I Love It When a Plan Comes Together!

By Joel Jackson CGCS

On an old NBC-TV action series about a group of do-gooder mercenaries called The A-Team, the group's leader, Hannibal Smith, portrayed by actor George Peppard used to say, "I love it when a plan comes together" as their intricate schemes bore fruit and the bad guys were conquered. These loveable renegades had a mission to accomplish, often with limited resources and some sort of time constraints. In short, to succeed, they had to have a plan. Are golf course maintenance teams very much different?

Does your club or even your department have a plan or standards for the successful accom-

Long Range Plan Excerpts

FOUNTAINS COUNTRY CLUB

Mission Statement

Our goal is to provide the finest possible golfing experience to the members and guests of The Fountains C. C.

Principles Of Operation

Safety

The safety of employees and members will not be compromised.

Environmental Responsibility

All programs will incorporate "Best Management Practices" in order to minimize environmental risk. Financial Responsibility

The Golf Maintenance Department will follow club policy in all budgeting, purchasing, and record keeping procedures.

Standards For Golf Course Maintenance

The mission statement of the golf course maintenance department states our primary goal. We understand that each member or guest may have a different view of what a great golf experience is. The scratch player focuses on the playing surfaces and is more concerned with how the ball can be played form the turf than what the turf looks like. Another player enjoys the feel of lush green grass under their feet and the beautiful colors of flowers outlining the courses. Still another may find enjoyment in the natural beauty of our wildlife and wooded common areas.

As managers we attempt to maintain the golf courses in such a way that each of these diverse views, is acknowledged, addressed, and provided in a way that maintains the overall integrity of each course and still is pleasing to the widest variety of tastes. The staff attempts to accomplish their individual tasks in a way that causes as little disruption to play as possible, always aware that while they have a job to complete, they must make every effort to plishment of your mission - to produce the best possible playing conditions for your customers or members? If not, why not? Most everyone mows greens daily; mows tees three times a week, etc. That's not a plan; that's a schedule.

A long-range plan, or a set of standards, is a way for a club to meet the ongoing and future needs of the golf course to remain prosperous and competitive in the business world. Grass mutates, drains clog, cart paths and irrigation systems wear out, trees die or grow bigger and make more shade. Do you wait until a whole slew of problems hit critical mass before taking action? Or do you plan to address changes and modifications in an orderly fash-

work as invisibly as possible to the member or guest playing all around them.

Our principles of operation ensure that we adhere to club policies and procedures and employ sound management decisions in our efforts to achieve our stated mission.

There are over eight hundred golfers at The Fountains CC with a wide variety of experience and skill. The courses should always be aesthetically pleasing and groomed that allows golfers at any skill level to enjoy the game. At times of exceptionally

		Hours to Complete	Total Man Heart	Thesas Duty Performed	Times	Tetal Man He
Duty Performed	People	Duty	Per Duty	Per Year	Per Week	Required / W
Ptoll Grouns		2.8	15	26	0,48	6.82
Walk Mow Greens	12	28	30	200	8.00	150.00
Course Setup		2.5	110	RD	1.592	105.29
Rake Traps		2.8	18	365	7.02	166.29
Muer TGA		7	28	156	3.00	81.00
Mow FWYS	4	1	28	104	3.00	\$4.00
Mow Rough	- 4	20	100	342	1.00	001.00
Mow Slopes	4	20	80	62	1.00	80.00
Grounds Musion	- 3	20	90	52	1.00	60.00
FlyMo Traps	2	17	24	10	1.00	24.005
Touch up Weedeating	2	12	24	.24	11.465	11.08
Weedeating lake banks	4	24	948	52	1.00	90.00
Blow Fairways	2	3		18	0.29	3.73
Sweep Rough	2	.10	70	.74	0.40	823
Blow Cart Paths	2		12	.246	0.66	5.54
Blow To / Greens	2	2	4	18	0.29	1.10
Edgu Cart Puths		38	210		0.12	21.25
Edge Traps		35	210	24	17.46	36 97
Edge Yet Markers	2	1	14	12	61.0	3.23
Divot Boxes/ Ballweshers	2	- 0	12	82	1.00	12.00
Triplex Grooms	8	2.5	12.8	101	8,00	37.80
D.R. Assistance			2	104	2 88	4 00
Apply Fartilizer to greens	4	1.5	8	20	61.388	2.31
Spray Foliar	. 2	3		\$0	0.96	5.77
Fortilizo Wall to Wall	2	32	96	5	0.08	3.69
Disease / Insect Suppression		30	64	57	1.00	64.00
Topdress Greens Terra Top	2	6	12	24	0.46	5.54
Aarity Greens	2	32	04	2	0.08	2.69
Acrily Toos	1	32	312	2	0.04	1.25
Aertly Fairways	4	40	180		0.07	3.08
Aarify Roughs	4	40	100	1	0.07	3.08
Verticut Greens	2	2.8	1.6	13	0.28	3.75
Vorticul Toos	2	18	32	2	0.91	1.25
Verticut Fairways		48	146	. 4	OBP	1.85
Spray Weeds	4	6	34	260	1.82	1808.40
Spike Greens	2	18	32	104	2.00	84.00
			Tolat Mar	Hours Calculat	and Chin Wareh.	1413.79
		1	Total Man House	Austration part	nan per week	38.75
				radovers fanas		37
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Worksheet used by The Fountains to implement part of its plan.

poor weather or other unusual environmental conditions, these standards may be temporarily adjusted to protect the long-term health of the golf courses. If these standards are to be adjusted, it is Directors responsibility to provide alternative programs of construction or maintenance that could be undertaken to achieve the desired results. These programs should contain a detailed analysis of the commit-



Long Range Plan Introduction	
Golf Course Improvements 2002	
Golf Course Improvements 2003 - 2006	
Development Plan	
Introduction	1.283
Maintenance Standards	485
Golf Course Appreisal Forms	
Organizational Chart	
Position Descriptions	
Superintendent	
Assistant Superintendent	
Administrative Assistant	
*Remainder of Position Descriptions is still in progress	
remainder or Position Descriptions is still in progress	

ment in time and money that would be necessary to achieve and maintain these newly adopted standards.

The greens should have a solid, dense covering of turf that allows for a smooth ball roll. They should be weed free and be able to accept and hold well-played incoming shot. Every effort will be made to keep the greens as fast as possible without excessive risk for loss of turf. There should be as little variation in speed between greens as possible. Flags should be the correct color to indicate the placement of the cup on the green. Pins should be set with six front, six middle, and six back, whenever possible.

Tees should provide a flat surface with dense coverage to provide secure footing. Markers should be six short, six middle, and six back whenever possible and provide an overall distance that is acceptable for the rating of the golf courses.

Fairways should provide a consistent lie with dense coverage and a surface that allows the ball to "sit up". They should be as weed free as possible with good color.

Bunkers should be consistent in sand type and depth. They should be edged as necessary to provide a clean outline.

The rough should be as consistent and weed free as possible with uniform color. The green slopes should be as dense as possible to allow for a fair shot to the green. Tee slopes should be dense enough to provide safe access to the tee surface.

Lake banks should be maintained at a height that is slightly higher than the rough to help stop balls from entering the water. The lakes should have a minimum of aquatic weed and algae growth.

The cart paths should be free of potholes and maintained with a clean edge.

Golf course accessories such as rakes, ball washers, etc. should be in good working condition and aesthetically pleasing.

The golf course maintenance department will work with the Golf Professionals to ensure that the courses are marked according to the USGA Rules of Golf. ion to keep costs under control and the course in good condition?

Superintendents should take the initiative to bring the idea of long-range planning and maintenance standards to the attention of the officials up their chain of command. Even if the officials decline to act immediately, at least you are on record as being aware and concerned for the financial and operational welfare of your club. You will also be documenting the actual costs to maintain the golf course to their demands and expectations. This documentation can be a great tool in demonstrating the cause-and-effect relationship when new committees want to make changes to the golf course or its maintenance practices.

As the old saying goes, "The best laid plans of mice and men often go astray." And in the research for this Hands On topic, my preconceived ideas of what long range plans and maintenance standards are and how they are administered were given a reality check. Check out how these topics are approached by your peers. Long Ronge

What is long range? For Greg Maze, at the Twin Eagles G.C. in Naples, it is one year at a time. Twin Eagles opened in 1997, but had to reorganize under new management in 2000. Until the club accumulates more real estate and membership sales, its planning is limited to working with a fledgling budget that is growing slowly but surely. Maze says, "We have a list of prioritized projects we want to accomplish. Right now we pick one and put it in the budget for next year, so we do have a plan. As the club grows we will be able to forecast farther into the future."

Clayton Estes, CGCS at the San Jose C.C. in Jacksonville said the club's board of directors requested in 2000 that the green committee prepare a long-range plan for golf course maintenance. Estes called on John Foy, director of the USGA Green Section Florida Region, for help and advice. Using a report-card concept of evaluating the golf course, a punch list of needed projects was produced.

Estes says, "In the long run the plan became primarily a budget tool for expanding existing line items annually to accomplish some of the improvements identified in the plan - a justification for raising the line item over its normal operating amount. With the current economic uncertainty, it has been tough to stick to the plan and put in those extra dollars to take care of those projects. We have done a little better with our five- to seven-year equipment-replacement plan. Each year the equipment up for replacement is given an A, B, or C priority. Like any plan, it is a living document and needs to be reviewed annually and changed as needed."

Peter Brooks, CGCS at The Everglades Club in Palm Beach said the club had a five-year course-improvement plan all mapped out to address the issues facing the historic Seth Raynor-designed golf course that opened nine holes in 1919 and the full 18 in 1926. The course had been reworked and "modernized" a couple of times over the years, but there were still significant irrigation, drainage, fairway contouring and grassing issues to be faced including fairway off types and upgrading the Tifgreen 328 greens to TifEagle.

Brooks said, "We were proceeding with our plan in an orderly fashion when all of sudden we came to a decision-making crossroads. The South Florida Water Management District ruled that we had to improve our storm-water runoff-retention capacity, which meant we had to deepen and enlarge all of our lakes.

"Forced to tackle that project immediately created a chain reaction realization for the club. If we excavated the lakes we would generate fill needed to contour fairways. If we contoured the fairways we would need to install new drainage collection basin and drain lines to the lakes. If we tore up and redesigned the fairways we would need to redesign our irrigation coverage. If the course was going to be closed why not regrass the course? All of a sudden our five-year plan became the 2002 Renovation Plan.

"While it will be a challenge to get everything done by our projected opening date of December 1, 2002, we will be gaining a new irrigation system, removal and relocation of all trees causing shade problems to greens. They will all be in full sun in the new layout. A complete tilling of the fairways with sand from the lakes will break up the

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organic layers built up over the past 70-80 years. So we're still operating with a plan in mind. It's just on an accelerated track."

Brooks also has a five-year capital-equipment-replacement plan in place, which will have to be tweaked to include a whole new fleet of flex greens mowers to accommodate the new TifEagle turf on the new Brian Silva layout which will bring back some of the original Raynor design features.

Brooks says, "Our long range equipment plan allows the club to know the capital costs each year. It discourages procrastination in budgeting for some needed items because they can't be deferred too long before the bill keeps getting bigger to pay for the replacement items. Of course any good plan is adaptable and never in concrete. In fact in most cases by using GCS maintenance-record-keeping software and sticking to manufacturers' recommendations, we have improved our equipment's life span and our five-year plan is really more like a seven-year plan."

Three long-range plans

Meanwhile back on the west coast, Matt

Golf Course Morning Duties

FOUNTAINS COUNTRY CLUB

This is a brief description of the tasks that are performed every morning on the golf course before play begins.

Manager in Charge

This is assigned to the Director, Superintendent, or Asst. Supt.

· Check answering machine.

- Check weather computer for threatening weather.
- · Check irrigation computer for last nights report.
- · Morning line-up with crew before deployment.
- · Check main and supply irrigation pumps.
- · Inspect driving range and practice areas.
- · Report cart rules and check tee sheets with pro shop staff.
- Ride and inspect both courses.
- · Discuss next day's requirements with mechanics.

Course Setup

This is usually assigned to an Asst. Supt. or key employee that is familiar with the basic rules of golf and how the game is played.

First tee start- One employee, 4 hours First and ten-Two employees, 3 hours 8:30 Shotgun- Three employee hours, plus one employee, 1 hr.

Changing of the cups, or pin locations and tee markers. This is done daily according to a charted system that ensures that a variety of positions are covered and wear is distributed evenly throughout the greens and tees.

Move cart control ropes and check ball washer areas for all golfer amenities.

Taylor at the Royal Poinciana G.C. inherited a longrange plan already in place. Taylor brought along some ideas he had learned working with Tim Hiers at Colliers Reserve and Mark Black at Bonita Bay East. Working with the Royal Poinciana committee and board members, they modified the plans. In fact there are actually three long-range plans Taylor is involved with: Course Operations (5 years), Capital Equipment (10 years), and Course Improvements (5 years). Each plan is re-evaluated every spring and receives final approval in the fall.

Taylor said, "Each year we look at the issue and determine the priority of what needs to be done from the major course improvement projects down to providing amenities and adjust as needed and submit to the board for approval. Having these plans in place and in writing gives me a certain comfort level with my duties and responsibilities. There should be no surprises for me or the club about what is expected or what we are going to do. It provides a stable business-like atmosphere for the growth and development of the club.

"We also have a set of maintenance

Empty trash containers and check to see that all water and ice machines are functioning properly.

Check scorecard and tee holders.

Walk Mow Greens

This is the preferred method of mowing. Each mower is 22" wide and gives a more even and tighter cut than a ride on machine.

First tee start- Three employees, 3 hours First and Ten and Shotgun- Four employees, 2.5 hours

Triplex Greens- This is a machine with three 22" mowers mounted on a small tractor. The main disadvantage to tri-plexing greens is the potential for tire wear when circling the perimeter of the greens. It is also more difficult to set and balance three independent cutting units to mow evenly when set at heights of .135 and lower. The advantage of the triplex mower is the savings in manpower and speed of operation.

Tri-plex mowers are also used as a "double cut" mower, following the walk mowers to provide a tighter cut and faster green. When greens are verticut they are usually followed by a tri-plex to clean up the clippings.

First tee start- One employee, 3.5 hours First and ten and shotgun- two employees, two hours

The frequency of "double cutting" and, rolling and mowing, is one of the most important aspects of faster, smoother greens without reducing mowing height. This is possible when there is a maintenance staff large enough to fill these positions.

Rake Bunkers

Most golf courses today use small riding bunker rakes with hand raking saved for major tournaments standards to guide our employees in the performance of their duties. These standards are built into our training program for each employee and cover the basic safety and performance requirements for each job and piece of equipment. There is a binder containing the standards and procedures for every job and equipment and as each person masters each job he is signed off and certified for that equipment or operation."

Maintenance Standards

I learned that creating maintenance standards for golf course operations had just as many different applications as did long range plans. However, they did have common threads like safety, training, consistent performance and quality. Because intimate knowledge of the tasks and desired results is required, most maintenance standards are written by the superintendent. It is important, however, for the club to recognize what goes into achieving those standards and that for every action there is a consequence in time and money.

Chip Fowkes at the Fountains G.C. in

and events. It provides a much smoother and even surface if a second worker can be sent along with the machine operator in order to hand rake rough spot, pull weeds and rake the bunker edges.

First tee start- One machine, 4hours, with optional hand worker, 3 hours

First and ten-Two machines, 2.5 hours, with two optional hand workers, 2 hours.

Less Than Daily

The following tasks are performed at different intervals depending on the desired level of maintenance and supporting budget. The majority of golf courses mow these areas three times per week on Monday, Wednesday, and Friday. There is a movement at the finer clubs to go to a more frequent mowing schedule of every other day including weekends. The higher frequency of cut results in less scalping, tighter lies and more definition.

Tees, Collars & Approaches

The intermediate cut circling the green and the short cut area between the fairway and green. Mowed with the same style triplex mower as is used on the greens but set at a height between .350 and .5 inches

First tee start- 2 mowers, 3 hours. First and ten - 2 mowers, 4 hours. 8:30 Shotgun- 4 mowers, 2 hours. Every other day- 3 mowers, 2.5 hours.

Fairways

Whether fairways are striped by mowing each line in the same direction every cut, or mowed in different directions like a putting green, more frequent mowing schedule produces a tighter turf stand. First tee start- 2 mowers, 3 hours. First and ten- 2 mowers, 5 hours. Every other day- 3 mowers, 2 hours.

Long Range Planning Process

JOHN'S ISLAND CLUB

By Greg Pheneger

The Mission Statement of John's Island Club includes the phrase: "Maintain, improve and add club facilities and equipment as needed, keeping them in first class up-to-date working condition at all times". To accomplish this goal, the club instituted a long range planning committee in 1999. Prior to 1999, planning at John's Island tended to be episodic, depending upon specific issues, projects and needs. The strategic plan listed goals and instructed the club to work on a five-year plan so that the club's direction would be managed.

A five-year plan including corresponding costs is compiled by each department head. The plans are then looked at by the appropriate committees and then forwarded to the long-range planning committee, usually after a few modifica-

Lake Worth is a big believer in maintenance standards. Fowkes said, "I drafted my first set of standards while working at Frenchman's Creek. There were four things I wanted to accomplish by having a set of standards approved by the club: accomplish the mission of the golf maintenance department;

tions. The long-range planning committee then ranks each and every item in the plans for presentation and recommendations to the board. This procedure is accomplished in conjunction with the finance committee to ensure the appropriate funding is available.

I was very fortunate when I arrived at John's Island because there was already a very good equipment replacement program in place. The equipment plan optimized useful life with trade-in values so that the club got the most for their money. Equipment maintenance programs must be a very high priority to enhance trade-in values. Tweaking to the equipment plan has been done to accommodate the full course overseed programs on the beach courses.

Capital projects such as green rebuilds, bunkers, fairway, etc. needed to be plotted. I took the plan a step further by producing a ten-year plan. The ten-year plan is required for capital projects since most of the items we are replacing last much longer than 10 years and the ten-year plan simplified this task. I consulted with John Foy of the USGA Green Section, architects,

address players' expectations for a well-groomed golf course; define performance guidelines for our employees; and address our environmental and financial responsibilities to the club."

I asked Chip if he developed the standards in conjunction with the green committee and contractors and fellow superintendents for information regarding their replacement schedules. The timing differed on most items; however, armed with this information, I was able to formulate conclusions that worked for John's Island. I then gathered costs for each item, adding inflation costs at 3% each year, plus a 10% contingency. Architect or engineering costs were incorporated one year prior to the actual job start-up date.

The plan allows the club to clearly visualize future spending. Large projects are not a surprise to the membership, and through the vision of this plan, they can formulate a clear decision on these projects. Always keep in mind that the plan must be updated each year and projects will move within the long range plan and items will be added and/or deleted.

Do not be discouraged or think that the club will not spend the money for the items needed most because items may be re-prioritized. A wellthought-out long range plan will allow the club to discover ways to obtain money to accomplish the necessary projects to conform to its mission statement.

he said he didn't think that was very practical.

He said, "Committees are made up of players all skill levels. We would get bogged down in 12 different discussions on playing conditions and never get a document written. It is much easier to go back and tweak a couple of sentences than to argue

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over the whole document line by line. I write the standards and then submit them to the committee annually for approval. Committees can change each year so it's important to do that.

"My first source for the standards was crew input for the obvious reason - they do the work every day. Another reason is that I wanted to establish grassroots belief in our goals to get buy-in and ownership of the responsibility for achieving the standards. These standards are then part of our training program for every employee to help each one succeed at his or her job and to provide a good quality for our members. By defining all our jobs, we also provide valuable documentation for budget preparation. When asked why you need X dollars for labor or equipment, it's pretty easy to open up the binder and show them in black and white."

Kenyon Kyle at the 54-hole Shadow Wood C.C. in Naples said he was motivated to develop maintenance standards for his own peace of mind. Kyle said, "I watched Mark Black's responsibilities grow from a single 18-hole golf course to a 90-hole, multi-site operation with Bonita Bay. Obviously, his time spent on the golf course had to go down as he got involved in company meetings and planning sessions. The first week at Shadow Wood I knew I would need to create a set of standards like Mark did at Bonita Bay. I wanted guidelines in place that would help me meet my expectations as the person ultimately responsible."

"In conjunction with the general manager and head golf professional, we have a running list of projects on the docket. Since we are owned by the developer we don't have a typical green committee, but rather an advisory committee made up of members that provides monthly feedback on issues and concerns. I also make it a point to be in the cart staging area near the pro shop on Men's Day to meet new members and chat about our plans and operations.

"Shadow Wood is a 54-hole complex. I knew supervising the grow-in of the new Preserve course was going to take a lot of my time. As director of golf operations I want to make sure my superintendents and the staff had all the resources they needed to provide a consistent quality experience on all the courses. By establishing and training the crew with a common set of standards we should be able to accomplish that goal."

A custom built cabinet organizes irrigation control and communication components allowing for quick visual inspection and providing protection against unwanted tampering or mishandling. Photo by Darren Davis.

Oak Hill Irrigation Upgrade Provides Lots of Easy Tips

On a recent visit to Oak Hill Country Club in Rochester, NY, golf course superintendent Paul B. Latshaw was kind enough to show us several "Super Tips" that may benefit many Florida golf course superintendents.

Oak Hill will serve as host for the 2003 PGA Championship, one of golf's four major championships. The Club, founded in 1901 boasts a Donald Ross-designed golf course and is no stranger to major golf tournaments, having hosted three US Opens, the 1980 PGA Championship and the 1995 Ryder Cup Matches. The golf course is also ranked in the top 25 on most Top 100 lists.

Latshaw and his staff have spent the last several years preparing for the upcoming PGA championship by revitalizing the conditioning of the



Easy and affordable to construct, this portable 1-1/2-inch PVC base is stable and delivers extra irrigation where needed at optimum pressure. Photo by Darren Davis.

golf course to meet and exceed expectations of the PGA for hosting the upcoming championship. Included in this revitalization was a major irrigation renovation and the following two "Super Tips" relate to that irrigation project.

Command Center

The first tip was found in the new computerized irrigation system "command center." Adjacent to the computer that runs the irrigation program, is the additional hardware needed by the Rain Bird control system to send and receive the data necessary for the smooth operation of the state of the art irrigation system. At other facilities that I have visited, depending on one's housekeeping practices, I have seen the various components placed in tight quarters and often in disarray. This can be a little scary especially when we rely so heavily on our irrigation systems for accurate and dependable water distribution. At Oak Hill, a custom-built cabinet was used to organize the additional components in a manner that allows for quick visual inspection and provides protection against unwanted tampering or mishandling.

Transportable Head

The second item I found intriguing is a transportable irrigation head that can be used to spot irrigate areas that are either not receiving adequate coverage from the system or in need of special attention. 1-1/2-inch PVC was used to construct the base of the unit with a Rain Bird 900 series irrigation head attached to the threaded fitting in the center of the base. During the initial use, Latshaw determined that operating the unit with a standard 1-inch hose, resulted in a loss of approximately 40 psi, severely decreasing the efficiency of the irrigation head and the desired irrigated radius. A 1-1/2-inch hose was then purchased from a local fire hose distributor and the spot watering device is now functioning very well.

Darren Davis