

**Sun Paradise-Hotels Management**



**SPHM  
HOSPITALITY**

## **GC MAINTENANCE OPERATION HANDBOOK**



**By| Agustinas Agus Purwanto, SE MM,  
SE MM**



# Sun Paradise Golf & Country Club

## **Golf Course Maintenance Operations Handbook**

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## Golf Course Maintenance Operations Handbook

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### *I – INTRODUCTION*

#### **Purpose**

The purpose of this handbook is to establish and set forth specific guidance and standards for the set up and maintenance of the golf course and the operation of the golf course maintenance department.

#### **Golf Course Maintenance Overview**

Maintaining a championship quality club golf course will cost a million dollars a year or more depending upon location and the members' or developer's desired quality. This coupled with the fact that much of the work of grooming, setting up, and maintaining a golf course is labor intensive makes the Golf Course Maintenance staff one of the larger staffs in the club. Managing this large, highly specialized operation requires a sound business manager as well as a professional turf management expert.

Modern Golf Course Superintendents are typically graduates of collegiate level turf management schools. Before ascending to the Superintendent position, they typically work a number of years at golf courses learning the practical skills of their trade and working their way up to Assistant Golf Course Superintendent. They are usually compensated with a base salary commensurate with their education, background, and experience and a bonus opportunity for meeting budget or other specified goals.

Their challenge in the golf business is unique – how to maintain an artificial playing environment with specialized grasses in various regions of the country with a host of micro-climates and conditions at the highest possible level while meeting the desires of the members or developer. A Superintendent's knowledge base includes agronomy, chemicals (herbicides, pesticides, fungicides, and fertilizers), soil composition, irrigation techniques, turf care equipment and techniques, equipment maintenance, tree and shrubbery care, and a deep knowledge and love of the game of golf.

Every golf course is different; in fact, every hole on every golf course is different. Combinations of soil, water, grass, sunlight, weather, temperature, and the knowledgeable application of chemicals make each area of the course a microcosm of nature. This, the Superintendent is responsible for knowing, tending, and nurturing throughout the year. Ironically, the end of all his efforts – the members for whom he is trying to provide ideal playing conditions on the course – are the very ones that damage and degrade the course with every round played.

The Superintendent and the Head Golf Professional need to work closely on a number of important issues – course set up, pin placements, tournament and event schedule, major turf treatment schedules, and playability. Also, like the Head Golf Professional, the Superintendent will work with a committee of members – the Greens Committee. Often his greatest challenge will come from individual members with an uninformed opinion and vision for the golf course.

The Superintendent hires, trains, and supervises a large staff of specialists and laborers to set up and maintain the course. In larger clubs he will usually be assisted by an Assistant Professional, an Equipment Mechanic, a Chemical Applicator, an Irrigation Technician, Crew Leaders, Equipment Operators, and Greenskeepers. Throughout the year there are different tasks confronting the maintenance staff. Various applications of fertilizer, herbicides, and pesticides, mowing the fairways, roughs, collars, and greens during the growing season, setting up the course each day, leaf blowing in the fall, repairs from storm damage, and constant adjustments and repairs to equipment. During the slower winter months there is a large effort to service the specialized course equipment – including fairway mowers, greens mowers, aerators, utility carts, and other equipment.



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In many parts of the country, golf courses need to be irrigated to maintain the growth and vitality of the grasses. Modern golf courses used computerized irrigation systems that allow the Superintendent to adjust the amount and cycles of course irrigation with pop-up sprinkler heads, all controlled from the Superintendent's office by a computer. The downside to irrigation systems are the inevitable breaks and washouts on the course caused by pressurized water.

Most golf course maintenance crews are made up of a core staff of year-round, full time employees. During the busy season this staff is augmented with seasonal workers. While many clubs close their courses one day a week, very often that day is reserved for golf outings – a great way to increase overall club revenues. Naturally these outings come during the busier, more popular times of the year for golf play. As a result, the maintenance staff must frequently work long hours and long weeks to properly maintain the course.

While the Superintendent makes every effort to give players optimum playing conditions on a daily basis, he also adjusts fertilizer applications, water schedules, and mowing heights in the weeks before major club events and tournaments to give the course the fast and firm conditions which can't be achieved all the time. This necessitates the Head Golf Professional and Superintendent working closely together to schedule major course maintenance at times that won't impact major club events.

In addition to the ongoing maintenance of the course, the Superintendent is responsible for the daily set up of the course. This requires a team of employees to change the pin placement, mow the greens and collars, replenish the on-course water, refill and service the ball washers, empty the course waste containers, check the rest rooms – all before the first member tees off.

Throughout the year the Superintendent must monitor weather and course conditions and make daily decisions about whether carts must remain on the paths or whether the ninety degree rule will permit carts on the course. Whenever inclement weather occurs, the Superintendent must quickly mobilize his staff to repair any damage on the course. This can include rebuilding bunker walls, storm debris cleanup, repairing washouts, tree or limb removal, marking any parts of the course under repair, noting drainage problems for scheduled repair work, and ensuring that all sprinkler heads are operating properly.

Though Superintendents operate from a golf course maintenance facility, they are usually on the course and can best be reached by cell phone or radio, especially during the busy season. While most Superintendents will tell you that theirs is a tough job, most wouldn't trade it for the world.

### **Minimum Standards**

The guidelines and standards set forth in this handbook are necessarily general in nature and constitute the minimum standards for the set up and maintenance of the golf course. Individual Superintendents are expected to make all necessary adjustments for their local turf care conditions.

Superintendents are likewise expected to address details specific to their club and their operation. While local conditions may dictate specific policies and procedures, the requirement to provide forward thinking leadership and establish sound professional business practices is a universal requirement of all Superintendents.



## ***II – SUPERINTENDENT’S DUTIES AND RESPONSIBILITIES***

### **General**

The Golf Course Superintendent has large and varied duties, spelled out below.

### **Job Description**

Position. Golf Course Superintendent

Essential Function. Maintains golf course and related golf equipment.

### Duties and Responsibilities

1. Maintains all grounds related to the golf course.
2. Maintains course maintenance equipment.
3. Schedules personnel assigned to department.
4. Trains personnel assigned to department.
5. Supervises personnel assigned to department.
6. Evaluates personnel assigned to department.
7. Supervises all planting, fertilizing, and care of turf, plants, shrubs, trees, and other facilities on golf course.
8. Supervises operations of and personnel in equipment repair shop.
9. Records all work activities of personnel in the department.
10. Records all maintenance on course.
11. Prepares annual plan for golf course and annual budget for department.
12. Selects and prepares proper fertilizers and nutrients for all flora.
13. Develops and maintains drainage, irrigation, and watering systems.
14. Maintains course in proper playing condition.
15. Provides necessary input for all required personnel records.
16. Implements and enforces comprehensive safety program for employees, members, and guests on course in compliance with local, state, and federal laws.
17. Maintains accurate work records for all personnel in the department.
18. Tracks departmental benchmarks.

Reports To. General Manager

Supervises. Assistant Golf Course Superintendent, Chemical Applicator, Irrigation Technician, Crew Leaders, Equipment Operator; Equipment Mechanic; Greenskeepers

The Superintendent’s position is exempt from overtime.

### **Qualifications**

Superintendent: Must have prior experience and a degree in Agronomy or related field. Must be a member of the Golf Course Superintendents’ Association of America and hold, at a minimum, a Qualified Applicator’s License from the state.

Other key personnel:

Assistant Superintendent: Must be experienced and capable in course care and maintenance. Should be qualified to act as the Superintendent in the event of an emergency.



**Mechanic:** Must be skilled and qualified to repair and operate all golf course equipment and machinery.

**Irrigation Technician:** Must be knowledgeable in the installation, maintenance, and repair of all irrigation components found on the golf course. Should be experienced in all facets of equipment operation and maintenance and have the ability to supervise crew personnel.

### Miscellaneous Requirements

The Superintendent, Assistant Superintendent, Irrigation Technician, Mechanic, and other key staff will attend continuing education meetings to keep up-to-date on current industry knowledge.

The Superintendent and Assistant should attempt to play the golf course weekly to get a player's perspective on the condition of the course.

Trade literature and information will be made available to all employees to allow them to improve their knowledge.

### Employee Supervision

Effective supervision depends upon the ability of the Superintendent to get employees to do what is necessary with professionalism and enthusiasm.

Supervisory responsibilities include:

Directing employees' work.

Hiring, counseling, and disciplining employees as necessary. Recommending discharges to General Manager.

In conjunction with Annual Club Goals, establishing goals for his department.

Establishing and maintaining high standards of service, quality, and job performance for employees.

Providing a strong emphasis on service to members by use of the Club's Standards of Service.

Resolving member complaints in a prompt, courteous way. Seeking constant feedback from members concerning quality of golf course. Ensuring that all employees have a complete dedication to the needs and desires of members and their guests.

Establishing systems, policies, procedures, and standards for the efficient operation of his department. Paying close attention to the details of the operation that distinguish an outstanding operation from a merely good one.

Supervising employees, ensuring that all systems, policies, procedures, and standards are followed.

Supervising the work of employees with emphasis on high levels of quality and service, making on-the-spot corrections as necessary. Constantly reinforcing ideals of quality and service to employees.

Developing and executing formal training programs and providing ongoing training of employees.

Scheduling employees in the most cost-effective way to accomplish necessary work. Verifying hours worked.

Monitoring and controlling departmental costs, especially payroll. Ensuring that all employees have work to do throughout the workday and workweek. Sending employees home when necessary to avoid overtime and control costs. Making changes in staffing structure to accomplish the work in the most cost-effective way. Preventing sick leave abuse.

Establishing and meeting annual and monthly budgets for department. Using Tools to Beat Budget™ to help monitor and control expenses.

Ordering supplies as necessary. Conducting inventories as necessary in a timely and thorough manner.

Ensuring the security of inventories.

Ensuring the safe operation of all equipment. Reporting equipment defects and malfunctions to Maintenance for repair.

Maintaining equipment and machinery in good working condition. Monitoring cleanliness of areas of responsibility. Cleaning as necessary and coordinating with Housekeeping for special cleaning or areas needing attention.

Ensuring that Club policies, including appearance and grooming standards for department, are followed by all employees.

Instilling an awareness of energy conservation in staff.

Benchmarking departmental performance with operating statistics tracked over time and analyzed continuously.

Establishing and maintaining effective communication with departmental staff, other departments, and senior management.

Establishing and maintaining a high degree of motivation and morale within department. Ensuring a safe workplace. Training employees concerning safety issues.

Ensuring a secure workplace. Developing and maintaining a security consciousness among staff.

Working together with other department heads and supervisors to develop a team-like approach to operating facilities where the emphasis is placed on problem discovery and solution.

*Reference: Personnel Policy, P-100.03*

### Fiscal Responsibilities

The Superintendent is responsible for the financial performance of his department. There are a number of specific elements associated with this responsibility which are covered in the following broad categories:

Budgeting – Budgeting is the process of establishing a financial operating and capital plan for a future fiscal year. Budgets are formulated using past history, benchmarks, knowledge of upcoming events or trends, and one's best professional judgment.

Comparing Actual Performance to Budget – Once approved, budgets are the fiscal plan for the year. The Superintendent is responsible for comparing actual performance to budget on a monthly basis and intervening as necessary to achieve budget goals.

Controlling Payroll Costs – Payroll is the single largest expense in golf course maintenance operations. As such, payroll is the most important expense that the Superintendent must control. The Pay Period Summary Report and the Departmental Payroll Summary Analysis are effective tools to compare actual to budgeted payroll costs.

In order to control payroll costs, it is essential that the Superintendent have timely and accurate data regarding his departmental payroll cost. Essential to getting this data is correctly following timekeeping procedures, setting schedules to meet forecasted levels of business, and the dogged determination to track payroll expenses closely to ensure that budgets are not exceeded.

Controlling Other Expenses – Other Expenses comprise all of the other departmental operating expenses. The Superintendent can control these costs by carefully reviewing expenditures on a monthly basis, using Tools to Beat Budget to monitor expenses by expense category, and by periodic in-depth reviews of significant expense accounts.



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**Purchasing** – The Superintendent is responsible for purchasing materials, supplies, and inventories for his department. He must be familiar with all Club purchasing policies (Accounting Policies – 4000 Series) to properly fulfill these responsibilities.

**Expense Coding** – The Superintendent is responsible for ensuring that invoices for all purchased items are coded to appropriate expense accounts in a timely, accurate, and consistent manner.

**Inventory Management and Security** – Given that high inventory levels tie up capital that might be put to better use elsewhere, the Superintendent must use common sense and good business judgment to maintain inventories at levels that balance business demands, lower pricing for bulk purchases, perishability of stock, and available warehousing space.

Inventories must be kept secured with access limited to as few individuals as possible. Storage areas must be kept neat, clean, and organized to facilitate inventories and minimize damage.

**Asset Management** – The Superintendent is responsible for protecting and caring for the assets of his department.

**Internal Controls** – The Superintendent is responsible for ensuring the efficiency of his operation and the security of all assets in his care. Further, he must ensure he follows all requirements of Club internal controls (Accounting Policies – 9000 Series).

**Accounting Policies and Procedures** – The Superintendent should be familiar with all aspects of Club Accounting Policies and Procedures. He is expected to follow all Accounting Policies and Procedures and recommend changes as necessary.

*Reference: Accounting Policy, A-1004*

### **Annual Golf Course Plan**

The Superintendent will prepare an Annual Golf Course Plan for each year. The plan will provide a schedule and description of all major agronomic cultural practices, projected levels of play (including special events and outings), planned equipment purchases, and project plans for the following areas:

- Irrigation and drainage,
- Tree care and removal,
- Course improvements,
- Shop improvements,
- Cart path repairs and improvements,
- Landscaping improvements,
- Training plans and programs,
- Safety training, and

Other projects to improve the efficiency and performance of the department.

The plan will typically be prepared in consultation with the Head Golf Professional, the Greens Committee, and General Manager. The plan will be finalized prior to the start of the Club's annual budgeting cycle.



### **Superintendent's Daily Log**

The Superintendent will establish and maintain a daily log that such records as course and weather conditions, rainfall, course set up, mowing heights, turf cultural practices, problems or trouble areas noted, number of staff working, routine and project work, rounds played, and other items of interest in the ongoing maintenance of the course.

The primary purpose of this log is to note existing conditions on a daily basis so that trends can be spotted and monitored and an historical record created to provide as much information as possible about micro-climatic conditions and cultural practices employed.

### **Daily Communications**

It is imperative that the Superintendent communicate daily with the golf operations staff to keep them informed of course conditions, ongoing maintenance work, and course repairs that may impact play. It is also important that the golf operations staff keep the Superintendent fully informed on expected levels and timing of play, any special events, outings, or tournaments requiring special set up, and any other issues that may arise that affect the maintenance of the course.

The Superintendent is also expected to keep the General Manager fully informed of any significant golf course issues, events, or activities so that he or she may appropriately respond to member comment or question.

### **Monthly Golf Course Management Meeting**

The Superintendent will coordinate the timing of and set up a monthly meeting that will include the General Manager, the Head Golf Professional, and himself, to discuss any and all issues related to the operation and maintenance of the golf course. This monthly meeting is the appropriate venue to discuss adherence to or deviation from the Annual Golf Course Plan, to resolve any issues relating to the course and its operation and maintenance, and to discuss planning for upcoming events.

When properly planned and run, this meeting should take no more than an hour and allows the three people primarily responsible for the golf operation to stay fully informed of all golf-related issues.

### **Greens Committee Meetings**

Most clubs have a Greens Committee made up of members who have a deep interest in and commitment to the game. As such, they volunteer their time and effort to provide feedback and guidance to the Superintendent on the set up and maintenance of the course. Greens Committees will normally meet once a month.

The Superintendent will attend all Greens Committee meetings and provide a Superintendent's Report. It is also helpful to bring his Superintendent's Daily Log, all GC Maintenance Benchmarks, and any other data or information requested by the committee. The Superintendent must also keep the General Manager fully informed of all significant concerns and issues before by the committee.

### ***III – LEADERSHIP AND MANAGEMENT RESOURCES***

#### **General**

The Club provides various leadership and management resources to assist the Superintendent in the professional completion of his duties and responsibilities.

#### **Employee Handbook**

The Club provides a professionally written and printed handbook to every new employee. The handbook covers all of the essential information that employees need to know, including laws governing the workplace, pay policies and procedures, dress and grooming standards, workplace rules, benefits description, an explanation of the Club's management philosophy, and an introduction to its culture.

All supervisors are expected to be familiar with the material in this handbook and be prepared to answer employee questions. Further, supervisors are expected to reinforce the Club culture at every opportunity.

#### ***Leadership on the Line***

Every manager who works for the Club is given and expected to read a copy of *Leadership on the Line* – a book that spells out the Club's leadership and management philosophy.

#### **Managers Handbook**

Because of the higher expectations the Club has for its management staff, all managers and supervisors are given a copy of the Managers Handbook, which spells out in summary form the many requirements we have for our managers.

Each of the requirements in this handbook references specific personnel or accounting policies so that managers can look up the source document for further information.

#### **Sun Paradise Golf Website**

Club Resources International has developed an all-purpose resource for club managers and supervisors. It contains the Personnel and Accounting Policies and Procedures, Job Descriptions, Forms, important Club documents, various training materials and tools, as well as various policies for golf, food and beverage, activities, aquatics, tennis, club organization, and club forms.

The SPG website is a "must see" for managers and supervisors. Before you go to a lot of trouble to create something, check first to see if it's already been developed. Go to [www.facebook.com/sunparadisegolf](http://www.facebook.com/sunparadisegolf) to see the website.

#### **Personnel Administrator**

The Club has a designated Personnel Administrator. This Department Head is responsible for assisting managers in meeting all the requirements of the Club's Personnel Policies. While the Superintendent is ultimately responsible for ensuring that these policies are followed for his department, the Personnel Administrator is a great source of information and assistance.

## ***IV – STAFFING***

### **General**

Golf course maintenance is a labor intensive operation. As such, human relation skills, efficient organization and staff scheduling, a productive work environment, high levels of personal productivity, and tight labor cost controls are essential to the operation.

### **Departmental Organization**

Superintendents are responsible for organizing their departments as efficiently as possible to ensure that all work is assigned, properly supervised, and completed according to established standards.

Proper organization requires not only that employees know who they report to, but that departmental policies and procedures are well-defined and that employees know what is expected of them at all times. Further, it includes well-organized work and storage areas, where everything has and is in its designated place, where tools and equipment are cleaned and put away after use, where cleanliness and order signify an ongoing concern for the care and maintenance of assets, including the maintenance shop itself.

### **Job Descriptions**

The Club has prepared standard job descriptions for the various positions of the golf course maintenance staff. Superintendents may modify these standard descriptions to meet their own needs.

### **Personnel Management**

Professional personnel management covers a wide variety of leadership and management skills and practices that promote diligence and dedication on the part of employees. Most importantly it recognizes the ultimate value of people in everything the Superintendent does and embraces the Principles of Employee Relations (see below).

Beyond that, it is essential that the Superintendent learn and pay close attention to the Club's Personnel Policies and Procedures, especially the staff counseling and disciplinary procedures. These are covered in a summary fashion in the Managers Handbook.

### **Principles of Employee Relations**

It is the intention of the Club to create and sustain a work environment that promotes happy and satisfied employees, thereby ensuring positive client, member, and guest experiences. Therefore:

All employees will be treated with dignity and respect. We will not tolerate discrimination or harassment in any form, or any conduct that is unseemly, unprofessional, or reflects poorly on the Club.

Rules, regulations, and policies will be applied uniformly and fairly to all employees. We will not play favorites. We pledge to conduct our employee relations in an honest and straightforward way. Any necessary criticism or counseling will be conducted in private in a constructive manner with the intention of instructing and correcting rather than blaming.

Every employee contributes to the overall success of our operation. The only difference among employees is their level of responsibility and authority. Every employee is important.

The great majority of people want to do their jobs well and they take pride in their work. When an employee fails, it is often a failure of management to properly train or communicate performance



expectations. In other words, we can't expect employees to do something properly unless we have properly shown them how to do it.

Employees have no idea what goals management has for them unless those goals are communicated. They have a need and the right to know how their performance is contributing to the achievement of those goals. Continuous feedback is essential.

Management must make every practical effort to keep employees informed on matters concerning policy, procedures, long range plans, projects, work conditions, and compensation and benefits. An informed employee is a better employee. Supervisors should be available at reasonable times to answer questions and hear employee concerns.

Recognition is important to all of us. If we have the authority to correct, we also have the responsibility to praise. We cannot have one without the other.

Every one of us has a responsibility to help our fellow employees. We do not work alone. Rather we work together for a common purpose. We owe it to ourselves and everyone we work with to be personally pleasant and mutually supportive. One unpleasant personality or negative, non-cooperative attitude can ruin the workplace for all of us.

We must strive to make our workplace interesting, challenging, and rewarding. We can do this only by involving employees in the decision-making process. The ideas and energy of our employees are truly the driving force behind any success we may achieve as an organization.

Our workplace must also be pleasant, enjoyable, and even fun. Too much of our lives are given to work for it to be viewed as a necessary drudgery. Each employee is challenged to do everything possible within good taste and reason to make the Club a more enjoyable place for us all.

*Reference: Personnel Policy, P-100.08*

## **Labor Cost Controls**

Managing labor cost with intelligence and efficiency is a delicate skill that requires intimate knowledge of the golf course, sensitivity to the needs of members and the morale of staff, mental toughness to make the hard decisions, and a dogged determination to monitor and react to changing levels of business. If a Superintendent had no other responsibilities, managing his labor cost would be simple, but maintaining the golf course properly in response to members' desires, variability of play, and the vagaries of weather require flexibility, quick reflexes, and the will to make things happen.

The Club has prepared a manual that attempts to define the challenges of labor cost control and offers various strategies to control labor costs. As with most other aspects of being a Superintendent, there is no pat answer or set solution to the problem of maintaining the golf course at high levels while aggressively controlling labor costs. The best he can do is to anticipate his changing needs and move quickly to implement more cost-effective schedules when necessary.

The Labor Cost Controls Manual is available on the Club Resources International website.

## **Supervision**

Whenever workers are scheduled, at least one of the following supervisors will be on-site supervising the golf course and grounds unless otherwise approved by the General Manager:

Assistant Superintendent

Crew Leader

Irrigation Technician

## ***V – STAFF TRAINING***

### **General**

Training is essential for the proper functioning of the golf course maintenance department. The complexity of turf grass management and the equipment and chemicals used makes it imperative that all employees know the requirements of their jobs, the proper operation of tools and equipment, and the correct use and dangers involved in handling various chemicals. This can only be achieved by thorough initial and ongoing training.

### **Departmental Orientation**

It is the policy of the Club that new employees receive both a Club and a Departmental Orientation.

While the Personnel Administrator conducts the Club Orientation, the Golf Course Superintendent is responsible for conducting his Departmental Orientation. A detailed outline of the material to be covered may be found in Departmental Orientation, Personnel Policies, P-300.13.

### **Monthly Meetings**

Monthly training meetings for all staff will be conducted by the Superintendent or his Assistant. An agenda of the material to be covered will be prepared prior to the meeting and all in attendance must sign in.

The Superintendent will also use these meetings to critique the golf course and the overall job performed by the maintenance staff, as well as to solicit feedback from the staff in the interest of operational efficiency and improved maintenance practices.

### **Golf Course Etiquette**

Since much of the golf course maintenance staff's work is conducted on the golf course, the Superintendent must also train his staff in all the details of golf etiquette.

Demonstrating good golf etiquette and remaining productive at the same time is important for all golf course maintenance staff. While member contact may be at a distance, how considerate employees are with every golfer impacts the members' overall golfing experience. Courtesy and consideration demonstrate our concern that each golfer enjoys his or her game to the fullest.

The following guidelines will help staff achieve this standard of excellence:

Greet members by name whenever possible and appropriate.

Stop for groups who are hitting the ball. Always stop a good distance away and stay out of the line of any shot. Avoid being in the field of vision of players who are hitting the ball as this may distract them during their swing.

If in a vehicle, shut off the engine when players are hitting. The noise may also prove to be a distraction. Do not talk if players are hitting or putting. If asked a question by a member while others are hitting, answer quietly so as not to disturb others.

If working on a green, be aware of approaching players and stand aside to allow them to hit into the green. When working hole to hole, use a backward rotation to avoid disrupting the same group repeatedly. Pay attention to safety issues relating to golfers and advise them of any potential hazards. Drive vehicles and use equipment safely on the course at all times.

Pick up trash wherever noticed.

Assist members when possible by raking traps, repairing ball marks or divots.



Pay attention. Be knowledgeable. Be prepared to answer any questions a member or guest may have. Pass on any member or guest comments or complaints to the Superintendent or golf shop as appropriate.

**Phone Etiquette**

How telephones, both fixed line and mobile, are answered by members of the golf course maintenance staff reflect on the department's professionalism. The following guidelines should be covered with all staff members: Phone should be answered within three rings.

Phone call should be answered with "SPHM Country Club, Course Maintenance. This is [give your name]. How may I help you?"

During the phone conversation, the staff member should learn the caller's name and use it when appropriate, but certainly when ending the conversation – "Goodbye, Mr. \_\_\_\_\_. Have a good day!"

Phone calls are not to be screened to determine who the caller is, unless specifically instructed by the Superintendent, and only for a specific situation. Generally, all callers are assumed to be members or potential members. Members should never be given the impression that they are being screened. All calls should be taken by a staff member, unless that staff member is already on a call, in a meeting, serving another member, or out of the club.

**Appearance Standards**

Appearance standards for all staff are covered in the Employee Handbook, but must be discussed periodically with staff to ensure they are being routinely followed. The Superintendent and his key subordinates must present a clean, well-groomed and professional appearance befitting their supervisory role as management representatives of the club and to set an appropriate example for their employees.

**Golf Course Set Up and Maintenance Training**

The daily set up of the golf course and the ongoing maintenance of the course have a direct and significant impact on the golfer's experience of the course. Given the importance of course conditions and set up, it is essential that the golf course maintenance staff be completely trained regarding the standards and procedures for setting the course up for play.

The Superintendent will ensure that all employees are properly trained in this crucial area to include clear demonstrations of the right and wrong way to set up and groom the course.

**Equipment Training**

Much of the equipment used by the golf course maintenance staff is complex, requires daily adjustments, maintenance, and cleaning, and is potentially dangerous if not operated properly.

It is the Superintendent's responsibility to ensure that all employees are properly trained to operate and maintain golf course maintenance equipment. No employee should be allowed to operate a piece of machinery until properly trained and checked out.

The operator's manual that comes with each piece of equipment should be used for such training. Manuals should be kept in the Superintendent's files and copies of all pertinent operation, maintenance, and safety information should be made for distribution to and training of staff.

### **Chemical Training**

The various chemicals commonly used to maintain a golf course require specialized training for proper handling, application, and safety. The consequences of mishandling can range from significant damage to the course to severe illness or death of an employee.

The Superintendent will ensure that no employee is allowed to come in contact with any chemical unless required and properly trained in its use and handling.

### **Safety Training**

As mentioned under equipment training and chemical training above, there are many safety hazards associated with maintaining a golf course. The prevalence and serious consequences of these hazards, makes it imperative that all golf course maintenance staff received detailed initial and ongoing training on safety issues.

The Superintendent is responsible for ensuring that this training is conducted and that all staff are alert to safety issues. The Club Safety Plans provide detailed information about safety requirements, including a complete list of golf course maintenance safety topics. These plans are under development and will soon be found on the Online Information Database.

### **Security Training**

The golf course maintenance operation includes much costly equipment, tools, and supplies. The value of these items and the often remote or hidden location of the golf course maintenance shop make it an inviting target for theft and vandalism. Various security devices such as fences, gated access, locked doors, and security systems with contact sensors on doors and windows and motion sensors in interior spaces provide a measure of security. But all of these devices are useless unless the maintenance staff has a keen awareness of and dedication to security.

It is the Superintendent's responsibility to ensure that all staff are properly trained in security matters.

### **Environmental Training**

All employees will be trained and knowledgeable of all environmental impact areas of the club including the state and federal laws that protect the water quality, as well as environmentally sensitive habitats.

Staff members' work routine will reflect and recognize these restraints, which must be abided by per our environmental impact agreements with these agencies. Disciplinary action will result from ignoring these responsibilities.



### *VI – MAINTENANCE STANDARDS*

#### **Maintenance Goals**

The overall goal of the golf course maintenance effort is to maintain all aspects of the course so as to meet the vision of the golf course architect and the desires of the club's golfing members. The following goals and standards define that vision.

#### **Turf Grasses**

The following turf grasses are used on the golf course at SPHM Country Club:

Greens	Dominate Bentgrass
Collars	Bluegrass & Rye Grass Fescue
Fairways	Bluegrass & Rye Grass Fescue
Tees	Bluegrass & Rye Grass Fescue
Roughs	Bluegrass & Rye Grass Fescue

#### **Standards – Greens**

All greens are to be smooth, uniformly turfed with healthy grass free of infirmities, firm but pliant enough to hold a well-struck shot.

Putting speed is generally to be maintained at the maximum speed consistent with the long-term health of the grass, and should be uniform from hole to hole. For turf protection, the speeds will be slower in the summer, ranging from 9 to 10 on the stimp meter, than in the winter when the speeds are to range between 10 and 11. The green speed may be faster for certain tournaments and events and will be coordinated in conjunction with the golf shop.

Damage from ball marks must be kept to a minimum through communications with members and the daily efforts of the maintenance staff.

The size, shape, and contour of each green shall be maintained in accordance with its original design.

Periodic verticutting and top dressing will be performed to reduce thatch and grain accumulation.

Cup positions shall be changed each day. All legal cup positions shall be used on a rotating basis. Cup placement shall conform to the golf shop's pin placement sheet. Since all positions are to be utilized, six positions considered to be more difficult, six positions considered average difficulty, and six positions considered to be easy shall be used each day, independent of whether the placement is forward, middle, or back. Cup position rotation shall be entirely independent of tee marker placements.

Cups, flags, and poles are to be uniform, clean, and maintained in good repair.

#### **Maintenance of Greens:**

Mowing frequency	Daily
Mowing equipment	Walk mowers (sharpened and properly adjusted)
Mowing patterns	Edges must be straight and well defined.
Cutting height	.125 (may be adjusted as needed based on the health of the plant and during aerification)
Ball marks repaired	Daily

Cups changed	Four times weekly.
Cup cutting	Clean, crisp edges with no bulging, set ¼ inch below ground level
Aerification	Twice annually or as needed
Fertilization	Per Superintendent's annual plan
Pesticide application	Per Superintendent's annual plan
Water control	Per Superintendent's annual plan
Flags	2 to 3 times per year or as needed
Poles	7 foot white standard
Cups	White plastic

### Standards – Collars

All collars are to be smooth, uniformly turfed with healthy grass free of infirmities, firm but pliant enough to hold a well-struck shot. Turf loss is unacceptable.

Grass height will be maintained at a cutting height of 2/5 of an inch, but must always be higher than the green. Collars will be hand mowed two to four times a week depending upon growth rate. Any *poa annua* or foreign objects will be removed manually to mowing.

Collars will be cut in different directions each time to prevent grain accumulation. All cultural practices performed on the greens will also be performed on collars.

### Standards – Tees

All tees are to be smooth, level (except as needed for proper drainage), uniformly turfed with healthy grass free of impurities. Surface shall be firm but not hard. Turf loss is unacceptable.

Grass height shall be shorter than fairway height. Edges shall be neat and trim. The same conditions shall apply during all seasons. This will require over-seeding on an annual basis.

Periodic verticutting and top dressing will be performed to reduce thatch and grain accumulation.

Four to five sets of tee markers shall be maintained; from shortest to longest, respectively. The markers shall be moved daily and all portions of each respective teeing areas shall be used on a rotating basis. There shall be six front positions, six middle positions, and six back positions for each set of tees each day, the objective being that the overall length of the golf course shall be about the same each day.

The course is designed to play:

- 5,197 yards from the green tees,
- 5,906 yards from the white tees,
- 6,513 yards from the silver tees, and
- 7,019 yards from the Graham tees.

The Superintendent, in consultation with the Head Golf Professional, may lengthen or shorten the course in the event of unusual weather and/or course conditions. The rotation of the tee placements from front, middle, and back shall be independent of the cup placements on the greens. Tee markers shall be placed facing the desired direction. The width of the placement of the tee markers shall be approximately 20 feet or at the Superintendent's discretion.

All amenities at the tee (ball washers, water stations, waste containers, tee markers, yardage monuments, and divot repair containers) shall be maintained in first class condition at all times.

**Maintenance:**

Mowing frequency	Every other day
Mowing equipment	Walk mowers (sharpened and properly adjusted)
Mowing height	2/5 inch
Tee markers	Changed daily per objectives
Divots/Elk Spots	Repaired daily
Edges	Neat, trimmed, and maintained as needed
Aerification	Annually or as needed
Fertilization	Per Superintendent's annual plan
Pesticide application	Per Superintendent's annual plan
Tee approaches	Raked daily and kept free of weeds and Bermuda
Waste containers	Emptied and liners replaced daily
Hindering vegetation	Cut or removed from in front of tees as needed. Overhanging limbs pruned.
Divot repair bottles	Bottles on all carts filled daily
Water control	Per Superintendent's annual plan

### Standards – Fairways

All fairways are to have a uniform coverage of healthy, well-groomed turf. The surfaces are to be firm, but not too hard. Shots should have a reasonable amount of roll. Wet spots should be drained, especially around greens so that shots have the opportunity to roll onto the greens.

Fairway edges are to be well defined and contoured in accordance with the design of the course. The turf is to be free of weeds, foreign grasses, and other infestations and impurities.

The grass will be cut to tournament conditions so that shots may be hit with reasonable ball control. The same condition shall apply during all seasons of the year. This will require that fairways be over-seeded during the winter months.

Yardage markers indicating distances to the front, middle, and back of all greens shall be placed on all sprinkler heads from about 250 yards to 50 yards to the center of each green. Yardages shall also be indicated at several points on or adjacent to cart paths along each par 4 and par 5 hole at 50 yard intervals from 200 yards to 100 yards from each green.

**Maintenance:**

Mowing frequency	Three to four times per week depending on growth rate
Mowing equipment	Five-plex mowers
Mowing height	.45 of an inch
Divot/Elk Spot repair	Weekly
Aerification	Per Superintendent's annual plan
Fertilization	Per Superintendent's annual plan
Pesticide application	Per Superintendent's annual plan
Water control	Daily, but watch moisture level to avoid "boggy" spots



### Standards – Miscellaneous Areas

All aprons, tee banks, and bunker edges are to be smooth, uniformly turfed with healthy grass free of infirmities and firm. Turf loss is unacceptable.

Aprons, tee banks, and bunker edges will be maintained at rough height depending on climatic conditions and the grass variety (natural fescue areas will only be cut periodically based on growth rate, playability, and aesthetics).

Depending upon growth these areas will be mowed two to three times weekly with a triplex or rotary lightweight mower.

Directional cuts will be posed daily and will follow a contour, checkerboard, or straight pattern.

The operator will ensure that his area of cutting responsibility will be blended properly into the other manicured areas (tees, collars, approaches, fairways, intermediate rough, and rough) to maintain the playability and aesthetics of the course.

### Standards – Turf

Turf conditions in planted roughs will generally be maintained at a higher level than most other clubs. They should be uniformly turfed with healthy grass, and be free of impurities and infestations. The grass height should be higher than fairway height to maintain a good contrast. The height should be high enough to add some difficulty to shots, but should not penalize players.

The same conditions should prevail during all seasons. This will require over-seeding during the winter months. However, in order to maintain the health of the Bermuda grass, over-seeding will be skipped every three to four years.

The mower operator will take care in operation around trees so as not to damage crowned areas in any manner and will also provide a crisp, clean edge around native grass areas.

The operator will also vary mowing patterns on a weekly basis as directed by the Superintendent. All cutting patterns must blend in properly with intermediate rough areas, greens aprons, tee banks, and bunker edges.

#### Maintenance:

Mowing frequency	Two times per week
Mowing equipment	Rotary mowers
Mowing height	1.75 to 2.0 normally, lower in late spring and early summer to promote transition
Aerification	Per Superintendent's annual plan
Tee, green and bunker banks	Hand mow once per week
Fertilization	Per Superintendent's annual plan
Pesticide application	Per Superintendent's annual plan
Water control	Per Superintendent's annual plan

### Standards – Bunkers

Maximum consistency should be maintained from bunker to bunker. All bunkers are to be kept smooth and even.

All bunkers are to be deep raked. All bunkers shall be free of rocks and vegetation. The edges and slopes adjacent to bunkers shall be kept in an attractive manner and trimmed to the height of the roughs.



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As much as possible, irrigation water shall not be allowed to invade bunkers and create undue compaction. Drainage shall be provided in trouble spots.

Sand rakes shall be provided. All rakes will be maintained in good condition and painted, repaired, or replaced when necessary. All rakes shall conveniently be placed for use by members.

Bunkers will be spot raked daily.

All bunkers will be completely hand raked five to six times a week.

Prior to raking, any debris, grass, leaves, or weeds must be removed.

Bunkers must be raked smoothly and carefully to maintain their firmness. Sand is to be pulled up on the banks of bunkers.

Washouts and bare spots must be filled as needed and any areas needing major refilling must be reported to the Superintendent.

Minimum sand depths are 2 inches on banks and 4 inches in level areas. Damaged rakes will be replaced.

When mechanical rakes are used, care must be taken to ensure that the machine does not operate on the banks of the bunkers. Any piles or ridging left by the rake will be dispersed properly and evenly in the bunker.

### Maintenance:

Sand depth	Minimum of four inches in the main portions and two inches on the faces.
Raking frequency	Five to six times per week and spot raked as needed
Edging	As needed
Sand replacement	As needed
Rock sifting	As needed

### Standards – Natural Areas

These areas (natural roughs, lakes, creeks, and other environmentally sensitive areas) will be maintained in a manner that enhances their natural characteristics while maintaining the playability and integrity of the course.

All detail work will be done under the supervision of the Superintendent, to include: mowing, weed eating, trimming, pruning, watering, or weed control.

### Standards – Trees

Trees provide the course with texture, beauty, shade, and, in some cases, tactical choices. The Superintendent must be continually aware of the condition and health of trees on the golf course, particularly large specimen trees and those that affect play. At the first sign of damage or insect infestation, he must be prepared to act to preserve the health and well-being of the trees.

Trees that come into play on the course should be trimmed only to preserve their health and the safety of golfers. Heavy equipment should not be used around these trees to avoid root damage.

Other trees should be trimmed and pruned at least bi-annually or as needed.

### Standards – Practice Range

The same standards prescribed for tees above shall apply to the tee area of the practice range. The same standards prescribed for fairways above shall apply to the fairway portion of the practice range. The fairway portion of the range is to be groomed more aesthetically versus concerns for playability. Station rotation should





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be patterned to provide the most economical use of the tee areas. The far side tee shall be used only when needed for regeneration of the tee nearest the clubhouse.

The practice putting, chipping, and bunker areas shall be maintained in accordance with the same standards applicable on the golf course to most closely replicate actual playing conditions.

### Maintenance:

The tee will be mowed three to five times a week depending upon conditions.

Mowing patterns will be determined based upon aesthetic considerations for the view from the clubhouse and to provide the best practice surface.

Divot repair is the joint responsibility of the golf operations and golf course maintenance staff, with spot filling done daily and major repairs done periodically or as needed.

Trash and debris will be removed as soon as noticed, but no less frequently than daily.

The range will be mowed two to three times weekly depending upon conditions.

Target greens will be mowed two to three times weekly with a hand greens mower.

Mowing patterns for range and target greens will be based upon aesthetic presentation to the clubhouse. The practice area that includes the chipping green and practice bunker will be mowed two to three times a week depending on conditions. Divots will be repaired daily by the golf operations staff.

The chipping green will be mowed two to three times a week with a hand greens mower. Mowing pattern will vary each time to prevent grain patterns. Ball marks will be repaired daily.

The practice bunker will be raked daily and edged weekly.

### Standards – Water Bodies

All water bodies shall be clean, well defined, and free of weeds and noxious growth. All water hazards shall be marked attractively in accordance with USGA rules. Appropriate drop areas shall be maintained and marked.

### Standards – Irrigation

The golf course shall be watered to meet the needs of the turf grass and to enhance its playability by maintaining its surfaces as firm as possible.

Daily water usage records will be maintained by the Superintendent.

The irrigation system and pump station will be inspected daily by the Irrigation Technician.

All irrigation will be scheduled by the management team under the direction of the Superintendent. Hand watering that is needed during the day in certain areas of the course will be under the direction of the Superintendent, Assistant, or Irrigation Technician.

Periodic maintenance will be done to the irrigation system in coordination with the Irrigation Technician.

### Standards – Cart Paths

All paths shall be clean, well defined, edged, smooth, in good repair, well drained, and properly located with adequate width and surface. Permanent traffic control devices, i.e., curbing and signage, shall be used where necessary. Such devices shall be designed for safety and aesthetics.

Rope and stakes are to be avoided as much as possible. However, they may be used to re-direct cart traffic to prevent turf damage and deterioration.

Carts are permitted on the fairways and roughs up to the yellow line (as drawn by the Superintendent) in front of each green, except as prohibited because of course conditions at the discretion of the Superintendent. This will





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usually occur immediately after over-seeding, during periods of wet weather, and on selected fairways on a rotating basis.

### **Standards – Landscaped Areas**

All landscaped areas will be maintained in a neat and attractive manner. Lawn areas are to be mowed, edged, irrigated, and fertilized on a regular basis. Native flowering plants and shrubs will be used as much as possible. Annual plantings will be made to provide seasonal color. Color contrast is desired.

Landscaped beds will be located at most tees and selected areas around the course according to the Superintendent's Landscape Plan. These plantings should highlight and accentuate interesting areas. Seasonal flowers are to be bedded, well cared for and properly rotated. All trees, shrubs, and plants shall be pruned as needed.

All lawn, landscape, and paved areas are to be weed and pest free, and free of litter, leaves, and debris. The entire area will be policed for litter daily and the parking lot and sidewalks will be blown with a blower as needed.

### **Detail Work**

Edging, weed eating, trimming, leaf removal, or any job needed to enhance the playability and aesthetics of the course will be done in a safe and efficient manner, based on training and operational directives that include: proper transport of equipment, its proper and efficient use, time management of the task, and cleanup, servicing, and storage of equipment and machinery.

### **Cultural Activities**

All cultural activities scheduled on the golf course (fertilization, weed control, disease control, insect control, aerification, verticutting, topdressing, and overseeding) will be determined by the Superintendent who will notify the Head Golf Professional during the planning of the annual golf calendar, during the Monthly Golf Course Management Meeting, or well in advance so as not to disrupt play.

Aerification will be done in late spring and early fall on all turf surfaces.

Overseeding of fairways will coincide with the aerification in the early fall.

Any secondary aerification or overseeding will be done selectively as needed, determined by the Superintendent. The golf shop will be notified well in advance of these activities if they affect play.

Greens and tees will be topdressed and verticut on an as-needed basis to be determined by playability and thatch control. The timing and frequency of these practices occurs typically four to eight times annually.

Notification of the golf shop and the membership will take place prior to these activities. These events will be scheduled as much as possible to not interrupt play.

### **Chemical Applications**

Basic fertilizer schedules are to be established based on soil tests to maintain healthy turf and adjusted to meet environmental conditions and water quality standards.

Chemicals will only be used as a last resort and only in a controlled supervised manner under the direction of the Superintendent and supervised by a licensed applicator of the state.

All personnel responsible for fertilizer or pesticide applications on the golf course will at all times be aware of our environmentally sensitive areas, such as lakes and creeks, and the proper application of which fertilizer or



pesticide must be made per any environmental regulations. Failure to comply with the proper operational standards may result in disciplinary action.

### **Sand and Seed**

Sand and seed will be kept on -site to be used for reseeding and topdressing as needed. Materials should be consistent with the high level of quality of the course.

### **Nursery**

When time and resources allow, the Superintendent will plan and construct an appropriate nursery of turf grasses to allow repairs of damaged or diseased grasses with mature plugs of the same grass.

### **Special Measures**

The Superintendent is responsible for employing special measures as necessary to protect and preserve the health of the golf course and to meet any special circumstances that may arise. Flushing of fairways, application of special chemicals, extra aerification, and other special care procedures will fall into this category. The long term health and integrity of the course shall override any short-term considerations.

## ***VII – AGRONOMIC AND WATER STANDARDS***

### **Overview**

This document is a written standard that applies to SPHM Country Club and its unique location and design. It is to be used as a guide and schedule for both agronomic and water quality issues that this facility is currently exposed to. It is only a guide and may vary some, based on climate, tournaments, finances, or changes in the "Golf Course Maintenance Standards." It will also vary based on differences in water quality or quantity.

### **Greens**

The greens are the most highly maintained piece of ground on any golf course property. The greens are to have the highest consideration with regards to any agronomic issues. In general, the greens will be maintained in the following manner:

All greens will be built and maintained to USGA specifications.

Greens will be randomly soil tested at least quarterly for nutrient content. This testing should be done at the same lab to maintain consistency. It should also include "base saturation" figures to determine sodium build-up. These test results will be a factor in determining the fertility program. All soil test interpretations will be done by the golf course Superintendent.

All greens will be flushed with a minimum of 1 ½ inches of irrigation water, every 14 to 21 days in order to reduce salt accumulation.

All greens will be aerified a minimum of two times per year. The spring aerification will use larger 5/8 inch tines to relieve compaction. The fall aerification can use either 1/2 inch tines or 5/8 inch tines, depending on the current health of the greens. Micro aerification should take place all summer and as necessary (hydroject and quadra-tines).

Hollow tine aerification holes will be filled with USGA spec sand that matches the type sand used in the greens construction profile. This topdressing material is to be pure sand, no peatmoss. The sand must be tested at an accredited lab. Aerification should not take place if greens are too wet or under severe stress.

All greens will be properly fertilized to maintain growth and repair potential without compromising greens speed.

All greens will be topdressed as needed but a minimum of two times per month is required. The topdressing material will also be USGA spec sand matching the greens profile. Topdressing should not take place if greens are too wet or under severe stress. The amount of topdress will depend on the current growth habit of the grass. The amount of topdress sand increases as growth rates increase.

Only properly trained staff members will be operating these mowers. Higher mowing heights may be necessary if severe weather or stress become a factor, this allows for increased stress resistance. The reels will be checked daily and maintained at the maximum sharpness. The greens will be groomed (lightly verticut or broomed) as needed.

All greens will be inspected daily for deficiencies in turf from water, pests or traffic. Appropriate measures (as prescribed by the Superintendent) will be taken as soon as necessary to correct any deficiencies.

SPHM Country Club uses the latest tools to help reduce its use of pesticides. However, pesticide applications may be necessary to offset potential deficiencies in turf quality or health.

Verticutting bentgrass greens is a practice normally followed several times each year to reduce thatch. Groomers and brushes on walk mowers may also be used. This process is called grooming. Grooming stands the leaf blades up before they are mowed off, this is done on an as needed basis. Also a spiker on the



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"sandpro" is used to open shallow holes near the surface for increased air movement in the thatch. Regular topdressing is also used as a thatch reduction procedure.

Irrigation of greens shall be done in a manner that will maintain the maximum health and playability of the turf. Less frequent and deep irrigation is healthier for the turf and should always be the norm. This may cause the greens to become firm, which can make holding golf shots more difficult. Irrigation typically is done 2 times a week in summer and once per week in the winter. Regular hand watering is done most of the summer. Wetting agents are used monthly to assist in reducing isolated dry spots in the turf canopy.

Soil tests will determine a green's specific needs, however a basic benchmark will be:

Nitrogen	6 pounds per 1000 square feet (K) per year
Phosphorus	4 # /K per year
Potassium	18# /K per year
All Others	foliar applied as needed

Deep tine aerification on greens may be necessary in the future to maintain infiltration rates and good rootzone health.

### **Fairways, Collars, Tees and Roughs**

The fairways and collars (areas around the greens) are covered with bluegrass and rye grass fescue. These areas are to be maintained with very high consideration. Only the maintenance of the greens will take greater consideration.

All fairways and collars soil will be randomly tested quarterly for proper nutrient content. This testing should be done at the same lab to maintain consistency. It should also include "base saturation" measurements in order to evaluate the effects of sodium on the soils. These test results will determine the fertility program.

All fairways and collars will be inspected daily for deficiencies in turf, due to pests, cart traffic or irrigation. Appropriate measures (as prescribed by the Superintendent) will be taken as soon as necessary to correct the deficiencies.

Carts may be restricted from traveling on fairways due to weather, traffic stress or newly established turf.

Fairways will be mowed regularly enough to maintain health and playability. All mowers shall be inspected weekly for sharpness and proper operation. Only properly trained staff members may operate these mowers. Mowing heights vary during the year. Fairways and collars will be stripe-mowed.

Pesticide applications may be necessary to offset existing and potential damage to turf.

Aerification of fairways will take place once per summer or more if required. Both solid deep tines and hollow tine aerification may be used.

Irrigation of fairways and collars will be done in a manner that will maintain the maximum health and playability of the turf. Deep water cycles and less frequent watering are desirable.

Nitrate forms of nitrogen fertilizer should be considered in winter months due to colder soil temperatures.

Tees will be aerified at least once each summer. Tees will be inspected daily for deficiencies in turf quality due to pests, divot traffic, or irrigation. Deficiencies will be corrected as soon as necessary.



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Tees will be irrigated in a manner that will maintain maximum turf health and playability. Tees tend to use less water due to a sand base that is a part of the rootzone mix.

Roughs are to take some of the least priority in maintenance of any area on the course. However, the standards at SPHM require that the roughs be of higher quality than most golf courses.

Roughs will be the same turf as the fairways, collars and tees. Roughs shall be aerified once each summer.

Roughs will be irrigated in a manner that will maintain the turf for health and playability. Roughs tend to use less water due to higher mowing heights.

### **Water**

Water is the most essential part of any golf course operation. Since the game of golf is played on a living plant, either rain or irrigation is necessary for proper course conditioning. In the west, irrigation is the predominant means of watering any golf course.

Water at SPHM Country Club is a limited resource and scheduled irrigation and daily routines are often adjusted to manage this limited resource. Depending on the amount of rainfall, the annual amount of water necessary to properly maintain the course at SPHM is approximately 100 million gallons. The primary source of water for irrigation is reuse water from the municipal system with a secondary supply coming from wells and rainfall.

#### Average daily usage

Winter	0 to 200,000 gallons per day
Spring	0 to 500,000 gpd
Summer	0 to 600,000 gpd
Fall	0 to 500,000 gpd

## ***VIII – COURSE SET UP AND MAINTENANCE***

### **General**

The daily set up and maintenance of the golf course is critical to the golfer's experience. The following general standards apply to all golf courses. Local conditions may require additional standards or more detailed policies to ensure the quality of that experience.

### **Course Set Up**

The Superintendent will assign properly trained staff to prepare the course for play each day. While greens and tees are the most important areas of the course and will receive the greatest attention, the set up crew must also survey other areas to ensure that the course is ready to meet the highest expectations of members and guests.

The set up crew will normally start on the first hole and work their way from hole to hole in the order that golfers will play the course. They should start their rounds in sufficient time to stay well ahead of the first golfers.

### **Reporting Unusual Condition**

As the set up crew works its way around the course, they must be vigilant to observe any problems or unusual conditions on the course. These can range from overnight storm damage, to blown sprinkler heads, to vandalism on the course, to any sign of disease or blight on any of the grasses. Any problems should be reported immediately to the Superintendent by radio or phone.

### **Greens and Mowing**

Greens and collars will be mowed in different direction each day to prevent the development of grain patterns. Mowing heights and frequency will be determined by the Superintendent based upon season, turf condition, local climatic conditions, expected levels of play, and any planned events.

Prior to mowing, staff should inspect the surface of the green and collar to remove any foreign objects that could damage the mower. Staff should also check for *poa annua*, which should be removed manually.

The mower operator will follow all operating and safety procedures associated with the loading, transportation, unloading, operation, cleaning, and servicing of the mowing equipment.

### **Cup Placement**

The placement of the cup should match the pin sheet location for that day. The position of the cup should be at least eight feet from the collar with a five-foot diameter of putting surface. The cup will be set at the proper depth and be clear of any grass clippings or other debris. The pin must seat firmly in the cup recess and the flag should be clean without frayed edges or tears.

After moving the pin location, ensure that the previous location is properly repaired and is level with the putting surface. Any damaged turf should be replaced with fresh plugs from the nursery.

### **Bunker Grooming**

As the set up crew moves from hole to hole, they should check each bunker to ensure that it needs no repairs, that any debris is removed, that the sand surface is groomed, and that bunker rakes are available and properly positioned.

**Divot Repairs**

The set up crew should also check lay up areas and other locations known for divots, repairing them as necessary. They should also check all locations where extra divot repair bottles are available for golfers and refill or replace bottles as necessary.

**Waste Containers**

All waste containers must be emptied and clean trash liners replaced in the containers on a daily basis. Once a week or whenever necessary, containers must be washed out to prevent build up of unpleasant odors.

**Ball Washers**

The set up crew will also check each ball wash station, cleaning them as necessary, replenishing the soapy water, and replacing the drying towel with a fresh one.

**Tee Mowing**

Tees will be mowed in different direction each day to prevent the development of grain patterns. Mowing heights and frequency will be determined by the Superintendent based upon season, turf condition, local climatic conditions, expected levels of play, and any planned events.

Prior to mowing, tee markers must be removed and staff should inspect the surface of the tee for any foreign objects that could damage the mower. Staff should also check for *poa annua*, which should be removed manually.

The mower operator will follow all operating and safety procedures associated with the loading, transportation, unloading, operation, cleaning, and servicing of the mowing equipment.

**Tee Marker Placement**

Tee markers will be placed in concert with the pin location, particularly on par 3 holes. Markers must be perpendicular to the line of play, approximately 20 feet apart and five feet from the front or rear of the tee.

When placing the tee markers, repair any obvious divots with divot sand.

**Fairway Mowing**

Mowing heights for fairways and approaches are 2/5 of an inch depending upon environmental conditions. Frequency will be determined by the

Superintendent based on rate of growth, but will generally be three or four times a week including once on weekends.

Fairways and approaches will be mowed with five-plex mowers. Narrow contour areas around greens, tees, and bunkers will be mowed with triplex or hand mowers.

The following mowing directions will be followed at all times:

Contours – cut with the turns and bends of the fairway.

Straight – cut in straight line from the tee to the center of the fairway. Left to right – cut on a 45° angle from left to right.

Right to left – cut on a 45° angle from right to left.



The mower operator will follow all operating and safety procedures associated with the loading, transportation, unloading, operation, cleaning, and servicing of the mowing equipment.

### **On-Course Rest Rooms**

The set up crew will check all on-course rest rooms to ensure that they are clean and properly stocked. Minor touch up can be done by the crew, but they should report any major needs to the Superintendent who will arrange for a more intensive cleaning or restocking.

The on -course rest rooms are primarily for use by members and staff. Whenever possible, maintenance staff should use the rest rooms in the golf course maintenance facility. However, maintenance employees may always use the on-course facilities when it will not interfere with members' use or is impractical to return to the shop to use the facilities. Staff should never use the course or surrounding natural areas as rest rooms.

### **Practice Range**

The practice range is the most heavily used area of the golf course. This heavy use means that not only does it need high levels of maintenance, but it is a challenge to schedule maintenance work around member use.

The practice range includes the practice tee, practice range, target greens, chipping green, putting green, and practice bunker. All areas must be maintained, mowed, and groomed to provide members the best possible practice experience.





### *IX – SHOP SET UP AND MAINTENANCE*

#### **General**

The golf course maintenance facility or shop is an essential part of the golf course maintenance effort. This is the location where equipment and tools are stored and maintained; where materials such as mulch, seed, sand, and soil are stored; where chemicals for the maintenance and health of turf are kept; where supplies and spare parts are stockpiled; where the Superintendent has his office; where the computer which controls the irrigation system is located; and where the staff gathers for direction and training.

#### **Facility Organization**

The organization and efficiency of the golf course maintenance staff is, to a great degree, dependent upon the set up and organization of the golf course maintenance shop.

#### **Cleanliness and Order**

Cleanliness and order are clear signs of a well-organized golf course maintenance effort. The Superintendent will ensure that the shop is cleaned daily to include sweeping, mopping, or hosing down work bays, cleaning of offices, rest rooms, hallways, and break areas, and that all tools used during the day's effort are cleaned and properly put away.

All equipment and tools must have designated storage locations. This ensures that they can be quickly located for use and that missing items are readily noticed. Shelving, storage cabinets or cubicles, locked storerooms or cages, and tool cabinets will be purchased or built in to ensure adequate and appropriate storage for all items.

Cleaning responsibility for different areas of the shop must be assigned to individual employees, either on a permanent or rotating basis and the Superintendent or other supervisor must spot check to ensure all areas are kept clean and in proper order. Those assigned cleaning detail are not expected to wash plates and cups of other employees after meal breaks. All individuals are expected to clean up after themselves.

#### **Material Stockpiles**

Bulk materials, such as mulch, sand, seed, soil mixes, etc., will be stored in specified locations, typically in the shop yard. It is best, as time and money permits, to construct large treated lumber bins on concrete pads for each different material. This allows supply vehicles to back up and dump their loads in each bin without materials cross contaminating each other. If bins are not available, more widely dispersed areas may be designated for the various materials.

#### **Fuel and Chemical Storage**

Fuel and chemical storage must meet all the requirement of local codes. Typically, fuel will be stored in above ground tanks away from the maintenance shop. A fueling station will be set up for all moving equipment. All equipment will be shut off when fueling. Portable fuel containers will be used to fill power tools outside the building.

Chemicals, including herbicides, pesticides, fungicides, and fertilizers must be stored in accordance with manufacturer's specifications and storage arrangements must meet all federal, state, county, local, and club requirements.

Because of the potential safety and fire hazards associated with fuels and chemicals, the Superintendent must have a written Hazardous Material Plan in place and all employees must be trained on the particulars of this plan.

Major fuel or chemical spills will be contained and cleaned up based upon the requirements of the Hazardous Material Plan. Authorities will be notified as required.

**Tools, Equipment, and Machinery**

The Superintendent will maintain a tool, equipment, and machinery list, showing the purchase date and value of all significant tools and equipment. An inventory of these items will be conducted at least annually.

**Licenses and Permits**

All required licenses and permits must be secured from necessary authorities. The Superintendent is responsible for ensuring that all employees who are required to have such licenses and permits keep them up-to-date.

**Employee Break Area**

The employee break area will be kept neat and clean at all times. The Superintendent will assign cleaning duties on a rotating basis and clearly communicate cleaning standards to those assigned cleaning duties.

**Employee Rest Rooms**

Employee rest rooms will be kept neat and clean at all times. The Superintendent will assign cleaning duties on a rotating basis and clearly communicate cleaning standards to those assigned cleaning duties.

**Meal and Rest Breaks**

Meal and rest breaks will be established at times designated by the Superintendent. Because of the nature of golf course maintenance work, breaks may not always be allowed as scheduled. Meal breaks will generally be of one half hour or longer in duration and will be off the clock. Rest breaks are generally for 10 minutes and may be taken on the clock.

**Lighting and Signage**

Appropriate lighting will be provided for security and safety purposes in and around the golf course maintenance facility.

Signage in the shop area will be maintained in good repair and kept neat and clean.

## ***X – EQUIPMENT MAINTENANCE***

### **General**

Proper maintenance extends the life of equipment and machinery, reduces breakdowns, and protects the health and vitality of turf.

### **Operators' Manual**

Operators' manuals will be retained for all pieces of equipment, machinery, and power tools. Operating instructions, safety guidelines, and maintenance requirements will be copied for use in instructing employees as required.

### **Spare Parts Lists**

Spare parts lists will also be filed for future use. The Mechanic will make a copy of each spare parts list for reference and use.

### **Operation and Care of Equipment**

The useful life of tools, equipment, and machinery is directly related to their use and maintenance. All employees must be trained on the proper use of all equipment, machinery, and power tools.

Employees assigned to use any equipment, machinery, or tools must perform all maintenance and safety checks prior to use. Gas, oil, hydraulic, and lubricant levels must be checked before each use, as required. Employees must know and be aware of the proper gas/oil mixture or fuel, oil, hydraulic fluid, or lubricant to be used in each piece of equipment, machinery, or power tool.

All items will be returned to the shop in clean and working order. Employees must immediately report any maintenance problem or safety defect to the Superintendent or other supervisor and may be disciplined for unsafe or inappropriate use of equipment, machinery, or power tools.

Employees must drive equipment and machinery on service roads, cart paths, or roughs as much as possible when driving about the course. Driving on fairways should only be done as a necessity. Vehicles or machinery will not be driven onto greens, collars, or tees.

Mowers, in particular, require proper sharpening and adjustment of blades. If not performing up to expectations in the field, employees should not continue. The equipment should be returned to the shop for repairs, sharpening, or adjustment, as necessary.

All employees must pay close attention to hydraulic lines. Leaks of hydraulic fluids, in addition to hindering the proper operation of the equipment, will cause damage to turf. If a leak is noticed, the piece should be driven off playing surfaces, parked, and shut off. The Superintendent or mechanic should be notified. Attempting to transport the machinery to the shop may cause turf or equipment damage.

All transported equipment and machinery must be properly secured and driven at a safe speed.

### **Equipment Repair and Maintenance**

All equipment and machinery will be maintained by a qualified full time Mechanic to meet all manufacturers' specification and the expectations of the Superintendent and his Assistant.

Repairs are to be done in the most efficient manner possible.

Detailed repair and maintenance records will be kept by the Mechanic for each piece of equipment or machinery.

Only sharp and properly adjusted cutting units will be allowed to mow the course.

The Mechanic will supervise the daily servicing of equipment and machinery, using the opportunity to further educate staff members on the correct way of servicing and operating the equipment.

The Mechanic will inspect each piece of equipment and machinery for cleanliness and any repair or maintenance item when returned from operation and before storage.

The Mechanic will report to the Superintendent any employee who fails to properly service and clean any piece of equipment or machinery.

The Mechanic will not knowingly permit any equipment or machinery to be taken on the golf course that may have a potential safety problem. Such problems will be repaired promptly.

### **Tools and Diagnostic Equipment**

The Superintendent and Mechanic will determine what tools and diagnostic equipment are necessary to properly maintain all equipment and machinery. These items will be purchased and assigned to the mechanic who will use them in the course of his duties.

The Mechanic is expected to use all tools and diagnostic equipment properly, service and clean them as necessary, and provide for their ongoing security.

### **Equipment Maintenance**

The Mechanic is responsible for establishing a preventive maintenance schedule in accordance with all manufacturers' specification and the expectations of the Superintendent.

The Mechanic must keep the Superintendent fully informed of the preventive maintenance effort and of any unexpected major repairs.

### **Equipment Maintenance Records**

The Mechanic will keep detailed and up-to-date maintenance and repair records for each piece of equipment and machinery. These records will be periodically reviewed by the Superintendent.

## ***XI – HAZARDOUS MATERIAL MANAGEMENT***

### **General**

Handling, storage, and application of a number of hazardous materials is inherent in golf course maintenance. These items have the potential of causing major damage to the golf course or serious injury or illness to staff if not handled correctly. The Superintendent will take all necessary steps to ensure that staff is trained in the correctly handling, storage, and application of these materials.

### **Hazardous Material Plan**

The Superintendent is required to prepare a Hazardous Material Plan that identifies all such materials used in the golf course maintenance operation. The plan must address storage, handling, application, and safety procedures for each material.

The plan must also address emergency and notification procedures relating to major hazardous material spills and/or employee contaminations.

### **Purchase and Delivery**

The Superintendent will establish credit accounts with the appropriate vendors of the various materials needed and order such quantities as necessary or can safely be stored.

While it always makes good business sense to take advantage of bulk pricing opportunities, the Superintendent must keep in mind the safe storage capacities of his maintenance facility.

### **Storage**

All hazardous materials will be stored according to the manufacturer's specifications for each item.

### **Mixing**

Mixing of chemical concentrates with water will be done according to manufacturer's specifications in an area designated by the Superintendent for mixing. The area should be well ventilated for the safety of staff and all required safety precautions followed. If possible this area should be contained to prevent run off of any spilled chemicals.

### **Application**

Pesticides and fertilizers will only be applied by a properly trained employed who possesses the necessary knowledge and is properly licensed as required. Specific guidance and direction will be provided by the Superintendent for each application.

### **Clean Up**

The Hazardous Material Plan will contain specific directions to handle the clean up and notification of any spills. All such spills will be reported to the Superintendent who will supervise clean up and make any necessary notification.

### **Chemicals**

A list of all herbicides, pesticides, and fertilizers in storage and use will be maintained at the maintenance shop. Material Safety Data Sheets (MSDS) will be maintained for all items on the premises.

### **Fuels, Lubricants, and Solvents**

A list of all fuels, lubricants, and solvents in storage and use will be maintained at the maintenance shop. Material Safety Data Sheets (MSDS) will be maintained for all items on the premises.

## ***XII – SAFETY & SECURITY***

### **General**

The Superintendent is responsible for the safety and security of the golf course maintenance facility, its equipment and tools, and the employees who work there and on the golf course.

### **Safety**

The Club is vitally concerned with the safety of its employees. Keeping our operations safe is everyone's responsibility. Managers and supervisors in particular have special responsibilities.

Safety must be seen as integral to the operation, not as an extra assigned duty. Therefore, the Superintendent must meet the following responsibilities:

Identify any safety hazards in his areas of responsibility.

Analyze departmental positions for inherent safety hazards.

Modify work practices or work spaces to reduce hazard risks.

Ensure proper training of employees in all matters relating to safe work practices and work environment. Conduct routine safety inspections.

Correct all deficiencies noted in such inspections in a timely manner.

Properly complete Accident Reports as needed.

Investigate and analyze Accident Reports to determine unsafe condition and causes of accidents.

Enforce safe work practices, special safety requirements, and the use of safety clothing, equipment, and personal protective equipment.

Employees by virtue of their intimacy with work practices have a special responsibility to report any unsafe condition or practice immediately. Further, they must adhere to all safety directions, policies, and procedures. Lastly, they must immediately report any accident or injury to their supervisor.

Employees will meet their responsibilities only if they are assured of management's commitment to a safe workplace and that the Safety Program is an integral part of the operation. If they sense that management is simply going through the motions, they will too.

### **Safety Procedures**

A comprehensive set of Safety Procedures will be developed and adhered to in all facets of equipment operation, handling of chemicals, and emergency planning and response. Other procedures relating to the Club Safety Plan will be implemented and followed by all employees.

Monthly mandatory safety meetings will be conducted by the Superintendent or Assistant.

### **Fire Safety**

Fire safety is of particular concern in all club facilities, particularly the golf course maintenance shop where fuels, lubricants, and solvents are in daily use.

The Superintendent is responsible for developing a Fire Safety and Evacuation Plan and training and rehearsing his staff to deal with a fire emergency. All staff must be familiarized with the location of fire extinguishers and alarm stations and the operation of these life-saving systems in advance of any need.

### **Material Safety Data Sheets (MSDS)**

It is the policy of the Club that Material Safety Data Sheets (MSDS) be obtained for all hazardous chemicals used in or around managed facilities. Material Safety Data Sheets (MSDS) are provided by manufacturers for any chemical product deemed hazardous.

Any manager or supervisor who purchases chemicals for use in the facility must notify the Facility Safety Officer of any new chemicals purchased. The Facility Safety Officer is charged with the responsibility of obtaining the appropriate MSDSs for any hazardous chemicals used. The MSDSs must be maintained in a master file by the Facility Safety Officer and copies must be made available to all departments using hazardous materials.

All new employees who will work in areas where hazardous materials are used, will be trained how to read and interpret MSDSs.

The Superintendent will ensure that the appropriate MSDSs for all hazardous materials used in the golf course maintenance shop are available for employee review in the work area. Further, the Superintendent will take active steps to ensure periodic review of MSDSs.

### **Hazardous Materials**

It is the responsibility of the Superintendent to ensure that all hazardous materials, to include pesticides, herbicides, fungicides, fertilizers, fuels, lubricants, and solvents are properly stored, handled, and disposed.

No employee shall be allowed to work with any of these hazardous substances until he or she has been properly trained in their use and safety. The Superintendent must keep records to substantiate such training.

### **Equipment Safety**

All purchased equipment and machinery come with safety guidelines. The Superintendent must ensure that all employees are properly trained in the safety aspects of all equipment.

Original copies of all safety guidelines will be filed in the golf course maintenance shop. The Superintendent will make copies of all safety instructions to be used in training staff. Such training should be noted in each employee's file. Periodic refresher training is also essential and should be held on days when inclement weather limits work on the golf course.

### **Tool Safety**

Likewise, certain power tools also come with safety instructions. These should also be filed for future use and copies made to instruct employees on the safe use of all power tools.

### **Security**

Security is the overall responsibility of the General Manager, but is delegated to Department Heads and supervisors in various areas of the operation. These individuals have close contact with and daily supervision of their areas and are in the best position to ensure their security.

There are a number of issues and concerns associated with providing security at managed facilities.

Adequate lighting during hours of limited visibility goes a long way to dissuade criminal activity. While clubs typically have adequate exterior and entry lighting, bulbs burn out with some frequency and these



lights must be continually monitored to ensure that they are working properly and are providing the necessary light. All employees should be instructed to report burned out lights to management as soon as possible.

Clubs are keyed according to the expected use and security requirements of the facility. But unless keys are strictly controlled and issue and return closely monitored, even the most elaborate keying system can be rendered ineffective by the loss of one key.

Each facility should have a key control plan in place and the issue and return of all keys closely followed. Management must be immediately notified of the loss of any key. In some cases, such a loss will require that some or all locks must be changed to ensure the security integrity of the facility.

It is absolutely essential that specific responsibilities are assigned to ensure that all doors are double checked at the close of business to ensure that no doors are inadvertently left open or unlocked.

The golf course maintenance facility is filled with expensive equipment. Add to this its usually remote (and often concealed) location, and it can be a tempting target for thieves.

Because of the value of items maintained therein, the golf course maintenance facility should have written opening and closing procedures with assigned responsibility to ensure that the facility is properly monitored or secured at all times.

The effort of all security practices and devices should be the prevention of loss and the safety of members, guests, and employees. While well-designed security systems can go a long way to limit the club's risk, it is for naught if employees are not properly trained to operate the system, are not held accountable, and are not vigilant regarding security matters. In the final analysis, technology can be a great aid to ensuring security, but ultimately the security of the maintenance shop rests upon the interest and vigilance of the Superintendent.

### ***XIII – RECORDS AND BENCHMARKS***

#### **General**

The Superintendent is required to maintain certain records and benchmarks for his department. Most are for his own use, but others may be checked by the General Manager and some material is useful in working with the greens committee.

#### **Personnel Records**

While official personnel records are maintained by the club Personnel Administrator, the Superintendent should keep copies of all important documents for each employee in a local file for his use. Such documents include:

- Personnel Data Sheets (PDS's) for all personnel actions such as hiring, terminations, changes in positions or rates of pay,
- Records of Employee Counseling,
- Separation Documents,
- Performance Reviews,
- Vacation Requests,

Absentee Records,

Employee Accident Reports,

- Notice of Extended Introductory Period, MSDS Acknowledgements, and

Any other forms deemed necessary.

Personnel records should be kept in individual files which are kept locked and secured at all times. All records are considered confidential. Superintendents should review Personnel Policy, P-100.06, Confidentiality of Employee Personnel Records, for more information.

#### **Chemical Records**

All records of the purchase, storage, handling, application, and disposal of the various chemicals used in the golf course maintenance operations must be on file in the maintenance shop.

#### **Irrigation Records**

Daily water usage records will be maintained by the Superintendent.

#### **Permits and Licenses**

All permits and licenses relating to the golf course maintenance operation, including pesticide handling and application permits, must be on file in the golf course maintenance shop. It is the Superintendent's responsibility to ensure all licenses are renewed on time.

#### **Safety Training**

All records of employee safety training and training in the use and handling of hazardous materials will be retained in the Superintendent's files.

### **Superintendent's Daily Log**

The Superintendent's Daily Log, mentioned in Section II, will be kept on file in the golf course maintenance shop for future review and reference.

### **Meeting Minutes**

Minutes of meetings, such as the Monthly Golf Course Management Meeting and Greens Committee Meeting, will be filed by the Superintendent for future reference.

### **Equipment Maintenance Records**

Equipment maintenance schedules and records, as mentioned in Section X, will be kept on file in the golf course maintenance shop.

### **Benchmarks**

It is the policy of the Club that all departments benchmark their operating areas. The Club has designed MS Excel® spreadsheets to track benchmarks for each area of operations.

The following golf course maintenance data is to be collected and recorded:

Work hours by task.

Equipment hours by equipment type.

Various miscellaneous data to include:

- Play Days - days that the course is open or days with at least one round played. In other words if the course is open but no rounds were played, do not count as a play day. If the course is open on a Monday for an outing, it is to be considered a play day. This information can be obtained from the golf shop.

- Rounds of golf. ○

Rainfall in inches.

- Water pumped for irrigation purpose on the golf course.
- 90 degree rule – days that players are allowed to drive carts off the cart paths.
- Degree days – is a concept that allows the computation of energy necessary to heat or air condition buildings. It is used to take the variability of weather out of benchmarking utility usage. Degree days for each local area may be obtained from the National Weather Service, from various weather-related web sites, or calculated from daily high and low temperatures. Any manager wishing to calculate degree days from temperatures will need to use a special spreadsheet designed for that purpose.

Electrical utilities information for maintenance building, course shelters, and irrigation pumps to include consumption in kilowatt hours, days in billing cycle, and cost in dollars.

Benchmarks are automatically calculated from the data collected and entered in the spreadsheet.