YMCA Maintenance Manual

Second Edition

YMCA of the USA

YMCA Maintenance Manual

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I. Introduction

Members tell us through member satisfaction surveys that a clean, well-maintained facility is very important to their satisfaction. They frequently list cleanliness as the number-one reason for leaving the YMCA. However, operational equipment is a close second. When members' expectations are exceeded, they will be more highly satisfied with YMCA offerings and facilities and less likely to leave the Y.

A well-organized building-maintenance program is vital to the operation of a YMCA in providing members with a well-equipped, modern facility in good operating condition. Often, the maintenance effort is taken for granted, and we assume the facility will be there and that it will be clean, comfortable, and sanitary. It is easy to allow preventive maintenance to become an item of secondary importance and to make repairs only on an "as needed" basis. This approach to maintenance usually begins when a facility is new or has just been remodeled. When this attitude is present, repairs are made only if the repair is critical or when there is a mechanical failure. When a structure is new, maintenance issues can be overlooked. It is not always apparent, but these buildings can get old very quickly. Breakdowns always seem to occur at the most inappropriate time—and the cost of repair is frequently greater than the cost of preventive maintenance.

The benefits gained from a planned preventive maintenance program far outweigh the costs. Members' satisfaction is increased; greater systems reliability results in fewer large-scale repairs; useful life of the equipment is extended; operating efficiency is maintained, resulting in higher energy efficiency and lower utility costs; the maintenance workload is leveled; and overall operating costs are reduced.

This manual focuses on maintenance by providing schedules for preventive maintenance and outlining the performance expected from everyone in the organization as it relates to the maintenance program.

The manual is designed to assist administration and maintenance personnel in performing the task of maintenance on a systematic basis. It is intended to complement competent and well-trained personnel by providing you with the tools and resources to best manage your most important assets.

II. Administration

It is important that all personnel understand the goals and objectives of the YMCA and the part they play in the YMCA organization. They should know the background of their association and how it is managed, who it is managed by, and what programs it offers. This knowledge of their association and the degree to which staff members understand the YMCA's mission, values, and goals will determine their commitment to maintaining the facility.

This section is devoted to establishing a foundation for building a preventive maintenance program. Responsibilities will be placed on personnel to carry out certain tasks, in order to make the program a success. It is important to note that this list of job responsibilities does not reflect the complete requirements of anyone's job, but rather is intended to act as a guide to providing safe, clean, attractive facilities that will attract members and keep them active. Some job descriptions listed are based on personnel whose primary function is to maintain the facility, while others have additional responsibilities beyond building maintenance. Personnel should be encouraged to make suggestions as to how the facilities can operate more efficiently, since their work is in close contact with the members being served.

At the YMCA, we promote teamwork; this section aims to help you create an environment where it is everyone's job to provide clean, attractive, and well maintained facilities.

Organization and Job Descriptions

In a large association with multiple buildings, the maintenance program is under the direction of the vice president of facilities or the facilities director. This structure can be applied to single-unit associations as well, where the maintenance director reports directly to the CEO/executive director or his/her designee. The facilities director or maintenance director has responsibility for seeing that all facilities are maintained properly and that all capital improvements are performed in the best interests of the YMCA. S/he shall direct the association's maintenance department by meeting with the building superintendents quarterly, providing training, assisting in the development of preventive maintenance schedules, reviewing operational cost ratios, and consulting with both the executive director and the building superintendent on property issues related to their facilities.

Routine inspections of all the facilities will serve as a means of preventive maintenance and also serve to monitor the maintenance program's performance requirements and schedules. The following procedures are very strongly recommended: 1) The facilities director should schedule and attend monthly meetings with the association's vice president of operations or

operations director, as well as with branch executive directors to review the budget, review maintenance schedules, and discuss needed repairs; 2) S/he should report on the progress of the program and make recommendations to ensure the success of the program. The vice president of facilities or facilities director should also meet with branch property committees on an occasional basis, and at least quarterly with the association's facilities committee.

The branch executive director is responsible for the operation of each individual branch. His/her staff shall follow the guidelines set forth in this manual to maintain a clean, safe, attractive, and well-maintained facility for use by all members. It is extremely important that all building deficiencies and defects be reported by the branch executive director's office promptly for coordination of the repair work.

Each facility should have a building superintendent responsible for maintenance and custodial needs. The building superintendent is under the direction of the branch executive director or his/her designee. Placing the responsibility of maintenance and custodial care with the building superintendent will allow the branch executive director to concentrate on the administrative requirements of the branch.

Custodial maintenance, under the direction of the building superintendent, is to be performed by the branch custodial staff or by contract cleaners. This staff will have the responsibility of general custodial service for the facility or facilities as outlined in Section III. These employees or contractors will be assigned the task of cleaning the entire facility when closed to the members. The size of the crew is based on facility size, complexity, and frequency of use. The staff will also strip and wax floors for the facility or facilities.

Having the custodial crew clean while the buildings are closed will allow for greater efficiency, not only for the crew, but also for the functioning of the YMCA as well. Daily activities will not be interrupted and the danger of slipping on wet floors will be greatly reduced. The day custodian should perform morning rounds to inspect the general performance of the custodial crew from the previous night. S/he should report all deficiencies and suggest specific corrective action to the building superintendent, who will notify the night supervisor.

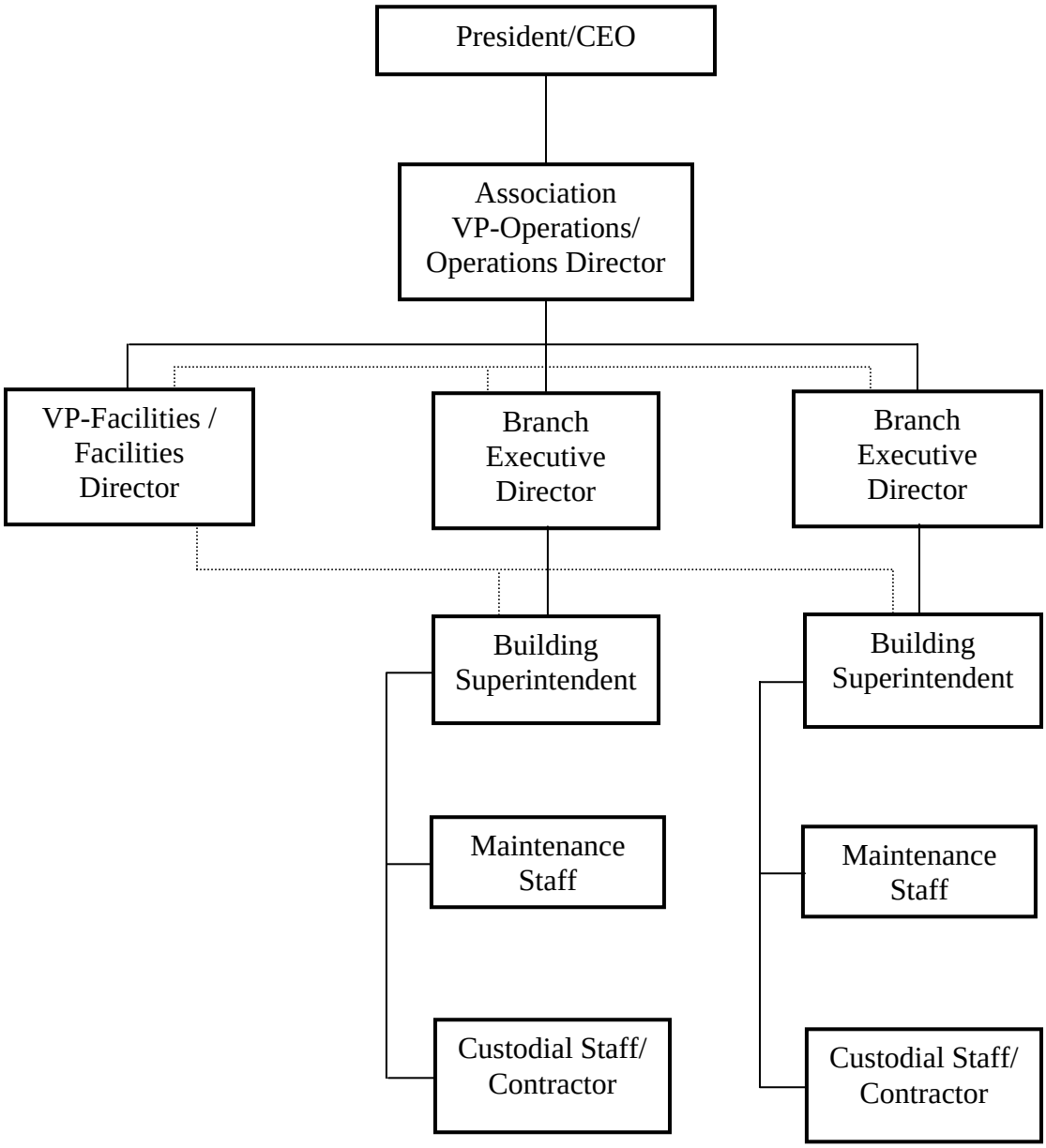
Along with the building superintendent, each facility should have at least one full-time custodian on duty during operating hours to provide services such as restocking toilet facilities, setting up for meetings, incidental clean up, opening and closing the building, building start-up, and morning inspection rounds.

Program directors at each facility also should have maintenance responsibilities related their activity areas that should be performed by their staff. For example, the aquatic director's staff would be responsible for cleaning the pool, checking water treatment, and generally policing areas after activities, so that the custodial crew will not have to work around or clean up after others before performing their own assigned duties.

The organizational chart shown in Figure 2-1 indicates the responsibility for maintenance areas and the sequence for reporting maintenance needs in a YMCA maintenance program. Job descriptions of the YMCA maintenance staff—including general function and

responsibilities as related to facility maintenance—and association maintenance program operations and staffing requirements appear below Figure 2-1.

Figure 2-1: YMCA Maintenance Program Organization Chart



Staffing Guidelines and Job Descriptions

YMCA Association Maintenance Operations Staffing Requirements

Building Maintenance

1. The maintenance department should be overseen by the vice president of facilities or facilities director.

2. The branch staff should consist of a full-time maintenance engineer (building superintendent) plus maintenance staff. A suggested approach would be that one building superintendent from each branch be specialized in electrical work, one in plumbing, one in heating, ventilating and air conditioning, etc. All staff members should have a good general knowledge of buildings, equipment, and building repairs.

3. Due to the number of pools in operation and the variety of pool finishes, one member of the maintenance staff should be trained in pool maintenance and refinishing. S/he would then be able to provide seasonal start-up and shutdown procedures and equipment repairs, and to contract for pool surface refinishing or repairs. This would reduce surface damage due to improperly cleaned plaster, and problems with painted pool surfaces. An alternative to training in-house personnel would be to contract with a professional company to provide these pool maintenance services.

4. The facilities director and building superintendents should be equipped with cell phones or pagers for communication at all times, allowing for greater efficiency in day-to-day operations and direction of personnel in emergency situations.

5. Associations should consider establishing maintenance agreements with heating and air conditioning, plumbing, and electrical contractors for required maintenance outside the association's maintenance department. Advantages of doing this are as follows:

- The contractor will become familiar with equipment at each facility
- When emergency situations occur, a source for repairs will be readily available
- A negotiated hourly rate or service charge will have been established for anticipated cost of repairs
- Volume of work, using the same individuals for each facility, should result in lower costs

6. Grounds maintenance should be on a contract basis for all facilities due to the expense of equipment, the seasonal nature of the work, and the variety of work required for parking lots, tennis courts, landscaping, etc.

7. Maintenance and custodial departments should have a central office for storage of equipment and supplies. One possible area, for example, could be a part of a branch's unused basement.

Custodial Maintenance

1. The custodial department should be directed by the building superintendent.

2. The custodial department should provide—or contract for—cleaning services during both operating and non-operating hours at the branches.

3. Each individual branch should hire a maintenance staff, which will report directly to the building superintendent during assigned hours. Each night-time custodial crew should have one supervisor to direct activities.

4. The following is a list of crew sizes for each of five sample association facilities. The size of each crew should be determined by the facility size, frequency of use, and condition of the building(s). These items should be reviewed periodically to adjust crew size accordingly with changes made to the facility.

Branch	Custodial Crew Size
a. Branch Name	7
b. Branch Name	2
c. Branch Name	2
d. Branch Name	5
e. Branch Name	2 (3 during summer)

5. A special two-person crew could be used to perform floor stripping and waxing at all association facilities on a regular rotating basis. This crew can also serve as replacement or additional custodial crew for the individual branches during particularly busy seasons or during vacations or extended illness of the regular crew.

Position Description

VP of Operations/Operations Director

Reports to President/CEO

General Function

This position is responsible for the physical condition of all facilities, ensuring that routine maintenance is performed and that all facilities are safe for the public, clean, and functioning properly. S/he is responsible for directing the vice president of facilities or facilities director and providing funding from the general budget to carry out adequately the required maintenance program.

Responsibilities

1. Directs vice president of facilities/facilities director in performing his/her duties.

2. Oversees building and remodeling at all branches.

3. Makes monthly visits to each facility for status inspections.

4. Holds monthly meeting with each branch executive director, his/her staff, and vice president of facilities/facilities director to review budget, maintenance schedules, and repair needs.

5. Provides reasonable budget allotments to maintain adequately all facilities.

Position Description

VP of Facilities/Facilities Director

Reports to VP of Operations/Operations Director

General Function

This position is responsible for branch maintenance of and capital improvements to all facilities. S/he oversees the procurement of contractors for work at the facilities, and makes inspections to assure the execution of the maintenance program and to determine what capital improvements should be made.

Responsibilities

1. Directs building and remodeling at all branches.

2. Contacts and procures independent contractors for repairs and capital improvements in conjunction with the branch leadership.

3. Inspects facilities for safety violations in order to maintain a safe environment for the public.

4. Communicates with the association's facilities committee and meets with branch property committees on an occasional basis.

5. Enforces the maintenance program requirements and schedules.

6. Ensures reasonable branch budget allotments to maintain adequately all facilities.

7. Consults with branch building superintendents and executive directors on matters related to risk and property management.

8. Assists branch executive director in the performance reviews of maintenance and custodial personnel.

9. Develops group purchasing initiatives for items such as heating oil, electricity, natural gas, cleaning supplies, pool chemicals, etc.

Position Description

Branch Executive Director

Reports to VP of Operations/Operations Director

General Function

This position is responsible for the physical condition of the individual branch facility, ensuring that the facility is safe for the public, clean, and functioning properly. S/he assigns duties to building superintendent and program directors for general maintenance of facility.

Responsibilities

1. Assures physical condition of assigned individual facility.
2. Staffs the facility as required to maintain it.
3. Meets with branch property committee at least quarterly.
4. Follows maintenance program guidelines.
5. Makes periodic inspections with staff members for related areas.
6. Attends weekly meetings with program staff and building superintendent.
7. Reports major damage or areas needing repairs immediately to vice president of facilities/facilities director.
8. Completes all required maintenance forms and reports.

Position Description

Program Director

Reports to Branch Executive Director

General Function

This position is responsible for the upkeep and general appearance of his/her activity areas under the direction of the branch executive director. Along with his/her staff members, the program director is responsible for keeping areas organized and equipment clean, and reporting all damage and equipment failures to executive director. The program director should have included in his/her job description that all areas will be well prepared and appropriately staffed so that the custodial staff can more easily perform their duties.

Responsibilities

1. Cleans and maintains exercise equipment, weight equipment, Nautilus machines, sports equipment, pools, and pool equipment.

2. Assures that equipment is arranged in storage areas in a neat and orderly manner.

3. Straightens locker areas after activities.

4. Reports damage and missing items to branch executive director.

Position Description

Building Superintendent

Reports to Executive Director

General Function

This position is responsible for managing the maintenance department and performing routine maintenance in the facility as outlined in the maintenance program guidelines. S/he provides repair services as required to keep the facilities safe and functioning properly for members. S/he reports to the vice president of facilities/facilities director any items needing repair which are beyond the capability of the branch maintenance department.

Responsibilities

1. Responsible for the maintenance department budget.
2. Provides routine maintenance on HVAC equipment.
3. Makes minor electrical repairs.
4. Does carpentry and repair work.
5. Makes plumbing repairs.
6. Performs minor pool equipment maintenance and repair.
7. Performs routine inspections and maintenance checks of facilities as means of preventive maintenance.
8. Notifies branch executive director and facilities director of any items needing immediate attention.
9. Meets with branch property committee at least quarterly.
10. Completes equipment repair records and forms.

Position Description

Custodial Supervisor

Reports to Building Superintendent

General Function

This position is responsible for overall cleanliness and disinfection of the facility as assigned by the building superintendent. S/he is responsible for supervising a crew which will clean the facility at night when the building is closed. Assigns tasks to individuals in his/her crew and makes sure they are carried out.

Responsibilities

1. Supervises custodial crew, which includes delegating tasks, monitoring work habits, and instructing and training crew on maintenance manual procedures. Responsible for protection of YMCA property and assisting building superintendent with performance reviews.

2. Assures security of YMCA facilities during the custodial shift's hours. Makes sure the building is locked while crew is inside working and when the crew leaves, checks to see that the building is secure.

3. Follows maintenance manual procedures and schedules.

4. Does dusting, vacuuming, dry and wet mopping, and performs general housekeeping duties.

5. Reports any building damage to building superintendent.

Position Description

Custodian

Reports to Custodial Supervisor

General Function

This position is responsible for cleanliness and disinfection of assigned areas and other duties as assigned. Consistently strives to maintain a clean and attractive facility. Performs any cleaning duties requested by custodial supervisor or building superintendent.

Responsibilities

1. Dry and wet mopping.
2. Dusting.
3. Removes trash.
4. Vacuuming.
5. General cleaning.
6. Stripping and waxing of floors.
7. Performs any cleaning duties requested by custodial supervisor or building superintendent.

Position Description

Day Custodian

Reports to Branch Executive Director

General Function

This position is responsible for cleanliness and sanitary condition of areas assigned by the building superintendent. Consistently strives to maintain a clean and attractive facility. Opens and closes the facility, turns on all lights, starts up all mechanical equipment, and has the general mechanical ability to use and maintain equipment. S/he reports any building damage to the building superintendent.

Responsibilities

1. Dry and wet mopping.
2. Dusting.
3. Removes trash.
4. Vacuuming.
5. General cleaning.
6. Performs any cleaning duties requested by branch executive director.
7. Sets up for club meetings and monthly meetings.
8. Opens building and starts up equipment.
9. Makes morning rounds to inspect work performed by previous night's custodial crew. Reports any deficiencies and suggests specific corrective action to building superintendent.

Position Description

Part-Time Custodian

Reports to Branch Executive Director

General Function

This position is responsible for maintenance and upkeep of the facility. S/he is responsible for areas assigned by the branch executive director or day custodian.

Responsibilities

1. Cleans offices.
2. Cleans meeting rooms.
3. Sets up for meetings.
4. Cleans rest rooms.
5. Removes trash.
6. Replaces light bulbs and cleans light fixtures.
7. Dusts.
8. General cleaning.
9. Vacuuming.

Forms

All employees should be informed of how they are performing. Performance reviews should be conducted at least once, ideally twice, and annually by supervisors. Performance appraisal forms are included in this section.

The forms for YMCA worker evaluation and other standard forms used for requisition, repairs, record keeping, etc., are included as Figures 2-2 through 2-11.

Figure Form

2-2 Performance Appraisal – Form should be completed by the appropriate supervisor, reviewed by employee, and placed in employee's file for future reference.

2-3 Maintenance Authorization – Form should be completed for situations when outside contractors must be used for repairs and improvements, and authorization is required. The form should be originated by the building superintendent and distributed to the facilities director.

2-4 Maintenance Work Order – Form should be used by buildings and grounds manager's office for coordination and distribution of maintenance calls. Form should be submitted to Metro maintenance department.

2-5 Maintenance Repair Record – Form should be completed by building superintendent and returned to the vice president of facilities'/facilities director's office to establish and keep an accurate record of maintenance work performed.

2-6 Building Equipment Record – Form should be completed by building superintendent and returned to vice president of facilities'/facilities director's office to establish and keep a record of new and replaced equipment in facilities.

2-7 Building Equipment Repair Log – Form should be completed and maintained by branch executive director as a log of all repairs made at each facility. Upon completion of each log sheet, one copy should be kept at branch and one copy should be sent to vice president of facilities/facilities director.

2-8 Requisition Form – Form should be completed by building superintendent and submitted to branch executive director for necessary maintenance supplies.

2-9 Daily Swimming Pool Record – Form should be filled in daily as required by the County Department of Health. One copy should remain on file for three years at the individual branch and one copy sent to the County Department of Health if required.

2-10 Swimming Pool Condition & Required Response – Should be attached to the Daily Swimming Pool Record. For each particular pool condition, the corresponding procedure should be followed.

2-11 Monthly Filter Room Log – Form to be filled in daily for work performed in the Filter Room. Copy should be kept on file for three years.

These and other forms/documentation in this manual should be filed and stored for future reference.

Performance Review

Name: _____ Date: _____

Position: _____

The purpose of the performance review is to provide information that will assist each of us in more effectively performing our duties. The appraisal process should identify areas of "strength" and "areas for improvement" related to the job description.

1. Job Performance (Review specific duties and job segments identified in this person's job description and evaluate)

   A. Strengths and Achievements: _____

   _____

   _____

   B. Areas of Improvement: _____

   _____

   _____

   C. Overall Performance in This Area:

   ____ Below Standard ____ Meets Standard ____ Above Standard

2. Job Responsibility (Punctuality, attendance at work, following YMCA policies and procedures, on the job interest and enthusiasm, etc.)

   A. Strengths and Achievements: _____

   _____

   _____

   B. Areas of Improvement: _____

   _____

   C. Overall Performance in This Area:

   ____ Below Standard ____ Meets Standard ____ Above Standard

Figure 2-2 (Sheet 1 of 3)

Performance Appraisal (Continued)

3. Staff Relationships (Willingness to cooperate with others on staff, willingness to help, ability to work with supervisor, supervision of others [if any], etc.)

A. Strengths and Achievements: _____

_____

_____

B. Areas of Improvement: _____

_____

_____

C. Overall Performance in This Area:

____ Below Standard ____ Meets Standard ____ Above Standard

4. Personal Development (Interest in learning new things, attendance at YMCA-sponsored or other workshops or training events or related performance improvements, attitude toward his/her job, personal work habits)

A. Strengths and Achievements: _____

_____

_____

B. Areas of Improvement: _____

_____

_____

C. Overall Performance in This Area:

____ Below Standard ____ Meets Standard ____ Above Standard

5. Identify what you see as any additional "strengths" related to this person's job performance

_____

_____

_____

Figure 2-2 (Sheet 2 of 3)

Performance Appraisal (Continued)

6. Identify any additional "Areas of Improvement" (Where you feel this person needs to grow)

   _____

   _____

7. Identify an Action Plan for "Areas of Improvement"

   _____

   _____

8. Identify factors in the present work setting that "help" this person perform most effectively and things that "hinder" this person's performance

   _____

   _____

9. Overall Performance in This Area:

   ____ Below Standard ____ Meets Standard ____ Above Standard

   General Comments: _____

   _____

   _____

I agree / disagree with this appraisal (circle one)*

_____ _____

Supervisor Employee

Employee Statement: _____

_____

_____

* If "disagree" is circled, the employee should include a brief statement.

Figure 2-2 (Sheet 3 of 3)

Maintenance Authorization

Date Submitted: _____

Priority Level: ____ High ____ Medium ____ Low

Job Number

Item Requiring Maintenance: _____

_____

_____

Estimated Cost: _____

Submitted By: _____

Approved By: _____

Date Completed: _____ Invoice No.: _____

Comments: _____

_____

_____

Completed By: _____ Time Required (Labor): _____

Purchases Necessary (Attach Receipts): $_____

Payment Authorized: _____

Signature

Procedure:

1. Maintenance authorization form is submitted to facilities director for approval.
2. Maintenance authorization is placed in priority order for completion. High priority items are immediately acted upon.
3. Upon completion, insert date completed, time required to complete the job, and amount of necessary purchases with receipts attached. Facilities director signs form and makes any necessary comments.
4. Maintenance authorization form is returned to branch executive director for payment.

Figure 2-3

Maintenance Work Order

Work Order No. _____

Location: _____ Charge Acct No. _____

Call Received: _____ Reported By: _____

Nature of Work: _____

_____

_____

Description of Work: _____

_____

_____

_____

_____

_____

Parts or Equipment Used: _____

_____

_____

Parts or Equipment Used: _____

_____

Estimated Cost: $_____ Hours Required: _____

Authorized By: _____ Date: _____

Figure 2-4

Maintenance Repair Record

Building: _____ Date Started: _____

Address: _____ Date Completed: _____

Type of Work: _____

_____

_____

_____

Location of Work in Building: _____

_____

_____

Material or Parts Used: _____

_____

_____

_____

Additional Work Required: _____

_____

_____

Job Completed by: _____ Date: _____

Figure 2-5

YMCA Preventive Maintenance Equipment Data

YMCA NAME: _____

TYPE: _____ LOCATION: _____

MAKE: _____ MODEL:_____ SERIAL #: _____

VOLTS: _____ AMPS: _____ DATE PURCHASED: _____

EQUIPMENT PRICE: $_____

Equipment Number
_____ - _____ Type Number

Type Key

A - Air Condition
B - Boiler
C - Compressor
F - Fan
FE - Fitness Equip.
G - Grounds
H - HVAC
K - Kitchen
L - Lighting
M - Motors
O - Other
P - Pumps
PL - Plumbing
PO - Pool
R - Refrigeration
V - Valves
W - Electronic
X - Emergency

MANUFACTURER – ADDRESS – PHONE	VENDOR – ADDRESS - PHONE

MOTOR DATA

MFG.	H.P.	VOLTS	AMPS	RPM	PH	DUTY	FRAME	MODEL	CAT. #	SER. #

SPARE PARTS				OTHER DATA
MFG.	PART #	MODEL #	CAT .#	FLUIDS – BELTS – FUSES – ETC.

MAINTENANCE REQUIREMENTS

Figure 2-6

Building Equipment Repair Log

YMCA: _____

DATE	DESCRIPTION OF WORK	WORK PERFORMED BY	COST	QUALITY OF WORK *

*If work is done by outside contractor, give some indication of quality for future reference.

Figure 2-7

Requisition Form

Date: _____ Accounting Dept. Req. No.: _____

Camp or Branch Req. No.: _____

YMCA: _____ Indicate which Dept. supplies are drawn from:

Department: _____ _____ Metro Program Department

_____ Metro Membership Department

Received By: _____ _____ Metro Accounting Department

_____ Metro Public Relations Department

Deliver To: _____ _____ Storeroom

_____ Other _____

Charge to Account: _____ Credit to Account: _____

Quantity Wanted	Unit	Description	Unit Price	Amount
		Subtotal		
		Service Charge		
		TOTAL		

Requisition Approved By: _____ Date: _____

Figure 2-8

YMCA Daily Pool Log

YMCA: _____ Date: _____

Time	Guard	Activity	No. of Bathers	Ch2 PPM	pH	Air Temp.	Water Temp.	Water Clarity	Total Alk.	Cal. Hard.	Lifeguard Break
5:30 AM											
6:00 AM											
7:00 AM											
8:00 AM											
9:00 AM											
10:00 AM											
11:00 AM											
Noon											
1:00 PM											
2:00 PM											
3:00 PM											
4:00 PM											
5:00 PM											
6:00 PM											
7:00 PM											
8:00 PM											
9:00 PM											
10:00 PM											

Comments: _____

_____

_____

Last chemical check should be taken at pool closing
Pool clarity definitions to be attached to Daily Pool Log
Customized pool opening and closing checklists to be attached

The pool bottom was checked and clear at the end of the day. Inspected by: _____
Signature

Figure 2-9

YMCA Swimming Pool Condition & Required Response

- As required by state, and in some cases, local, law and for the protection of members' health and safety, swimming pool conditions must be carefully monitored (bathers, chemicals, conditions, etc.).
- Action required depends upon the situation.
- All conditions and actions must be recorded in the swimming pool operating log.

Terminology	Definition	Action to Be Taken
Clear	Water is clear. Excellent visibility throughout.	Standard operating procedure. Chemical readings to be taken and recorded hourly.
Slightly Cloudy	Turbidity present but relatively clear. Bottom drain can be seen at the deep end from the deck of the shallow end.	Watch chemical balance carefully. Chemical readings taken and recorded hourly. Notify maintenance and supervisor if water balance is not correct.
Cloudy	Pool is cloudy but drain and lines are visible from the deck of the end.	Extra attention is needed. Guard located at the deep deep end. Notify supervisor and maintenance immediately. Additional guard is required if more than 15 bathers. Chemical readings should be taken every half hour.
Very Cloudy	If a 6" disk at the bottom of the pool is not visible from the deck of the deep end.	Close pool for protection of the members. Guard takes independent action, then reports action to supervisor and maintenance.

This response should be weighed against all local and state codes prior to implementation.

Figure 2-10

YMCA Monthly Filter Room Log

Month: _____ Year: _____

Date	Pool Vac.	Hair Strainer	Pool Shock	Filter Wash	Total Alk.	Cal. Hard.	Comb. Ch2	Lang. Index	T.D.S.
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									
23									
24									
25									
26									
27									
28									
29									
30									
31									

Comments – Problems – Orders

Date:_____

Date:_____

Figure 2-11

III. General Custodial Care

Custodial maintenance is the routine cleaning and disinfecting of buildings. It generally includes disposal of trash or garbage and cleaning of floors, walls, ceilings, furniture in offices, restrooms, showers, and locker areas.

Maintaining a clean, neat, and well-maintained facility is vital to the YMCA organization. You should be concerned about custodial maintenance because the appearance and cleanliness of a facility is viewed by many as an indication of the quality of service they will receive, and can often determine whether or not a person will join, or continue as a member of, the YMCA. The appearance and cleanliness of the facility are as important to membership as the programs offered.

The custodians in any organization, but particularly in the YMCA, play a major role. It is their responsibility to present a safe and clean facility to the membership.

The paragraphs below contain brief descriptions of various tasks performed under the heading of custodial maintenance along with a schedule for these tasks.

A. Floors

1. Sweep or Dust Mop Non-Carpeted Floors

Prior to sweeping the floor surface, use a mop with a neutral detergent to remove spills and obvious soil from the floor, and use a putty knife to remove tar, gum, or other sticky substances from the floor. On resilient tile, smooth sealed concrete, or other smooth-finish floor surfaces, use a treated dust mop and a dust pan to remove accumulated soil and litter. On rough unsealed concrete or other floors where dust mopping is not effective, use a push broom. The entire area should be thoroughly swept to remove dry soil, dust, and other litter. Trash receptacles and chairs should be tilted or moved when necessary to sweep underneath. After the floor has been swept, the floor surface—including corners and abutments—should be free of litter, spots, and streaks caused by spills or tracking. Carpet-type entrance mats should be vacuumed with an upright carpet vacuum to remove soil and grit, and to restore the resiliency of the carpet pile. Rubber, nylon, or polyester entrance mats should be swept, vacuumed, or hosed down to remove

soil and grit. All entrance mats should be lifted to remove soil and moisture from underneath and then returned to their usual location.

2. Spot Mop Non-Carpeted Floors

A wet mop, mop bucket, and wringer in a neutral detergent solution should be used to remove all obvious soil. The neutral detergent solution should be changed periodically and remain clear, or the area that was spot mopped should be rinsed with clear water. Chairs, trash receptacles, etc., should be moved when necessary to spot mop underneath. After being spot mopped, the floor should have a uniform appearance without streaks, swirl marks, detergent residue, or any evidence of soil. There should be no splash marks or mop streaks on furniture, baseboards, walls, etc., or mop strands remaining in the area. In restrooms, locker rooms, and food service areas, a germicidal detergent should be used in lieu of neutral detergent.

3. Damp Mop Non-Carpeted Floors

Prior to being damp mopped, the floor surface should be swept. A wet mop, mop bucket, and wringer in a neutral detergent solution should be used to remove all soil from the entire area. The neutral detergent solution should be changed periodically and remain clear, or the area damp mopped should be rinsed with clear water. All accessible areas should be damp mopped. Trash receptacles, chairs etc., should be moved as necessary to mop underneath. After being damp mopped, the floor should have a uniform appearance with no swirl marks or detergent residue, streaks, or any evidence of soil. There should be no splash marks or mop streaks on walls, baseboards, or furniture, or mop strands remaining in the area.

4. Damp Mop and Disinfect Non-Carpeted Floors (in restrooms, locker rooms, and food service areas)

Prior to being damp mopped and disinfected, the floor surface should be swept. A wringer, mop bucket, and mop dampened in a germicidal detergent solution should be used to remove all soils from the entire area. The germicidal detergent solution should be changed periodically and remain clear, or the area damp mopped should be rinsed with clear water. All areas should be damp mopped and disinfected. Trash receptacles, chairs, etc., should be moved when necessary to mop underneath. After being damp mopped and disinfected, the floor should have a uniform appearance with no swirl marks, detergent residue, streaks, or any evidence of soil. There should be no splash marks or mop streaks on furniture, baseboards, walls, etc., or mop strands remaining in the area.

5. Wet Clean Non-Carpeted Floors

Prior to being wet cleaned, the entire floor surface involved should be swept clean. An automatic scrubbing machine or with the following equipment: wet mop, mop bucket, wringer, power scrubber with floor squeegee should be used with a neutral detergent to remove all soil from the entire floor, baseboards, etc. The entire floor should be scrubbed with the power scrubber. If an automatic scrubbing machine is not used, the neutral detergent solution should be applied to the entire floor area and allowed to remain for 3–5 minutes. In areas with floor drains, floors should be dried with a squeegee and rinsed with clear water. In areas without a floor drain, the solution should be picked up with a wet mop and mop bucket with wringer, and rinsed twice with clear water. Trash

receptacles, chairs, etc., should be moved when necessary to mop underneath. After being wet cleaned, the floor should have a uniform appearance with no swirl marks, detergent residue, streaks, or any evidence of soil. There should be no splash marks or mop streaks on furniture, baseboards, walls, etc., or mop strands remaining in the area.

6. Spray Buff Floors Coated with Metalinterlock Acrylic Copolymer Floor Finish

Prior to being spray buffed, the floor surface should be dust mopped. A single-disc floor machine, buffing pad, and spray bottle with spray buffing solution should be used to restore a uniform gloss and protective finish to resilient tile floors that are finished with a metalinterlock acrylic copolymer floor finish. The spray buff solution should be prepared according to the manufacturer's directions. Floor finish should be of the type previously used on the floor. All areas which show signs of wear and which are accessible to the floor machine should be spray buffed. Trash receptacles, chairs, etc., should be tilted or moved where necessary to spray buff underneath. The floor should be dust mopped after spray buffing. After spray buffing, the floor should have a uniform glossy appearance free from scuff marks, heel marks, and other stains, and should have a uniform coating of floor finish. All spray buff solution should be removed from baseboards, trash receptacles, furniture, etc.

7. Strip and Refinish Resilient Tile

Stripping should be defined as the complete removal, without damage to the floor surface, of all finish and/or sealer on all floor surfaces. This task should include the removal and return of tables, chairs, waste cans, etc.

Stripping also includes the complete removal of all scuffs, stains, marks, etc., except in cases where there is damage to the floor surface. The stripping chemical should be specifically for the type of finish and/or sealer being stripped and should be used according to the manufacturer's directions. The floor should be scrubbed with an automatic scrubbing machine or a single-disc floor machine equipped with a scrubbing pad, except those areas on which the use of manual scrubbing devices are necessary to completely remove the finish and/or sealer. The stripping solution and rinse water should be picked up with a wet/dry vacuum except in areas where its use is impossible or impractical—i.e., very small areas. All floor surfaces to which stripper has been applied should be thoroughly rinsed with clean water. When a wet/dry vacuum is used, the area should be rinsed at least once after the stripping solution has been removed. If a mop is used to pick up the stripping solution, the area should be rinsed at least twice.

Using an appropriate applicator, spread a thin, even coat of sealer over the entire area. Allow sealer to dry, and then spread a second thin, even coat. Allow to dry, keeping the area free of traffic after applying the second coat. Using an appropriate applicator, spread a thin coat of liquid wax to within six inches of the baseboard. Allow was to dry and apply a second thin, even coat over the same area. Allow was to dry and apply a third thin, even coat from baseboard to baseboard. Allow to dry, and machine buff lightly with a lambs wool pad. The reflectance should be uniform with no swirls, streaks, etc., visible. No stripping solution or finish should remain on baseboards, doors, or other non-floor surfaces.

8. Spot Clean Carpets

Use a carpet stain remover or aerosol dry foam shampoo to remove all stains, spills, gum, etc., from carpeted surfaces as recommended by the manufacturer's instructions. Stains not removed in this manner should be reported to the appropriate supervisor.

9. Partially Vacuum Carpet/Synthetic Floors

Use an upright vacuum to remove obvious soil and litter from the carpet. Concentrate on high-use areas.

10. Completely Vacuum Carpet/Synthetic Floors

Use an upright carpet vacuum to collect surface soil and embedded grit from all areas accessible to the carpet vacuum. Trash receptacles, chairs, etc., should be tilted or moved when necessary to vacuum underneath. Additionally, a crevice tool or brush attachment should be used as necessary to prevent any visible accumulation of soil or litter in carpeted areas inaccessible to the upright carpet vacuum. After the carpeted floor has been completely vacuumed, it should be free of all visible soil, litter, and embedded grit.

11. Carpet Cleaning – Water Extraction Method

Carpet cleaning – water extraction method should be defined as spot cleaning, vacuuming using the water extraction equipment, and re-vacuuming of all carpet in an area. All vacuuming, both before and after the use of the water extraction equipment, should be done with a medium duty pile lifter vacuum. All stained areas should be treated with spot cleaning solution following the solution manufacturer's directions. Spot cleaning should continue until as much of the stain as possible has been removed. The water extraction equipment should be operated over the entire carpeted area. All instructions provided by the manufacturer of the water extraction equipment should be followed during use. After operating the water extraction equipment and allowing sufficient drying time, the carpet should be vacuumed following a pattern which will give the carpet pile a uniform appearance. It is recommended that this task be performed on a contract basis.

B. Walls, Glass, and Furniture

1. Dusting Horizontal Building and Furniture Surfaces

Use a lightly treated dust cloth, lightly treated handheld dusting tool, lambswool dusting tool, tank vacuum with dusting attachments, or combination of these dusting tools to remove all dust, lint, litter, dry soil, etc., from the horizontal surfaces of desks, chairs, file cabinets, and other types of office furniture, and from horizontal ledges, window sills, blinds, and hand rails below seven feet from the top of the floor surface. Items on desk tops should not be disturbed. After regular dusting, all surfaces should have a uniform appearance free from streaks, dust, lint, smudges, litter, etc. In food service areas, staff should use a cloth or sponge dampened with a germicidal detergent in lieu of a dusting cloth or tool.

2. Dusting Vertical Building and Furniture Surfaces

Use a lightly treated dust cloth, lightly treated handheld dusting tool, lambs wool dusting tool, tank vacuum with dusting attachments, or combination of these dusting tools to remove all dust, lint, litter, dry soil, etc., from the vertical surfaces of desks, chairs, file cabinets, and other types of office furniture, and from vertical walls, windows, blinds, and hand rails below seven feet from the top of the floor surface. After dusting, all surfaces should have a uniform appearance free from dust, lint, streaks, smudges, litter, etc. In restrooms, food service areas, and locker rooms, staff should use a cloth or sponge dampened with a germicidal detergent in lieu of a dusting cloth or tool.

3. Dusting High Surfaces

Dusting of high surfaces should be defined as the removal of dust, cobwebs, oily film, etc., from all fixtures and surfaces above seven feet. This includes lights, grilles, light fixtures, pipes, sprinkler systems, cables, ledges, walls, ceilings, vents, etc. High dusting should be accomplished by using treated dust cloths, treated dusting tools, a damp sponge, and a tank vacuum with crevice tool brush attachment and wall attachment. After high dusting, all areas and surfaces above seven feet should be free from all types of soil removable by dusting or damp wiping, and should blend in with the area below seven feet high.

4. Spot Cleaning Furniture, Fixtures, Walls, Partitions, Doors, Etc.

Staff should use a sponge, clean cloth, and spray bottle of neutral detergent, germicidal detergent, or glass cleaner to remove fingerprints, streaks, marks, smudges, etc. from all surfaces of walls, furniture, fixtures, doors, appliances, etc. Germicidal detergent should be used in locker rooms, food service areas, restrooms, and drinking fountains. Glass cleaner should be used on mirrors, glass surfaces, and stainless steel. Lotion-type cleanser should be used on hard-to-remove spots. After spot cleaning, all surfaces should have a clean, uniform appearance free from spots, streaks, and other evidence of soil.

5. Washing Interior Glass and Mirrors

Washing interior glass and mirrors should be defined as the complete removal of smudges, oily film, cobwebs, tape, dust, and other types of soil from all glass located in interior partitions, doors, walls, displays, and other glass areas. This includes both sides of glass. A glass-cleaning chemical, window squeegee tool with rubber blade, clean sponge, and synthetic fiber cloth should be used. The glass should be rinsed as necessary to remove residue. After washing, glass should be free from dust, oily film, tape, smudges, and all other types of soil, streaks, and water marks. Glass cleaner spillage and drip marks should be removed from adjacent surfaces. Signage should never be taped to any glass, either interior or exterior.

6. Washing Exterior Glass

Washing exterior glass should be defined as the complete removal of tape, oily film, cobwebs, dust, smudges, and other types of soil from both sides of the glass and frames of exterior windows, doors, etc. A glass-cleaning chemical, window squeegee tool with rubber blade, window brush, clean sponge, and synthetic fiber cloths should be used. The glass and frames should be rinsed to remove any detergent solution. After washing, the glass area should be free from tape, oily film, cobwebs, smudges, dust, and all other types of soil, streaks, and water marks. Glass cleaner spillage and drip marks should be

removed from all adjacent surfaces. Windows, glass doors, and side lights located on the ground floor, along with the interior surface of glass located above the ground floor, should be cleaned by the day custodian. Glass immediately adjacent to and in entrance doors should be cleaned daily. Exterior surfaces of glass located above the ground floor should be cleaned on a contract basis by a company specializing in this type of work.

C. Ceilings

1. Cleaning Suspended Acoustical Tile Ceiling

Wipe clean using a clean cloth dampened in a solution of detergent and water.

2. Cleaning Gypsum Board Ceiling

Wipe clean using a clean cloth dampened in a solution of detergent and water.

3. Cleaning Metal Linear Ceiling

Use a glass cleaner and a soft clean cloth to clean all surfaces. After cleaning, there should not be any evidence of smudges, streaks, lint, or residue left on any surface.

4. Cleaning Plaster Ceiling

Wipe clean using a clean cloth dampened in a solution of detergent and water. On toilet and shower areas, use a germicidal detergent.

D. Restrooms

1. Disinfect Furniture, Walls, Partitions, Fixtures, Doors, Etc.

Use a sponge or cloth in germicidal detergent to damp wipe and disinfect all surfaces of walls, fixtures, partitions, doors, etc. After disinfecting, all surfaces should be free of marks or discoloration and be uniform in appearance.

2. Refill Toilet Tissue, Paper Towel, and Hand Soap Dispensers

All dispensers should be completely filled to the proper level. The proper level must not be exceeded, thereby causing damage to dispensers and/or locking mechanisms. The paper and hand soap supplied should be correctly installed in accordance with the directions of the dispenser and paper manufacturers. Hand soap dispensers and adjacent surfaces should be wiped clean of any spillage.

3. Clean and Disinfect Wash Basins, Toilets, Urinals, and Showers

Using a spray bottle, apply germicidal detergent solution to all basins, and to the wall area beside and between the basins. Clean the tops, sides, and insides of, as well as wall area between the basins with a sponge. Wipe the metal, laminated, and solid surfaces and vanity tops dry to prevent spotting. Use a spray bottle to apply germicidal detergent solution to all urinals and to the wall area between the urinals with a sponge. This sponge should be of a particular color which will be used only in commodes and urinals. Clean the insides of the urinals with a bowl mop. Use the bowl mop to thoroughly clean the

underside of the flushing rim. Wipe metal surfaces dry with a clean cloth to prevent spotting.

Use the spray bottle to apply germicidal solution to the insides and outsides of the commodes, and to tile wall area beside the commodes. Spray the top of the seat first and then lift the seat and spray the remainder of the fixture. Clean the seat, outside of the fixture, and wall beside the fixture with the type of sponge used to clean the outside of the urinals. Clean the inside of the fixture with a bowl mop. Use the bowl mop to thoroughly clean under the flushing rim. Wipe the top of the seat and the metal surfaces dry with a cloth to prevent spotting.

4. Descale Toilets and Urinals

Use phosphoric acid-type bowl cleaner and a nylon bowl mop to remove scale, scum, mineral deposits, rust stains, etc., from toilet bowls and urinals. After descaling, the entire surface should be free from stains, scale, scum, streaks, mineral deposits, rust stains, etc. Caution must be used to prevent damage to adjacent surfaces caused by spills of acid-type bowl cleaner. Rubber gloves and safety glasses should be worn when using acid-type bowl cleaner.

5. Clean Floor Drains in Restroom

Use a screwdriver to remove attaching screws and remove the drain cover and/or strainer. Use a circular stiff-bristle wire brush and germicidal detergent to remove scale, scum, and other soil from the inside of the drain pipe and then flush with hot water and germicidal detergent. Use a flat stiff-bristle wire brush to remove scale, scum, and other soil from the drain cover and/or strainer, and then place the drain cover and/or strainer into position and secure with attaching screws.

6. Clean Mirrors

Clean all mirrors by spraying with glass cleaner and wiping dry with a clean dry cloth, leaving no streaks.

E. Garbage and Trash

1. Empty Waste and Ash Receptacles

All waste baskets, cigarette ash/butt receptacles, pencil sharpeners, and other trash containers within the area should be emptied and returned to their initial locations. Cans, papers, boxes, etc., placed near trash receptacles and marked “TRASH” should be removed. All waste from such trash receptacles should be removed from the area and emptied into a designated trash dumpster or receptacle in a manner to prevent the adjacent area from becoming littered by trash. During warm weather months, outdoor receptacles may need to be emptied several times during the day to eliminate the danger of bees and wasps.

2. Spot Clean Waste and Ash Receptacles

The exterior of waste baskets should be damp wiped with neutral detergent from a spray bottle and a clean sponge or synthetic fiber cloth to remove evident soil. Wet spills on the interior of waste baskets should be removed. Cigarette ash/butt receptacles should be

damp wiped and sponged to remove evident soil. Lotion-type cleanser and an abrasive pad should be used on hard-to-remove soil. In restrooms, locker rooms, and food service areas, a germicidal detergent should be used in lieu of neutral detergent.

3. Replace Soiled or Torn Receptacle Liners

All plastic liners that are torn or obviously soiled should be removed from trash receptacles and replaced with new plastic liners. The liner should be folded back over the top rim of the receptacle.

F. Furniture and Equipment

1. Rearrange Furniture as Required

All furniture moved during the performance of work should be returned to the appropriate location. Additionally, all other office furniture, such as chairs and waste receptacles, should be returned to the appropriate location. Spot clean and vacuum furniture as required.

2. Clean and Disinfect Drinking Fountains

Use a spray bottle of germicidal detergent, sponge or cloth, abrasive pad, percolator brush, and lotion-type cleanser to remove all obvious streaks, smudges, soil, etc., from the drinking fountains and cabinets. Then disinfect all surfaces, including the orifices and drain. After cleaning, the entire drinking fountain should be free from streaks, stains, spots, scale, smudges, and other obvious soil.

G. Miscellaneous

1. Report Damage to Supervisor

All damage to building surfaces, fixtures, furniture, or equipment should be reported immediately to the supervisor, who should inspect damage and report to the building superintendent.

2. Police Litter

All visible litter including—but not limited to—paper, paper clips, chewing gum, rubber bands, etc., should be picked up or swept up and placed in waste collection containers. Litter should also be removed from window sills, planters, etc.

H. Fitness Equipment

Refer to Section VII, “Fitness Equipment,” for guidelines on cleaning saunas, whirlpools, steam baths, and exercise equipment.

I. Custodial Schedules

The custodial schedules are included after this page. The paragraph reference column refers to Section III, “General Custodial Care.” The referenced paragraphs provide detailed descriptions of the duties.

Branch

Custodial Schedule

Custodial Schedule

Gymnasium		Frequency					
		DAILY	WEEKLY	MONTHLY	SEMI-ANNUAL	ANNUALLY	
Par. Ref	Duty						
A.1	Sweep or Dust Mop Non-Carpeted Floors (treated mop)	3x					
A.2	Spot Mop Non-Carpeted Floors	♦					
A.3	Damp Mop Non-Carpeted Floors						
A.4	Damp Mop and Disinfect Non-Carpeted Floors						
A.5	Wet Clean Non-Carpeted Floors						
A.6	Spray Buff Floors Coated With Metalinterlock Copolymer Floor Finish						
A.7	Strip and Finish Resilient Tile						
A.8	Spot Clean Carpets						
A.9	Partially Vacuum Carpet/Synthetic Floors						
A.10	Completely Vacuum Carpet/Synthetic Floors						
A.11	Carpet Cleaning – Water Extraction Method						
B.1	Dust Horizontal Building and Furniture Surfaces	♦					
B.2	Dust Vertical Building and Furniture Surfaces		♦				
B.3	Dust High Surfaces					♦	
B.4	Spot Clean Furniture, Fixtures, Walls, Partitions, Doors, etc	♦					
B.5	Wash Interior Glass						
B.6	Wash Exterior Glass						
C.1	Clean Suspended Acoustical Tile Ceiling						
C.2	Clean Gypsum Board Ceiling						
C.3	Clean Metal Linear Ceiling						
C.4	Clean Plaster Ceiling						
D.1	Disinfect Furniture, Walls, Partitions, Fixtures, Doors, Etc.						
D.2	Refill Toilet Tissue, Paper Towel, and Hand Soap Dispensers						
D.3	Clean and Disinfect Wash Basins, Toilets, Urinals and Showers						
D.4	Descale Toilets and Urinals						
D.5	Clean Floor Drains in Restrooms						
D.6	Clean Mirrors						
E.1	Empty Waste Receptacles	♦					
E.2	Spot Clean Waste Receptacles	♦					
E.3	Replace Soiled or Torn Receptacle Liners	♦					
F.1	Rearrange Furniture as Required	♦					
F.2	Clean and Disinfect Drinking Fountains	♦					
G.1	Report Damage to Supervisor	♦					
G.2	Police Litter	♦					

Custodial Schedule

Racquetball Courts		Frequency					
Par. Ref	Duty	DAILY	WEEKLY	MONTHLY	SEMI-ANNUAL	ANNUALLY	AS REQUIRED
A.1	Sweep or Dust Mop Non-Carpeted Floors (treated mop)	3x					
A.2	Spot Mop Non-Carpeted Floors	♦					
A.3	Damp Mop Non-Carpeted Floors						
A.4	Damp Mop and Disinfect Non-Carpeted Floors						
A.5	Wet Clean Non-Carpeted Floors						
A.6	Spray Buff Floors Coated With Metalinterlock Copolymer Floor Finish						
A.7	Strip and Finish Resilient Tile						
A.8	Spot Clean Carpets						
A.9	Partially Vacuum Carpet/Synthetic Floors						
A.10	Completely Vacuum Carpet/Synthetic Floors						
A.11	Carpet Cleaning – Water Extraction Method						
B.1	Dust Horizontal Building and Furniture Surfaces	♦					
B.2	Dust Vertical Building and Furniture Surfaces		♦				
B.3	Dust High Surfaces				♦		
B.4	Spot Clean Furniture, Fixtures, Walls, Partitions, Doors, etc	♦					
B.5	Wash Interior Glass		♦				
B.6	Wash Exterior Glass						
C.1	Clean Suspended Acoustical Tile Ceiling						
C.2	Clean Gypsum Board Ceiling						
C.3	Clean Metal Linear Ceiling						
C.4	Clean Plaster Ceiling					♦	♦
D.1	Disinfect Furniture, Walls, Partitions, Fixtures, Doors, Etc.						
D.2	Refill Toilet Tissue, Paper Towel, and Hand Soap Dispensers						
D.3	Clean and Disinfect Wash Basins, Toilets, Urinals and Showers						
D.4	Descale Toilets and Urinals						
D.5	Clean Floor Drains in Restrooms						
D.6	Clean Mirrors						
E.1	Empty Waste Receptacles						
E.2	Spot Clean Waste Receptacles						
E.3	Replace Soiled or Torn Receptacle Liners						
F.1	Rearrange Furniture as Required						
F.2	Clean and Disinfect Drinking Fountains						
G.1	Report Damage to Supervisor	♦					
G.2	Police Litter	♦					

Custodial Schedule

Free Weight Room		Frequency					
Par. Ref	Duty	DAILY	WEEKLY	MONTHLY	SEMI-ANNUAL	ANNUALLY	AS REQUIRED
A.1	Sweep or Dust Mop Non-Carpeted Floors	♦					
A.2	Spot Mop Non-Carpeted Floors						
A.3	Damp Mop Non-Carpeted Floors						
A.4	Damp Mop and Disinfect Non-Carpeted Floors	♦					
A.5	Wet Clean Non-Carpeted Floors						
A.6	Spray Buff Floors Coated With Metalinterlock Copolymer Floor Finish						
A.7	Strip and Finish Resilient Tile						
A.8	Spot Clean Carpets						
A.9	Partially Vacuum Carpet/Synthetic Floors	♦					
A.10	Completely Vacuum Carpet/Synthetic Floors		♦				
A.11	Carpet Cleaning – Water Extraction Method						♦
B.1	Dust Horizontal Building and Furniture Surfaces	♦					
B.2	Dust Vertical Building and Furniture Surfaces		♦				
B.3	Dust High Surfaces			♦			
B.4	Spot Clean Furniture, Fixtures, Walls, Partitions, Doors, etc	♦					
B.5	Wash Interior Glass	♦					
B.6	Wash Exterior Glass				♦		
C.1	Clean Suspended Acoustical Tile Ceiling					♦	
C.2	Clean Gypsum Board Ceiling					♦	
C.3	Clean Metal Linear Ceiling						
C.4	Clean Plaster Ceiling					♦	♦
D.1	Disinfect Furniture, Walls, Partitions, Fixtures, Doors, Etc.	♦					
D.2	Refill Toilet Tissue, Paper Towel, and Hand Soap Dispensers	♦					
D.3	Clean and Disinfect Wash Basins, Toilets, Urinals and Showers						
D.4	Descale Toilets and Urinals						
D.5	Clean Floor Drains in Restrooms						
D.6	Clean Mirrors	♦					
E.1	Empty Waste Receptacles	♦					
E.2	Spot Clean Waste Receptacles	♦					
E.3	Replace Soiled or Torn Receptacle Liners	♦					
F.1	Rearrange Furniture as Required	♦					
F.2	Clean and Disinfect Drinking Fountains						
G.1	Report Damage to Supervisor	♦					
G.2	Police Litter	♦					

Custodial Schedule

Handball Courts (Outside)		Frequency					
		DAILY	WEEKLY	MONTHLY	SEMI-ANNUAL	ANNUALLY	AS REQUIRED
Par. Ref	Duty						
A.1	Sweep or Dust Mop Non-Carpeted Floors	♦					
A.2	Spot Mop Non-Carpeted Floors						
A.3	Damp Mop Non-Carpeted Floors						
A.4	Damp Mop and Disinfect Non-Carpeted Floors						
A.5	Wet Clean Non-Carpeted Floors						
A.6	Spray Buff Floors Coated With Metalinterlock Copolymer Floor Finish						
A.7	Strip and Finish Resilient Tile						
A.8	Spot Clean Carpets						
A.9	Partially Vacuum Carpet/Synthetic Floors						
A.10	Completely Vacuum Carpet/Synthetic Floors						
A.11	Carpet Cleaning – Water Extraction Method						
B.1	Dust Horizontal Building and Furniture Surfaces						
B.2	Dust Vertical Building and Furniture Surfaces						
B.3	Dust High Surfaces						
B.4	Spot Clean Furniture, Fixtures, Walls, Partitions, Doors, etc						
B.5	Wash Interior Glass						
B.6	Wash Exterior Glass						
C.1	Clean Suspended Acoustical Tile Ceiling						
C.2	Clean Gypsum Board Ceiling						
C.3	Clean Metal Linear Ceiling						
C.4	Clean Plaster Ceiling						
D.1	Disinfect Furniture, Walls, Partitions, Fixtures, Doors, Etc.						
D.2	Refill Toilet Tissue, Paper Towel, and Hand Soap Dispensers						
D.3	Clean and Disinfect Wash Basins, Toilets, Urinals and Showers						
D.4	Descale Toilets and Urinals						
D.5	Clean Floor Drains in Restrooms						
D.6	Clean Mirrors						
E.1	Empty Waste Receptacles						
E.2	Spot Clean Waste Receptacles						
E.3	Replace Soiled or Torn Receptacle Liners						
F.1	Rearrange Furniture as Required						
F.2	Clean and Disinfect Drinking Fountains						
G.1	Report Damage to Supervisor	♦					
G.2	Police Litter	♦					

Custodial Schedule

Track		Frequency					
		DAILY	WEEKLY	MONTHLY	SEMI-ANNUAL	ANNUALLY	AS REQUIRED
Par. Ref	Duty						
A.1	Sweep or Dust Mop Non-Carpeted Floors	♦					
A.2	Spot Mop Non-Carpeted Floors	♦					
A.3	Damp Mop Non-Carpeted Floors						
A.4	Damp Mop and Disinfect Non-Carpeted Floors						
A.5	Wet Clean Non-Carpeted Floors		♦				
A.6	Spray Buff Floors Coated With Metalinterlock Copolymer Floor Finish						
A.7	Strip and Finish Resilient Tile						
A.8	Spot Clean Carpets						
A.9	Partially Vacuum Carpet/Synthetic Floors	♦					
A.10	Completely Vacuum Carpet/Synthetic Floors		♦				
A.11	Carpet Cleaning – Water Extraction Method						
B.1	Dust Horizontal Building and Furniture Surfaces	♦					
B.2	Dust Vertical Building and Furniture Surfaces		♦				
B.3	Dust High Surfaces			♦			
B.4	Spot Clean Furniture, Fixtures, Walls, Partitions, Doors, etc	♦					
B.5	Wash Interior Glass		♦				
B.6	Wash Exterior Glass				♦		
C.1	Clean Suspended Acoustical Tile Ceiling						
C.2	Clean Gypsum Board Ceiling						
C.3	Clean Metal Linear Ceiling						
C.4	Clean Plaster Ceiling						
D.1	Disinfect Furniture, Walls, Partitions, Fixtures, Doors, Etc.						
D.2	Refill Toilet Tissue, Paper Towel, and Hand Soap Dispensers						
D.3	Clean and Disinfect Wash Basins, Toilets, Urinals and Showers						
D.4	Descale Toilets and Urinals						
D.5	Clean Floor Drains in Restrooms						
D.6	Clean Mirrors						
E.1	Empty Waste Receptacles	♦					
E.2	Spot Clean Waste Receptacles	♦					
E.3	Replace Soiled or Torn Receptacle Liners	♦					
F.1	Rearrange Furniture as Required	♦					
F.2	Clean and Disinfect Drinking Fountains	♦					
G.1	Report Damage to Supervisor	♦					
G.2	Police Litter	♦					

Custodial Schedule

Wellness Center and Fitness Testing		Frequency					
Par. Ref	Duty	DAILY	WEEKLY	MONTHLY	SEMI-ANNUAL	ANNUALLY	AS REQUIRED
A.1	Sweep or Dust Mop Non-Carpeted Floors	♦					
A.2	Spot Mop Non-Carpeted Floors	♦					
A.3	Damp Mop Non-Carpeted Floors						
A.4	Damp Mop and Disinfect Non-Carpeted Floors	♦					
A.5	Wet Clean Non-Carpeted Floors		♦				
A6	Spray Buff Floors Coated With Metalinterlock Copolymer Floor Finish			♦			
A.7	Strip and Finish Resilient Tile				♦		
A.8	Spot Clean Carpets	♦					
A.9	Partially Vacuum Carpet/Synthetic Floors	♦					
A.10	Completely Vacuum Carpet/Synthetic Floors		♦				
A.11	Carpet Cleaning – Water Extraction Method						♦
B.1	Dust Horizontal Building and Furniture Surfaces	♦					
B.2	Dust Vertical Building and Furniture Surfaces		♦				
B.3	Dust High Surfaces			♦			
B.4	Spot Clean Furniture, Fixtures, Walls, Partitions, Doors, etc	♦					
B.5	Wash Interior Glass	♦					
B.6	Wash Exterior Glass				♦		
C.1	Clean Suspended Acoustical Tile Ceiling					♦	
C.2	Clean Gypsum Board Ceiling						
C.3	Clean Metal Linear Ceiling						
C.4	Clean Plaster Ceiling						
D.1	Disinfect Furniture, Walls, Partitions, Fixtures, Doors, Etc.						
D.2	Refill Toilet Tissue, Paper Towel, and Hand Soap Dispensers						
D.3	Clean and Disinfect Wash Basins, Toilets, Urinals and Showers						
D.4	Descale Toilets and Urinals						
D.5	Clean Floor Drains in Restrooms						
D.6	Clean Mirrors	♦					
E.1	Empty Waste Receptacles	♦					
E.2	Spot Clean Waste Receptacles	♦					
E.3	Replace Soiled or Torn Receptacle Liners	♦					
F.1	Rearrange Furniture as Required	♦					
F.2	Clean and Disinfect Drinking Fountains	♦					
G.1	Report Damage to Supervisor	♦					
G.2	Police Litter	♦					

Custodial Schedule

Natatorium		Frequency					
Par. Ref	Duty	DAILY	WEEKLY	MONTHLY	SEMI-ANNUAL	ANNUALLY	AS REQUIRED
A.1	Sweep or Dust Mop Non-Carpeted Floors	♦					
A.2	Spot Mop Non-Carpeted Floors						
A.3	Damp Mop Non-Carpeted Floors						
A.4	Damp Mop and Disinfect Non-Carpeted Floors	♦					♦
A.5	Wet Clean Non-Carpeted Floors		♦				♦
A.6	Spray Buff Floors Coated With Metalinterlock Copolymer Floor Finish						
A.7	Strip and Finish Resilient Tile						
A.8	Spot Clean Carpets						
A.9	Partially Vacuum Carpet/Synthetic Floors						
A.10	Completely Vacuum Carpet/Synthetic Floors						
A.11	Carpet Cleaning – Water Extraction Method						
B.1	Dust Horizontal Building and Furniture Surfaces	♦					
B.2	Dust Vertical Building and Furniture Surfaces		♦				
B.3	Dust High Surfaces				♦		
B.4	Spot Clean Furniture, Fixtures, Walls, Partitions, Doors, etc	♦					
B.5	Wash Interior Glass		♦				
B.6	Wash Exterior Glass				♦		
C.1	Clean Suspended Acoustical Tile Ceiling						
C.2	Clean Gypsum Board Ceiling						
C.3	Clean Metal Linear Ceiling						
C.4	Clean Plaster Ceiling						
D.1	Disinfect Furniture, Walls, Partitions, Fixtures, Doors, Etc.						
D.2	Refill Toilet Tissue, Paper Towel, and Hand Soap Dispensers						
D.3	Clean and Disinfect Wash Basins, Toilets, Urinals and Showers						
D.4	Descale Toilets and Urinals						
D.5	Clean Floor Drains in Restrooms						
D.6	Clean Mirrors						
E.1	Empty Waste Receptacles	♦					
E.2	Spot Clean Waste Receptacles	♦					
E.3	Replace Soiled or Torn Receptacle Liners	♦					
F.1	Rearrange Furniture as Required						
F.2	Clean and Disinfect Drinking Fountains	♦					
G.1	Report Damage to Supervisor	♦					
G.2	Police Litter	♦					

Custodial Schedule

Lobby and Vending		Frequency					
Par. Ref	Duty	DAILY	WEEKLY	MONTHLY	SEMI-ANNUAL	ANNUALLY	AS REQUIRED
A.1	Sweep or Dust Mop Non-Carpeted Floors	♦					
A.2	Spot Mop Non-Carpeted Floors						
A.3	Damp Mop Non-Carpeted Floors	♦					
A.4	Damp Mop and Disinfect Non-Carpeted Floors		♦				
A.5	Wet Clean Non-Carpeted Floors						
A.6	Spray Buff Floors Coated With Metalinterlock Copolymer Floor Finish		♦				
A.7	Strip and Finish Resilient Tile				♦		
A.8	Spot Clean Carpets	♦					
A.9	Partially Vacuum Carpet/Synthetic Floors	♦					
B.10	Completely Vacuum Carpet/Synthetic Floors		♦				
A.11	Carpet Cleaning – Water Extraction Method						♦
B.1	Dust Horizontal Building and Furniture Surfaces	♦					
B.2	Dust Vertical Building and Furniture Surfaces		♦				
B.3	Dust High Surfaces			♦			
B.4	Spot Clean Furniture, Fixtures, Walls, Partitions, Doors, etc	♦					
B.5	Wash Interior Glass		♦				♦
B.6	Wash Exterior Glass				♦		
C.1	Clean Suspended Acoustical Tile Ceiling					♦	
C.2	Clean Gypsum Board Ceiling						
C.3	Clean Metal Linear Ceiling					♦	♦
C.4	Clean Plaster Ceiling						
D.1	Disinfect Furniture, Walls, Partitions, Fixtures, Doors, Etc.						
D.2	Refill Toilet Tissue, Paper Towel, and Hand Soap Dispensers						
D.3	Clean and Disinfect Wash Basins, Toilets, Urinals and Showers						
D.4	Descale Toilets and Urinals						
D.5	Clean Floor Drains in Restrooms						
D.6	Clean Mirrors						
E.1	Empty Waste Receptacles	♦					
E.2	Spot Clean Waste Receptacles	♦					
E.3	Replace Soiled or Torn Receptacle Liners	♦					
F.1	Rearrange Furniture as Required	♦					
F.2	Clean and Disinfect Drinking Fountains	♦					
G.1	Report Damage to Supervisor	♦					
G.2	Police Litter	♦					

Custodial Schedule

Corridors and Racquetball Observation		Frequency					
Par. Ref	Duty	DAILY	WEEKLY	MONTHLY	SEMI-ANNUAL	ANNUALLY	AS REQUIRED
A.1	Sweep or Dust Mop Non-Carpeted Floors	♦					
A.2	Spot Mop Non-Carpeted Floors						
A.3	Damp Mop Non-Carpeted Floors	♦					
A.4	Damp Mop and Disinfect Non-Carpeted Floors		♦				
A.5	Wet Clean Non-Carpeted Floors						
A.6	Spray Buff Floors Coated With Metalinterlock Copolymer Floor Finish		♦				
A.7	Strip and Finish Resilient Tile				♦		
A.8	Spot Clean Carpets	♦					
A.9	Partially Vacuum Carpet/Synthetic Floors	♦					
A.10	Completely Vacuum Carpet/Synthetic Floors		♦				
A.11	Carpet Cleaning – Water Extraction Method						♦
B.1	Dust Horizontal Building and Furniture Surfaces	♦					
B.2	Dust Vertical Building and Furniture Surfaces		♦				
B.3	Dust High Surfaces			♦			
B.4	Spot Clean Furniture, Fixtures, Walls, Partitions, Doors, etc	♦					
B.5	Wash Interior Glass		♦				♦
B.6	Wash Exterior Glass				♦		
C.1	Clean Suspended Acoustical Tile Ceiling					♦	
C.2	Clean Gypsum Board Ceiling					♦	
C.3	Clean Metal Linear Ceiling					♦	♦
C.4	Clean Plaster Ceiling						
D.1	Disinfect Furniture, Walls, Partitions, Fixtures, Doors, Etc.						
D.2	Refill Toilet Tissue, Paper Towel, and Hand Soap Dispensers						
D.3	Clean and Disinfect Wash Basins, Toilets, Urinals and Showers						
D.4	Descale Toilets and Urinals						
D.5	Clean Floor Drains in Restrooms						
D.6	Clean Mirrors						
E.1	Empty Waste Receptacles	♦					
E.2	Spot Clean Waste Receptacles	♦					
E.3	Replace Soiled or Torn Receptacle Liners	♦					
F.1	Rearrange Furniture as Required	♦					
F.2	Clean and Disinfect Drinking Fountains	♦					
G.1	Report Damage to Supervisor	♦					
G.2	Police Litter	♦					

Custodial Schedule

Exit Stairwells and Exit Corridors		Frequency					
		DAILY	WEEKLY	MONTHLY	SEMI-ANNUAL	ANNUALLY	AS REQUIRED
Par. Ref	Duty						
A.1	Sweep or Dust Mop Non-Carpeted Floors	♦					
A.2	Spot Mop Non-Carpeted Floors	♦					
A.3	Damp Mop Non-Carpeted Floors			♦			
A.4	Damp Mop and Disinfect Non-Carpeted Floors						
A.5	Wet Clean Non-Carpeted Floors				♦		
A.6	Spray Buff Floors Coated With Metalinterlock Copolymer Floor Finish						
A.7	Strip and Finish Resilient Tile						
A.8	Spot Clean Carpets						
A.9	Partially Vacuum Carpet/Synthetic Floors						
A.10	Completely Vacuum Carpet/Synthetic Floors						
A.11	Carpet Cleaning – Water Extraction Method						
B.1	Dust Horizontal Building and Furniture Surfaces	♦					
B.2	Dust Vertical Building and Furniture Surfaces			♦			
B.3	Dust High Surfaces				♦		
B.4	Spot Clean Furniture, Fixtures, Walls, Partitions, Doors, etc	♦					
B.5	Wash Interior Glass						
B.6	Wash Exterior Glass						
C.1	Clean Suspended Acoustical Tile Ceiling						
C.2	Clean Gypsum Board Ceiling						
C.3	Clean Metal Linear Ceiling						
C.4	Clean Plaster Ceiling						
D.1	Disinfect Furniture, Walls, Partitions, Fixtures, Doors, Etc.						
D.2	Refill Toilet Tissue, Paper Towel, and Hand Soap Dispensers						
D.3	Clean and Disinfect Wash Basins, Toilets, Urinals and Showers						
D.4	Descale Toilets and Urinals						
D.5	Clean Floor Drains in Restrooms						
D.6	Clean Mirrors						
E.1	Empty Waste Receptacles						
E.2	Spot Clean Waste Receptacles						
E.3	Replace Soiled or Torn Receptacle Liners						
F.1	Rearrange Furniture as Required						
F.2	Clean and Disinfect Drinking Fountains						
G.1	Report Damage to Supervisor	♦					
G.2	Police Litter	♦					

Custodial Schedule

Massage		Frequency					
Par. Ref	Duty	DAILY	WEEKLY	MONTHLY	SEMI-ANNUAL	ANNUALLY	
A.1	Sweep or Dust Mop Non-Carpeted Floors	♦					
A.2	Spot Mop Non-Carpeted Floors	♦					
A.3	Damp Mop Non-Carpeted Floors						
A.4	Damp Mop and Disinfect Non-Carpeted Floors	♦					
A.5	Wet Clean Non-Carpeted Floors		♦				
A.6	Spray Buff Floors Coated With Metalinterlock Copolymer Floor Finish		♦				
A.7	Strip and Finish Resilient Tile				♦		
A.8	Spot Clean Carpets						
A.9	Partially Vacuum Carpet/Synthetic Floors						
A.10	Completely Vacuum Carpet/Synthetic Floors						
A.11	Carpet Cleaning – Water Extraction Method						
B.1	Dust Horizontal Building and Furniture Surfaces	♦					
B.2	Dust Vertical Building and Furniture Surfaces		♦				
B.3	Dust High Surfaces			♦			
B.4	Spot Clean Furniture, Fixtures, Walls, Partitions, Doors, etc	♦					
B.5	Wash Interior Glass						
B.6	Wash Exterior Glass						
C.1	Clean Suspended Acoustical Tile Ceiling					♦	
C.2	Clean Gypsum Board Ceiling					♦	
C.3	Clean Metal Linear Ceiling					♦	
C.4	Clean Plaster Ceiling						
D.1	Disinfect Furniture, Walls, Partitions, Fixtures, Doors, Etc.						
D.2	Refill Toilet Tissue, Paper Towel, and Hand Soap Dispensers						
D.3	Clean and Disinfect Wash Basins, Toilets, Urinals and Showers						
D.4	Descale Toilets and Urinals						
D.5	Clean Floor Drains in Restrooms						
D.6	Clean Mirrors	♦					
E.1	Empty Waste Receptacles	♦					
E.2	Spot Clean Waste Receptacles	♦					
E.3	Replace Soiled or Torn Receptacle Liners	♦					
F.1	Rearrange Furniture as Required	♦					
F.2	Clean and Disinfect Drinking Fountains						
G.1	Report Damage to Supervisor	♦					
G.2	Police Litter	♦					

Custodial Schedule

Locker Room and Nap Room		Frequency					
Par. Ref	Duty	DAILY	WEEKLY	MONTHLY	SEMI-ANNUAL	ANNUALLY	AS REQUIRED
A.1	Sweep or Dust Mop Non-Carpeted Floors	♦					
A.2	Spot Mop Non-Carpeted Floors						
A.3	Damp Mop Non-Carpeted Floors						
A.4	Damp Mop and Disinfect Non-Carpeted Floors	♦					
A.5	Wet Clean Non-Carpeted Floors						
A.6	Spray Buff Floors Coated With Metalinterlock Copolymer Floor Finish		♦				
A.7	Strip and Finish Resilient Tile				♦		
A.8	Spot Clean Carpets	♦					
A.9	Partially Vacuum Carpet/Synthetic Floors	♦					
A.10	Completely Vacuum Carpet/Synthetic Floors		♦				
A.11	Carpet Cleaning – Water Extraction Method						♦
B.1	Dust Horizontal Building and Furniture Surfaces	♦					
B.2	Dust Vertical Building and Furniture Surfaces	♦					
B.3	Dust High Surfaces			♦			
B.4	Spot Clean Furniture, Fixtures, Walls, Partitions, Doors, etc	♦					
B.5	Wash Interior Glass						
B.6	Wash Exterior Glass						
C.1	Clean Suspended Acoustical Tile Ceiling					♦	
C.2	Clean Gypsum Board Ceiling					♦	
C.3	Clean Metal Linear Ceiling						
C.4	Clean Plaster Ceiling						
D.1	Disinfect Furniture, Walls, Partitions, Fixtures, Doors, Etc.						
D.2	Refill Toilet Tissue, Paper Towel, and Hand Soap Dispensers						
D.3	Clean and Disinfect Wash Basins, Toilets, Urinals and Showers						
D.4	Descale Toilets and Urinals						
D.5	Clean Floor Drains in Restrooms						
D.6	Clean Mirrors						
E.1	Empty Waste Receptacles	♦					
E.2	Spot Clean Waste Receptacles	♦					
E.3	Replace Soiled or Torn Receptacle Liners	♦					
F.1	Rearrange Furniture as Required	♦					
F.2	Clean and Disinfect Drinking Fountains	♦					
G.1	Report Damage to Supervisor	♦					
G.2	Police Litter	♦					

Custodial Schedule

Showers, Whirlpool, Toilets Associated With Locker Rooms		Frequency					
Par. Ref	Duty	DAILY	WEEKLY	MONTHLY	SEMI-ANNUAL	ANNUALLY	AS REQUIRED
A.1	Sweep or Dust Mop Non-Carpeted Floors	♦					
A.2	Spot Mop Non-Carpeted Floors						
A.3	Damp Mop Non-Carpeted Floors						
A.4	Damp Mop and Disinfect Non-Carpeted Floors	♦					
A.5	Wet Clean Non-Carpeted Floors		♦				
A.6	Spray Buff Floors Coated With Metalinterlock Copolymer Floor Finish						
A.7	Strip and Finish Resilient Tile						
A.8	Spot Clean Carpets						
A.9	Partially Vacuum Carpet/Synthetic Floors						
A.10	Completely Vacuum Carpet/Synthetic Floors						
A.11	Carpet Cleaning – Water Extraction Method						
B.1	Dust Horizontal Building and Furniture Surfaces	♦					
B.2	Dust Vertical Building and Furniture Surfaces	♦					
B.3	Dust High Surfaces			♦			
B.4	Spot Clean Furniture, Fixtures, Walls, Partitions, Doors, etc	♦					
B.5	Wash Interior Glass						
B.6	Wash Exterior Glass						
C.1	Clean Suspended Acoustical Tile Ceiling						
C.2	Clean Gypsum Board Ceiling						
C.3	Clean Metal Linear Ceiling						
C.4	Clean Plaster Ceiling		♦				
D.1	Disinfect Furniture, Walls, Partitions, Fixtures, Doors, Etc.	♦					
D.2	Refill Toilet Tissue, Paper Towel, and Hand Soap Dispensers	♦					
D.3	Clean and Disinfect Wash Basins, Toilets, Urinals and Showers	♦					
D.4	Descale Toilets and Urinals			♦			
D.5	Clean Floor Drains in Restrooms			♦			
D.6	Clean Mirrors	♦					
E.1	Empty Waste Receptacles	♦					
E.2	Spot Clean Waste Receptacles	♦					
E.3	Replace Soiled or Torn Receptacle Liners	♦					
F.1	Rearrange Furniture as Required	♦					
F.2	Clean and Disinfect Drinking Fountains	♦					
G.1	Report Damage to Supervisor	♦					
G.2	Police Litter	♦					

Custodial Schedule

Steam Rooms		Frequency					
Par. Ref	Duty	DAILY	WEEKLY	MONTHLY	SEMI-ANNUAL	ANNUALLY	AS REQUIRED
A.1	Sweep or Dust Mop Non-Carpeted Floors						
A.2	Spot Mop Non-Carpeted Floors						
A.3	Damp Mop Non-Carpeted Floors						
A.4	Damp Mop and Disinfect Non-Carpeted Floors	♦					
A.5	Wet Clean Non-Carpeted Floors		♦				
A.6	Spray Buff Floors Coated With Metalinterlock Copolymer Floor Finish						
A.7	Strip and Finish Resilient Tile						
A.8	Spot Clean Carpets						
A.9	Partially Vacuum Carpet/Synthetic Floors						
A.10	Completely Vacuum Carpet/Synthetic Floors						
A.11	Carpet Cleaning – Water Extraction Method						
B.1	Dust Horizontal Building and Furniture Surfaces						
B.2	Dust Vertical Building and Furniture Surfaces						
B.3	Dust High Surfaces						
B.4	Spot Clean Furniture, Fixtures, Walls, Partitions, Doors, etc						
B.5	Wash Interior Glass	♦					
B.6	Wash Exterior Glass						
C.1	Clean Suspended Acoustical Tile Ceiling						
C.2	Clean Gypsum Board Ceiling						
C.3	Clean Metal Linear Ceiling						
C.4	Clean Plaster Ceiling						
D.1	Disinfect Furniture, Walls, Partitions, Fixtures, Doors, Etc.	♦					
D.2	Refill Toilet Tissue, Paper Towel, and Hand Soap Dispensers						
D.3	Clean and Disinfect Wash Basins, Toilets, Urinals and Showers						
D.4	Descale Toilets and Urinals						
D.5	Clean Floor Drains in Restrooms			♦			
D.6	Clean Mirrors						
E.1	Empty Waste Receptacles						
E.2	Spot Clean Waste Receptacles						
E.3	Replace Soiled or Torn Receptacle Liners						
F.1	Rearrange Furniture as Required						
F.2	Clean and Disinfect Drinking Fountains						
G.1	Report Damage to Supervisor	♦					
G.2	Police Litter	♦					

Custodial Schedule

Saunas		Frequency					
Par. Ref	Duty	DAILY	WEEKLY	MONTHLY	SEMI-ANNUAL	ANNUALLY	AS REQUIRED
A.1	Sweep or Dust Mop Non-Carpeted Floors	♦					
A.2	Spot Mop Non-Carpeted Floors						
A.3	Damp Mop Non-Carpeted Floors						
A.4	Damp Mop and Disinfect Non-Carpeted Floors	♦					
A.5	Wet Clean Non-Carpeted Floors		♦				
A.6	Spray Buff Floors Coated With Metalinterlock Copolymer Floor Finish						
A.7	Strip and Finish Resilient Tile						
A.8	Spot Clean Carpets						
A.9	Partially Vacuum Carpet/Synthetic Floors						
A.10	Completely Vacuum Carpet/Synthetic Floors						
A.11	Carpet Cleaning – Water Extraction Method						
B.1	Dust Horizontal Building and Furniture Surfaces						
B.2	Dust Vertical Building and Furniture Surfaces						
B.3	Dust High Surfaces						
B.4	Spot Clean Furniture, Fixtures, Walls, Partitions, Doors, etc						
B.5	Wash Interior Glass	♦					
B.6	Wash Exterior Glass						
C.1	Clean Suspended Acoustical Tile Ceiling						
C.2	Clean Gypsum Board Ceiling						
C.3	Clean Metal Linear Ceiling						
C.4	Clean Plaster Ceiling						
D.1	Disinfect Furniture, Walls, Partitions, Fixtures, Doors, Etc.	♦					
D.2	Refill Toilet Tissue, Paper Towel, and Hand Soap Dispensers						
D.3	Clean and Disinfect Wash Basins, Toilets, Urinals and Showers						
D.4	Descale Toilets and Urinals						
D.5	Clean Floor Drains in Restrooms						
D.6	Clean Mirrors						
E.1	Empty Waste Receptacles						
E.2	Spot Clean Waste Receptacles						
E.3	Replace Soiled or Torn Receptacle Liners						
F.1	Rearrange Furniture as Required						
F.2	Clean and Disinfect Drinking Fountains						
G.1	Report Damage to Supervisor	♦					
G.2	Police Litter	♦					

Custodial Schedule

Office Xerox Room, Laundry, Kitchens		Frequency					
Par. Ref	Duty	DAILY	WEEKLY	MONTHLY	SEMI-ANNUAL	ANNUALLY	AS REQUIRED
A.1	Sweep or Dust Mop Non-Carpeted Floors	♦					
A.2	Spot Mop Non-Carpeted Floors	♦					
A.3	Damp Mop Non-Carpeted Floors						
A.4	Damp Mop and Disinfect Non-Carpeted Floors						
A.5	Wet Clean Non-Carpeted Floors		♦				
A.6	Spray Buff Floors Coated With Metalinterlock Copolymer Floor Finish			♦			
A.7	Strip and Finish Resilient Tile				♦		
A.8	Spot Clean Carpets						
A.9	Partially Vacuum Carpet/Synthetic Floors						
A.10	Completely Vacuum Carpet/Synthetic Floors						
A.11	Carpet Cleaning – Water Extraction Method						
B.1	Dust Horizontal Building and Furniture Surfaces	♦					
B.2	Dust Vertical Building and Furniture Surfaces		♦				
B.3	Dust High Surfaces			♦			
B.4	Spot Clean Furniture, Fixtures, Walls, Partitions, Doors, etc	♦					
B.5	Wash Interior Glass						
B.6	Wash Exterior Glass						
C.1	Clean Suspended Acoustical Tile Ceiling					♦	
C.2	Clean Gypsum Board Ceiling					♦	
C.3	Clean Metal Linear Ceiling						
C.4	Clean Plaster Ceiling						
D.1	Disinfect Furniture, Walls, Partitions, Fixtures, Doors, Etc.						♦
D.2	Refill Toilet Tissue, Paper Towel, and Hand Soap Dispensers						
D.3	Clean and Disinfect Wash Basins, Toilets, Urinals and Showers						
D.4	Descale Toilets and Urinals						
D.5	Clean Floor Drains in Restrooms						
D.6	Clean Mirrors						
E.1	Empty Waste Receptacles	♦					
E.2	Spot Clean Waste Receptacles	♦					
E.3	Replace Soiled or Torn Receptacle Liners	♦					
F.1	Rearrange Furniture as Required	♦					
F.2	Clean and Disinfect Drinking Fountains						
G.1	Report Damage to Supervisor	♦					
G.2	Police Litter	♦					

Custodial Schedule

Offices, Conference, Office Supply Office Lounge, Chapel		Frequency					
Par. Ref	Duty	DAILY	WEEKLY	MONTHLY	SEMI-ANNUAL	ANNUALLY	AS REQUIRED
A.1	Sweep or Dust Mop Non-Carpeted Floors	♦					
A.2	Spot Mop Non-Carpeted Floors	♦					
A.3	Damp Mop Non-Carpeted Floors		♦				
A.4	Damp Mop and Disinfect Non-Carpeted Floors						
A.5	Wet Clean Non-Carpeted Floors						
A.6	Spray Buff Floors Coated With Metalinterlock Copolymer Floor Finish						
A.7	Strip and Finish Resilient Tile						
A.8	Spot Clean Carpets	♦					
A.9	Partially vacuum Carpet/Synthetic Floors	♦					
A.10	Completely Vacuum Carpet/Synthetic Floors		♦				
A.11	Carpet Cleaning – Water Extraction Method						♦
B.1	Dust Horizontal Building and Furniture Surfaces	♦					
B.2	Dust Vertical Building and Furniture Surfaces		♦				
B.3	Dust High Surfaces			♦			
B.4	Spot Clean Furniture, Fixtures, Walls, Partitions, Doors, etc	♦					
B.5	Wash Interior Glass				♦		♦
B.6	Wash Exterior Glass				♦		♦
C.1	Clean Suspended Acoustical Tile Ceiling						♦
C.2	Clean Gypsum Board Ceiling						♦
C.3	Clean Metal Linear Ceiling						
C.4	Clean Plaster Ceiling						
D.1	Disinfect Furniture, Walls, Partitions, Fixtures, Doors, Etc.						
D.2	Refill Toilet Tissue, Paper Towel, and Hand Soap Dispensers						
D.3	Clean and Disinfect Wash Basins, Toilets, Urinals and Showers						
D.4	Descale Toilets and Urinals						
D.5	Clean Floor Drains in Restrooms						
D.6	Clean Mirrors						
E.1	Empty Waste Receptacles	♦					
E.2	Spot Clean Waste Receptacles	♦					
E.3	Replace Soiled or Torn Receptacle Liners	♦					
F.1	Rearrange Furniture as Required	♦					
F.2	Clean and Disinfect Drinking Fountains						
G.1	Report Damage to Supervisor	♦					
G.2	Police Litter	♦					

Custodial Schedule

Exercise and Meeting Rooms		Frequency					
		DAILY	WEEKLY	MONTHLY	SEMI-ANNUAL	ANNUALLY	AS REQUIRED
Par. Ref	Duty						
A.1	Sweep or Dust Mop Non-Carpeted Floors	♦					
A.2	Spot Mop Non-Carpeted Floors						
A.3	Damp Mop Non-Carpeted Floors						
A.4	Damp Mop and Disinfect Non-Carpeted Floors	♦					
A.5	Wet Clean Non-Carpeted Floors						
A.6	Spray Buff Floors Coated With Metalinterlock Copolymer Floor Finish		♦				
A.7	Strip and Finish Resilient Tile				♦		
A.8	Spot Clean Carpets	♦					
A.9	Partially vacuum Carpet/Synthetic Floors	♦					
A.10	Completely Vacuum Carpet/Synthetic Floors		♦				
A.11	Carpet Cleaning – Water Extraction Method						♦
B.1	Dust Horizontal Building and Furniture Surfaces	♦					
B.2	Dust Vertical Building and Furniture Surfaces	♦					
B.3	Dust High Surfaces						
B.4	Spot Clean Furniture, Fixtures, Walls, Partitions, Doors, etc	♦					
B.5	Wash Interior Glass						
B.6	Wash Exterior Glass						
C.1	Clean Suspended Acoustical Tile Ceiling					♦	
C.2	Clean Gypsum Board Ceiling					♦	
C.3	Clean Metal Linear Ceiling						
C.4	Clean Plaster Ceiling						
D.1	Disinfect Furniture, Walls, Partitions, Fixtures, Doors, Etc.						
D.2	Refill Toilet Tissue, Paper Towel, and Hand Soap Dispensers						
D.3	Clean and Disinfect Wash Basins, Toilets, Urinals and Showers						
D.4	Descale Toilets and Urinals						
D.5	Clean Floor Drains in Restrooms						
D.6	Clean Mirrors						
E.1	Empty Waste Receptacles	♦					
E.2	Spot Clean Waste Receptacles	♦					
E.3	Replace Soiled or Torn Receptacle Liners	♦					
F.1	Rearrange Furniture as Required	♦					
F.2	Clean and Disinfect Drinking Fountains						
G.1	Report Damage to Supervisor	♦					
G.2	Police Litter	♦					

Camp

Custodial Schedule

Custodial Schedule – Camp

Outdoor Play Area, Dock Area		Frequency					
		DAILY	WEEKLY	MONTHLY	SEMI-ANNUAL	ANNUALLY	AS REQUIRED
Par. Ref	Duty						
A.1	Sweep or Dust Mop Non-Carpeted Floors	♦					
A.2	Spot Mop Non-Carpeted Floors						
A.3	Damp Mop Non-Carpeted Floors						
A.4	Damp Mop and Disinfect Non-Carpeted Floors						
A.5	Wet Clean Non-Carpeted Floors						
A.6	Spray Buff Floors Coated With Metalinterlock Copolymer Floor Finish						
A.7	Strip and Finish Resilient Tile						
A.8	Spot Clean Carpets						
A.9	Partially vacuum Carpet/Synthetic Floors						
A.10	Completely Vacuum Carpet/Synthetic Floors						
A.11	Carpet Cleaning – Water Extraction Method						
B.1	Dust Horizontal Building and Furniture Surfaces						
B.2	Dust Vertical Building and Furniture Surfaces						
B.3	Dust High Surfaces						
B.4	Spot Clean Furniture, Fixtures, Walls, Partitions, Doors, etc						
B.5	Wash Interior Glass						
B.6	Wash Exterior Glass						
C.1	Clean Suspended Acoustical Tile Ceiling						
C.2	Clean Gypsum Board Ceiling						
C.3	Clean Metal Linear Ceiling						
C.4	Clean Plaster Ceiling						
D.1	Disinfect Furniture, Walls, Partitions, Fixtures, Doors, Etc.						
D.2	Refill Toilet Tissue, Paper Towel, and Hand Soap Dispensers						
D.3	Clean and Disinfect Wash Basins, Toilets, Urinals and Showers						
D.4	Descale Toilets and Urinals						
D.5	Clean Floor Drains in Restrooms						
D.6	Clean Mirrors						
E.1	Empty Waste Receptacles	♦					
E.2	Spot Clean Waste Receptacles						
E.3	Replace Soiled or Torn Receptacle Liners	♦					
F.1	Rearrange Furniture as Required						
F.2	Clean and Disinfect Drinking Fountains						
G.1	Report Damage to Supervisor	♦					
G.2	Police Litter	♦					

Custodial Schedule – Camp

Canteen (during months of operation)		Frequency					
Par. Ref	Duty	DAILY	WEEKLY	MONTHLY	SEMI-ANNUAL	ANNUALLY	AS REQUIRED
A.1	Sweep or Dust Mop Non-Carpeted Floors	♦					
A.2	Spot Mop Non-Carpeted Floors	♦					
A.3	Damp Mop Non-Carpeted Floors						
A.4	Damp Mop and Disinfect Non-Carpeted Floors		♦				
A.5	Wet Clean Non-Carpeted Floors						
A.6	Spray Buff Floors Coated With Metalinterlock Copolymer Floor Finish						
A.7	Strip and Finish Resilient Tile						
A.8	Spot Clean Carpets						
A.9	Partially vacuum Carpet/Synthetic Floors						
A.10	Completely Vacuum Carpet/Synthetic Floors						
A.11	Carpet Cleaning – Water Extraction Method						
B.1	Dust Horizontal Building and Furniture Surfaces	♦					
B.2	Dust Vertical Building and Furniture Surfaces			♦			
B.3	Dust High Surfaces						
B.4	Spot Clean Furniture, Fixtures, Walls, Partitions, Doors, etc						♦
B.5	Wash Interior Glass			♦			♦
B.6	Wash Exterior Glass				♦		
C.1	Clean Suspended Acoustical Tile Ceiling						
C.2	Clean Gypsum Board Ceiling						
C.3	Clean Metal Linear Ceiling						
C.4	Clean Plaster Ceiling						
D.1	Disinfect Furniture, Walls, Partitions, Fixtures, Doors, Etc.		♦				
D.2	Refill Toilet Tissue, Paper Towel, and Hand Soap Dispensers						
D.3	Clean and Disinfect Wash Basins, Toilets, Urinals and Showers						
D.4	Descale Toilets and Urinals						
D.5	Clean Floor Drains in Restrooms						
D.6	Clean Mirrors						
E.1	Empty Waste Receptacles	♦					
E.2	Spot Clean Waste Receptacles	♦					
E.3	Replace Soiled or Torn Receptacle Liners	♦					
F.1	Rearrange Furniture as Required	♦					
F.2	Clean and Disinfect Drinking Fountains	♦					
G.1	Report Damage to Supervisor	♦					
G.2	Police Litter	♦					

Custodial Schedule – Camp

Dining Hall and Storage (during months of operation)		Frequency					
Par. Ref	Duty	DAILY	WEEKLY	MONTHLY	SEMI-ANNUAL	ANNUALLY	AS REQUIRED
A.1	Sweep or Dust Mop Non-Carpeted Floors	♦					
A.2	Spot Mop Non-Carpeted Floors	♦					
A.3	Damp Mop Non-Carpeted Floors						
A.4	Damp Mop and Disinfect Non-Carpeted Floors		♦				
A.5	Wet Clean Non-Carpeted Floors		♦				
A.6	Spray Buff Floors Coated With Metalinterlock Copolymer Floor Finish						
A.7	Strip and Finish Resilient Tile					♦	
A.8	Spot Clean Carpets						
A.9	Partially vacuum Carpet/Synthetic Floors						
A.10	Completely Vacuum Carpet/Synthetic Floors						
A.11	Carpet Cleaning – Water Extraction Method						
B.1	Dust Horizontal Building and Furniture Surfaces		♦				
B.2	Dust Vertical Building and Furniture Surfaces			♦			
B.3	Dust High Surfaces				♦		
B.4	Spot Clean Furniture, Fixtures, Walls, Partitions, Doors, etc		♦				
B.5	Wash Interior Glass			♦		♦	
B.6	Wash Exterior Glass				♦		
C.1	Clean Suspended Acoustical Tile Ceiling						
C.2	Clean Gypsum Board Ceiling					♦	
C.3	Clean Metal Linear Ceiling						
C.4	Clean Plaster Ceiling						
D.1	Disinfect Furniture, Walls, Partitions, Fixtures, Doors, Etc.		♦				
D.2	Refill Toilet Tissue, Paper Towel, and Hand Soap Dispensers						
D.3	Clean and Disinfect Wash Basins, Toilets, Urinals and Showers						
D.4	Descale Toilets and Urinals						
D.5	Clean Floor Drains in Restrooms						
D.6	Clean Mirrors						
E.1	Empty Waste Receptacles	♦					
E.2	Spot Clean Waste Receptacles	♦					
E.3	Replace Soiled or Torn Receptacle Liners	♦					
F.1	Rearrange Furniture as Required	♦					
F.2	Clean and Disinfect Drinking Fountains						
G.1	Report Damage to Supervisor	♦					
G.2	Police Litter	♦					

Custodial Schedule – Camp

Dining Hall and Dining Hall Toilets (during months of operation)		Frequency					
Par. Ref	Duty	DAILY	WEEKLY	MONTHLY	SEMI-ANNUAL	ANNUALLY	AS REQUIRED
A.1	Sweep or Dust Mop Non-Carpeted Floors	♦					
A.2	Spot Mop Non-Carpeted Floors	♦					
A.3	Damp Mop Non-Carpeted Floors						
A.4	Damp Mop and Disinfect Non-Carpeted Floors		♦				♦
A.5	Wet Clean Non-Carpeted Floors		♦				♦
A.6	Spray Buff Floors Coated With Metalinterlock Copolymer Floor Finish						
A.7	Strip and Finish Resilient Tile				♦		
A.8	Spot Clean Carpets						
A.9	Partially vacuum Carpet/Synthetic Floors						
A.10	Completely Vacuum Carpet/Synthetic Floors						
A.11	Carpet Cleaning – Water Extraction Method						
B.1	Dust Horizontal Building and Furniture Surfaces		♦				
B.2	Dust Vertical Building and Furniture Surfaces			♦			
B.3	Dust High Surfaces				♦		
B.4	Spot Clean Furniture, Fixtures, Walls, Partitions, Doors, etc	♦					
B.5	Wash Interior Glass			♦			
B.6	Wash Exterior Glass				♦		
C.1	Clean Suspended Acoustical Tile Ceiling					♦	
C.2	Clean Gypsum Board Ceiling					♦	
C.3	Clean Metal Linear Ceiling						
C.4	Clean Plaster Ceiling						
D.1	Disinfect Furniture, Walls, Partitions, Fixtures, Doors, Etc.			♦			
D.2	Refill Toilet Tissue, Paper Towel, and Hand Soap Dispensers	♦					
D.3	Clean and Disinfect Wash Basins, Toilets, Urinals and Showers	♦					
D.4	Descale Toilets and Urinals			♦			
D.5	Clean Floor Drains in Restrooms						
D.6	Clean Mirrors	♦					
E.1	Empty Waste Receptacles	♦					
E.2	Spot Clean Waste Receptacles	♦					
E.3	Replace Soiled or Torn Receptacle Liners	♦					
F.1	Rearrange Furniture as Required	♦					
F.2	Clean and Disinfect Drinking Fountains	♦					
G.1	Report Damage to Supervisor	♦					
G.2	Police Litter	♦					

Custodial Schedule – Camp

Kitchen (during months of operation)		Frequency					
Par. Ref	Duty	DAILY	WEEKLY	MONTHLY	SEMI-ANNUAL	ANNUALLY	AS REQUIRED
A.1	Sweep or Dust Mop Non-Carpeted Floors	♦					
A.2	Spot Mop Non-Carpeted Floors						
A.3	Damp Mop Non-Carpeted Floors						
A.4	Damp Mop and Disinfect Non-Carpeted Floors		♦				♦
A.5	Wet Clean Non-Carpeted Floors		♦				♦
A.6	Spray Buff Floors Coated With Metalinterlock Copolymer Floor Finish						
A.7	Strip and Finish Resilient Tile				♦		
A.8	Spot Clean Carpets						
A.9	Partially vacuum Carpet/Synthetic Floors						
A.10	Completely Vacuum Carpet/Synthetic Floors						
A.11	Carpet Cleaning – Water Extraction Method						
B.1	Dust Horizontal Building and Furniture Surfaces		♦				
B.2	Dust Vertical Building and Furniture Surfaces			♦			
B.3	Dust High Surfaces				♦		
B.4	Spot Clean Furniture, Fixtures, Walls, Partitions, Doors, etc	♦					
B.5	Wash Interior Glass			♦			
B.6	Wash Exterior Glass				♦		
C.1	Clean Suspended Acoustical Tile Ceiling						
C.2	Clean Gypsum Board Ceiling			♦			
C.3	Clean Metal Linear Ceiling						
C.4	Clean Plaster Ceiling						
D.1	Disinfect Furniture, Walls, Partitions, Fixtures, Doors, Etc.			♦			
D.2	Refill Toilet Tissue, Paper Towel, and Hand Soap Dispensers	♦					
D.3	Clean and Disinfect Wash Basins, Toilets, Urinals and Showers	♦					
D.4	Descale Toilets and Urinals						
D.5	Clean Floor Drains in Restrooms						
D.6	Clean Mirrors	♦					
E.1	Empty Waste Receptacles	♦					
E.2	Spot Clean Waste Receptacles	♦					
E.3	Replace Soiled or Torn Receptacle Liners	♦					
F.1	Rearrange Furniture as Required						
F.2	Clean and Disinfect Drinking Fountains						
G.1	Report Damage to Supervisor	♦					
G.2	Police Litter	♦					

Custodial Schedule – Camp

Winter Cabins (during months of operation)		Frequency					
Par. Ref	Duty	DAILY	WEEKLY	MONTHLY	SEMI-ANNUAL	ANNUALLY	AS REQUIRED
A.1	Sweep or Dust Mop Non-Carpeted Floors	♦					
A.2	Spot Mop Non-Carpeted Floors	♦					
A.3	Damp Mop Non-Carpeted Floors						
A.4	Damp Mop and Disinfect Non-Carpeted Floors		♦				♦
A.5	Wet Clean Non-Carpeted Floors		♦				♦
A.6	Spray Buff Floors Coated With Metalinterlock Copolymer Floor Finish						
A.7	Strip and Finish Resilient Tile						
A.8	Spot Clean Carpets						
A.9	Partially vacuum Carpet/Synthetic Floors						
A.10	Completely Vacuum Carpet/Synthetic Floors						
A.11	Carpet Cleaning – Water Extraction Method						
B.1	Dust Horizontal Building and Furniture Surfaces		♦				
B.2	Dust Vertical Building and Furniture Surfaces			♦			
B.3	Dust High Surfaces				♦		
B.4	Spot Clean Furniture, Fixtures, Walls, Partitions, Doors, etc		♦				
B.5	Wash Interior Glass			♦			♦
B.6	Wash Exterior Glass				♦		♦
C.1	Clean Suspended Acoustical Tile Ceiling						
C.2	Clean Gypsum Board Ceiling						
C.3	Clean Metal Linear Ceiling						
C.4	Clean Plaster Ceiling						
D.1	Disinfect Furniture, Walls, Partitions, Fixtures, Doors, Etc.			♦			
D.2	Refill Toilet Tissue, Paper Towel, and Hand Soap Dispensers	♦					
D.3	Clean and Disinfect Wash Basins, Toilets, Urinals and Showers		♦				
D.4	Descale Toilets and Urinals			♦			
D.5	Clean Floor Drains in Restrooms		♦				
D.6	Clean Mirrors	♦					
E.1	Empty Waste Receptacles	♦					
E.2	Spot Clean Waste Receptacles	♦					
E.3	Replace Soiled or Torn Receptacle Liners	♦					
F.1	Rearrange Furniture as Required	♦					
F.2	Clean and Disinfect Drinking Fountains						
G.1	Report Damage to Supervisor	♦					
G.2	Police Litter	♦					

Custodial Schedule – Camp

Summer Cabins (during months of operation)		Frequency					
Par. Ref	Duty	DAILY	WEEKLY	MONTHLY	SEMI-ANNUAL	ANNUALLY	AS REQUIRED
A.1	Sweep or Dust Mop Non-Carpeted Floors	♦					
A.2	Spot Mop Non-Carpeted Floors	♦					
A.3	Damp Mop Non-Carpeted Floors						
A.4	Damp Mop and Disinfect Non-Carpeted Floors		♦				♦
A.5	Wet Clean Non-Carpeted Floors		♦				♦
A.6	Spray Buff Floors Coated With Metalinterlock Copolymer Floor Finish						
A.7	Strip and Finish Resilient Tile						
A.8	Spot Clean Carpets						
A.9	Partially vacuum Carpet/Synthetic Floors						
A.10	Completely Vacuum Carpet/Synthetic Floors						
A.11	Carpet Cleaning – Water Extraction Method						
B.1	Dust Horizontal Building and Furniture Surfaces		♦				
B.2	Dust Vertical Building and Furniture Surfaces			♦			
B.3	Dust High Surfaces				♦		
B.4	Spot Clean Furniture, Fixtures, Walls, Partitions, Doors, etc		♦				
B.5	Wash Interior Glass			♦			♦
B.6	Wash Exterior Glass				♦		♦
C.1	Clean Suspended Acoustical Tile Ceiling						
C.2	Clean Gypsum Board Ceiling						
C.3	Clean Metal Linear Ceiling						
C.4	Clean Plaster Ceiling						
D.1	Disinfect Furniture, Walls, Partitions, Fixtures, Doors, Etc.			♦			♦
D.2	Refill Toilet Tissue, Paper Towel, and Hand Soap Dispensers	♦					
D.3	Clean and Disinfect Wash Basins, Toilets, Urinals and Showers		♦				
D.4	Descale Toilets and Urinals			♦			
D.5	Clean Floor Drains in Restrooms		♦				
D.6	Clean Mirrors	♦					
E.1	Empty Waste Receptacles	♦					
E.2	Spot Clean Waste Receptacles	♦					
E.3	Replace Soiled or Torn Receptacle Liners	♦					
F.1	Rearrange Furniture as Required	♦					
F.2	Clean and Disinfect Drinking Fountains						
G.1	Report Damage to Supervisor	♦					
G.2	Police Litter	♦					

IV. Building Maintenance

A good building maintenance program is vital to the operation of every YMCA. Success in providing members with a well-equipped facility in good operating condition requires a well-organized building maintenance program.

The key to the overall program is prevention. If good preventive procedures are practiced, system failures will be minimized. However, system failures do occur even in well-maintained facilities.

This section will cover maintenance of the building envelope, mechanical equipment, and fire protection. The information provided is intended to be used as a guide to effective maintenance and/or repair of these systems. The following are general guidelines to be used in all building maintenance operations:

1. Report all potential problems or system failures to the branch executive director immediately.
2. The branch executive director should then contact the building superintendent.
3. The building superintendent should determine whether the repairs can be made by YMCA personnel, or if an outside contractor's services should be utilized.

A. Keeping Your Facility Up to Date

In order to maintain a successful and competitive facility, consider remodeling and redecorating to keep up with changes in activities, styles, and technology. All facilities should be constantly under review to determine what areas are in need of changes to keep up with advancements and popularity in fitness activities and other membership desires and needs.

To attract and maintain a full membership, facilities should include neat, attractive, well-planned offices, waiting areas, locker rooms, restrooms, break rooms, and activity areas.

By performing well-planned periodic remodeling and redecorating, each facility not only will be used more frequently and attract more members, but will be better preserved, thus extending the life of the facility.

Specific areas to consider when remodeling range from furnishings, floor finishes, wall finishes, new ceilings, and lighting changes to building alterations for making facilities accessible to the disabled, as well as accommodating whirlpools, saunas, specialty studios, exercise rooms, enclosed pools, and other building additions.

Design professionals should be consulted or procured to make the best use of existing or new space. YMCA of the USA's BFS/Property Management Department, with many decades of institutional knowledge in design and operations of YMCAs, can assist your YMCA in this area through conceptual design, master planning, design phase consultation, construction document phase consultation, and interior design services. Once the schematic design is completed by BFS, the plan can be submitted to a local architect for review of the design, building codes, and zoning codes.

Plans should be initiated at a stage early enough to secure adequate funding for the projects in order to prevent maintenance and improvement programs from being deprived of funding. This will ensure that each facility is maintained properly, while moving ahead with a planned remodeling and improvement program.

B. Building Envelope

1. Roof Systems

Early detection and correction of minor defects forestalls major repairs and extends the date when re-roofing will be necessary. Since a large portion of early roof problems are flashing failures, the regular inspection of flashings is of vital importance.

Regular inspection of the roof should be made at least twice a year (in the spring and in the fall). The spring inspection should be made to detect any damage to the roof that occurred during the winter. During the fall inspection, those provisions necessary to prepare the roof for the oncoming winter should be established. Gutters should be inspected monthly (more often during the fall), and cleaned as necessary.

Roofs should be inspected after a severe storm, and when maintenance is performed on roof-top equipment. Such inspections should be made even when a roof has been exposed for less than one year. Any roof damage should be repaired promptly, as it can lead to expensive damage to the insulation and sub-roof systems.

The first semiannual inspection is of great importance because it frequently discloses minor defects that were not apparent when the roof was completed. It is suggested that the spring inspection each year be made by a roofing contractor or a roofing consultant. The building superintendent should accompany the roofing contractor or consultant during the inspection, thus providing training for maintenance personnel, and allowing the Maintenance Department to receive firsthand knowledge of the scope of any proposed repairs.

A YMCA association's facilities will likely include a variety of roof systems which should be inspected as noted above. The basic roofing systems listed below are currently installed at various facilities and should be referred to whenever an inspection is made. The list also works in conjunction with the general building inspection checklist for each facility, which is included at the end of this section.

a. Built-up Roofing

1. Inspect for blisters, cracks, and buckles.
2. Remove debris from the entire roof area. It is common to find bottles, cans, wood scraps, leaves, screws, nails, etc. These items can clog roof drainage systems, causing water to accumulate on roofs and thus leak around flashing or, in extreme cases, cause structural damage. In the case of screws and nails, if stepped on, they may create a penetration in the roof causing a leak. These should be picked up whenever a staff person is on the roof.
3. Clean and flush interior roof drains.
4. Clean and flush gutters and downspouts. Paint interior and exterior as required to prevent deterioration from rust.
5. Inspect pitch pockets and fill with bitumen as required if they are concave and able to hold water.
6. Inspect base flashing and re-coat as required to prevent deterioration from rust.
7. Inspect cap flashing, and caulk and/or repair as required.
8. Check downspouts for proper connection to gutter and building wall.
9. Review warranty requirements, where applicable, to make sure integrity of warranty is maintained.
10. Re-seal roof with aluminizing material every three years to reduce ultraviolet light penetration and also to help cool the building.

b. Elastomeric Membrane Roofing

1. Inspect parapets and any visible coating for blisters, cracks, and peeling.
2. Remove debris from entire roof.
3. Clean and flush interior roof drains.
4. Inspect for membrane cracks and damage at roof penetrations and around roof-top equipment.
5. Inspect cap flashings and reglets. Caulk and/or repair as required.
6. Review warranty requirements, where applicable, to make sure integrity of warranty is maintained.

c. Metal Roofing

1. Check seams for proper alignment and connection to the roof structure.
2. Inspect flashing at eaves, parapets, walls, ridges, valleys, roof penetrations, and around roof-top equipment.

3. Inspect finish on metal surface to detect deterioration and damage. Repair or refinish as required.
4. Remove debris from entire roof.
5. Clean and flush gutters and downspouts.
6. Paint as required to prevent deterioration from rust, etc. Re-seal seams and joints as required.
7. Check downspouts for proper connection to gutter and building wall.
8. Review warranty requirements, where applicable, to make sure integrity of warranty is maintained.

d. Asphalt Shingles

1. Inspect roofing for cracks, curling, loose shingles, etc.
2. Remove debris from entire roof.
3. Inspect flashing around chimney, pipes, vents, etc. Caulk and/or repair as required.
4. Clean and flush gutters and downspouts. If gutters are seamless factory-painted aluminum, clean with soap and water once a year. Otherwise, paint interior and exterior as required to prevent deterioration. Re-seal interior seams and joints as required.
5. Check downspouts for proper connection to gutter and building wall.
6. Review warranty requirements, where applicable, to make sure integrity of warranty is maintained.

2. Exterior Walls

The appearance of each YMCA facility is extremely important in the eyes of the public. Buildings should be kept neat and clean, and safe for member use. Maintaining facilities properly not only attracts and maintains membership, but also provides the added important function of preserving the building for many years.

All employees should strive to keep the facilities in top condition, especially in light of the high cost of constructing new facilities.

The major building materials listed below are currently in place at various facilities and should be referred to whenever an inspection is made. The list also works in conjunction with the general building inspection checklist for each facility, which is included at the end of this section.

a. Brick

1. Inspect for cracks, deterioration of mortar joints, and loose or missing brick. Patch, replace, or seal damaged areas to prevent further damage from water infiltration, vandals, or insects.
2. Check for paint, mildew, tar, or other foreign material which should not be on the surface of the brick. Remove with appropriate cleaning methods and re-seal areas affected. **NOTE:** Do not use a wire brush for cleaning brick surfaces.

3. Remove and re-caulk expansion and control joints with appropriate sealant whenever brick surface is cleaned and sealed or when existing material deteriorates.
4. Clean and seal brick surfaces every seven to ten years, depending on the location, environmental conditions, and brick surface condition. **NOTE:** Consult a professional wall cleaning firm for proper method of cleaning surfaces. Wall must dry thoroughly before applying sealant.

b. Concrete Block

1. Inspect for cracks, deterioration of mortar joints, and loose or missing blocks. Patch, replace, or seal damaged areas to prevent further damage from water infiltration, vandals, or insects.
2. Check for paint, mildew, tar, or other foreign material which should not be on the surface of the block. Clean and remove foreign materials and repaint with the proper masonry coating. Block surface should be repainted when surface chips, peels, becomes soiled, or appearance otherwise warrants repainting.
3. Remove and re-caulk expansion and control joints with appropriate sealant when adjoining surfaces are painted or when joint sealant deteriorates. **NOTE:** At joints use a sealant that will accept paint. For areas which are to be painted, do not use silicone sealant.

c. Concrete and Pre-cast Concrete

1. Inspect for cracks, deterioration of joints, broken panels, and coping. Patch or replace damaged areas to prevent further damage from water infiltration, vandals, or insects.
2. Check for paint, mildew, tar, or other foreign material which should not be on the surface of the concrete. Remove with appropriate cleaning methods and re-seal areas affected. **NOTE:** Do not use wire brush for cleaning surfaces.
3. Remove and re-caulk expansion and control joints with appropriate sealant as required.
4. Clean and seal concrete surfaces every seven to ten years, depending on the location, environmental conditions, and surface condition. **NOTE:** Consult a professional wall cleaning firm for proper method of cleaning surfaces. Wall must dry thoroughly before applying sealant.

d. Metal Siding and Trim

1. Inspect for damaged panels, rust, loose connectors, missing trim, etc. Repair or replace damage as required to restore building siding and trim to original condition.
2. Check painted surfaces for chips, cracks, peeling, and chalked finish. Scrape, sand, prime, and paint as required to provide an attractive finish.
3. Remove old caulking and re-caulk around doors, windows, fans, etc., where material has cracked, chipped, or deteriorated to prevent air and water infiltration.

e. Wood Siding and Trim

1. Inspect for cracks, loose boards, deteriorated wood, insect damage, splinters, etc. Repair, replace, or patch damaged areas with same species and shape of material as removed from structure.
2. Inspect for nails which have pulled out, and re-set as required.
3. Check painted surfaces for cracks, chips, peeling, and chalked finish. Scrape, sand, prime, and paint surfaces as required. Wood siding and trim should be painted every five to seven years, or as condition requires.
4. Stained wood should be checked for fading. Light color stains have shorter durability than darker stains. Stained surface should be re-coated to seal against water penetration every five years, or as required by stain color and environmental conditions.
5. Remove old caulking and re-caulk around doors, windows, fans, etc., where material has cracked, chipped, or deteriorated to prevent air and water infiltration.

f. Glass Block

1. Inspect for broken, loose, or cracked block. Replace or repair as required.
2. Check grouted joints for damage and deterioration.
3. Check sealant at expansion joints and perimeter for failure. Replace as required.
4. Wash exterior to remove dirt and other foreign materials.

g. Aluminum Framework and Glass

1. Inspect for cracked or broken glass and replace promptly.
2. Check for loose framework and secure as required.
3. Replace damaged glazing gaskets where required.
4. Inspect perimeter at adjoining materials for proper sealant. Remove old caulking and re-caulk where material has cracked, chipped, or deteriorated to prevent air and water infiltration.

h. Wood-frame Windows

1. Inspect for cracked or broken glass and replace promptly.
2. Check for loose or rotten framework and trim. Repair as required.
3. Check glazing compound and replace as required.
4. Check paint for cracks, chips, peeling, etc. Scrape, sand, prime, and paint to keep windows attractive and to prevent air and water infiltration.

i. Metal Doors and Frames

1. Inspect for rust, dents, loose hardware, and proper operation of doors.
2. Check paint for cracks, chips, peeling, and general appearance. Scrape, sand, prime, and paint to prevent deterioration of doors. Caulk around door frames as required.

3. If door serves as a required building exit, check to see that the door functions properly, the exit way is clear, and the door closer is functioning properly.
   NOTE: Do not chain, deadbolt, or block panic hardware from its normal operation.

j. Wood Doors and Frames

1. Inspect for rotten wood, loose panels, damaged trim, loose hardware, and operation of doors.
2. Check paint for cracks, chips, peeling, and general appearance of doors. Scrape, sand, prime, and paint to prevent deterioration of doors. Check tops and bottoms of doors for proper sealing.
3. Check doors for adequate weather stripping.
4. Caulk around perimeter of frames to prevent air and water infiltration.
5. If door serves as a required building exit, check to see that door functions properly, the exit way is clear, and the door closer is functioning properly.
   NOTE: Do not chain, deadbolt, or block panic hardware from its normal operation.

k. Penetrations

1. Inspect wall louvers, exhaust fans, and vents for proper flashing and sealant around perimeter to prevent infiltration of air and moisture.
2. Check for proper connection to building structure.
3. Check insect screens for proper closure to prevent insects and birds from entering building.
4. Check paint finish for rust, chips, and peeling. Scrape, sand, prime, and paint to maintain proper protection against elements.

C. Building Interior

1. Finishes

As mentioned earlier, the proper maintenance of a facility is important for attractive appearance, effective operation, and preservation for future use. This section will define the interior materials along with items to check in order to maintain the facilities' interiors.

The items listed in the paragraphs below should be used as a guide when making inspections, and in conjunction with the general building inspection checklist at the end of this section.

a. Walls

1. Inspect for damaged wall surfaces; missing or broken tile; loose brick, block, or stone; chipped plaster; dents; torn wall covering; etc. Repair as required prior to refinishing.

2. Painted surfaces should be free of scrapes, blisters, peeling, and dirt. Properly prepare wall surfaces prior to painting by filling, sanding, priming, etc., *as recommended by paint manufacturer.*
3. Wall coverings should be checked for tears, poor adhesion, fading, and worn surface. Replace or repair as required to maintain smooth, attractive surface.
4. Wall base materials should be free of paint, chips, cracks, excess wax, etc. Care should be exercised when painting to keep base free of runs and drips. Care should also be taken when waxing floors so as not to get excess wax on base material. Base material should be checked for proper adhesion or attachment to wall and repaired or replaced as required.
5. Broken or missing wall tile should be repaired or replaced promptly.
6. Glass walls at racquetball courts should be checked for rigid joint connections and condition of door hardware.

b. Floors

1. Inspect floor surfaces for obstructions such as cracked and misaligned floor slabs. Floor finish should be clean and dry.
2. Resilient tile should be checked for loose or broken tiles, and appearance of floor. Mop, wax, and buff floors as indicated in the custodial schedule. Repair or replace broken or damaged tile.
3. Ceramic and quarry tile should be checked for loose or broken tiles and condition of grout joints. Repair or replace broken tile and re-grout joints when required. Grout should be free of dirt and mildew build-up. Clean grout and tile as indicated.
4. Brick flooring or paved areas should be checked as noted above (same procedure as for ceramic and quarry tile).
5. Carpeted flooring should be checked for worn areas, pulls, adhesion to sub-floor, water damage, and heavy traffic areas requiring commercial cleaning. Carpet should be level and free of obstructions. Repair or replace damaged areas.
6. Wood flooring should be checked for adhesion or attachment to sub-floor, wear in finish, scuffs, scratches, and water damage. In gymnasiums, the condition of paint striping should be checked. Screen surfaces (make rough), touch up game lines, and re-coat with an oil-modified urethane finish once each year. Sand and refinish floor every 10 to 15 years, depending on volume of use and condition of floor. Require members to wear only non-scuffing gym shoes for activities on all gymnasium and racquetball courts. Black rubber and leather sole shoes should be prohibited from use on wood floors. Yearly coating and refinishing should be performed by a flooring contractor qualified for this type of work. If these procedures are followed, the life of the floor should last for five sandings and refinishings—or 60 years.
7. Synthetic gymnasium flooring should be checked for adhesion to sub-floor, wear in surface, seam splits, and condition of paint striping. Repair floor as required where damaged.

8. Concrete floors should be checked for cracks, surface sealant, obstructions, etc. Repair or re-seal area as required.

c. Ceilings

1. Ceilings should be checked for cleanliness, water damage, broken panels, holes, cracks, paint finish, etc. Replace or repair damaged ceilings as required. Care should be exercised when performing routine maintenance above ceiling to prevent damaging or soiling panels. Ceilings should be replaced as dictated by their condition.
2. Acoustical lay-in panels should be replaced completely, room by room, when water damage has occurred or extensive cleaning is required. Replacing individual tiles will cause the ceiling to be spotted or checkered due to panel finishes not matching. The ceiling grid should also be cleaned (following the custodial schedule) when replacing ceiling tiles. When replacing a ceiling make sure light fixtures, HVAC diffusers, grilles, and other ceiling devices are cleaned or replaced if necessary. Acoustical ceiling can be painted, but large spots will show through, and the acoustical performance will be decreased. Acoustical ceilings in pool areas should be inspected for structural integrity every three years by a structural engineer who provides a written report.
3. Metal linear ceiling should be checked for proper alignment and connection to grid support members. Care should be exercised to not bend or dent metal slats when removing and replacing pans during maintenance.
4. Gypsum board and plaster ceilings should be checked for cracks, nails protruding through surface, holes, paint finish, water leaks, and staining. Patch and paint damaged areas as required.

2. Windows and Doors

a. Wood Windows

1. Inspect all windows for broken or cracked glass and replace as required.
2. Check for proper operation of windows. Make sure windows close completely and lock, to provide proper security and air seal.
3. Check condition of wood for water damage, paint finish, and glazing compound. Repaint windows as required. Caulk around perimeter to prevent infiltration of air and moisture. Report any custodial maintenance requirements.
4. Repair or replace damaged screen fabric. Check to see that screen fits tightly in window frame to keep insects out. Clean screens as required to remove dirt, dust, insects, etc.

b. Aluminum Windows

1. Inspect all windows for broken or cracked glass and replace as required.
2. Check for proper operation of windows. Make sure windows close completely and lock, to provide proper security and air seal.

3. Check condition of aluminum framing system. Connections and joints should be tight and well-secured to structure. Repair loose or damaged areas with material to match.

Check vinyl framing gasket material around perimeter of glass. Repair or replace damaged or missing gaskets as required.

4. Check framing for dirt, paint, caulk, or any other foreign materials. Report any custodial maintenance requirements.
5. Caulk around perimeter of framing to prevent infiltration of air and moisture.

c. Steel Windows

1. Inspect all windows for broken or cracked glass and replace as required.
2. Check for proper operation of windows. Make sure windows close completely and lock, to provide proper security and air seal.
3. Inspect interior and exterior finish. Repaint as required.
4. Caulk around perimeter of framing to prevent infiltration of air and moisture.
5. Check framing for dirt, paint, caulk, or any other foreign materials. Report any custodial maintenance requirements.

d. Doors

1. Inspect door hardware for proper operation, tight screws, bolts, etc. Hinges should let door swing freely and quietly. Adjust or trim doors, as required, for proper closure.
2. Check operation of door closers. *Closers should not be removed from doors.* They should be adjusted and well maintained for proper operation as required by fire safety regulations and the Americans with Disabilities Act. Replace or repair defective closers promptly.
3. Check exterior doors for proper thresholds and weather stripping. Threshold should be checked for secure attachment to floor and tight seal on bottom of door.
4. Check wood doors for any signs of rotten wood, delamination of veneer, insect damage, and surface damage. Replace damaged doors and refinish completely all sides and edges, top and bottom.
5. Check metal doors for any signs of rust, and repair as required. Doors and frames should have a good paint finish to prohibit rust and deterioration.
6. Doors with panic hardware should not be chained during operating hours. Where doors have a security problem due to panic hardware, an architect hardware representative should be contacted for correction of hardware problems.

D. Outdoor Structures

1. Wood Structural Framing

a. Inspect wood-framed doors for water damage, insect damage, cracking joists, proper attachment to girders, etc.

b. Check condition of floor decking. Exposed wood decks on cabins at camps should be checked more frequently for deteriorated framing and decking.

c. Inspect support piers for structural integrity and out-of-plumb conditions. Repair or replace all damaged or deteriorating piers.

d. Check all framing rafters and trusses for water damage. Pay particular attention to overhangs, eaves, rake boards, ridge beams, etc., since these are exposed directly to the environment.

e. A visual inspection of wood-framed buildings should be made every six months for signs of insect damage, deflecting beams and overhangs, and buildings which appear to have settled or to be out of plumb. Investigate immediately if one of the above conditions is observed. Rotten or damaged framing should be replaced to maintain structural integrity of the building.

E. Mechanical Equipment (Heating, Ventilating, and Air Conditioning)

1. Air Conditioning Units

a. Unitary Direct Expansion with Air Handler and Air-cooled Condensing Unit

(1) Seasonal Start-up

Before starting the system, refer to the manufacturer's manual to avoid possible compressor damage. Perform annual inspection procedure as described below.

(2) Monthly Inspection

(a) Check belt tension of evaporator units and check sheave alignment. Also, check sheave groove for smoothness in order to prevent damage to belt.

(b) Inspect and clean filters as required.

(c) Vacuum cabinet interior as required.

(d) Inspect drain pans and piping.

(3) Annual Inspection

(a) Clean condenser and evaporator coils with cool water or a high-pressure jet. Specially designed coil cleaner can be used; however, the proper cleaner must be used for each coil. On roof-top units, avoid cleaner contact with roofing material. Do not use hot water which can cause excessive coil pressure.

(b) Manually rotate condenser and evaporator fans to check fan tip clearance and freedom of movement. Remove any rust and re-coat.

(c) Clean drain pan and make sure drain line is open.

(d) Check all refrigerant fittings for leaks (oil residue).

(e) Turn off safety cut-off switch, remove electrical panel, and check all wiring and connections for wear and tightness. Examine contacts for burned or pitted condition.

(f) Energize system, and check gauge readings against table in manufacturer's manual for normal ranges.

(g) Check amps on compressor and fan motor against rated value.

(h) Check damper linkage for proper adjustment and operation.

b. Air-Cooled Condenser

Most fan motors are heavy duty, and have permanently lubricated ball bearings which require no maintenance. Where lubrication is required, follow the manufacturer's recommendations.

When reassembling the fan and motor, apply a thin coat of lubrication to the motor shafts as recommended by the equipment manufacturer, before positioning the fans, to avoid corrosion.

Before start-up, check belts for alignment and proper tension. Inspect belt for wear and proper tension at two- to six-month intervals. If a belt is worn, the complete set of belts should be replaced.

When removing belt, loosen belt before removal. Do not slip or roll belt over sheave.

For maximum heat transfer, clean the condenser coil periodically with water under pressure. Do not use steam or hot water which can cause excessive coil pressure. Operating conditions will determine how often this cleaning is required.

Fan bearings require periodic lubrication and inspection. Grease fittings are installed on most bearings. On low ambient units, it may be necessary to remove the baffle plates to gain access to the bearings on the fans.

On units that are operated for the summer cooling season only, lubricate the bearings before seasonal start-up. Units which are operated during each month of the year should have bearings lubricated every six months.

c. Air Handling Units

Periodic Maintenance Checklists

Disconnect electrical power and allow rotating parts to stop before servicing the unit or removing the fan belt guard.

The following checklists describe the suggested maintenance schedules for maintaining proper operation of the unit. For more information on the unit, refer to the manufacturer's manual or contact the local manufacturer's service company.

(1) Every 3 to 6 Months

(a) Check fan bearing grease lines for tightness.

(b) Lubricate fan bearings.

(c) Check bearing setscrews for proper tightness. All bearing races must be secure.

(d) Lubricate fan motors.

(e) Align sheaves and check shafts.

(f) Check fan belt tension. Adjust if necessary. Replace worn or frayed belts with a new matched set.

(g) Inspect coils for frost or dirt build-up. Clean and straighten fins if airflow is restricted.

(2) Every Year

(a) Inspect electrical wiring for condition. Tighten all connections.

(b) Inspect the unit casing and accessories for chipping or corrosion. If damage is found, clean and repair with a good grade of rust-resistant zinc chromate paint.

(c) Clean fan wheels and fan shafts. Remove rust from fan shaft with an emery cloth and re-coat the shaft with a lubricant recommended by the equipment manufacturer, or equivalent.

(d) Inspect the drain pan for sludge or other foreign material. Clear the drain openings and drain line to ensure adequate flow.

(e) Check damper linkages, setscrews, and blade adjustment for proper tightness and operation. Do not lubricate nylon damper rod bushings.

(f) Recalibrate the filter manometer.

d. Air-Cooled Condensing Unit

(1) Shutdown - Short Duration

The system is shut down for periods of short duration, such as over the weekend, by turning the thermostat selector switch to the OFF position and the fan switch to the AUTO position.

Allow the system disconnect switch to remain closed. This will permit the crankcase heater to continue to function, preventing refrigerant from condensing in the compressor oil sump.

(2) Shutdown - Seasonal

For seasonal shutdown, open the disconnect switch to prevent the unit from starting accidentally.

(3) Start-up - After Short Duration Shutdown

The system is returned to operation after a shutdown of short duration—such as over a weekend—by adjusting the thermostat setting to the desired temperature, placing the thermostat selector switch in the COOL position, and placing the fan switch in the AUTO position.

(4) Start-up - Seasonal

Before the system is started for the season, perform the following service and inspection procedures:

(a) Turn thermostat selector switch to the OFF position and close condensing unit disconnect switch to energize the compressor crankcase heater. Wait the proper time as recommended in the manufacturer's manual before starting, to avoid possible compressor damage.

(b) Clean condensing unit with coil cleaner, and hose with cool water. Do not use hot water which can cause excessive coil pressure.

(c) Remove any accumulation of dust and dirt from the casing of the condensing unit.

(d) Replace worn or frayed evaporator unit or furnace fan belts. Lubricate the motor as recommended in the manufacturer's manual for the motor.

(e) Manually rotate the condensing unit fan and check that it turns freely.

(f) Remove control panel cover and inspect panel wiring, making sure insulation is intact and connections are tight.

(g) Clean and inspect evaporator unit drain pan. Make sure drain piping is free of obstructions.

(h) Using a leak detector or soap solution, check all refrigerant piping and fittings for leaks.

(i) Install pressure gauges on the system.

(j) Start the system.

(k) Check pressure gauge readings against the normal operating pressure ranges.

(l) Place a clamp-on volt-ammeter on one of the compressor leads and check motor amperage.

(m) Place a clamp-on volt-ammeter around either of the two leads from the run capacitor to check if run capacitor is satisfactory.

After completing the manufacturer's recommended service and inspection procedures, the system may be returned to service.

(5) Periodic Maintenance

Perform the following procedures monthly:

(a) Check evaporator unit or furnace fan belt tension.

(b) Clean fan belt and sheaves if necessary.

(c) Clean or replace the system air filters if necessary.

(d) Clean condensing unit coil by hosing with cool water. Do not use hot water which can cause excessive coil pressure.

(e) Inspect the evaporator unit drain pan and piping to make sure it is clear to carry away condensate.

e. Cooling Tower

(1) Tower Maintenance

Maximum performance and service life depends on inspection and maintenance of all parts of the tower and its supply system. A general tower inspection once a day should be sufficient. The manufacturer recommends establishing a regular inspection schedule to ensure effective, safe operation of the cooling tower. Maintain accurate and current lubrication and maintenance records. Timely inspection and repair of personnel safety items, including accurate record keeping, are especially important.

(2) Tower Framework

Check structural steel-bolted connections annually and tighten as required.

(3) Hot Water Distribution Basins

Metering orifices in the bottom of the hot water basin usually may be cleaned without shutting down any part of the tower. Remove dirt, algae, leaves, etc., which might get in basins or orifices. Orifices must be in place to assure proper water distribution.

(4) Basin Covers

Cooling tower distribution basin covers are not designed for use as a walking surface or working platform. If the cooling tower has distribution basin covers, decals usually have been installed on the tower to instruct personnel on top of tower not to use the covers as a walking surface or working platform. Maintain or replace decals as required to retain their legibility.

(5) Cold Water Collection Basin

The water level in the cold water basin should be checked daily. Inspect the suction screen each week, and remove any accumulated debris. Float valves or make-up water controls should operate freely and maintain the proper water level.

(6) Fill

The fill must be kept clean. It is easier to prevent the accumulation of foreign material than to remove it later. This is covered more completely in paragraph (13), Water Treatment.

(7) Electric Motor

Remove any oil, or scale deposits from the motor; they can cause excessive insulation temperatures. Check motor anchor bolts semiannually and tighten as required.

Lubricate the motor in accordance with the manufacturer's recommendations given in the electric motor service manual.

(8) Gear Reducer

The gear reducers supplied with a tower installation are usually serviced with lubricant at the factory. Replacement gear reducers require servicing with lubricant prior to start-up.

Always check gear reducer for proper lubricant level prior to start-up. Make sure there are no lubricant leaks.

The usual break-in procedure is to run the gear reducer at full speed and under full load for one week or 150 hours. Drain lubricant after the break-in period and inspect for unusual foreign material. Service the gear reducer with fresh lubricant in accordance with the gear reducer service manual.

Change the gear reducer lubricant every six months or after 3,000 hours of operation.

Check gear reducer mounting bolts every six months and tighten as required.

(9) Drive Shafts

The drive shafts do not require lubrication. Inspect the drive shafts at least every six months. Inspect for corrosion, deterioration of rubber bushings, looseness of capscrews and setscrews, or misalignment of drive shaft. Accurate drive shaft alignment is required to ensure maximum service life. Replace drive shaft parts as necessary.

(10)Fan

Check fan operation daily. Inspect fan blades monthly and clean if necessary, as outlined in fan service manual. Check fan assembly bolts every six months and tighten as required.

(11)Flow Control Valves

If the tower has optional inlet valves, lubricate threads through zerk fitting every six months using rust-inhibiting lithium-base grease.

(12)Painting

All non-galvanized metal parts subject to corrosion should be cleaned and painted periodically with rust-resistant paint. Bitumastic-base paints are good for this application. The actual time between paintings is dependent upon the operating cycle, water conditions, and climatic conditions.

(13)Water Treatment

Personnel responsible for care of the tower should consult with the tower manufacturer on all treatment procedures.

a. Bleed-off

Bleed-off is the continuous removal of a small portion of water from the circulating system. The purpose of bleed-off is to prevent dissolved solids from concentrating to the point where they will form scale. As a guide, many waters can be allowed to concentrate two or three times without causing scale problems. The amount of bleed-off to hold concentrations at levels of two-to-three depends upon the cooling range (hot water temperature minus cold water temperature). Refer to the manufacturer's manual for the amount of bleed-off required.

b. Chemical Treatment

The quality of many waters is such that chemical treatment for scale prevention or removal will not normally be required if adequate bleed-off is maintained. In areas where bleed-off alone is not sufficient to prevent objectionable scale or corrosion, use a simplified phosphate treatment or contact a reputable water treatment company for advice or assistance. The tower manufacturer should also be consulted.

Slime (a gelatinous organic growth), and algae (a green moss) may grow in the cooling tower or heat exchangers. Slime and algae can interfere with cooling efficiencies. Proprietary compounds are available from water treatment companies for the control of slime and algae; however, compounds which contain copper must be used with care. Copper can accelerate corrosion of steel, iron, aluminum, and galvanizing—and should not be used in systems containing any of those materials. Chlorine and chlorine-containing compounds are effective algaecides and slimicides, but excess chlorine can damage organic materials of construction. If used, chlorine should be added as an intermittent (or shock) treatment only as frequently as needed to control slime and algae, and free residual levels should not exceed the manufacturer's recommended level. Chlorine or chlorine-containing compounds should be added carefully, since very high levels of chlorine occur at or near the point of entry into the circulating water system. Again, a water treatment vendor should be contacted.

f. Centrifugal Water Chiller

(1) Periodic Maintenance

A periodic maintenance program is important to obtain the best performance and efficiency from the chiller. Proper maintenance also assures that minor problems are detected and resolved before major problems develop. The chiller manufacturer should be consulted when setting up a maintenance program.

An important aspect of a chiller maintenance program is the maintenance of an operating log. When filled out accurately, the completed log can be reviewed to identify any developing trends in the chiller's operating conditions. If, for example, a gradual increase in condensing pressure is

noted during a month's time, the operator can systematically inspect to determine the possible causes of this condition (e.g., fouled condenser tubes, non-condensables in the system, etc.) and then take the necessary corrective action.

(2) Daily Maintenance

(a) Check the chiller's evaporator, condenser, and purge drum pressure, oil sump temperature, and net oil pressure.

(b) Check oil level in the chiller oil sump using the two sight glasses provided in the oil sump head. When the unit is operating, the oil level should be visible in the lower sight glass.

(3) Weekly Maintenance

(a) Check the purge drum sight glass for evidence of condensate. (Water condensed in the purge drum floats on the surface of the liquid refrigerant, creating a visible line of separation in the sight glass.)

(b) To remove water from the drum, operate the purge compressor until a positive pressure of 5 to 10 psig (verify with the chiller manufacturer) is indicated on the purge drum pressure gauge. Then, shut down the purge compressor and open the manual blow-off valve (located on the water connection end of the drum) to release the water and other non-condensables.

(4) Quarterly Maintenance

Open and lock the unit disconnect to prevent possible injury due to electrical shock or contact with moving parts.

(a) Check tension of purge compressor drive belt, and adjust if necessary. (When belt is properly tensioned, it will usually depress approximately ½" to ¾" under light hand pressure.) Be sure to check the drive belt for excessive wear or damage.

(b) If the belt tension must be adjusted, loosen the motor mounting bolts and slide the motor.

(c) Lubricate the purge compressor drive motor bearings with lightweight oil.

(d) Check the purge compressor crankcase oil level through the crankcase sight glass. If more than ½ pint of oil is required, it is possible that oil is not being returned to the compressor from the oil separator, or that excessive heat is vaporizing the oil. DO NOT operate the purge system until the condition is diagnosed and corrected, or serious damage to the purge compressor bearings may result.

(e) Clean all water strainers in the chiller water piping system.

(f) Complete all recommended daily and weekly maintenance procedures defined above.

(5) Semiannual Maintenance

Open and lock the unit disconnect to prevent possible injury from electrical shock or contact with moving parts.

(a) Lubricate the vane control linkage bearings, ball joints, and pivot points with a few drops of lightweight oil. Also, apply one or two drops of oil on the vane operator shaft and spread it into a very light film; this will protect the shaft from moisture and rust.

(b) Lubricate actuator motor bearings with several drops of lightweight oil by inserting a long nozzle into the lubrication port on the actuator.

(6) Off-season Maintenance

During periods of time when the chiller is not being operated, be sure to operate the purge unit for a 30-minute period every two weeks. This will prevent the accumulation of air and non-condensables in the machine. Since the machine is not providing chilled water, cool water must be supplied to the purge condenser drum by adjusting the water valves to provide alternate water flow through the purge condenser.

If frequent purging is required, identify and correct the source of the air or water leak as soon as possible. Moisture contamination caused by leakage can shorten the life expectancy of the equipment.

(7) Annual Maintenance

The manufacturer recommends that the chiller be shut down for inspection once each year. The manufacturer's recommendations shall be closely followed. Open and lock the unit disconnect to prevent possible injury from electrical shock or contact with moving parts.

(a) Inspect and clean inside of purge drum.

(b) Change oil in purge compressor and oil sump.

(c) Replace oil system filter.

NOTE: If the unit is under a positive pressure, the inlet and outlet lines at the oil filter (or oil cooler) must be disconnected. Be sure to plug the open end of each line with a flare fitting plug to reduce refrigerant loss during the filter change procedure.

(d) The recommended procedure for removing the oil filter (or element filter in an oil cooler) from a unit under negative pressure requires the use of dry nitrogen to bring the unit up to atmospheric pressure. Once the old filter is replaced and reassembly completed, the unit must be purged.

(e) Inspect the condenser tubes for fouling; clean if necessary.

(f) Measure the compressor motor winding resistance to ground; qualified service personnel should conduct this procedure to ensure that the findings are properly interpreted.

(g) Contact a qualified service company to leak-test the chiller; this procedure is especially important if the system requires frequent purging.

If frequent purging is required, identify and correct the source of the air or water leak as soon as possible. Moisture contamination caused by leakage can shorten the life expectancy of the equipment.

If the system will be off for an extended period of time, the purge unit must be operated for approximately 30 minutes every two weeks to keep the chiller free of air and non-condensables. Since the machine is not providing chilled water, cool water must be supplied to the purge condenser drum by adjusting the water valves to provide alternate water flow through the purge condenser.

Inspection Checklist and Report

Centrifugal Water Chiller

1. Review unit with operating personnel
2. Compressor motor
   - _____ Motor continuity check: _____ Good _____Open
   - _____ Check and tighten motor terminals
   - _____ Meg motor: _____ Phase 1 _____ Phase 2 _____ Phase 3
   - _____ Check nameplate amp rating: _____ Amps
3. Starter
   - _____ Check overload setting: _____ Trip-Point, Amps
   - _____ Tighten all terminals
   - _____ Check condition of starter contacts:
     _____ Good _____ Fair _____ Replace
4. Oil Sump
   - _____ Change oil
   - _____ Check oil condition: _____ Good _____ Fair _____ Poor
   - _____ Check oil temperature control setting: ____ degrees F.
   - _____ Oil pump motor continuity test: _____ Good _____ Open
   - _____ Oil pump motor ground check: _____ Good _____ Bad
   - _____ Check motor terminals, tighten if required
   - _____ Check magnetic starter
   - _____ Clean all strainers
   - _____ Change high-density filter
5. Control Circuits
   - _____ Low temperature control calibration
   - _____ Set-point ____ Trip-Point (ice-water)
   - _____ High pressure control calibration
   - _____ Set-point _____ Trip-Point (Use oil-pumped dry nitrogen to check)
   - _____ Cut-Out _____ Cut-In
   - _____ Check adjustment and operation of damper motor
6. Condenser
   - _____ Visually inspect tubes for scaling. Note findings and make recommendations.
7. Leak-test the chiller
8. Refrigerant and oil analysis for acid content (Attach copy of analysis to next monthly inspection report)
   - _____ Sample refrigerant and oil for laboratory analysis
9. Purge unit
   - _____ Change oil in purge compressor
   - _____ Condition of oil: _____ Clear _____ Dirty _____ Wet
   - _____ Check condition and level of float valve
   - _____ Meg purge unit motor _____ To ground
   - _____ Motor condition: _____ Clean _____ Dirty
   - _____ Adjust belt and pulley _____ Replaced belt
   - _____ Lubricate motor
   - _____ Make leak check
   - _____ Check air relief setting
   - _____ Check compressor efficiency
   - _____ Disassemble and clean purge tank and coil
10. Review logs and logging system with operator
    - _____ Review proper logging procedures with operator

(8) Other Maintenance Recommendations

(a) Use a non-destructive tube test to inspect the condenser and evaporator tubes at three-year intervals.

NOTE: It may be desirable to perform tube tests on these components at more frequent intervals, depending upon chiller application. This is especially true of critical process equipment. Conditions which may dictate shorter intervals between chiller inspections include:

1. **Chronic air leaks.** Air leaks can catalyze acidic conditions in the compressor oil and result in premature bearing wear.
2. **Evaporator or condenser water tube leaks.** Water mixed with the compressor oil can result in bearing pitting, corrosion, or excessive wear.

(b) Depending upon chiller duty, contact a qualified service company to determine when to conduct a complete examination of the unit to discern the condition of the compressor and internal components.

(c) Submit a sample of the compressor oil (through the chiller vendor) to a qualified laboratory for a comprehensive analysis on an annual basis. Such an analysis will determine the system moisture content, acid level, and wear metal content of the oil, which can be used as a diagnostic tool.

(9) Purge Unit Maintenance

Before conducting the purge maintenance procedures, shut down the purge unit.

Before attempting to perform any maintenance on the purge unit, disconnect the electrical power supply to the purge unit heater and purge compressor drive motor. To prevent possible injury due to electrical shock or contact with moving parts, verify that all power switches are locked or secured in the “Off” position. See manufacturer’s manual.

g. Fan-Coil Air Conditioner

(1) Periodic Maintenance

The checklists below provide a recommended maintenance schedule.

Disconnect electrical power and allow rotating machinery to stop before servicing the unit. Failure to do so may result in personal injury from electrical shock or contact with moving parts.

(2) Monthly Maintenance

(a) Inspect unit air filters. Clean or replace filter element.

(b) Check primary and auxiliary drain pans to be sure that they are clean and free to carry the flow of condensate through the drain line.

(3) Semiannual Maintenance

The fan motor should be oiled every six months.

(4) Annual Maintenance

(a) Inspect unit casing for chips or corrosion. Clean or repair to ensure unit protection.

(b) Inspect fan wheel and housing for damage. Manually rotate fan wheel to be sure that movement is not obstructed.

(c) Inspect coil fins for excessive dirt or damage. Remove dirt and straighten damaged fins.

(d) Clean and tighten all electrical connections.

(**5) Filter Maintenance**

Change or clean air filter at least once a month. Filters could require more frequent care under high load conditions or when operating in a dirty environment. A clogged air filter reduces airflow, causing the high temperature cut-out on electric heat units to shut off the unit.

Filters are available in 1/2 inch, 1-inch, or 2-inch thicknesses. Disposable, permanent (cleanable) or replaceable media filters are acceptable for all units. To replace disposable filters, remove filter from the unit and dispose of entire filter and frame. Vacuum the entire cabinet and coil(s). Install new filter with air direction arrows pointing in the proper direction. To replace filters with replaceable media, remove the filter and frame from the unit, replace media in the frame, and re-install the filter frame, making sure it is facing in the proper direction.

To clean permanent filters, remove the filter and wash to remove dust, dirt, and lint. Then wash the filter with a mild alkali solution to remove the old filter oil. Rinse in clean, hot water and allow to dry. Re-coat both sides of the filter as recommended by the manufacturer.

(**6) Drain Pan Maintenance**

The primary and secondary drains should be cleaned to assure free flow of condensate.

(7) Motor Maintenance

Bearing oilers are provided on the fan motors. The motors should be lubricated every six months with lightweight non-detergent oil.

Do not operate fan motor without air filter or front panel installed. Excessive air handled by the fan could cause motor overload and damage to the motor.

h. Rooftop Single-Zone Air Conditioners

(1) Periodic Maintenance

Disconnect electrical power and allow rotating machinery to stop before servicing the unit. Failure to do so may result in personal injury from electrical shock or contact with moving parts.

(a) Cooling Season

Perform the following inspection and service routine at the beginning of each cooling season.

1. Clean condensing coil by hosing with cool water. Do not use steam or hot water, which can cause excessive coil pressure. Specially designed coil cleaner can be used; however, the proper cleaner must be used for each coil. On roof-top units, avoid cleaner contact with roofing material.
2. Clean the evaporator coil with a vacuum or a jet of low pressure air.
3. Inspect condensate drain pans and condensate piping to make sure they are free of obstructions and that any condensate or water will drain freely.
4. Clean or replace air filters. Vacuum the entire cabinet and coil(s).
5. Inspect supply-air fan and (optional) exhaust-air fan belts. Replace if frayed, cracked, or worn. When replacing belts, install a matched set to ensure equal belt length. Do not stretch belts over sheaves; loosen the adjustable motor mounting base.
6. Adjust fan belt tension using instruments as recommended by the manufacturer.
7. Lubricate supply-air fan and (optional) exhaust-air fan motors.
8. Inspect control panel wiring to make sure connections are tight and insulation is intact and in good condition.
9. Check refrigerant piping and fittings for leaks (oil residue).
10. Install pressure gauges at compressor suction and discharge ports. Start unit and check pressure control settings as recommended by the manufacturer.

(b) Heating Season

Perform the following inspection and service routine at the beginning of each heating season.

1. Clean or replace air filters. Vacuum the cabinet interior and coil(s).
2. Inspect control panel wiring to make sure connections are tight and insulation is intact and in good condition.
3. Check firing sequence of gas heating section. Inspect relays, wiring, connections, and flame and ignition system to be sure they are in good operating condition.
4. If fan motors were not lubricated at the beginning of the cooling season, then lubricate motors at this time.

(2) Monthly Maintenance

Perform the following maintenance monthly.

(a) Clean or replace air filters as needed. Vacuum the cabinet and coil(s). During cooling season, check condenser coil for accumulation of dust or other foreign material.

(b) If necessary, clean condenser coil by hosing with cool water. Do not use steam or hot water which can cause excessive coil pressure. Specially designed coil cleaner can be used; however, the proper cleaner must be used for each coil. On roof-top units, avoid cleaner contact with roofing material.

(c) During cooling season, observe liquid line sight glass when the system is operating. The sight glass should be clear and free of gas bubbles.

(d) During cooling season, check compressor oil level sight glass when the system is operating. Oil should be visible in the glass.

(3) Lubrication

Most fan bearings are permanently sealed and do not require lubrication. When not permanently sealed, the fan motor bearings should be lubricated once a year. To lubricate, remove vent plugs and clean out openings. Add fresh grease according to the manufacturer's recommendations, using a hand grease gun. Operate motor briefly without plug installed to help distribute fresh grease and force out excess grease. Wipe off excess grease after application, then install vent plugs.

If grease works out around motor shaft, less grease should be added and the lubrication period extended.

(**4) Air Filters**

To assure proper unit operation, inspect air filters monthly and clean or replace as required. The equipment manufacturer recommends that replacement filters be of the same type as originally supplied.

NOTE: When installing filters, make sure air direction arrow points toward the fan.

2. Heating Systems

a. Heating and Ventilating Units

The heating system shall be maintained similarly to the gas duct furnace in section c. below.

(1) Monthly Maintenance

Check filters monthly and clean or replace as necessary. Vacuum the entire cabinet.

(2) Semiannual Maintenance

(a) Check fan blade for freedom of movement, adequate clearance, and general condition. If rust is evident, remove rust and re-coat.

(b) Check fan belt for proper tension and excessive wear or cracking; check pulleys for proper alignment.

(c) Lubricate bearings by adding grease as recommended by the manufacturer until a slight bead appears at seal. Check setscrews in each bearing race for tightness. Do not lubricate nylon bearings.

(d) Check motor for lubrication, following instructions on motor tags.

(e) Check damper adjustment, linkage, and setscrews.

b. Boilers

All gas-fired equipment and related controls should be cleaned and serviced every six months, including the following:

(a) Clean and adjust main burner and pilot burner.

(b) Check gas input rate and air adjustment.

(c) Check size of pilot flame and check safety pilot.

(d) Check to make sure a satisfactory draft is being maintained.

(e) Check all connections and fittings for evidence of gas leakage.

(f) Check for proper setting and operation of limit controllers.

(g) Check for proper operation of safety or relief valves.

(1) Daily Maintenance

Check water level in sight gauge for steam boilers, and check operating pressure in steam and water boilers.

(2) Weekly Maintenance

(a) Open steam boiler blow-down valve to remove dirt or sediment. Make sure the low water cut-off operates as water level approaches bottom of sight glass.

(b) On hot water boilers, open boiler drain cock to drain impurities that may have settled in water legs.

(3) Semiannual Maintenance

Lubricate the water circulating pump in accordance with instructions on pump.

(4) Annual Maintenance

(a) Inspect water-side surfaces for signs of pitting or scale. Clean and flush as required.

(b) Clean the fire-side of boiler by wire brushing all heat transfer surfaces. Remove all debris.

(c) Clean and replace air vent valves on the main units, as required.

(d) Clean vapor and vacuum system traps.

(e) Check electrical connections and controls for tightness and proper operation.

c. Gas Duct Furnace

Should maintenance be required, perform the following inspection and service routine:

(1) Turn off manual gas valve, manual pilot valve, and electrical power to gas duct furnace.

(2) Remove drain pan and disconnect pilot line and thermocouple at gas control.

(3) Remove gas burner assembly to clean ports and thermocouple.

(4) With burners removed, clean inside surfaces of heat exchanger with wire brush.

(5) Baffles in the top of the heat exchanger should be removed for cleaning by a competent gas appliance service engineer.

(6) Reassemble gas duct furnace. Relight pilot burner and put unit into operation.

(7) Check burner adjustment.

(8) Check all gas control and pipe connections for leaks.

(9) Check operation of automatic gas valve by lowering setting of thermostat, stopping operation of the gas duct furnace. The gas valve should close tightly, completely extinguishing the flame on the main burners.

(10) Check operation of pilot safety device by closing pilot line valve, extinguishing the pilot flame. Within one minute, the automatic gas valve should close, extinguishing the flame on the main burners.

(11) Inspect and service blower section of the system.

d. Gas Unit Heaters

Should maintenance be required, perform the following inspection and service routine:

(1) Open all disconnect switches and secure in open position before servicing the unit. Failure to do so may result in personal injury from electrical shock.

(2) Inspect the area near the unit to be sure that combustible material is not located within the minimum clearance requirements as recommended by the manufacturer or local ordinances. Failure to provide adequate clearances could result in personal injury or equipment damage from fire.

(3) Turn off manual gas valve, manual pilot line valve, and electrical power to unit.

(4) Lightly oil fan motor bearings, following instructions on motor.

(5) Disconnect pilot line and thermocouple at gas valve.

(6) Remove gas burner assembly to clean parts and thermocouple.

(7) Baffles in the top of the heat exchanger may be removed for cleaning by a qualified gas appliance service engineer. Baffles must be replaced as originally installed.

(8) Reassemble the unit.

(9) Relight pilot burner. See lighting instructions on unit nameplate. Complete appropriate unit start-up procedure.

(10) Check burner adjustment.

(11) Check gas control and pipe connections for leaks.

(12) Check operation of automatic gas valve by lowering setting of thermostat, stopping operation of the gas duct furnace. The gas valve should close tightly, completely extinguishing the flame on the main burners.

(13) Check operation of pilot safety device by closing pilot line valve, extinguishing the pilot flame. Within one minute, the automatic gas valve should close, extinguishing the flame on the main burners.

e. Propeller Unit Heaters

(1) Motor Lubrication

Motors with oilers are lubricated before shipment with the proper grade of electric motor oil. Refill when necessary, with the motor stopped, until oil reaches the proper level.

The frequency of lubrication required will depend upon operating conditions and length of running time. Inspect oilers or oil holes when cleaning the unit. If the unit has a fractional horsepower motor, lubricate at least once a year. Under high ambient conditions or constant fan operation, fractional horsepower motors should be lubricated every 90 days.

On motors without oilers or oil holes, follow the instructions given on the motor nameplate.

Ball bearing motor manufacturers do not recommend or require on-the-job lubrication of ball bearing motors. If on-the-job lubrication is required, use the following guidelines:

(a) Consult motor manufacturer's local service facility for information on type of lubricant to be used.

(b) With motor stopped, remove vent and grease plugs and clean out openings.

(c) Install grease fitting and add grease sparingly using hand grease gun.

(d) Operate motor a few minutes to help distribute fresh grease and force out old grease, then install vent plugs. If grease works out around the motor shaft, less grease should be added and the lubrication period can be extended.

(e) If grease continues to appear, contact the motor manufacturer's authorized service facility for repair.

(2) Cleaning the Unit

The unit casing, fan, diffuser, and coil should be cleaned thoroughly once a year.

Coil heat transfer efficiency depends on cleanliness. The following recommended guidelines may be performed when lubricating the motor and cleaning the coil:

(a) Wipe all excess lubricant from the motor, fan, and casing. Clean the motor thoroughly. A dirty motor may overheat and cause internal damage.

(b) Clean casing, fan blades, fan guard, and diffuser using a cloth dampened in a water-detergent solution. Remove any rust spots on the casing; clean and repaint.

(c) Tighten fan guard, motor frame, and fan bolts. Check fan for clearance in panel orifice and check for free rotation.

f. Cabinet Heater

(1) Periodic Maintenance

The checklists below provide a recommended maintenance schedule.

Disconnect electrical power before servicing the unit. Failure to do so may result in personal injury from electrical shock.

(2) Monthly Maintenance

Check air filters and clean or replace as required. Vacuum the entire cabinet interior.

(**3) Semiannual Maintenance**

Lubricate fan motor every six months.

(4) Annual Maintenance

(a) Clean the unit casing.

(b) Inspect fan blades and housing, and clean if dirty.

(c) Clean coils.

(d) Tighten electrical connections.

(5) Filter Maintenance

Permanent and renewable filters can be cleaned and replaced in the unit. Wash the filter under a stream of warm water to remove dust and lint. Follow with a wash of mild alkali solution to remove old filter oil. Rinse with clean, hot water and allow it to dry. Re-coat both sides with filter oil and allow drying thoroughly.

Replaceable filters may be removed from the unit to insert a new element in the filter frame.

To replace the filter frame, install in the direction of airflow, as indicated by the arrow on the filter. Be sure to vacuum the cabinet interior and coil(s) prior to replacing filters.

Do not operate fan motor without air filter or front panel installed. Excessive air handled by the fan could cause motor overload and damage to the motor.

(6) Motor Maintenance

Bearing oilers are provided on the fan motors. The motors should be lubricated every six months or as recommended by the equipment manufacturer.

(7) Casing Maintenance

Clean the unit casing with warm water and mild detergent. Repair chipped and corroded areas.

If necessary, repaint the surface. Special surface preparation may be required when repainting the unit over the original factory paint. The surface must be free of oil, grease, and dirt, and should be scuff-sanded prior to painting. This surface preparation is sufficient when alkyd enamels are used.

If latex paints are used for repainting, an intermediate alkyd primer must be applied after proper surface preparation is completed, in order to improve adhesion. In lieu of the intermediate alkyd primer coat, such surface preparations as liquid sandpaper or hand-sanding will provide good adhesion in some cases.

3. Exhaust and Ventilation Systems

The roof and/or wall exhausters should be checked semiannually as follows:

a. Check for motor distress, unusual noise, or evidence of overheating.
b. Disconnect power supply, remove cover, and rotate fan manually to check tip clearance and freedom of movement. Clean any corrosion with emery cloth and re-coat.
c. Check actual amps against rating.
d. Check belt tension, condition, and sheave alignment.
e. Check louvers and flashing for good condition to prevent air and water entering the building walls.
f. Repaint cabinet as needed.

F. Electrical

Maintenance of electrical items should be performed with caution. When an electrical problem is detected, it should first be determined whether the repairs can be accomplished by YMCA maintenance personnel or whether an outside contractor will

be required. If YMCA personnel make the repairs, caution should be taken to avoid electrical shock or other injuries.

1. Circuit Panels

a. Inspect each panel to make sure panel cover or door is in place and is operative. If located in an area accessible to the public, the cover or door must have a lock. If panel cover or door is inoperative or missing, repair or replace immediately.

b. Check wire connections periodically (at least annually) for tightness. If loose, turn off power and tighten.

c. Every three months, turn circuit breakers off and on to assure good operating condition. Replace defective circuit breakers as required.

d. Circuit panels must remain accessible at all times. The floor area around panels should be clean and dry. Do not store corrosive materials adjacent to panels.

2. Lighting

a. Outdoor lighting should be checked at least weekly to make sure the fixtures are operational and positioned effectively to illuminate the intended areas. Fixtures should be checked for proper level and alignment. All outdoor fixtures should be protected against vandalism.

b. Underwater fixtures in pool area shall be wired to ground fault interrupting device (if applicable).

c. Indoor lighting should be checked for proper intensity and type for the area of use. Different activities require different types or intensities of lighting. YMCA of the USA's BFS/Property Management Department can provide you with proper light levels for each venue.

d. Fixtures in the gymnasium and play areas should be located in such a way as to be protected from physical damage, or be protected from physical damage by some method of protective guards.

e. All light switches should be located in such a way as to not be accessible by the public, or should be key operated. Motion detectors can be used in many areas for energy efficiency.

f. Replace burned-out bulbs and ballasts as soon as possible. Pay particular attention to building exit lights, corridors, and stairwells. Emergency lighting should be inspected at least once a week.

3. Motors

a. Inspect exhaust fans and air handling units every six months to make sure that lint and dust are removed from motor housings. Motors should be lubricated every six months (where required). If a motor is overheated (hot to the touch), try to determine whether it is overloaded or misaligned, or if the bearings are worn. Also, check wiring connections for tightness.

b. Pump motors should be checked visually for correct alignment, worn or frayed belts (if applicable), defective pulleys, or missing parts. Check motor

mounts and junction boxes for good condition. Repair or replace as required. Lubricate motors every six months. If motors are overheated (hot to the touch), check for misalignment, worn bearings, or loose electrical connections.

4. Miscellaneous Items

a. Make sure that exit lights identify doors that lead outside. These lights should be illuminated at all times. Replace lamps as necessary.

b. Battery powered emergency lighting should be located to provide light to general areas and illuminate a path to exit the building. Test the lights and check battery condition weekly. Battery units in gyms and play areas should have protective coverings.

G Plumbing

1. Water Heaters

Water heater maintenance—like any other mechanical equipment maintenance—is essential in order to obtain maximum unit life and member satisfaction. The effort placed on routine maintenance will greatly offset an unexpected expense.

Water scale and silt accumulation are the chief causes of element or tank failures. Water heater guarantees usually state that the tank must be free of excessive scale or lime deposits, and that the heater leaks must be due to rust, corrosion, or other chemical action of water. In other words, where heater failure is due to dropout of water impurities, the manufacturer guarantee does not apply.

The removal of water scale will increase the performance of the heater. Harmful water scale deposits result in:

- Reduced quantities of available hot water
- Extended heating cycles
- Higher utility bills
- Noisy operation
- Shortened unit life
- Member dissatisfaction

The following is a list of maintenance guidelines which will work in conjunction with the inspection checklist for each facility at the end of this section:

a. Gas and oil-fired models: drain and flush the tank any time rumbling or pounding is heard. Otherwise, drain and flush once every six months or, if sufficient accumulation of scale or silt exists, once every three months.

b. Electric models: drain and flush tank any time sizzling sounds are heard. Otherwise, drain and flush every six months or, if sufficient accumulation of scale or silt exists, once every three months.

c. Check pressure and temperature relief valves on all water heaters.

d. Check all pipe connections for leaks.

e. On gas models, check flue for proper ventilation.

2. Plumbing Fixtures

a. Check all flush valves on water closets and urinals for proper operation and leaks.
b. Check tank-type water closets for leaking ball cock, filler valve operation, and for leaks at seal on base.
c. Inspect toilet seats for damage and loose connections.
d. Inspect all fixtures for chips and cracks.
e. Check all supports for wall-hung fixtures. Inspect for leaks or signs of leakage.
f. Check operation of all water stops to fixtures. Inspect for leaks or signs of leakage.
g. Inspect all lavatory hot and cold water faucets. Repair or replace damaged trim or washers.
h. Check all exposed P-traps on fixtures for leaks or deterioration.
i. Check and clean all floor drain grates and inspect for water in P-traps.
j. Check all shower heads for firm support, and all control valves for leaks or broken handles. Repair or replace as required.
k. Check all counter sinks for rim leaks, and faucets for hot and cold water leaks.
l. Check temperature of hot water at various locations. Proper water temperature at lavatories and sinks should not exceed 115 degrees F. Dishwashing sinks should have a booster heater to provide higher temperature. State code should be checked for hot water temperature on child care sinks.
m. Check bubbler supplies on all drinking fountains. Adjust water flow for proper operation.
n. Check all hose bibs for leaks and proper operation. Repair or replace any damaged parts.

3. Piping

a. Inspect all visible piping for leaks, deterioration, and sound pipe supports. Repair or replace all damaged pipe or supports as required.
b. Check all cut-off valves for leaks and proper operation. Repair or replace as required.
c. Inspect insulated lines for damaged or missing insulation. Replace as required to maintain full insulation coverage.
d. Inspect pool equipment piping and valves for leaks, vibration, and proper support.
e. Use liquid soap to check gas connections for leaks.

4. Winterization

At facilities with remote buildings, which are closed down for the winter season, the following guidelines should be followed to minimize freeze damage:

a. Turn off and drain water heaters, water tanks, and filters.

b. Turn off water supply and drain thoroughly. Leave faucet valves open to assist draining and allow for expansion.

c. Flush water closets to remove majority of water from tank; plunge bowl to remove as much water as possible. Add anti-freeze to bowl and tank to keep remaining water from freezing.

d. Pour a small amount of anti-freeze in each trap of sinks and lavatories.

e. Protect exposed hose bibs from freezing by wrapping or turning off and draining.

f. Drain all pool filter equipment and piping. Lower pool water to 12 inches below bottom of tile and skimmers.

H. Fire Protection

The availability and condition of fire protection equipment is vital for the protection of life and property. It is absolutely essential that this equipment be well-maintained and kept in good operating condition.

The information in the following paragraphs is intended to be used as a general guideline. Local fire officials, building officials, and/or your hazards insurance carrier should be consulted for detailed information.

1. Extinguishers

a. All facilities should be equipped with approved fire extinguishers, in compliance with the important safety guidelines set by the National Fire Protection Act (NFPA).

b. Electrical and mechanical rooms should be equipped with an approved fire extinguisher in compliance with the important safety guidelines set by the National Fire Protection Act (NFPA).

c. Fire extinguishers should be provided and inspected on an annual basis by a licensed, certified, and factory-trained technician/service contractor.

d. Staff should inspect all fire extinguishers on a weekly basis to make certain they are fully charged and operable. Recharge as required.

e. Fire extinguishers should be conspicuously and readily accessible. They should be adequately supported and have a visual extinguisher sign at all locations.

2. Pull-Alarm Stations

a. Pull-alarm stations should be inspected monthly for proper operation. Repair as required.

b. Pull alarms should be directly linked to the fire department.

c. Fire alarm pull stations should comply with all state and federal codes including those of the Americans with Disabilities Act.

3. Exhaust Hood Extinguishing System

Where cooking facilities are required, a packaged dry chemical or CO2 system in compliance with the NFPA should be installed within the hood over the cooking

surface to extinguish possible grease fires. This system should be checked monthly for proper operation.

4. Smoke Detectors

Depress test switch to check operation and condition of unit. Replace unit as required. Smoke detectors should be in compliance with all state and local codes.

I. Security Systems

1. Security Alarms

Today, security alarm systems are becoming more prevalent. These should be installed by a professional security company. Only certain staff should have security codes and the system should be managed by the building superintendent.

2. Security Cameras

The use of security cameras in and around YMCA facilities is becoming widespread, especially in areas such as parking lots, hallways, service counters, and entrances/exits. When designing new or renovations to facilities, prepare for future installations of security systems by installing conduit for cables and system components.

3. Gas Detectors/Carbon Monoxide Detectors

When appropriately maintained, these devices can be very effective in monitoring risk of exposure to harmful gases like carbon monoxide, which has no smell, taste, or color. These can be especially valuable in child care areas where young children spend significant amounts of time. Detector units should meet appropriate standards and be incompliance with all state and local codes; alarms that meet the U.S. standard are identified with the “UL” symbol. Detectors should be inspected weekly by depressing the test switch to check the operation and condition. Replace detectors and batteries according to the manufacturer’s instructions.

J. Pest Control

Many pests pose significant threats to people and property, both indoors and outdoors. Some insects and rodents can make people sick or damage structures. There are many things we can do to protect ourselves and our members; however, pest control today is a science and should be managed by a professional pest control firm. The following information is provided to inform you of the dangers posed by pests and to help you make decisions regarding acquiring the proper professional help to remedy problems. Be especially careful of any harmful chemicals and treatments in the facility that might be exposed to constituents.

1. Cockroaches

Cockroaches have been known to carry many dangerous germs. They crawl through areas with high germ content and then track those bacteria throughout the building.

When you see one cockroach, you can be sure that there are many more out of sight. When these insects shed their skins, die, or leave droppings, those remains are called cockroach allergens. Researchers recently discovered that exposure to cockroach allergens can cause asthma attacks in children.

In addition to acquiring professional services to exterminate cockroaches, careful and regular cleaning of the building can remove cockroach allergens.

2. Mosquitoes

Mosquitoes carry the virus that causes Eastern Equine Encephalitis, which is found most often in the Eastern United States and can cause illness in both humans and horses. In humans, the disease can cause encephalitis (swelling of the brain), coma, and death.

With the threat of West Nile Virus, plans should be developed to eliminate all standing water around the facility. When dealing with West Nile Virus, prevention is your best bet. Such areas as playgrounds, deep puddles, clogged roof drains, etc. should be monitored. Avoid mosquito bites by using a mosquito repellent. Be aware of mosquito peak times which are between dusk to dawn. , Drain standing water. Report dead birds to local authorities as dead birds may be a sign that West Nile Virus is circulating between birds and mosquitoes in your area. Finally, check with local health authorities to see if there is an organized mosquito control program

3. Rats & Mice

Rodents, mostly deer mice and pack rats, can spread the very dangerous but rare Hantavirus Pulmonary Syndrome. Most cases have been in Southwestern states, but it has been identified throughout the United States [CDC]. The urine, droppings, or saliva of infected rodents contain this virus and can infect humans who breathe in these particles. People also can catch Hantavirus if they touch or are bitten by infected animals.

Rats are also responsible for spreading Bubonic plague. Although fleas are responsible for infecting most humans, they get it from the rats.
No areas of our facilities should have rodents residing (especially child care areas where snacks and food are kept around) that could attract rats and mice. Housekeeping should comply with BFS Housekeeping Standards.

4. Ticks

Lyme disease is caused by the bite of an infected deer or black-legged tick. Symptoms include a distinctive "bull's-eye" shaped rash, fever, fatigue, headaches, and muscle and joint aches. About 15,000 cases of Lyme disease are reported in the United States every year. The majority of these cases occur in the northeastern and upper midwestern parts of the United States as well as some areas of the Pacific Northwest, all of which are these ticks’ natural habitats.

5. Termites

Termites eat twenty-four hours a day, seven days a week. They are beneficial in forests because they devour dead trees, help to recycle nutrients, and make space for new plant life. However, they are not beneficial once they start to eat the wood in buildings. Termites eat very slowly, making it difficult to spot damage until it is severe. Although most YMCA facilities are of masonry construction, some frame buildings do exist. A trained pest control professional can find out if termites are infesting your building. A professional should be contacted when ever termite evidence is apparent. Signs to look for include flying insects especially in the spring. A termite body has no segments as does a flying ant body.

K. Maintenance Schedules

Inspection/maintenance schedules for branches and camp follow this page.

Branch Inspection & Maintenance

Branch Inspection

Date:_____ Inspection By: _____

Location and Manual Reference	Inspect	Frequency				Condition/Recommendation
		Monthly	Bi-Annually	Annually	As Reqd.	
Exterior						
Elastomeric Roof Section IV.B.1.b	General Condition		♦			
	Cracks, Blisters		♦			
	Debris		♦			
	Roof Drains		♦			
	Penetrations		♦			
	Flashing		♦			
	Skylights		♦			
	Parapets		♦			
	Ballast		♦			
	Re-seal				3 yrs.	
Brick Walls Section IV.B.2.a	General Condition	♦				
	Cracks, Joint, etc.		♦			
	Foreign Material	♦				
	Expansion Joints		♦			
	Clean and Seal				7–10 yrs.	
Concrete Block Section IV.B.2.b	General Condition	♦				
	Cracks, Joint, etc.		♦			
	Foreign Material	♦				
	Paint Condition		♦			
	Expansion Joints		♦			
Concrete/Pre-cast Section IV.B.2.c	General Condition	♦				
	Cracks, Joint, etc.		♦			
	Foreign Material	♦				
	Expansion Joints		♦			
	Clean and Seal				7–10 yrs.	

Branch Inspection

Date:_____ Inspection By: _____

Location and Manual Reference	Inspect	Frequency				Condition/Recommendation
		Monthly	Bi-Annually	Annually	As Reqd.	
Exterior						
Glass Block Section IV.B.2.f	General Condition		♦			
	Cracks			♦		
	Grout Joints			♦		
	Expansion Caulk			♦		
	Washing Required		♦			
Glass, Storefront Section IV.B.2.g	General Condition	♦				
	Sound Framing		♦			
	Gaskets		♦			
	Sealant		♦			
	Foreign Material				♦	
	Clean Glass		♦			
Metal Doors and Frames Section IV.B.2.i	General Condition	♦				
	Rust, Dents, etc.		♦			
	Hardware		♦			
	Paint Condition		♦			
	Clean Door	♦				
	Exit Requirements	♦				
Interior						
Walls Section IV.C.1.a	Block Walls		♦			
	Tile Walls		♦			
	Painted Walls		♦			
	Wall Coverings		♦			
	Base Molding		♦			
	Glass Block				♦	
	Glass Panel				♦	

Branch Inspection

Date:_____ Inspection By: _____

Location and Manual Reference	Inspect	Frequency				Condition/Recommendation
		Monthly	Bi-Annually	Annually	As Reqd.	
Interior						
Floors Section IV.C.1.b	Obstructions	♦				
	Resilient Tile		♦			
	Ceramic/Quarry		♦			
	Carpet		♦			
	Synthetic Gym		♦			
	Concrete		♦			
	Wood		♦			
Ceilings Section IV.C.1.c	General Condition	♦				
	Acoustical		♦			
	Painted Gypsum		♦			
	Linear Metal		♦			
	Painted Concrete		♦			
	Water Damage		♦			
	Open Structure		♦			
	Cleanliness		♦			
	Light Fixtures		♦			
	HVAC Diffusers		♦			
	Exit Lights				Weekly	
	Emergency Lights				Weekly	
Aluminum-frame Windows Section IV.C.2.b	General Condition	♦				
	Sound Framing		♦			
	Vinyl Gaskets			♦		
	Foreign Material		♦			
	Operation			♦		
	Caulking		♦			

Branch Inspection

Date:_____ Inspection By: _____

Location and Manual Reference	Inspect	Frequency				Condition/Recommendation
		Monthly	Bi-Annually	Annually	As Reqd.	
Exterior						
Doors Section IV.C.2.d	General Condition	♦				
	Hardware		♦			
	Weatherstripping			♦		
	Closers		♦			
	Wood Doors		♦			
	Metal Doors		♦			
	Door Finish		♦			
	Panic Hardware	♦				
	Operation		♦			
			♦			
Penetrations Section IV.B.2.k	Louvers		♦			
	Exhaust Fans		♦			
	Paint Condition		♦			
	Screens		♦			
HVAC						
Air Handling Units Section IV.E.1.c	Replace/Clean Filters	♦				
	Grease Lines		♦			
	Lube Bearings		♦			
	Tighten Setscrews		♦			
	Lube Motors		♦			
	Align Sheaves		♦			
	Belt Condition		♦			
	Belt Tension		♦			
	Coils		♦			
	Electrical			♦		
	Unit Housing			♦		
	Fan Wheels/Shaft			♦		
	Clean Drain Pan			♦		

Date:_____ Inspection By: _____

Location and Manual Reference	Inspect	Frequency				Condition/Recommendation
		Monthly	Bi-Annually	Annually	As Reqd.	
HVAC (Cont.)						
Air Handling Units Section IV.E.1.c (Cont.)	Damper Linkage			♦		
	Inlet Vane			♦		
	Filter Manometer			♦		
Cooling Tower Section IV.E.1.e	Framework			♦		
	Hot Water Basin				♦	
	Cold Water Basin				Daily	
	Drive Shaft		♦			
	Motor		♦			
	Gear Reducer		♦			
	Fan Operation		♦			
	Fan Blades	♦				
	Fan Assembly		♦			
	Paint Finish		♦			
Centrifugal Water Chiller Section IV.E.1.f	Pressure/Temps				Daily	
	Purge Drum Sight				Weekly	
	Drive Belt				3 mos.	
	Lube Bearings				3 mos.	
	Oil Level				Daily	
	Control Linkage		♦			
	Actuator Bearings		♦			
	Off-Season Maint.				2 wks.	
	Purge Drum			♦		
	Change Oil & Filter			♦		
	Condenser Tubes			♦		

Branch Inspection:

Date:_____ Inspection By: _____

Location and Manual Reference	Inspect	Frequency				Condition/Recommendation
		Monthly	Bi-Annually	Annually	As Reqd.	
HVAC (Cont.)						
Centrifugal Water Chiller Section IV.E.1.f (Cont.)	Motor Winding			♦		
	Leak-test Chiller			♦		
Fan-Coil Air Conditioner Section IV.E.1.g	Filter	♦				
	Drain Pans	♦				
	Oil Fan Motor		♦			
	Unit Housing			♦		
	Fan Clearance			♦		
	Coil Fans			♦		
	Electrical			♦		
Heating and Ventilating Units Section IV.E.2.a	Filters	♦				
	Lube Bearings		♦			
	Belt Condition		♦			
	Belt Tension		♦			
	Lube Motor		♦			
	Linkage		♦			
	Tighten Setscrews		♦			
	Fan Clearance		♦			
Boilers Section IV.E.2.b	General Service		♦			
	Water Level				Daily	
	Remove Sediment				Weekly	
	Water Legs				Weekly	
	Circulating Pump		♦			
	Water Surfaces			♦		
	Fire Surfaces			♦		

Branch Inspection

Date:_____ Inspection By: _____

Location and Manual Reference	Inspect	Frequency				Condition/Recommendation
		Monthly	Bi-Annually	Annually	As Reqd.	
HVAC (Cont.)						
Boilers Section IV.E.2.b (Cont.)	Air Vent Valves			♦		
	Traps			♦		
	Electrical			♦		
Cabinet Heater Section IV.E.2.f	Filter	♦				
	Lube Motor		♦			
	Clean Housing			♦		
	Fan Blades			♦		
	Clean Coils			♦		
	Electrical			♦		
Roof Exhaust Fans Section IV.E.3	Motor			♦		
	Fan Clearance			♦		
	Electrical			♦		
	Belt Condition		♦			
	Belt Tension		♦			
	Flashing					
Wall Exhaust Fans Section IV.E.3	Motor			♦		
	Fan Clearance			♦		
	Housing Support			♦		
	Electrical			♦		
	Belt Condition		♦			
	Belt Tension		♦			
	Louvers			♦		
	Flashing			♦		

Branch Inspection

Date:_____ Inspection By: _____

Location and Manual Reference	Inspect	Frequency				Condition/Recommendation
		Monthly	Bi-Annually	Annually	As Reqd.	
Electrical						
Electrical Panels Section IV.F.1	Panel Cover		♦			
	Connectors		♦			
	Circuit Breakers				3 mos.	
Lighting Section IV.F.2	Outdoor		♦			
	Indoor		♦			
	Fixture Guards		♦			
	Replace Bulbs				♦	
	Replace Ballasts				♦	
Motors Section IV.F3	Exhaust Fan Motors		♦			
	Air Handling Motors		♦			
	Pump Motors		♦			
	Alignment		♦			
	Motor Mounts		♦			
	Belt Tension		♦			
Miscellaneous Section IV.F.4	Exit Lights				Weekly	
	Emergency Lights				Weekly	
	Blow Dryers	♦				
Plumbing						
Plumbing Fixtures Section IV.G.2	Flush Valves	♦				
	Toilet Seats	♦				
	Chips/Cracks	♦				
	Wall Supports		♦			
	Water Stops		♦			

Branch Inspection

Date:_____ Inspection By: _____

Location and Manual Reference	Inspect	Frequency				Condition/Recommendation
		Monthly	Bi-Annually	Annually	As Reqd.	
Plumbing						
Plumbing Fixtures Section IV.G.2 (Cont.)	Faucets		♦			
	P-traps		♦			
	Floor Drains		♦			
	Counter Sinks		♦			
	Drinking Fountains		♦			
	Hose Bibbs		♦			
	Area-way Drains		♦			
Piping Section IV.G.3	Visible Piping		♦			
	Valves		♦			
	Insulation		♦			
	Pool Piping		♦			
	Gas Connections		♦			
Fire Protection						
Extinguishers Section IV.H.1	Quantity Required		♦			
	Charged				Weekly	
	Proper Supports		♦			
	Certified			♦		Certified Contractor
	Tank Inspected				♦	Certified Contractor
Pull Alarms Section IV.H.2	Check Operation	♦				
	Inspection			♦		Certified Contractor
Smoke Detectors Section IV.H.4	Check Operation	♦				
	Inspection (hard wired)			♦		Certified Contractor

Branch Inspection

Date:_____ Inspection By: _____

Location and Manual Reference	Inspect	Frequency				Condition/Recommendation
		Monthly	Bi-Annually	Annually	As Reqd.	
Grounds Area						
Lawns and Landscaping Section VI.B	Mow Lawns				♦	
	Trim Walks				♦	
	Trim at Building				♦	
	Trim Shrubs	♦				
	Fertilize			♦		
	Re-seed/Re-plant				♦	
	Planters				♦	
	Police				Daily	
	Aerate Lawn			♦		
Fencing Section VI.I	General Condition		♦			
	Chain Link Fabric		♦			
	Post/Rails		♦			
	Gates		♦			
	Deterioration		♦			
Parking Lots Macadam Walks Section VI.M	Re-seal				3 years	
	Re-stripe				3 years	
	Police litter				Daily	

Camp Inspection & Maintenance

Camp Inspection

Date:_____ Inspection By: _____

Location and Manual Reference	Inspect	Frequency				Condition/Recommendation
		Monthly	Bi-Annually	Annually	As Reqd.	
Exterior						
Asphalt Shingles Section IV.B.1.d	General Condition		♦			
	Cracks, Curling, etc.		♦			
	Debris		♦			
	Gutters		♦			
	Downspouts		♦			
	Flashing		♦			
Concrete Block Section IV.B.2.b	General Condition	♦				
	Cracks, Joints, etc.		♦			
	Foreign Material	♦				
	Paint Condition		♦			
	Expansion Joints		♦			
Wood Siding Section IV.B.2.e	General Condition	♦				
	Cracks, Rotten Wood		♦			
	Paint Condition		♦			
	Caulking		♦			
	Ground Clearance			♦		

Camp Inspection

Date:_____ Inspection By: _____

Location and Manual Reference	Inspect	Frequency				Condition/Recommendation
		Monthly	Bi-Annually	Annually	As Reqd.	
Exterior (Cont.)						
Wood-frame Windows Section IV.B.2.h	General Condition	♦				
	Trim and Framework		♦			
	Glazing Compound		♦			
	Paint Condition		♦			
	Screens		♦			
	Clean Glass				♦	
Wood Doors & Frames Section IV.B.2.j	General Condition	♦				
	Rotten Wood		♦			
	Loose Trim		♦			
	Hardware		♦			
	Paint Condition		♦			
	Caulking		♦			
	Clean Door	♦				
	Exit Requirements	♦				
Interior						
Walls Section IV.C.1.a	Block Walls		♦			
	Tile Walls		♦			
	Painted Walls		♦			
	Wall Coverings		♦			
	Base Molding		♦			
	Pre-finished Panels		♦			
Floors Section IV.C.1.b	Obstructions	♦				
	Resilient Tile		♦			
	Ceramic/Quarry		♦			
	Carpet					

Camp Inspection

Date:_____ Inspection By: _____

Location and Manual Reference	Inspect	Frequency				Condition/Recommendation
		Monthly	Bi-Annually	Annually	As Reqd.	
Interior (Cont.)						
Floors Section IV.C.1.b	Wood Decking		♦			
	Concrete		♦			
Ceilings Section IV.C.1.c	General Condition	♦				
	Acoustical		♦			
	Painted Gypsum		♦			
	Water Damage		♦			
	Open Structure		♦			
	Cleanliness		♦			
	Light Fixtures		♦			
	HVAC Diffusers		♦			
	Exit Lights		♦			
Wood Windows Section IV.C.2.a	General Condition	♦				
	Operation		♦			
	Trim and Framework		♦			
	Paint Condition		♦			
	Screens		♦			
Aluminum Windows Section IV.C.2.b	General Conditions	♦				
	Sound Framing		♦			
	Vinyl Gaskets			♦		
	Foreign Materials		♦			
	Operation			♦		
	Caulking		♦			

Camp Inspection

Date:_____ Inspection By: _____

Location and Manual Reference	Inspect	Frequency				Condition/Recommendation
		Monthly	Bi-Annually	Annually	As Reqd.	
Interior (Cont.)						
Doors Section IV.C.2.d	General Condition	♦				
	Hardware		♦			
	Weather Stripping		♦			
	Closers		♦			
	Wood Doors		♦			
	Metal Doors				♦	
	Door Finish					
	Screen					
	Operation	♦				
			♦			
			♦			
Penetrations Section IV.B.2.k	Louvers		♦			
	Exhaust Fans		♦			
	Paint Condition		♦			
	Screens	♦				
		♦				
HVAC						
Indoor Air Handler and Air-Cooled Condensing Unit Section IV.E.1.b & c	Belt Tension		♦			
	Filters		♦			
	Drain Pans/Piping		♦			
	Clean Coils		♦			
	Fan Clearance		♦			
	Clean Drain Pan		♦			
	Check Freon Leaks					
	Electrical					
	Check System	♦				
	Check Amps		♦			
	Damper Linkage		♦			
	Lube Bearings		♦			

Date:_____ Inspection By: _____

Location and Manual Reference	Inspect	Frequency				Condition/Recommendation
		Monthly	Bi-Annually	Annually	As Reqd.	
HVAC (Cont.)						
Air Handling Units Section IV.E.1.c	Replace/Clean Filters	♦				
	Grease Lines		♦			
	Lube Bearings		♦			
	Tighten Setscrews		♦			
	Lube Motors		♦			
	Align Sheaves		♦			
	Belt Tension		♦			
	Belt Condition		♦			
	Coils		♦			
	Electrical			♦		
	Unit Housing			♦		
	Fan Wheel/Shaft			♦		
	Clean Drain Pan			♦		
	Damper Linkage			♦		
	Inlet Vane			♦		
	Filter Manometer			♦		
Gas Duct Furnace Section IV.E.2.c	Clean Burner			♦		
	Pilot Light			♦		
	Leaks		♦			
	Auto Gas Valve			♦		
	Blower			♦		
	Combustion Chamber			♦		
	Flue			♦		
Gas Unit Heater Section IV.E.2.d	Clearance			♦		
	Lube Bearings			♦		
	Pilot Light			♦		
	Clean Burner			♦		

Camp Inspection

Date:_____ Inspection By: _____

Location and Manual Reference	Inspect	Frequency				Condition/Recommendation
		Monthly	Bi-Annually	Annually	As Reqd.	
HVAC (Cont.)						
Gas Unit Heater Section IV.E.2.d (Cont.)	Pilot Light			♦		
	Clean Burner			♦		
	Piping for Leaks			♦		
	Auto Gas Valve			♦		
	Combustion Chamber			♦		
	Flue			♦		
Roof Exhaust Fans Section IV.E.3	Motor			♦		
	Fan Clearance			♦		
	Electrical			♦		
	Belt Condition			♦		
	Belt Tension					
Wall Exhaust Fans Section IV.E.3	Motor			♦		
	Fan Clearance			♦		
	Housing Support			♦		
	Electrical			♦		
	Belt Condition			♦		
	Belt Tension			♦		
	Louvers			♦		
	Flashing			♦		
Electrical						
Electrical Panels Section IV.F.1	Panel Cover		♦			
	Connectors		♦			
	Circuit Breakers				3 mos.	
	Clearance	♦				

Camp Inspection

Date:_____ Inspection By: _____

Location and Manual Reference	Inspect	Frequency				Condition/Recommendation
		Monthly	Bi-Annually	Annually	As Reqd.	
Electrical (Cont.)						
Lighting Section IV.F.2	Outdoor		♦			
	Indoor		♦			
	Fixture Guards		♦			
	Replace Bulbs				♦	
	Replace Ballasts				♦	
Motors Section IV.F.3	Exhaust Fan Motors		♦			
	Air Handling Motors		♦			
	Pump Motors		♦			
	Alignment		♦			
	Motor Mounts		♦			
	Belt Condition		♦			
	Belt Tension		♦			
Miscellaneous Section IV.F.4	Exit Lights				Weekly	
	Emergency Lights				Weekly	
	Blow Dryers				Weekly	
Plumbing						
Water Heaters Section IV. G.1	Drain and Flush		♦			
	Relief Valves		♦			
	Pipe Connections		♦			
	Flue		♦			
Plumbing Fixtures Section IV.G.2	Flush Valves		♦			
	Water Closet		♦			
	Toilet Seats		♦			

Camp Inspection

Date:_____ Inspection By: _____

Location and Manual Reference	Inspect	Frequency				Condition/Recommendation
		Monthly	Bi-Annually	Annually	As Reqd.	
Plumbing (Cont.)						
Plumbing Fixtures Section IV.G.2 (Cont.)	Chips/Cracks		♦			
	Wall Supports		♦			
	Water Stops		♦			
	Faucets		♦			
	P-traps		♦			
	Floor Drains		♦			
	Counter Sinks		♦			
	Drinking Fountains		♦			
	Hose Bibbs		♦			
	Shower Heads		♦			
	Hot Water Temp		♦			
Piping Section IV.G.3	Visible Piping		♦			
	Valves		♦			
	Insulation		♦			
	Pool Piping		♦			
	Gas Connections		♦			
Winterization Section IV.G.4	Drain Tanks			♦		
	Drain Piping			♦		
	Prepare Toilets			♦		
	Protect Hose Bibbs			♦		
	Drain Pool Equip.			♦		
Fire Protection						
Extinguishers Section IV.H.1	Quantity Required		♦			
	Charged				Weekly	
	Proper Supports		♦			

Camp Inspection

Date:_____ Inspection By: _____

Location and Manual Reference	Inspect	Frequency				Condition/Recommendation
		Monthly	Bi-Annually	Annually	As Reqd.	
Fire Protection (Cont.)						
Extinguishers Section IV.H.1 (Cont.)	Certified			♦		Certified Contractor
	Tank Inspected				♦	Certified Contractor
Pull Alarms Section IV.H.2	Check Operation	♦				
Exhaust Hood System Section IV.H.3	Inspect System	♦				
Smoke Detectors Section IV.H.4	Check Operation	♦				
Grounds Area						
Lawns and Landscaping Section VI.B	Mow Lawns				♦	
	Trim Walks				♦	
	Trim at Building				♦	
	Trim Shrubs	♦				
	Fertilize			♦		
	Aerate			♦		
	Re-seed/Re-plant				♦	
Parking Area Section VI.M	General Condition		♦			
	Remove Debris				♦	
	Pot Holes	♦				
	Drainage	♦				
	Re-Seal				3 years	
	Re-stripe				3 years	

Camp Inspection

Date:_____ Inspection By: _____

Location and Manual Reference	Inspect	Frequency				Condition/Recommendation
		Monthly	Bi-Annually	Annually	As Reqd.	
Grounds Area (Cont.)						
All-purpose Fields Section VI.D	Mow Lawns				♦	
	Fertilize			♦		
	Re-seed				♦	
	Remove Debris				♦	
	Fill Holes				♦	
	Aerate			♦		
Tennis and Racquetball Courts Section VI.C	Playing Surfaces		♦			
	Proper Drainage		♦			
	Sweep and Wash	♦				
	Nets and Stripes		♦			
	Lighting				Weekly	
Track Section VI.F	Remove Debris				♦	
	Track Surface	♦				
	Proper Drainage	♦				
Bleachers Section VI.G	Wood Seats	♦				
	Aluminum Seats		♦			
	Steel Framing		♦			
	Stability	♦				
Children's Play Equipment Section VI.H	Swings	♦				
	Wood Structures	♦				
	Ropes/Chains	♦				
	Painted Surfaces		♦			

Camp Inspection

Date:_____ Inspection By: _____

Location and Manual Reference	Inspect	Frequency				Condition/Recommendation
		Monthly	Bi-Annually	Annually	As Reqd.	
Miscellaneous						
Fencing Section VI.I	General Condition	♦				
	Wood Construction		♦			
	Set Nails				♦	
	Chain Link Fabric		♦			
	Post/Rails		♦			
	Gates		♦			
	Deterioration		♦			
Docks/Piers Section VI.J	Deck/Framing		♦			
	Flotation	♦				
	Supports/Piling		♦			
	Supports/Pier			♦		
Storage Tanks for Water, Gas, Oil, etc. Section VI.K	General Condition			♦		
	Paint Finish			♦		
	Support Structure			♦		
	Leaks		♦			
	Damage		♦			
	Bollards		♦			
Seawall Section VI.L	General Condition	♦				
	Deterioration		♦			
	Damage		♦			

V. Pool Maintenance

This chapter contains information regarding swimming pool filtration and chemistry. All YMCAs—whether a branch or an independent association—should have a certified swimming pool operator to manage the pool due to its designation as a public bathing place. The YMCA Pool Operator on Location (P.O.O.L.) course covers the essentials of filtration and disinfection, pool water chemistry, pool area maintenance and safety, safe handling of pool chemicals, and daily operations. The course is for individuals who are responsible for maintaining a swimming pool and for supervisors who need to understand water chemistry, disinfection systems, water testing, and safe pool operations. For information on registering for the course, which is offered at most YMCA Program Schools, contact YMCA of the USA Training Services at 800-872-9622 or trainingservices@ymca.net. The course manual is *YMCA Pool Operations Manual*.

A. Recirculation

In recirculated pools, many water problems may be remedied or avoided by proper use of basic pool equipment. Basic equipment includes:

- Pump for recirculating the water
- Lint strainer to trap hair and other large particles
- Filter for straining out tiny particles of suspended matter
- Chlorination equipment to destroy germs
- Chemical feeders to preserve the chemical balance of the water

In this last category, the chemicals used to achieve the proper balance depend upon whether the pool water is hard or soft, what undesirable matter it contains (iron, color, manganese, or just plain dirt), how much and what type of chlorine solution is applied, and other factors. The chemicals may be alum—to clarify the water and remove color; acid (muriatic, or hydrochloric acid)—to correct water that is too alkaline; or alkali (soda ash or caustic soda)—to correct water that is too acidic.

All pools need and should have recirculation. Recirculation keeps pool water turning over. Turnover rates must be appropriate to the pool usage and comply with local and state codes.

To check recirculation, watch for water movement at the inlets. If there is little or no recirculation, check the pump. If water goes dull, the cause could be in recirculation. Perhaps the lint catcher is full. A flow meter should be part of the recirculation system and will tell you how many gallons of water per minute are being pumped.

Recirculation has many advantages. It causes the water to become the vehicle which distributes treatment chemicals to all parts of the pool for complete protection. For instance, recirculation moves chlorine through all areas of the pool and filter to assure

destruction of germs and algae. It helps chlorine convert dissolved iron and manganese to solid forms that filter out or settle to be removed by vacuuming. Dissolved organic color is bleached out by chlorine. Another function of recirculation is that the pump forces pool water through the filter. This action strains out suspended dirt particles, leaving the water clean, clear, and sparkling.

B. Chlorination

1. Function

Chlorination is needed to keep pool water free from harmful organisms. Nuisance organisms (such as algae) can turn water green, often cause bad odors, and can make a pool bottom and sides slippery and unsightly overnight. Other organisms cause skin ailments. Chlorination destroys these organisms.

Slime on pool sides and bottom, or greenish water, indicate that chlorine—or increased chlorine dosage—is needed. Bacteria and other harmful organisms present in water to some degree, cannot be seen. But they can be traced. Any infection or sickness of suspicious origin, particularly skin, eye, ear, nose, throat, or intestinal disorders should put the operator on guard. It is difficult to pinpoint the source of contagious disorders. But with adequate chlorine dosage, the pool water will be safe.

Chlorine is most effective when used with recirculation. Recirculation provides the means for thorough and continuous treatment. Foreign matter that is too fine to be removed by the filters is bleached and made harmless by chlorine. Also, chlorine destroys germs and algae quickly, effectively, and at less cost than other types of treatment.

Chlorine's disinfecting action is extremely powerful. It is so powerful, in fact, that it takes only one-thousandth of an ounce of residual chlorine in 1 gallon of pool water to give adequate protection. Because it is so powerful, chlorine must be controlled precisely—without guesswork—when it is applied to water. Under-chlorination will rob a pool of the proper protection, while over-chlorination is wasteful and can build up Total Dissolved Solids (TDS) rapidly. The installation of an automatic pool controller for the management of chlorine and pH is a "best practice" in the management of our pools that can save dollars and keep the pool safe and attractive.

Best practices indicate that use of liquid chlorine is much safer than use of gas chlorine. If your association is using gas chlorine, you should switch to liquid chlorine.

2. Performance

When chlorine is applied to water, part of it is immediately used in the destruction of bacteria and other organic material (algae, dust, etc.). More is used if it reacts with ammonia and other chemicals normally present in the water. The amount left over, with no "work" to do, is called "residual chlorine" or just "residual."

The residual or "left over" chlorine is of utmost importance for two reasons. First, it acts as a safeguard: should the wind, swimmers, or make-up water carry undesirable

matter into the pool, this residual is there to take care of it. Protection is always assured. Second, residual chlorine is the best "yardstick" by which to measure water safety. If pool water shows a residual, then the work of disinfection has been done. A low residual, however, cannot cope with large amounts of harmful or undesirable matter. Thus, for adequate protection, more than a trace of residual should be carried at all times.

Very small amounts of chlorine—8.3 pounds in 1 million gallons—do the big job of protecting water adequately. (One million gallons is about one acre of water, three feet deep.) The amount is so small that it is measured as parts of chlorine in parts of water. The measure for it is written as "ppm," meaning parts per million. For instance, a residual of 2 parts per million means two parts of available chlorine are present in 1 million parts of water.

There are two kinds of residual:

- Free Available Chlorine Residual—or free residual—is the form of chlorine that is chemically "free" to kill bacteria quickly, to bleach organic matter, and to kill or prevent the growth of algae. Free residuals in water act fast. They kill bacteria in three minutes or less. This is very important in pool disinfection, as bacteria are continually being added to the water by bathers.

- Combined Available Chlorine Residual—sometimes called "combined residual" or "chloramines"—is a form of chlorine chemically combined with the ammonia in the water. Combined residuals, because they are combined with ammonia, are slower acting than free residuals. They require a longer contact time—up to 90 minutes—to destroy bacteria.

Each type of residual has certain advantages. But free residuals are preferred for pools because they destroy bacteria in three minutes or less. They kill existing algae and prevent its re-growth from spores.

Free residuals of 1.5–2 parts per million will give excellent protection and clarity for normal pool operation. However, in strong sunlight or during heavy swimming loads, free residuals as high as 5 ppm may be necessary.

Combined residuals—or chloramines—are as powerful as free residuals in their germ-killing action, but, as mentioned, they are much slower. The killing time for combined residuals is about 30 times longer under comparable conditions. For pools, this long contact time could mean a dangerous delay in effective sterilization.

YMCA pools should have a free residual of at least 1.5–2.0 ppm.

C. Treatment

It is not difficult to produce either a combined or a free residual. The key lies in the amount of chlorine added to, and the amount of ammonia already in, the water.

Ammonia is naturally present in most waters. More is carried into the water by swimmers through perspiration and from urine. When a limited amount of chlorine is applied to

pool water, some of it is used up in the destruction of germs, algae, and color-causing compounds. Some of it combines with ammonia; the chlorine-ammonia combination gives a combined residual.

When the amount of chlorine is increased, some of it destroys germs, etc., but some of it destroys all of the ammonia present, and the remainder exists as free residual. A chlorine residual test should be made hourly. At all times while the pool is in operation, the water should have a minimum free available chlorine residual at any point in the pool of not less than 1.5 ppm.

A hint for the operator: If the air above the pool water smells of chlorine, there is not enough chlorine in the water. Increase the chlorine dosage. Here's why: the chlorine in the water is combining with ammonia and forming chloramines. Chloramines are very volatile—easily given off into the air. Add more chlorine, and the ammonia is burned off; and the strong-smelling chloramines cannot form. Chloramines may also cause eye irritation.

1. Filtration

Definition: The physical treatment of pool water which includes the removal of dirt, organic materials, and any other particulate matter found in the water.

a. Filter Operation

Filtration is needed to keep the pool water clear and clean. Filters strain the visible, suspended dirt out of the water. They also trap bacteria and strain out algae that chlorine has killed. The appearance of the water tells the story. Cloudy, muddy, or just plain dirty water requires filtration. Cases of pool water tinted with color can be cleared up by filtration supplemented by chlorination. Chlorine bleaches the minute color particles missed by filtration.

The recirculation pump draws water from the pool, forces it through the filter bed, and returns it to the pool. As the water passes through the filter bed, suspended dirt and other foreign matter is strained out. Water is returned to the pool clear and sparkling. Operation of the filter 24 hours a day is the only way to obtain proper filtration.

Properly filtered water should sparkle. For color, it should have a blue or blue-green cast or shade. The clarity of the pool water can be tested by throwing in a dime at the 7- or 8-foot depth. If you can read heads or tails clearly, the filter—aided by adequate chlorination—is doing a good job.

There are several types of filtration systems. All use some type of filter media—sand and gravel, or diatomaceous earth. All types are acceptable for removing dirt and impurities, although some are more efficient than others.

(1) Pressure Sand Filters

Pressure sand filters are enclosed in steel or fiberglass tanks and operate under pressure from the recirculation pump. Pressure filters have under-drain grids at the bottom. On top of the under-drain are layers of gravel of

decreasing particle size, bottom to top, from 1-½ inches to 1/8 inch. Above this is a thick layer (18 inches or more) of sand or other filter media. Water enters the space in the enclosed tank above the filter media and is forced downward through the filter bed and under-drain, back to the pool. Multiple filter tanks linked together should be avoided unless designed by an engineer.

b. Filter Maintenance and Treatment

Other than cleaning, filters need only routine checks of pressure gauges, valves, pumps, and piping to keep them operating efficiently.

(1) Backwashing

Filters are cleaned by backwashing. This means forcing pool water through the filter media and backwards—in the opposite direction to normal filter flow—and discharging it to waste.

In backwashing sand filters, water enters the bottom of the filter at an engineered rate. Opening and closing of valves provides for this reversing of flow through the filter. The filter gauge reading will indicate when backwashing is necessary.

2. Acidity and Alkalinity

a. pH Balance

For swimmers' safety and comfort, for water appearance and purity, and for preservation of walls and fixtures, it is important to keep the pool water slightly on the alkaline side of neutrality on the pH scale.

This is the condition where the water has no undesirable effects on the swimmers or the pool structure; and where it contains the right quantities of the proper ingredients to react with the chemicals that are necessary to purify and balance the water.

Simply put, pH is the numerical expression of the water's acid-alkaline balance. It is recorded as a series of numbers running from 1 to 14. Water with a pH reading of 7.0 is neutral. Readings greater than 7.0 denote an alkaline condition; readings less than 7.0 denote an acidic condition. The pH condition of pool water should be maintained at between 7.2 and 7.8—that is, slightly alkaline. The ideal level is 7.5.

This pH range of 7.2 to 7.8 should be carefully maintained. When the pH is at 7.2, the chlorine will be more active. At those high levels, chlorine irritates the skin and eyes. If a high chlorine condition exists, the pH should be closer to 7.8 to make the chlorine less active, and thus reduce skin and eye irritation.

b. Total Alkalinity

Total alkalinity is a measure of the pH buffering capacity, or the water's resistance to a change in pH. This ability to resist change in pH is due

primarily to the presence of the family of carbonate ions. It is necessary for the pool operator to control both the carbonate alkalinity and the pH to provide enough calcium carbonate to saturate the water without having so much that scale forms. If the total alkalinity of the pool water is not maintained at the proper level, metal parts in the system will prematurely deteriorate. The correct level for total alkalinity is 100 ppm and can be measured with a total alkalinity test kit. Introduction of muriatic acid for the control of pH lowers the total alkalinity level. The level of total alkalinity can be adjusted by the use of sodium bicarbonate.

c. Calcium Hardness

Calcium hardness is the measure of calcium carbonate in the water—or the "hardness" of the water. Like pH and total alkalinity, calcium hardness affects the tendency of water to be corrosive or scale-forming. If the calcium hardness level is not maintained properly, the pool finish may be affected. The correct level for calcium hardness is 200 ppm and can be measured with a calcium hardness test kit. Calcium chloride levels can be increased with the introduction of hydrated calcium chloride, a readily available form of calcium salt.

d. Total Dissolved Solids (TDS)

Total Dissolved Solids is the measurement of all materials dissolved in the water—i.e., calcium, carbonates, dissolved organic and inorganic materials, salts from chlorine residue, swimmer waste, soluble hair and body lotion, or anything placed in the pool that can be dissolved.

High TDS at 1,500 ppm above water supply level can reduce chlorine efficiency by as much as 50%. Water with high levels of TDS tastes salty, feels oily, and appears dull. High TDS is common with spas and with high bather loads.

A pool should be dumped, cleaned, and refilled when a TDS reading exceeds 1,500 ppm above the domestic water supply reading.

e. Water Saturation Summary

Properly balanced or saturated water prevents damage to the pool tank and equipment. Unsaturated water corrodes plaster walls, fixtures, plumbing, etc., and causes staining. Over-saturated water will deposit scale or become cloudy.

- The pool operator needs to test and control pH, total alkalinity, and hardness in order to maintain properly balanced water.
- Proper pH control (7.2–7.8) ensures the proper form of carbonate alkalinity for saturation.
- Soda ash is used to raise pH. Acids are used to reduce both pH and total alkalinity, depending on how they are applied.
- Sodium bicarbonate is used to raise total alkalinity.

- Material Safety Data Sheets (MSDS) should be posted in the filter room for the chemicals used in the area, as well as maintained in a manual at the front desk for availability to all staff.
- Total alkalinity of 80–120 ppm is preferred for proper calcium carbonate saturation. Total alkalinity is raised by the introduction of sodium bicarbonate and reduced with the introduction of acid.
- Calcium hardness of 200 ppm is preferred for proper calcium carbonate saturation and for avoiding soft water scale found in spas and hot tubs.
- Calcium chloride is used to raise calcium hardness. The best way to lower calcium hardness is to drain off some of the pool water and refill with fresh water.
- When TDS in a pool exceeds 1,500 ppm above the supply water, the pool should be dumped, cleaned, and refilled.

D. General Pool Information

1. Swimming pool operators should attend a pool operator course in order to become certified as a pool operator.
2. Pool water temperature should meet the YMCA of the USA Medical Advisory Committee's recommendations for various activities.
3. Pool air temperature should be two degrees above the water temperature.
4. Humidity should be 50 to 60 percent.
5. A chlorine test should be performed hourly.
6. Pool chlorine free residual level should not be less than 1.5 ppm.
7. The pH balance should be checked hourly for an ideal reading of 7.5.
8. Operations reports—consisting of a written record of all operations influencing sanitary condition of the pool—should be maintained daily in duplicate, in accordance with the regulations of the County or State Health Department.
9. Filter turnover should be of sufficient capacity to completely filter the entire pool contents in not more than eight (8) hours. Six (6) hours is preferred.
10. Outdoor pools should be vacuumed daily. Indoor pools should be vacuumed at least twice weekly.
11. Backwash is required based on filter manufacturer's recommendations.
12. Hair and lint trap should be cleaned daily.
13. Cleaning of pool surfaces should be performed annually. This will involve dumping the pool, inspecting the tank for damage, and cleaning the tank surface. This work can be performed by in-house staff or a professional pool contractor with appropriate insurance.
14. The chlorine storage room should be checked every six months to assure that the room is properly ventilated. Louvers and dampers should be checked and lubricated as required for proper operation. The exhaust fan should be capable of producing at least one air change per minute, and must exhaust directly to the atmosphere by airtight ducting from the bottom of the enclosure.
15. Liquid chlorine and acid containers should be separated by at least 10 feet with a physical barrier in between. The chemical areas should be properly labeled based on the chemical being stored. Properly trained staff should be present at the time of chemical deliveries.

16. Liquid chlorine and acid should ***never*** be mixed. Chemical storage containers and areas should be clearly labeled and separated by at least 10 feet, preferably with a barrier in between.
17. Pool resurfacing should be performed by a pool contracting company insured and experienced in refinishing pool surfaces. Pool construction varies throughout the country. Pool surfaces should be finished as required to maintain integrity of surface, and when appearance requires it. Gunite pools, if maintained properly, can last for numerous seasons without resurfacing. Painted pool surfaces should be inspected annually for condition or finish. Some pools may require painting at the start of every season. Tile pools should be checked annually for loose tile, cracks, and grout condition.
18. Inspect coping every six months for deterioration and loose units. Replace damaged units promptly to stop further deterioration.
19. Proper training at the time of hire, and periodically thereafter, should be provided as it relates to pool operation certification, hazard communication, lockout/tag out, and confined spaces.

VI. Grounds Maintenance

Maintenance of the grounds is a very important aspect of the overall maintenance program. Maintaining neat, clean, well-groomed grounds will make a strong impression on potential members as well as provide a positive influence in the community. Safety is always most important. The YMCA always considers providing safe areas for the membership a top priority.

A. General Maintenance

General grounds maintenance items to be accomplished include:

1. Inspect grounds and remove all litter and debris as often as necessary to maintain a neat appearance.
2. Sweep walks, entrance ways, patios, etc., free of dirt, grass clippings, leaves, etc. Also maintain walks free of water accumulation, ice, snow, etc.
3. Inspect all exterior lighting weekly and replace as required. This includes parking lot lighting; walkway lighting; building entrance, emergency, and exit lighting. Also, recreational areas such as all-purpose fields, tennis courts, and racquetball courts should be inspected.
4. Inspect all fencing and keep fencing free of weeds, vines, poison ivy, etc., and repair fencing as required.

B. Lawns and Landscaping

1. Mow and rake lawns as often as necessary to maintain a neat appearance.
2. Trim and clip grass around walks, trees, and buildings.
3. Trim and clip shrubbery as often as necessary to maintain a neat appearance and to prevent shrubbery from overhanging walks and entrance ways. Also, to maintain building security, keep tree branches from overhanging building roofs.
4. Water and fertilize lawns and shrubbery as often as necessary to maintain healthy growth. Lawns should also be aerated annually.
5. Re-seed or put down new sod in worn or thin areas of grass as required.

C. Sport Courts

1. Sweep courts used for tennis, basketball, and racquetball daily during season.
2. Empty trash receptacles at least daily.
3. Visually inspect ball court surfaces weekly for cracks or other surface problems. Patch or resurface as required.

D. Ball Fields

1. Inspect weekly for depressions, rocks, etc.
2. Mow lawns as required.
3. Maintain base paths and pitching mound as required.
4. Re-line base paths and fields as required.
5. Properly secure soccer goals, etc., in order to prevent tipping.

E. Pavilions

1. Inspect framing and decking for deterioration and cracking. Repair as necessary.
2. Re-set any nails that have pulled out of wood to prevent injury.
3. Check framing connections for tight joints and suitable fasteners.
4. Inspect lighting as required.
5. Maintain fire extinguisher as necessary.

F. Track

1. Keep outdoor track clean and free of all litter or debris.
2. Maintain grade around track to allow surface water to drain away from track where possible.
3. Visually inspect track surfaces weekly for cracks or other problems. Patch or resurface as required.

G. Bleachers

1. Inspect bleachers for deteriorated wood or loose connections. Replace damaged wood as required.
2. Check framing for general condition, including rust and deterioration.
3. Check stability of entire framed structure. Install bracing or supports, if necessary, to maintain safe condition.
4. Develop a plan to replace worn wooden bleachers with aluminum equipment.

H. Children's Play Equipment

1. Check chains, seats, and bolted connections on swings. Repair as required.
2. Check wooden play structures for deteriorated wood, splitting or splinters, stability, and loose connectors.
3. Check ropes, chains, cables, etc., for good condition.
4. Check painted surfaces for chipping, rust, and deterioration. Repaint as required. Use of pressure-treated wood should be avoided.
5. Develop a plan to replace old wooden structures with up-to-date commercial playground equipment.

I. Fencing

1. Inspect fencing for broken rails, missing or damaged chain link fabric, rust, rigid posts, and missing parts. Repair or replace as required.
2. Check gates for proper operation, and repair as required.
3. Check wooden fencing for properly nailed connections. Re-set protruding nail heads to prevent injuries.
4. Check to see if fencing is plumb and sufficient to meet the intended function.

J. Docks or Piers

1. Inspect framing and decking for deterioration and cracking. Replace or repair as required.
2. Re-set any nails that have pulled out of wood , to prevent injury.
3. Check framing connections for tight joints and suitable fasteners.
4. Visually inspect flotation units for damage caused by rodents and storms.
5. Check to see that docks are adequately supported by stable pilings.
6. Inspect condition of fender material around perimeter, and replace or repair as required.

K. Storage Tanks

1. Check paint finish for rust, blisters, peeling, or fading. Scrape, prime, and paint as required in order to eliminate rusting.
2. Inspect support structure for deterioration, cracks, loose connections, etc. Repair as required.
3. Check for signs of leaking, and parts which may have been damaged by weather conditions or acts of vandalism.

L. Seawalls

1. Check general condition of walls for deterioration, leaning, and neat appearance. Repair damage as required.
2. Maintain proper backfilling to avoid holes in ground.
3. Check the weep holes for proper drainage of water behind wall.

M. Parking Lots and Walkways

1. Keep parking lots and walkways clean and free of all litter or debris.
2. Maintain grade around parking lots and walkways to allow surface water to drain away where possible.
3. Maintain all drainage inlets free of debris.
4. Visually inspect surfaces for cracks, unevenness, or other problems. Patch, replace, or resurface as required.
5. Re-seal all macadam surfaces every three years.
6. Re-stripe parking lots every three years.

VII. Fitness Equipment

Fitness equipment makes up an important part of a YMCA facility and should be maintained properly. The equipment ranges from simple items like basketballs to more sophisticated equipment such as a whirlpool. It is essential that each item be maintained properly to maximize its useful life and minimize operating costs.

Program directors, as stated earlier, should be responsible for maintaining equipment used in their respective programs. Their staff should clean and pick up equipment daily to keep areas clear for the custodial crew. Program directors should report all damaged or broken equipment to the branch executive director for repairs or replacement.

General guidelines for maintaining specific equipment are given in the paragraphs below.

A. Saunas

1. Clean and disinfect daily.
2. Remove duck boards to mop and disinfect floor.
3. Check to see that heater is working. Turn unit on each morning and off at night before closing. Clean heater cabinet and check heating element for debris when cool.
4. Check function of door for proper operation and closure. Door should not be obstructed in any way and must not have locks.
5. Inspect wood paneling and seats for splintered or damaged boards.
6. Maintain proper lighting at all times.

B. Whirlpools

1. All swimming pool and whirlpool operators should attend the YMCA P.O.O.L. (Pool Operator On Location) course in order to be certified in spa operation.
2. Vacuum daily to remove dirt and debris.
3. Water shall turnover every 15 minutes.
4. Check pH and chlorine daily. Check total alkalinity and calcium hardness once a week, and maintain at appropriate levels.
5. Water temperature shall be maintained between 102 and 104 degrees F. Check local and state regulations.
6. Periodically drain and refill whirlpool, depending on use.

7. When backwashing filter, check pump, motor, and valves for leaks and bearing noise.

C. Steam Bath

1. Disinfect and clean walls, floors, and ceilings daily.
2. Check steam generator for proper operation. Properly maintain steam generator according to manufacturer's recommendations.
3. Inspect door for proper operation and deterioration. Door should not be obstructed in any way and must not have locks.
4. Check fixtures and accessories for operation and damage.
5. Clean window and frames where applicable.
6. Inspect walls, floors, and ceilings for broken, loose, or missing tile.
7. Inspect grout joints and repair as required. Remove mildew where present.

D. Exercise Equipment

1. Check all exercise equipment daily for proper operation. Report all damage or equipment failure to branch executive director or his/her designee for repair or replacement.
2. Check manufacturer's operation manual for recommended maintenance of strength machines, cross trainers, treadmills, exercise bikes, rowers, etc. Lubricate and keep clean chains, gears, and other moving parts as required on a regular basis.
3. Clean all equipment daily with cleaner and soft cloth to remove handprints, oil, perspiration, etc.
4. Return all weights, mats, benches, etc., to their proper location at the end of day. Keep weight discs, bars, etc., off of floor surfaces to eliminate tripping hazards.

E. Sports Equipment

1. Inspect sports equipment for damage, defects, and proper inflation.
2. Clean equipment to remove dirt, oil, perspiration, etc., and place in proper storage area for the next day's use.
3. Inspect basketball, volleyball, and tennis court nets weekly for tears, deterioration, and proper adjustment.
4. Replace worn or damaged equipment as required.

VIII. Building Emergency Procedures

Regardless of how well-maintained, clean, and safe a facility may be, emergencies will occasionally arise. Procedures should be developed and organized to meet whatever emergency situations may occur.

Emergency procedures may vary from facility to facility. Therefore, procedures should be developed for each specific branch, and certain guidelines should be utilized in developing these procedures. This section covers some general guidelines for responding to particular emergencies.

A. General Guidelines

1. Report all emergencies to the branch executive director, or his/her representative, immediately.

2. The branch executive director, or his/her representative, should have available the telephone numbers of organizations whose assistance may be required during an emergency.

   Fire Department _____
   Rescue Service _____
   Police Department _____
   Power Company _____
   Gas Company _____
   Water Company _____
   Glass Company _____
   Electrical Service _____
   Plumbing Service _____
   Alarm Company _____
   Disaster Recovery Firm _____
   Insurance Broker/Company _____

3. Safety of employees and members should always be considered the first priority. Always try to determine the seriousness of the situation and then take appropriate

action. DO NOT try to remedy a problem if your life or the lives of other employees or members may be endangered.

4. Do not hesitate to request assistance from the proper authorities (police, fire, rescue service, etc.) during an emergency. For example: if a gas leak has been detected, or if there has been some electrical damage, and the potential for a fire exists, the fire department and appropriate repair service should be called.

B. Broken Glass (Interior/Exterior)

1. Carefully remove all broken glass and pick up all fragments from interior floor and exterior of building, including on the ground. Clean floor immediately to make sure all fragments have been removed.
2. Call glass installer to make arrangements for installation of replacement glass.
3. Provide protective covering or barrier over opening until replacement glass is installed.

C. Ruptured or Leaking Water Pipes (Interior/Exterior)

1. If the water pipe is ruptured, shut off water supply immediately. If a minor leak is detected, it may not be necessary to shut off the water supply. Call plumbing service for plumbing repair.
2. If damage to ceiling, walls, or floors has occurred, take appropriate action for repairs including contacting insurance company.
3. Barricade damaged area until repairs and clean up are completed.

D. Ruptured or Leaking Gas Lines

1. If a gas leak exists, or a potential exists for a gas leak, use good judgment in determining the seriousness of the leak. If a gas line is ruptured or a major leak is detected, the premises should be vacated immediately, using organized evacuation procedures.
2. Shut off the gas supply.
3. If the gas leak is considered minor, evacuation may not be necessary. However, make sure the area is well ventilated to exhaust all gas fumes.
4. Call the gas company for repairs.
5. Gas leak detection equipment may be a part of your facility alarm system.

E. Roof Damage

1. Inspect the roof to determine the seriousness of the damage.
2. If damage is major, or is such that the roof is leaking, take appropriate action to prevent further damage to interior spaces, such as ceiling, carpeting, furniture, files, etc. If possible, remove all items subject to damage. If it is impossible to remove some items, provide protective covering to prevent further damage.
3. Call roofing contractor to make needed repairs.
4. Barricade area as required until repairs have been completed.

F. Structural Damage

1. Inspect structure to determine the seriousness of the damage.
2. If damage is such that the structural system could fail, evacuate the area immediately.
3. Call structural engineer for proper design criteria, and call building contractor for repair.
4. Barricade area as required until repairs have been completed.

G. Electrical Damage

1. Upon detection of electrical damage, turn off all electrical power to the area. DO NOT assume power has been turned off.
2. Inspect electrical system as to the seriousness and nature of damage.
3. Call electrical repair service to make needed repairs.
4. Barricade the area until repairs have been completed. Do not restore electrical power to area until all repairs have been completed.
5. If power lines are down, call the power company immediately, and stay away from the downed power lines.

H. Miscellaneous

If the power or water is expected to be off for a prolonged length of time (four hours or more), it is recommended that the facility be closed to the public until power or water service is restored. It is also recommended that a Disaster Recovery program be developed with a firm that specializes in dealing with fire, flood, etc.