crompton, The Impact of a Golf Course on Residential Property Values, Journal of Sport Management, 21, 2007

Discussions among men's and women's club members and with Superintendent Keuhne and Manager Murtagh have led to the issues highlighted below that we believe need further study by the Tahoe Donner Board of Directors, and that subsequent implementation of a development plan should be effected as soon as is feasible. The Men's and Women's Executive Board members, and club members, are ready to contribute to planning and discussions.

We are also aware of planning work that was done back in 2011-12 by Cary Bickler, Inc Golf Course Design that addressed specific issues relative to course development and upgrade, and we have drawn on that information in the discussions below. A copy of the Bickler design suggestions is also attached. A few of the issues shown in the Bickler document have been partially or fully completed as part of yearly course maintenance (e.g., rerouting of cart path on hole#10, removal of tree that died on hole#4, extension of paved maintenance road on #9, removal of trees on hole#15).

Superintendent Keuhne provided us with the attached draft 5-year maintenance plan so that we could assess how our suggestions relate to planned yearly maintenance and future use of Reserve/Replacement funds. It appears that most if not all of the suggestions we make below lie within the current replacement/reserve fund projects. He has also included staff recommendations for 2018-2022, should funding and approval be available, and many of those coincide with suggestions we have made for capital projects. Most of the planned R/R maintenance does not address the issues we have brought up below, with the exception of Tee and Bunker R/R in 2020 and 2022, where there is some overlap. We believe at least some of the tee issues should be addressed more quickly and have left them in this proposal. The work recommended in Superintendent's Kuehne's document is consistent with what we have proposed here. We include a few more issues, and the 5-year plan also includes some features we have not specifically brought up, but would support.

We believe a first step should be to engage Cary Bickler, Inc. to update the previous recommendations based on what has already been accomplished and what would still need to be done. This would provide an up-to-date estimate of what it would take to address many of the course issues Superintendent Kuehne and we see as necessary/desirable and provide a basis from which decisions regarding funding could be made.

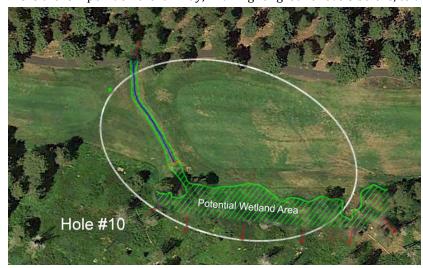
Specific Areas For Further Study and Improvement that Will Require Funding Beyond Regular Maintenance Costs

Issue #1	Action	Benefit
Fairway Drainage: Fairways with	Implement new drainage	Improved quality of play by having
standing water or very soft turf,	systems or redesign	better turf and fewer areas
causing damage to turf by players,	fairway structure to	designated GUR; less damage to turf
carts, and necessitating extensive	alter drainage pathways.	from players, carts. Less annual
Ground Under Repair (GUR)		maintenance.

Early in the golf season when the course is still affected by the continued melting of winter snow at higher elevations there is often standing water, very soft turf, and areas where these factors have limited the recovery of turf to a reasonable playing surface. There are some holes where specific alterations to the landscape could greatly minimize the issues and create better playing surfaces early and throughout the season. Below are more specific examples of where some work such as this should be considered:

<u>Hole #10</u>. Currently the left half of the landing area for tee shots is very wet early in the seasons due to water flowing down from hillsides on the right side of the hole, with a drainage ditch crossing the fairway just beyond the landing area. This is the low point on the fairway, with higher ground levels before, to the

right of, and in front of this area. The turf in this area is too wet to hit from for a long period of time, and the grass often takes most of the summer to recover. The area often has a large section labeled ground under repair for a good portion of the summer. Even when balls are removed to appropriate areas to hit from, the process of getting the balls adds further damage to the grass and affects turf recovery.



The Bickler plans from 2011 called for a re-grading of this mid-fairway portion, and we believe this should be reevaluated and updated based on the information available from the environmental analysis. The approximate location of the wetland area is shown in the figure. The previous plans included capping the fairway landing area with 2 feet of fill material, and capping the fill material with 1 foot of sand to facilitate drainage and sodding the top with turf. Included would be sub-drainage structures to allow water sifting through the sand to be diverted to the wetlands area along the left side of the hole. The new shelf of fill material would have a native rock wall at the low point of the edge of the fairway to retain the fill material, and the wetlands area would be preserved with minimal impact. The wetland diagrams for hole #10 indicate that this type of fill should be feasible without impacting the wetland areas. The overall benefit would be a slightly widened landing area with the elevated drainage-facilitated top surface providing relief from the current wet conditions.

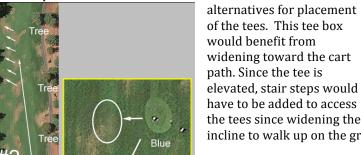
<u>Hole#11.</u> There are areas where the fairway below the wetland area remains wet for a long time that would benefit from re-grading or other intervention. More is discussed in Issue#3 regarding Hole #11.

Issue #2	Action	Benefit
Tee Box Expansion & Replacement: There	Develop new tee	Improve quality and consistency of play
are a number of tee boxes that are too	boxes or	by providing centralized level tee boxes
small to provide reasonable teeing	reconstruct tee	without crown in middle and of
alternatives when there are turf problems,	boxes to level and	adequate size to deal with turf issues
or that can provide adequate teeing	expand surface	and wear later in the summer. A combo
surfaces after the accumulation of use	area, as needed.	length greater than 6000 yards might
over several months. The pressure to		encourage more visiting golfers to play
begin the golf season as early as possible		those tees instead of the silver tees,
results in use of tees before they would		potentially improving the average time
ideally be ready, further complicating the		for a round of golf.
problem. In addition, we desire to		
evaluate the feasibility of making several		
tee box changes that could increase the		
silver/green combo course length to		
above 6000 yards.		

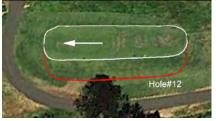
Listed below are tee boxes that we believe are currently inadequate to meet the demands of a sound teeing surface throughout the season, and that would benefit from increased area to provide more teeing placement options. The proposed new tee boxes would serve to lengthen the silver/green combo length to greater than 6000 yards, hopefully encouraging more players to use those tees and improve the time it takes to play the course. This is discussed more in the added section about lengthening the combo course length.

<u>Hole #16</u>. The same narrow tee box is used for the black and silver tees. To keep the distances between tees appropriate for the course rating, there is only a relatively small area for tee placement. By widening the tee box toward the current cart path there would be additional space to place tees and better surfaces throughout the season.

<u>Hole#12</u>: This is a thin teeing area for the silver and green tees, and while long, it is very narrow and has extreme crowning that is difficult to prevent because of the narrowness of the tee box and few







the tees since widening the box would create too much of an incline to walk up on the grass.

Hole #2: The current location of the blue tee box on hole #2

Hole #2: The current location of the blue tee box on hole #2 presents a problem to golfers because of its location. Because it is on the right side of the fairway, and because there are trees at the top of the hill on the right side of the fairway, golfers have to aim toward the middle of the fairway to keep the tee shot away from the trees. Since the ground is slanted toward the left side of the fairway, the ball tends to roll to the left leaving little room for error in placement without having the ball roll off the left side of the fairway. The alternative proposed is either to relocate the blue tee box toward the center of the fairway, or to extend the

current green tee box by about 15 yards, and put the blue tees near the front of this box. That would position the blue tee further toward the center of the fairway and allow a tee-off shot toward the center of the fairway.

<u>Hole#4:</u> The green and blue tee boxes are very small and the quality of the teeing area could be maintained better if the tee box were larger.



<u>Hole #16:</u> The green and blue tee boxes are very small and provide very little flexibility for tee placement if turf gets damaged before or during the golf season. Expanding these tee boxes would facilitate play by allowing a more consistent tee surface. If lengthening of the silver/green combo tees is done this tee box might be changed as a part of that effort.





<u>Hole #5</u>: The green tee is very small and the quality of the teeing area could be maintained better if the tee box were larger.

Tee Box Replacement:

On most holes the forward tees are situated to the side of the hole, and this can cause the first shot to angle across the fairway instead of going down parallel to the center of the fairway. The worst is hole#1, where trees on the right interfere on a shot toward the middle of the fairway. As shown below, the distances from the silver tees to these tees is relatively short (approx. 70 and 98 yards), so boxes more to the middle of the fairway would have little impact on play from the silver or black tees.



Issue #3	Action	Benefit
Hole Grading; Cart Path Rerouting: The cart	Redesign cart path routes,	Better playability, more
paths lining several holes hinder playability	changing adjacent transitions	aesthetically pleasing
and detract from the course's visual	to the fairway as necessary.	visual impact.
appearance		

There are two areas on the course that would benefit from rerouting cart paths or rebuilding the area adjacent to a cart path, resulting in better playability and providing cosmetic benefits to the look of the course. Some details are provided below, based on information available from the 2011 course architecture documents.

Hole #11: The cart path is parallel to the course on the right side of the length of the hole. The path has a sharp slope to the left of the first 2/3 of the cart path, with the slope rising further to the right of the path. Many tee shots end up in this area, and ones





that actually land on the cart path are propelled into the bush/tree areas to the right, making finding the ball often a challenge and slowing play while golfers look for a ball. Removing the path from this location for approximately 2/3 of the hole length would allow the natural slope of the area to be restored, widening the fairway and resulting in a more gradual transition that would reduce the number of balls propelled in the area to the right. The 2011 plans called for the cart path to cross the fairway just after the silver tees to the left side and follow on the left side of the fairway and sand traps, hiding the path from view for much of the distance. Another alternative might be for the cart path to cross after the green and blue tees, as shown in the diagram. The path would cross the right side of the fairway to connect with the current up path where carts from the fairway currently join the cart path for the last ~140 yards of approach to the green, with the cart path hidden by a small lip on the downhill side of the path as it crosses the fairway. An additional suggestion would be to consider adding a rope to the left side of the existing cart path along the right side of hole#11 where the slope is steep, as the sharp drop-off is currently a potential safety issue.

The primary area to be considered for widening the fairway is shown in the hatched area in the above diagram,



beginning just beyond the area recently designated as potential wetlands. It would likely involve removal of a number of trees and potentially a substantial amount of earth. The general idea would be to have the turf landing area to the right of the sand traps extended to the right into the area where the cart path currently lies, resulting in a widened landing area with either a natural upslope to the higher ground level above, or potentially a less sloped section going to a retaining wall along the right side where earth has been removed. A birds-eye-view is also shown providing a general idea of a reconstructed landing area

We propose that a course architect suggest what would be the most appropriate redesign in this area while also keeping costs as low as possible.

Hole #8: The left side of the fairway bends to the right just over half way to the hole. Shots from the tees that go straight instead of angling with the curve of the hole to the right cross the cart path and go into the woods at the rear of adjacent properties. Golfers often go into those lots and when possible hit shots out to the fairway if they do not intrude on a homeowner's lot. What is proposed is to reconfigure the mounding before the fairway bends to the right, putting in higher mounds that will serve as more of a barrier to shots in that

direction, resulting in fewer balls going into the woods adjacent to homes in the area, benefiting playability and reducing time spent looking for balls. The mounds would be structured to mimic the mountains vistas in the background and would hide the cart path, adding to aesthetic views from the tee boxes. This would benefit both longer hitters from the silver tees and less long drives hit from the green



Issue #4	Action	Benefit
Driving Range: Re-	Install individual hitting mats in lower area. Add	This would result in a better
design tee boxes	areas to hit from turf. Redevelop landing area to	practice area, helping to
and landing area.	fit with multiuse as sledding area and concert	increase use and generate
	area.	revenue.

<u>Driving Range:</u> We know there is limited grass area for hitting from on the driving range, and that some users hit off the grass anyway. We request that some grass area be made available to hit from on special occasions: during the hour before tournaments, on the day before the Invitational and Club Championship play, and potentially during some hours daily or on one or more days per week. With appropriate signage use could be limited to maintain adequate grass areas. We would also like to see improvements made to provide some target greens in the fairway of the range. This could be done with minimal change to the existing turf by adding some visual effects and perhaps moving round areas strategically.

Issue #5	Action	Benefit		
<u>Increase</u>	Create or redesign tee	More players, particularly visitors, would be expected		
Silver/Green Combo	boxes or use currently	to play from the combo tees, resulting in their choosing		
Course Length to	unused tee boxes to add	a more appropriate length for their game on an		
above 6000 yards.	to the combo course	unfamiliar course, and resulting in faster play due to		
	length.	less time spent looking for balls outside the narrow		
		fairways.		

Lengthening the silver/green combo course length could be done through some combination involving the building of new tee boxes, the enlarging of existing tee boxes, or the use of existing, but not currently used, tee boxes. Since the green tees are the ones that would be moved, lengthening the combo tees would also mean lengthening the course yardage for the green tees from which many women play. The Green/Blue combo course uses the green tees only on hole #17, so the distance for that course option would only increase slightly. The description below is intended to identify possibilities that would involve construction of new tee boxes, or restructuring of existing tee boxes for the purposes of getting estimates from Bickler regarding potential costs. Any decision to move forward with any of these proposed changes would necessitate further deliberation with golf management and the women's clubs.

Below is a table showing potential changes to the length of the course involving several different new green tee box positions (additions to hole length are approximate), with figures below illustrating proposed changes.

Hole #	Increased Length
#8 - Construct a new tee box on the left side of the fairway between the existing green tee box and the silver tee boxes (Figure 1).	45 yds
#9 – Construct a new tee box on the left side of the fairway between the existing green tee box and the silver tee boxes (Figure 2).	25 yds
#16 – Extend the existing green tee back toward the beginning of the hole approximately 15 yards to set the yard marker further back (Figure 3).	15 yds
#17 – Use the unused existing tee box that is between the current green and silver tee boxes (Figure 4)	23 yds
Increase in combo course length with these changes:	108 yards

The changes proposed above would increase the combo course length from the current 5947 yards to approximately 6055 yards, and would involve construction of two new tee boxes and extension of one current box.

<u>Two alternatives for hole #9.</u> In addition to the tee box suggested above for hole #9, two other options are suggested below. However, these options may result a hole length that is greater than might be considered reasonable for green or silver/green combo tees. They are included here as a potentially less costly option.

Option 1 - use the forward half of the existing tee box on #9 that is in front of the silver tee box. If the forward portion of this tee box were used, there would not be a need to construct a new tee box, and this would add approximately 57 yards to the green hole distance, with a hole length of about 509

yards and a combo tee course distance of 6072 yards. This would create a long 5-par, perhaps too long for green tees.

Option 2 – Extend the existing tee box on #9 that is in front of the silver tee box forward by approximately 10 yards. This would ne slightly simpler than adding a completely new tee box, and would add approximately 48 yards to the green hole distance, resulting in a combo tee course distance of 6063 yards. This would still be a relatively long 5-par for the green tees of about 500 yards.

The table below shows the changes that would occur to the silver/green combo, the green, and the green/blue combo course distances if the changes proposed above (not the options for hole#9) were to be used.

Hole #	Par	Current Silver/Green	Proposed Silver/Green	Current Green	Proposed Green	Current Green/Blue	Proposed Green/Blue
1	4	359	359	359	359	328	328
2	5	487	487	430	430	405	405
3	4	349	349	349	349	349	349
4	3	185	185	109	109	109	109
5	4	364	364	305	305	305	305
6	4	340	340	310	310	310	310
7	3	146	146	126	126	126	126
8	4	337	382	337	382	321	321
9	5	452	477	452	477	413	413
Front 9	36	3019	3089	2777	2847	2666	2666
10	4	349	349	349	349	324	324
11	5	449	449	411	411	411	411
12	3	143	143	127	127	127	127
13	4	303	303	280	280	280	280
14	4	333	333	333	333	317	317
15	5	494	494	446	446	393	393
16	4	356	371	356	371	308	308
17	3	161	184	161	184	161	184
18	4	340	340	340	340	291	291
Back 9	36	2928	2966	2803	2841	2612	2635
Course Yardage	72	5947	6055	5580	5688	5278	5301
Increase in Length			108		108		23



Figure 1



Figure 3



Figure 2



Figure 4



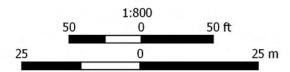


Kelly Biological Consulting Truckee, CA



Battle Born GIS

Preliminary Wetland Reconnaissance Hole # 10



Source of Base Map: USGS Earthexplorer/ The National Agriculture Imagery Program Fieldwork conducted June and August 2018

Legend Created: 09-04-2018 Revised: 09-04-2018

WUS notential

// potential wetland area

potential wetland boundary bridge

potential wetland

wetlands extend beyond survey



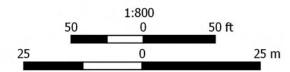


Kelly Biological Consulting Truckee, CA



Battle Born GIS

Preliminary Wetland Reconnaissance Hole # 11



Source of Base Map: USGS Earthexplorer/ The National Agriculture Imagery Program Fieldwork conducted June and August 2018

> Created: 09-04-2018 Revised: 09-04-2018

Legend

/// potential wetland area

wetlands extend beyond survey

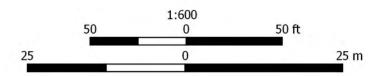






Battle Born GIS

Preliminary Wetland Reconnaissance Hole # 18



Source of Base Map: USGS Earthexplorer/ The National Agriculture Imagery Program Fieldwork conducted June and August 2018

> Created: 08-31-2018 Revised: 09-04-2018

Legend

