



SAN DIEGO 2019

CONNECT. **DISCOVER.** ELEVATE.



GCSAA EDUCATION CONFERENCE | TRADE SHOW | GCSAA GOLF CHAMPIONSHIPS

February 2-7 | San Diego Convention Center

PRESENTING PARTNERS



PARTICIPATING PARTNERS





RESUME / CV

Michigan State University
Turf Grass Science

PIT - Phoenix , Arizona
Architectural Drafting and Design
Computer Aided Drafting and Design

34 years in the golf industry
Golf Course Agronomist
Golf Course Designer
Golf Course Construction Specialist
Golf Course Operations and Management
Over 100 successful projects



General Manager / Director of Agronomy

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golf industry show

GCSAA EDUCATION CONFERENCE

When Given a Lemon

Sentosa Golf Club



SENTOSA GOLF CLUB
SINGAPORE

Presented By

Andrew H. Johnston
General Manager / Director of Agronomy



Disclaimer: There is no intent to endorse products or intent to sell any products, in my discussion and presentations. At times I will or may recognize a product and or company / distributor that sells a product to illustrate an example of what we or Sentosa Golf Club may do with a product. However, at no point am I attempting to sell products for the purpose of any personal gain or to help any product make sales. This is intended to be educational and informative.

That includes all spelling mistakes.

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The Lemon



SENTOSA GOLF CLUB
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Singapore Open 2010 I arrived on the property
60 Days before the event

BANGALORE AVIATION





**Examined the current conditions
and wanted to go home!**

















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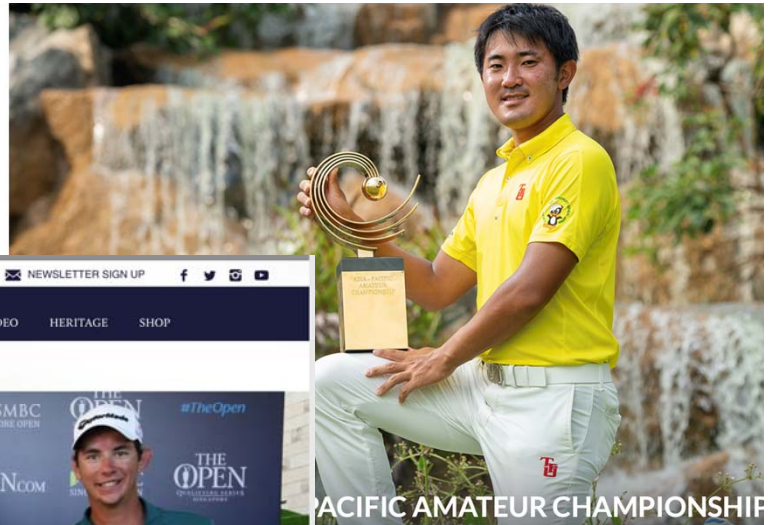
The Lemon



SENTOSA GOLF CLUB
SINGAPORE



Asia-Pacific
Amateur
Championship
4 - 7 October 2018
Sentosa Golf Club,
Singapore



PACIFIC AMATEUR CHAMPIONSHIP

The 147th Open Carnoustie 15th - 22nd July 2018 CARNOUTIE 11° C NEWSLETTER SIGN UP

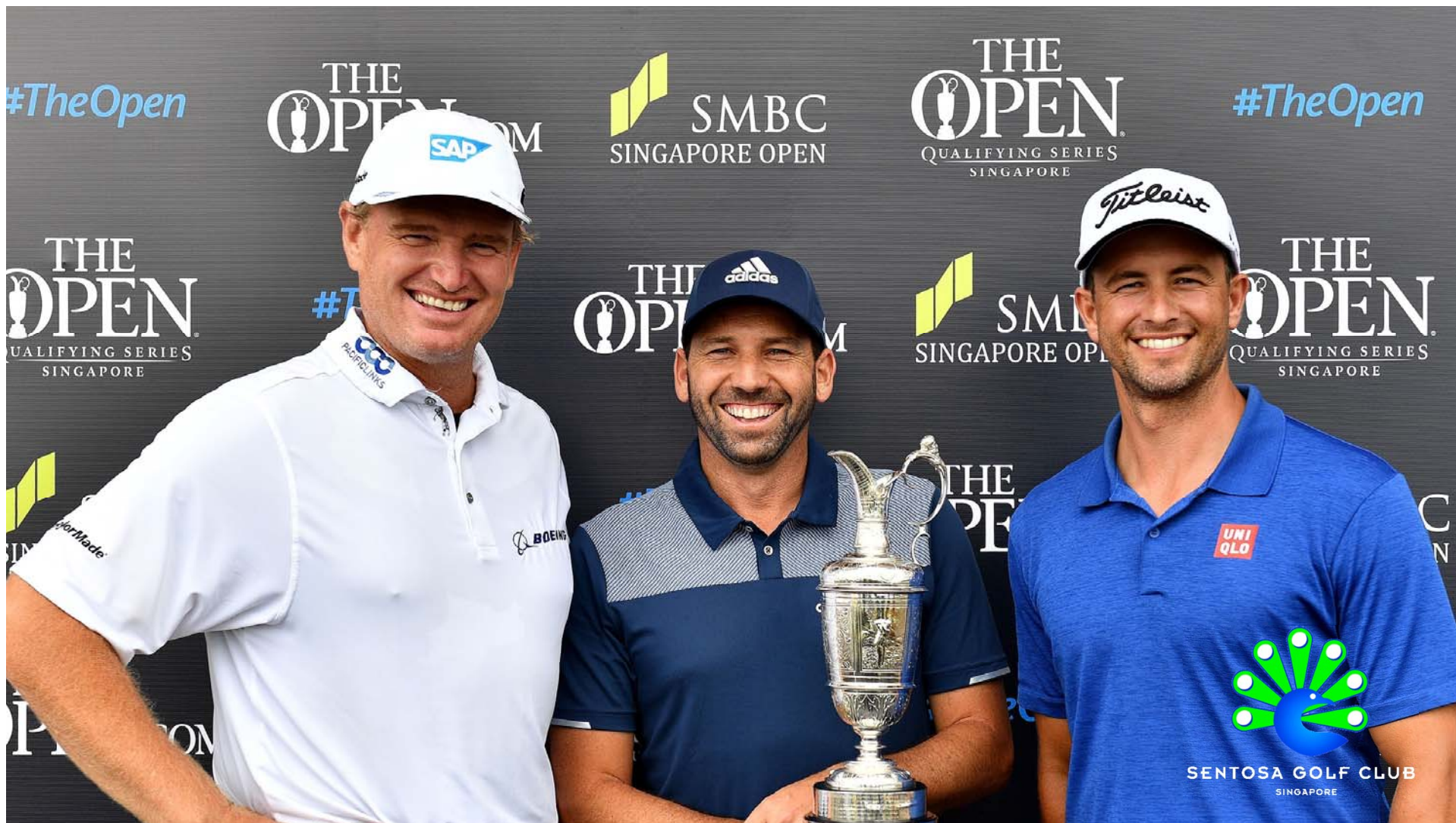
TICKETS & HOSPITALITY SPECTATORS PLAYERS QUALIFICATION NEWS & VIDEO HERITAGE SHOP

OPEN QUALIFYING SERIES QUALIFIERS

SMBC Singapore Open 18 - 21 January 2018

Back to Qualification





THE
OPEN

The 147th Open Carnoustie 15th - 22nd July 2018

CARNOUSTIE ☀ 11° C

✉ NEWSLETTER SIGN UP



TICKETS & HOSPITALITY

SPECTATORS

PLAYERS

QUALIFICATION

NEWS & VIDEO

HERITAGE

SHOP

OPEN QUALIFYING SERIES

QUALIFIERS



Woman's Amateur Asian Pacific



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HSBC World Woman's Championship



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SPORT

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Michelle Wie claims first tournament win since 2014

🕒 4 March 2018 | [Golf](#)[Share](#)

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**League Two play-off final: Coventry v Exeter**[LIVE](#) | [Football](#)**Britain's Norrie played his 'best tennis' in French Open debut win**🕒 29m | [Tennis](#) | [59](#)**'My Giro win should not be questioned'**🕒 4h | [Cycling](#)

Related to this story

England's MacLaren claims win🕒 4 Mar | [Golf](#)

Wie takes LPGA Singapore, first win since '14

85d





Rose wins Colonial by 3 strokes over Koepka

15h

U.S. Open checklist: Where the best players stand a month out

Michelle Wie wins LPGA's Women's World Championship in Singapore



Associated Press

Mar 4, 2018

SINGAPORE -- Michelle Wie holed a 36-foot putt from off the green on the final hole to win the Women's World Championship by one stroke on Sunday and capture her first LPGA tournament since the 2014 U.S. Women's Open.

With four players in contention to win on the last hole, Wie managed to separate herself from the pack when she drained her lengthy birdie putt on the 72nd hole at the Sentosa Golf Club for a final round of 7-under 65 to finish at 17-under 271.

The 28-year-old Wie, who led the tournament after three rounds a year ago before fading on the last day, leaped into the air and clenched her fist in celebration as the ball disappeared into the bottom of the cup.

But she still faced an anxious wait before being declared the winner.



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Getty Images

Wie sinks incredible birdie putt at last for win in Singapore

By [Randall Mell](#) March 4, 2018, 8:51 pm

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Asia-Pacific Amateur Championship

4 - 7 October 2018

Sentosa Golf Club,
Singapore



HOME

2018 RECAP

SCORES

HISTORY

ABOUT

Screenshot

Takumi Kanaya



2018 Asia Pacific Amateur Champion

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CULTURE STRATEGY



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What can NASA teach us about culture?

Work Place Strategy and Defining a Vision for Culture

President Kennedy when visiting NASA walked over to a Janitor carrying a broom and asked, "What are you doing?"

"I'm helping put a man on the moon."

No matter how large or small the role, every member of the team is contributing to the larger story within your organization.

And when your entire team embraces this type of attitude and unconditional belief in the system, incredible things happen.

Forbes

Work Place Culture

"If your not a leader on the bench, don't call yourself a leader on the field. You're either a leader everywhere or nowhere".



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Work Place Culture and the Work Environment



Provide a great work environment, treat each other with respect and dignity

No Toxic Talk



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Alignment of the Work Place Culture

Board Level
Ownership Level
Committee Level
Stake Holders Level
Staff Level
Membership Level



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Work Place Culture Develops Leaders

The difference between a manager and a leader.

“MANAGERS DO THINGS RIGHT”

“LEADERS DO THE RIGHT THINGS”



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*It's best to be both a manager and a leader
They're just different processes*

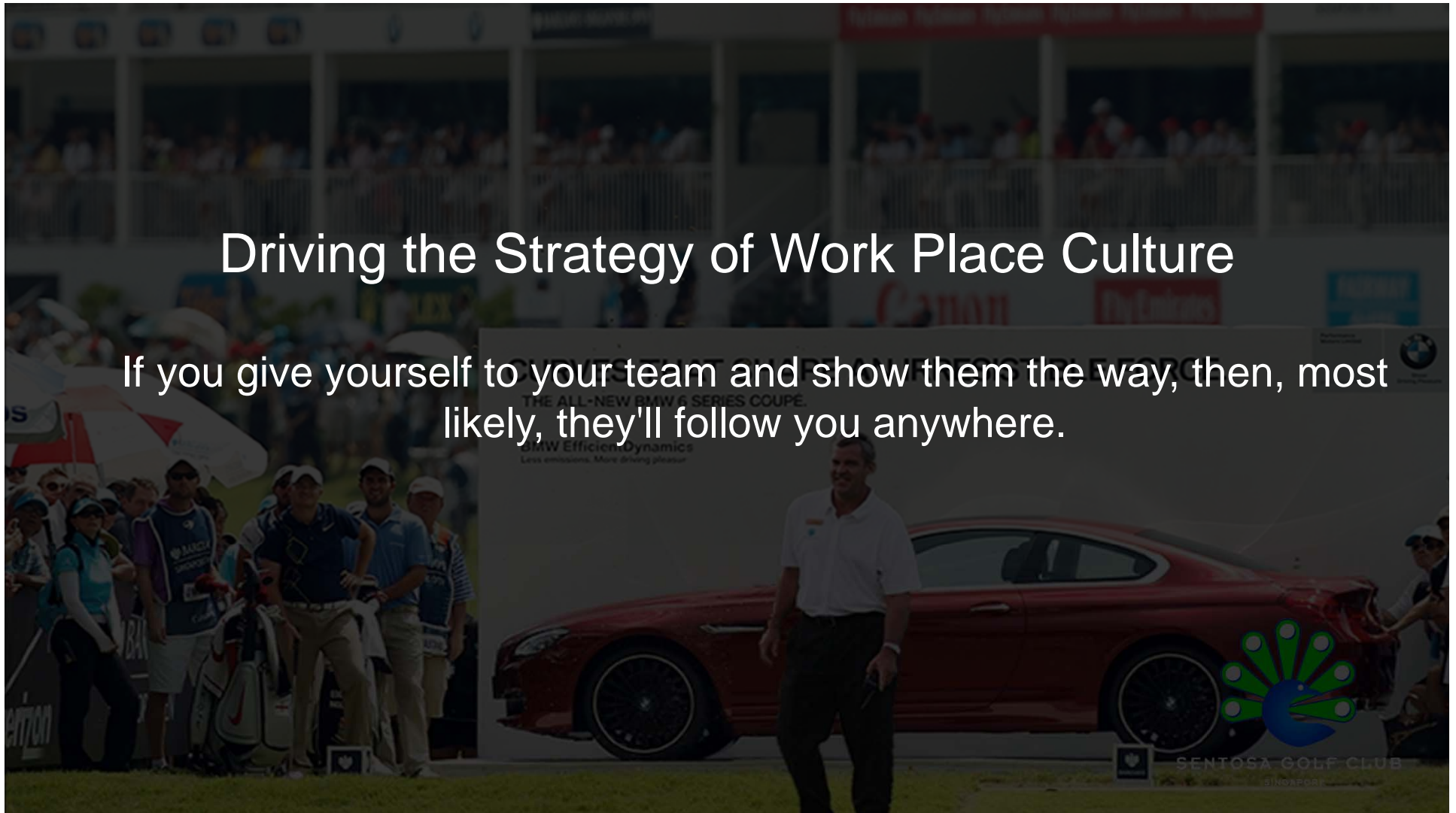
As a leader, it is your job to inspire the people around you to push themselves – and, in turn, the company – to greatness. To do this, you must show them the way by doing it yourself.



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Driving the Strategy of Work Place Culture

If you give yourself to your team and show them the way, then, most likely, they'll follow you anywhere.



Teamwork Culture

Leading by Example – Walk the Walk – Talk the Talk



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Forbes

Work Place Culture

“If your not a leader on the bench, don’t call yourself a leader on the field. You’re either a leader everywhere or nowhere”.




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Hospitality and Corporate Responsibility comes from within

Rodney Mckeown
Golf Course Superintendent





Executive Chef Kong Kok Kiang (KK)
Coach / Manager of Singapore Culinary Team
Local Channel 3 Celebrity

Hospitality and Corporate Responsibility comes from within

Nicole Thew
Director of Golf – 26 years



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SINGAPORE

Hospitality and Corporate Responsibility comes from within



Living our Values

Hospitality and Corporate Responsibility comes from within

“OUR VALUES DEFINE WHO WE ARE”

Our Culture defines the Quality of our Club, this frames the relationships we have with our Colleagues, our Stake Holders, our Members and our Guests, this is not an act, it's a habit and a way of life to our success”.



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How your “Touch Points” reflect your culture

Car Park
Bag Drop
Golf Reception
Locker Rooms
F&B Outlets
Cart Staging
Driving Range
1st and 10th Tees
Golf Course
Cart Return
Club House

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OPERATION STRATEGY



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“This is not a practice round, the tournament is today”

Objective



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SINGAPORE

To deliver Asia's best golf experience

Keep It Green (#KEEPITGREEN)

Environmental Responsibility

Tournament ready 365

Mission



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SINGAPORE

The Serapong

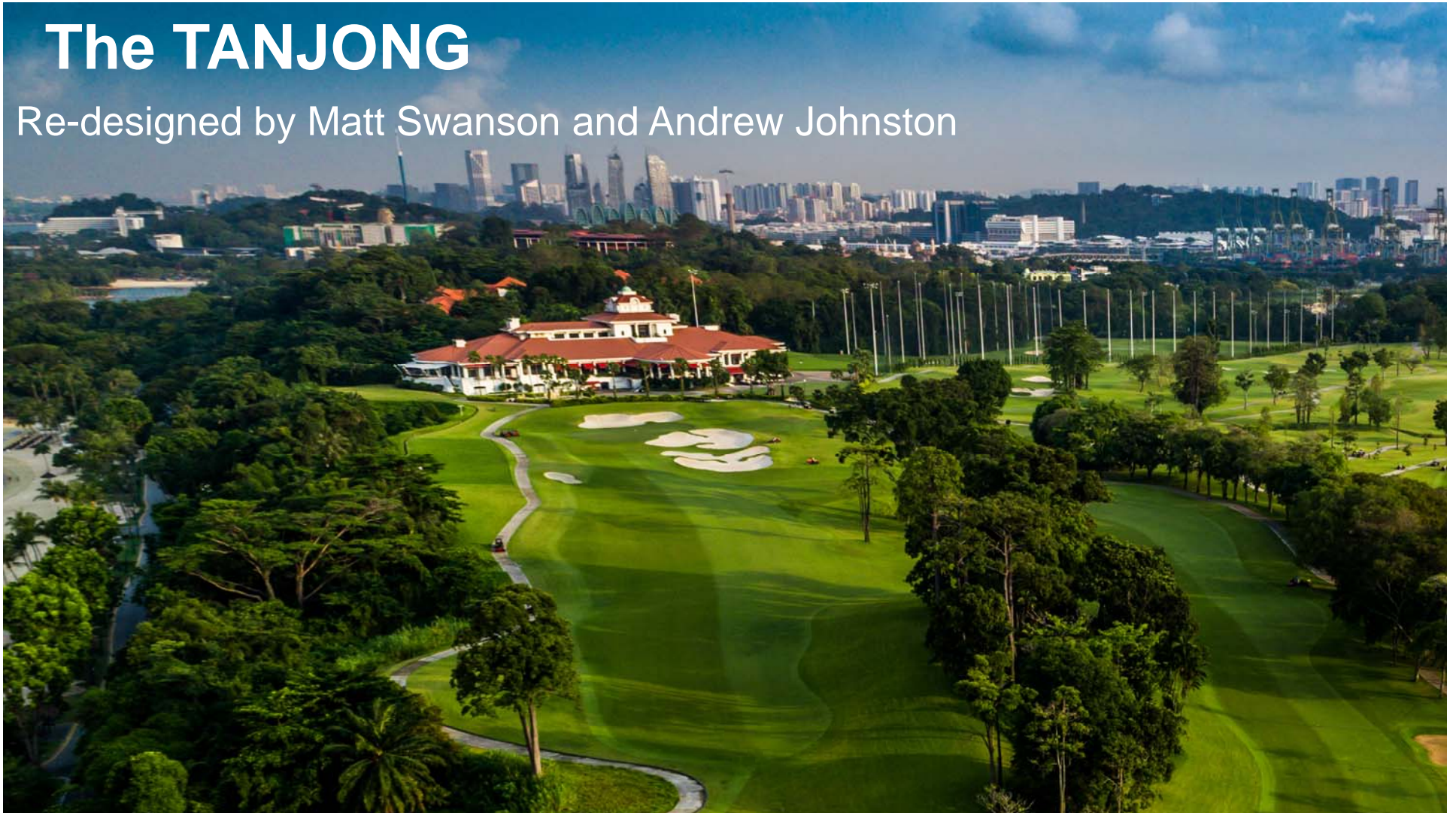
Originally Designed by Golf Plan / Re-designed by Bates Design Group



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SINGAPORE

The TANJONG

Re-designed by Matt Swanson and Andrew Johnston



Equipment Needed to get the Job Completed

The Men and Women of Sentosa



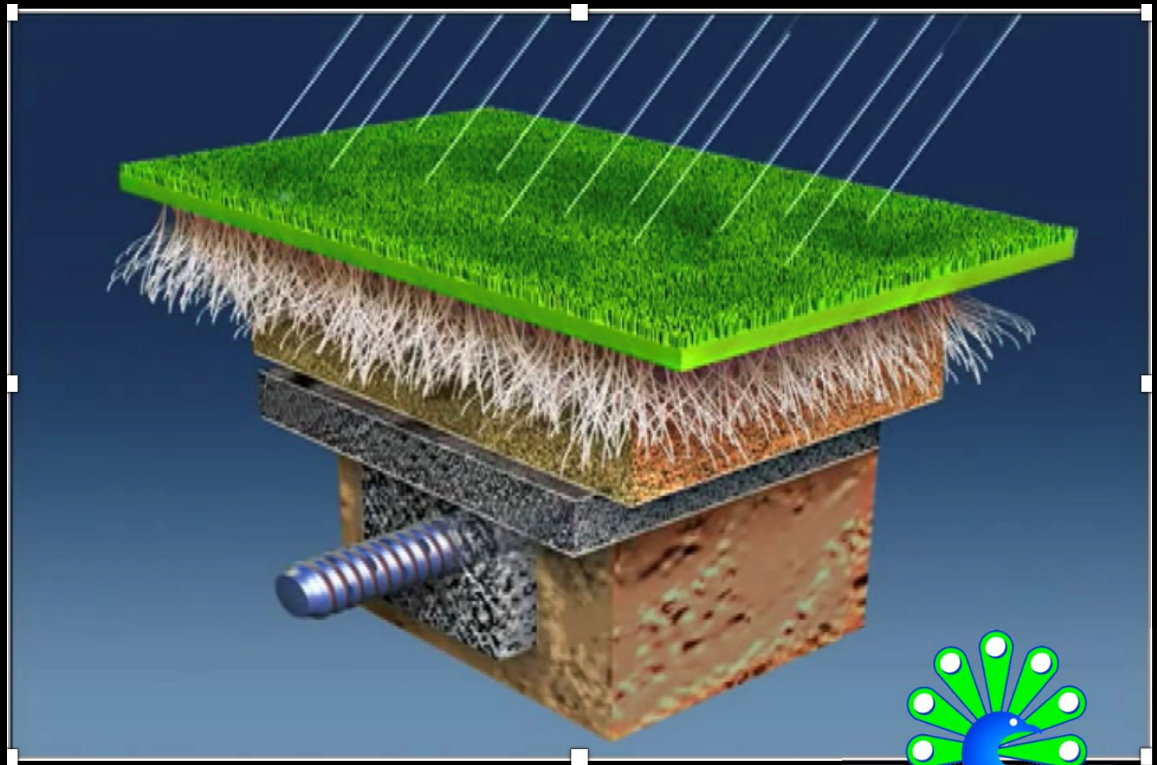
SENTOSA GOLF CLUB
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Equipment Needed to get the Job Completed



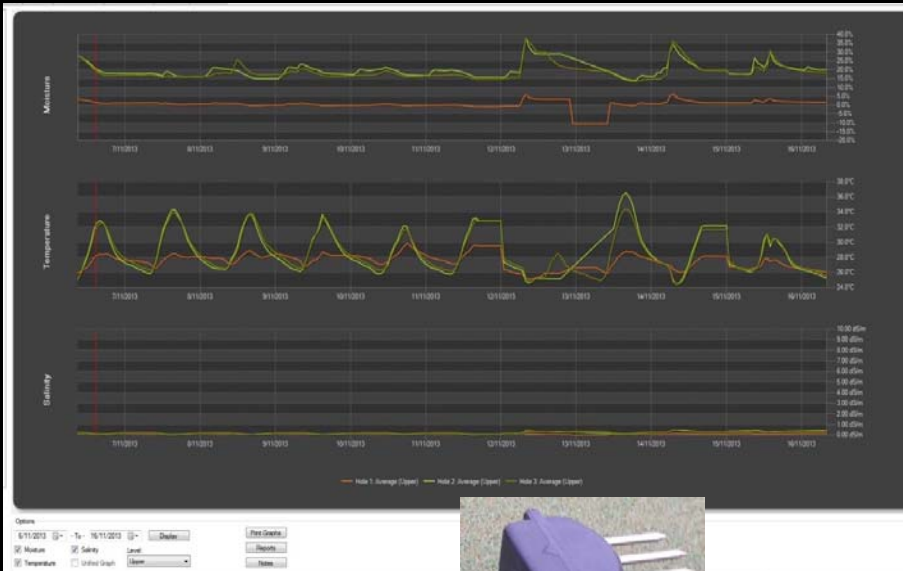
Our most Important Machine is our Staff

Tools That Alter the Environment



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Tools to Evaluate Environmental Information



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Tools we use to Alter the Environment



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#KeepitGreen

Evolution of Irrigation Heads



#KeepitGreen



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Single Head Control Saving Resources



#KeepitGreen

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Irrigation / Water Management



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Reduction of Heads to Save Water Resources

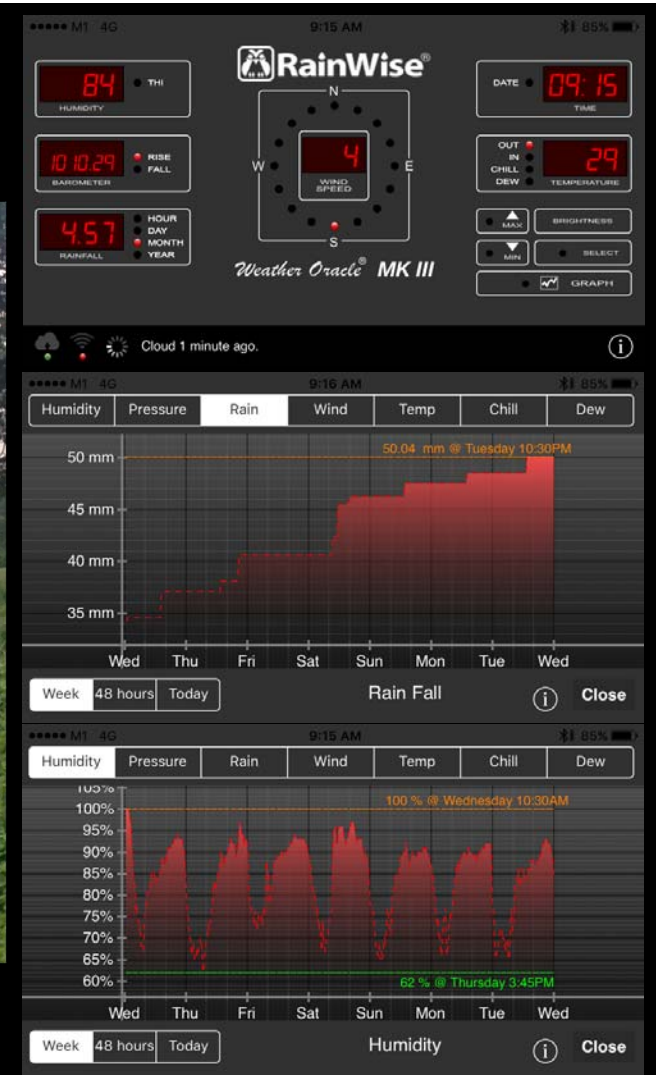
More Heads = Less Consumption

Irrigation Water / Water Conditioning



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Weather Tracking / Environment



Details needed to Exceed Expectations



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Details needed to Exceed Expectations



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Embracing Technology to Improve Turf Management

Pursuit of Perfection

Every Weekend is the "MASTERS"

To be the BEST we must get better

Spray Primo to reduce plant size increase "SPEED"

"ROLL" Walk on toes keep heel up

Growth Hormones

STEMP GREEN AT 10.7

Walk at 1.3 MPH

Soil Temp?

Mow straight lines

HAND WATER RIDGE

Fix ball marks before mowing

Mow with brushes on Tuesdays and Fridays

14 Blade Reels

Core every month with pencil tines

What is the Night time temps?

Sand depth in face must be 2"

Use SAND MATT in the face to hold the sand

Everything is about speed

What is the Percolation rate?

Place bunker rake with the line of play

Sand firmness should be 2.6

Bunkers are no longer a hazard they are a part of the green

Bermuda Grass Special one bag per acre

Grind reels daily

"SPEED" Focus on the end

Turn on SUB AIR 5 min every HR. to remove gas build up

AIR MOVEMENT

PUNCH SMALL HOLES IN CLEAN UP PASS EVERY TWO WEEKS

"N-P-K"

Light "Top-Dress" on Monday

Face Grind Bed Knife

"CONSISTENCY"

Reel speed rpm vs walking speed

Spray Potassium to strengthen cell walls

Roll greens on Thursdays

Clip Rate 1/4 basket with 21" frequency

Use Angular Sand

Rake bunkers everyday

Test The Sand

Round sand is bad

FLYMO NOSE

Paint the pin straight

Set Cutting Height at 3mm

Send Plant tissue to Texas for analyzing

"FIRM GREENS"

Use Toro Super Tournament Thin Bed knife

Surface drain water around bunker not through th bunker

Spray fe. ma. mg to boost chlorophyll production

Groom on Friday

Turn Off the "Water"

Put them to bed Dry

Wake them up wet

Agronomy

My Philosophy:

Undivided commitment to achieving agronomic excellence is achieved by "the art of application" utilizing and improving upon reliable, proven techniques. Therefore, creating the most celebrated playing surfaces in the world.



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Soil Management



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Environmental Strategy



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#KeepItGreen at the Club

Sustainable herb garden - SGC growing it's own herbs

SENTOSA GOLF CLUB LOSES ITS BOTTLE AND STRENGTHENS COMMITMENT TO THE ENVIRONMENT



THE OPEN

HOLE	PAR	PLAYER	SCORE	CUML
54	-12	DUNNE	204	
53	-12	DAY		
54	-12	OOSTHUIZEN	204	
54	-11	SPIETH	205	

NTT DATA

AFTER 53 HOLES

ROLEX

SCORE FOR RND

PLAYER

NEWS

Latest > Sentosa Golf Club loses its bottle

JUN 28TH, 2018

SENTOSA GOLF CLUB LOSES ITS BOTTLE

And strengthens its commitment to the environment

PWRADAPT

WATERPROOF MESH FOR ALL CONDITIONS

ADAPT. NO EXCEPTIONS.





WE ARE REMOVING DRINKING STRAWS

We've put away drinking straws in our continued effort of reducing plastic waste, and will only give them out if you specifically ask for one. Join us in our effort by saying NO to plastic straws.





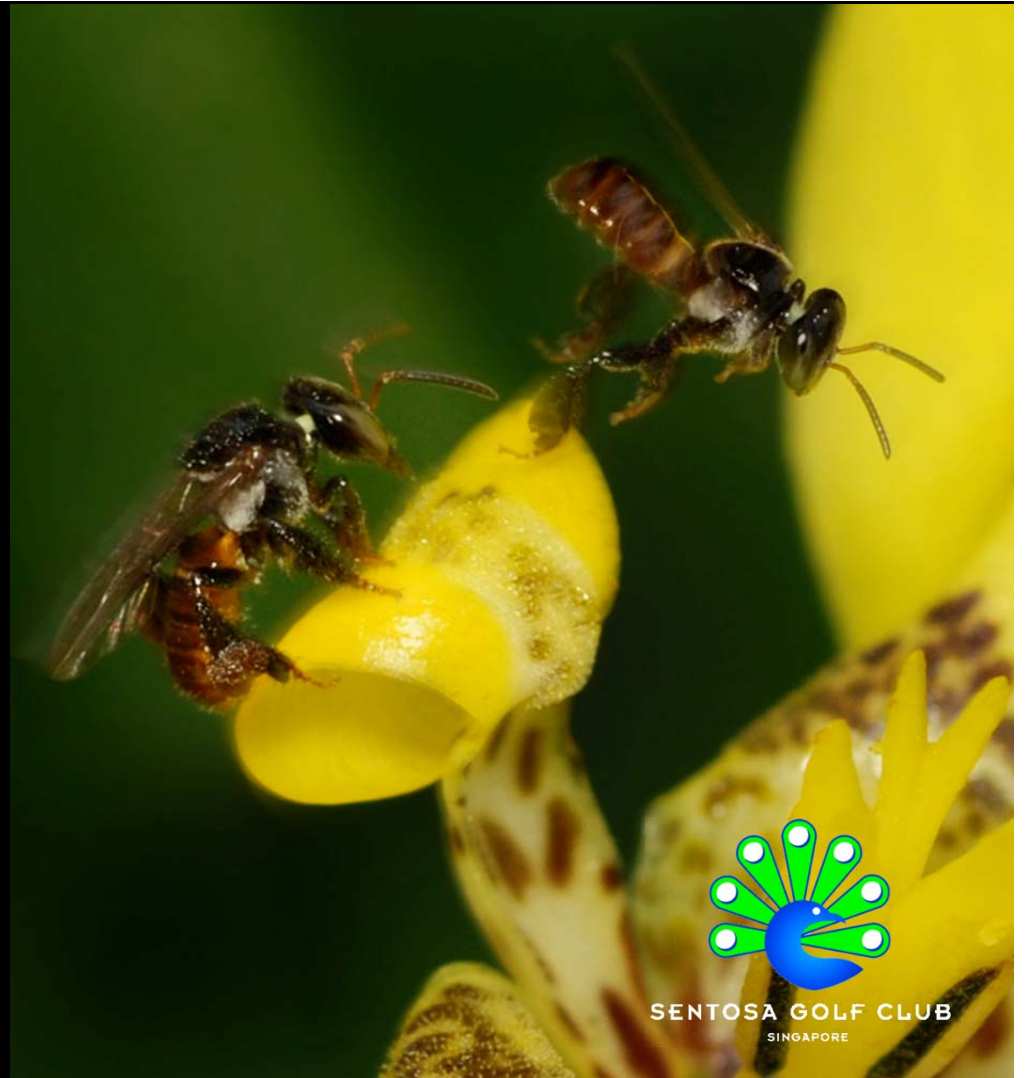
MIRIMICHI GREEN™

Activate Nature.



Colonization of Bees

Stingless bees (Meliponini),
Fort Canning Park, Singapore



Built in 1995

The Club House

Changing Rooms
Gym
Golf Academy
Driving Range
Practice Area
Pro Shop

APGS2018



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Clubhouse Redevelopment Works

1. Replacement of Air Conditioning
2. Replacement of Hot Water Boiler Systems





BCA Green Mark
PLATINUM



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RESPONSIBILITY TO GROW THE INDUSTRY



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RESPONSIBILITY TO GROW THE INDUSTRY



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× Banyan Golf Club

Hua Hin

Minachai Srichanya



Sentosa Golf Club @Sento... · 14/12/17

Entries are now open for our
@SingOpenGolf Golf Agronomy
Volunteer Programme, supported by
@sustainablegolf and @RandA ...

You and 4 others

3

5

14



Home of the Asian Tour

The official sanctioning body for professional golf in Asia.



#whereitsAT



SENTOSA GOLF CLUB
SINGAPORE



The Asian branch office of Golf's world governing body is located SGC

Officially opened 25 Nov 2016



SENTOSA GOLF CLUB
SINGAPORE



"The most rewarding things you do in life are often the ones that look like they cannot be done."

Arnold Palmer





A scenic view of a golf course at sunset. In the foreground, a large, multi-tiered waterfall cascades over dark, jagged rocks. The water is white with foam. To the left of the waterfall, there are lush green plants and a small pond. To the right, a green golf course fairway is visible, with several sprinklers spraying water. In the background, a city skyline is visible across a body of water, with a prominent tall, curved building. The sun is low on the horizon, creating a warm, orange glow across the sky and water.

THANK YOU

Invest in our Asset
2006 renovation of the Serapong Course



SENTOSA GOLF CLUB
SINGAPORE

APGS2018

Investment in our Asset

2006 renovation of the Serapong Course

This was the initial milestone event that shaped our immediate as well as long-term Masterplan goals. This also marked our commitment to invest in **Processes, People and Technology**, a vision and commitment we have not stopped pursuing.

- SubAir
- Upgraded the Equipment Package
- Introduced Fans
- Wireless Soil Sensors
- Intelligent fertigation system
- Added Improved grass varieties
- Improved bunker strategy, drainage and sand
- Improved Irrigation System

APGS2018



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Creative Design Concepts Contributes to a memorable experience

Soft Cart Path / Waste Bunker
Doubled size Greens and recontoured
Doubled size of the Tees
Strengthened Bunker Strategy
Added Length where possible
Player / crowd control measures



Aesthetically attractive, Cart path no longer in play

APGS2018

Improved traffic corridor



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Commitment to Hosting Tournaments



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