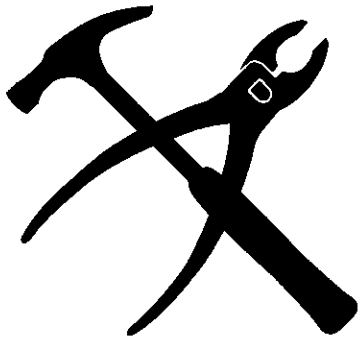
Department of Housing and Urban Development
Office of Public and Indian Housing

HUD MAINTENANCE GUIDEBOOKS

GUIDEBOOK 1

MAINTENANCE PROGRAM



September 1995

HUD MAINTENANCE GUIDEBOOKS

GUIDEBOOK ONE

MAINTENANCE PROGRAM

Department of Housing and Urban Development
Office of Public and Indian Housing

September 1995

Special Attention of:

Public Housing Agencies; Indian Housing Authorities; Resident Management Corporations; Field Office Public Housing Directors; Administrators, Offices of Native American Programs; Division Directors, Regional Contracting Divisions

Notice PIH 95-66 (HA)

Issued: October 26, 1995
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Cross References:

Subject: Public Housing Maintenance Guidebooks

1. Purpose. The purpose of this Notice is to inform public housing agencies and Indian housing authorities (HAs) of the availability of guidebooks covering seven areas of maintenance.

2. Background. The Department of Housing and Urban Development (HUD) maintained a series of technical guidebooks that were last updated in the 1970s. In an effort to assist HAs in improving their maintenance operations, HUD has updated seven of the sixteen guidebooks and is making them available for **optional use** by HAs. The seven guidebooks include the following titles:

Guidebook One:	Maintenance Program
Guidebook Two:	Inspection Program
Guidebook Three:	Pavement Maintenance
Guidebook Four:	Landscape and General Grounds Maintenance
Guidebook Five:	Roof and Waterproofing Maintenance
Guidebook Six:	Painting Maintenance
Guidebook Seven:	Termite, Insect and Rodent Control

3. Availability of New Guidebooks

These guidebooks are being printed and distributed to each HA, HUD Field Office and Resident Management Corporation. The guidebooks are also available from HUD User. To order, write or telephone HUD User at P.O. Box 6091, Rockville, MD 20850, telephone 1-800-245-2691.

PH : Distribution: W-3-1, W-2(H), R-3-1(PIH), R-6, R-7, R-9, 138-2, 138-7, RMC-2

4. Use of the Guidebooks.

These guidebooks are provided for optional use by HAs. HAs are cautioned to carefully review the Guidebooks and ensure that they meet the HA's particular needs. As is the case with all information in guidebooks, it is the HA's responsibility to assure that the recommendations are technically suitable for use and that they comply with any applicable Federal, State or local codes and requirements.

5. Periodic Update and Additional Guidebooks

The Guidebooks covered in this Notice underwent extensive updating. As a result, the Department does not anticipate another update for a number of years.

The Department is interested in hearing from HAs regarding additional topics which would be useful and appropriate for inclusion in this Guidebook series. Recommendations should be sent to the following address:

Acting Director, Administration and Maintenance
Division, Office of Public and Assisted Housing
Operations
Room 4214
451 7th Street, S.W.
Washington, DC 20410-5000

Kevin Emanuel Marchman
Deputy Assistant Secretary
for Distressed and Troubled
Housing Recovery

HUD Maintenance Guidebooks Guidebook One
Maintenance Program

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END OF DISCLAIMER

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CHAPTER ONE - PURPOSE OF THE GUIDEBOOK

SECTION A COMPREHENSIVE MAINTENANCE PROGRAM

Public Housing Agencies and Indian Housing Authorities (jointly referred to as HAs) should develop and implement comprehensive maintenance programs in order to maintain their developments in good operable condition. An effective program requires a well-defined maintenance policy, an appropriate organizational structure, short- and long-term planning, and effective management. The development and implementation of an effective maintenance program will result in housing which provides a decent and comfortable living environment for residents and minimizes the cost to the HA for both short and long terms. In addition, such a program will be in compliance with applicable HUD regulations, guidelines, and the Public Housing Management Assessment Program (PHMAP)—24 CFR 901 and HUD Handbook 7460.5.

SECTION B INTENDED AUDIENCE FOR THE GUIDEBOOK

This guidebook is intended to be used by HAs having fewer than 250 dwellings. The details incorporated here, however, may also be applicable to and usable for medium to large HAs, since the principles involved are universal. Use of this guidebook is optional. HAs are encouraged to modify the procedures and guidelines in this guidebook to meet their individual needs.

SECTION C IMPORTANCE OF THE PROGRAM

The importance of a comprehensive maintenance program cannot be overemphasized. The HA should operate within the parameters of its operating budget, which can be ensured by a successful maintenance operation. Additionally, such a maintenance operation will improve resident relationships and foster their cooperation. Well-maintained properties also enhance relations with adjacent property owners and with the community at large.

In addition, the maintenance program plays a significant role in determining the HA's PHMAP scores. HAs should maintain passing scores on each PHMAP indicator. Failure on any indicator requires the development and implementation of an "Improvement Plan." The maintenance program has a direct impact on at least four PHMAP indicators: #4—Energy Consumption, #5—Unit Turnaround, #6—Outstanding Work Orders, and #7—Annual Inspections. HUD Handbook 7460.5 provides guidance and instructions regarding these indicators.

SECTION D MANAGEMENT OVERSIGHT AND REVIEW

Effective management of HAs in general, and of maintenance programs in particular, requires that HA Executive Directors participate in, oversee, and review the maintenance program. Management should work closely with the Maintenance Supervisor or Foreman (titles will vary from HA to HA, depending on size and organizational structure) in developing an annual maintenance plan. They should also ensure that the plan is in keeping with, and supports, the overall strategy for the operation of the authority. Within the limitations of the operating budget, HA management should provide adequate funding to implement the maintenance plan.

Once the maintenance plan is in place, HA management should review the progress of the plan on a regular basis. At least monthly, the work accomplished, service levels attained, expenditures to date, work still to be done (regular and preventive), and any changes, emergencies, or extraordinary work items that have arisen since the last assessment should be reviewed. Any discrepancies between the plan and the month's activities should be corrected immediately. Unforeseen or emergency events may require new or altered plans.

END OF CHAPTER ONE

MAINTENANCE GUIDEBOOK I - MAINTENANCE PROGRAM
CHAPTER TWO - ANNUAL PLAN

SECTION A COMPONENTS OF THE PLAN

When HAs can anticipate their work requirements, materials, equipment, and staffing needs, they should address them in a planned and cost-effective manner. Preparing an annual plan is vital to the effective management of a comprehensive maintenance program. The annual plan should establish the work items, a schedule for completing them, and the resources needed to complete them on a timely basis. (See Sample Maintenance Plan in Appendix A.)

The first step in developing an annual plan is to determine the overall scope of work for the fiscal year. Realistic goals should be established for the HA as a whole, including each development, site, building, and all supporting facilities. A schedule for attaining these goals should be developed and prioritized, based on HUD requirements and HA policies. In developing a schedule, there are at least three important factors to consider. First, in addition to the planned preventive and seasonal maintenance, there are unforeseen maintenance functions, such as maintenance requests by residents and emergency items, which can only be estimated on the basis of past history. The schedule should be flexible enough to accommodate unplanned demands. Second, the schedule should include all items that affect the PHMAP indicators and scores—emergencies handled within 24 hours, vacancy turnaround in 20 days, and work orders from annual inspections completed within 25 days. Third, the schedule should consider the available and planned resources to accomplish the plan. Once goals and schedules are established, a sound budget should be prepared to support them.

The annual plan should include, but not be limited to, the following components:

- Routine and Seasonal Work,
- Annual Inspections,
- Vacant Units,
- Preventive Maintenance (PM),
- Emergencies,
- Extraordinary Repairs,
- Service Contracts,
- Staff,
- Materials, Supplies, and Equipment,
- Budget.

SECTION B ROUTINE AND SEASONAL WORK

In-house staff should be designated to perform all routine and daily-recurring maintenance tasks. These would include routine work requests (work orders initiated by residents), emergencies, and vacancy prep. Most, if not all, of this work would be requested, prioritized, scheduled, and performed through the work-order system (see Chapter Seven). After allowances are made for routine work requirements, seasonal work can be scheduled as required. For example, grass mowing can be planned for between April and September (adjusted for local climates), and space heaters and furnaces can be scheduled for service in late spring and for lighting in the fall. If these, or similar work requirements, exceed available resources, seasonal help or service contracts can be used to complete them in a timely manner.

SECTION C ANNUAL INSPECTIONS

Given the requirements for routine and seasonal work, the next item to be scheduled should be annual unit and systems inspections. These inspections are important for maintenance purposes which are mandated by HUD and evaluated by PHMAP indicator #7. The inspections should be made annually and performed at a level at least equal to Housing Quality Standards (HQS), a basic habitability standard. However, HAs are encouraged to maintain inspection standards above the basic level. Problems identified during the inspection process must be corrected within 25 days for an "A" rating for PHMAP indicator #7. Inspections should be scheduled for the first ten months of the year to allow time for corrective and follow-up work.

SECTION D VACANT UNITS

The annual plan should include provisions for aggressively turning vacancies into habitable units that meet the standards of the HA and HUD (See Chapter Six, Section C). Vacant units result in reduced housing resources to meet community needs and in reduced income for the HA. In addition, they invite vandalism and other security breaches, creating the possibility of additional costs for the HA. Finally, vacant units represent an unpleasant and unsafe environment for residents of nearby units.

For planning purposes the HA should review the previous year's move-out records, because those records will enable them to estimate the vacancies likely to occur during the coming year. In addition, where appropriate, transfers should be included in the estimate to adequately reflect the total estimated work load.

SECTION E PREVENTIVE MAINTENANCE

Preventive maintenance (PM) is a planned program to ensure proper functioning and extend the lifetime of basic facilities and equipment, and to avoid or minimize extensive and costly repairs (see Chapter Five).

The PM should be scheduled in the annual plan, based on manufacturers' recommendations, historical information, and seasonal considerations. Planned maintenance is always more effective and productive than unplanned activities. Advantages, beyond those previously mentioned, include increased resident satisfaction, fewer complaints, and increased maintenance staff productivity, since the PM lessens the frequency of regular maintenance work and extraordinary repairs.

A complete PM cycle should be scheduled for each development before the beginning of every fiscal year, ensuring that appropriate attention will be given to all affected facilities and equipment. PM will also allow repairs to be made as needed, and problems to be identified and corrected in a timely manner. It should be scheduled over no more than ten months of the year to allow sufficient time for other maintenance work, and should be scheduled for completion on a timely basis. For example, boiler and furnace work should be completed before the beginning of the heating season, and roof work before the rainy season. Other PM work can be accomplished as time becomes available between seasonal and emergency work.

SECTION F EMERGENCIES

The annual plan should contain provisions for handling emergency situations. Response to emergencies is the highest priority of all maintenance-related work items. Emergencies will meet one or both of the following conditions: residents and/or staff are faced with a health or life-threatening situation, or there is a condition which might result in serious structural or systems damage if not corrected within a 24-hour period. Some examples would include:

- Gas leaks;
- Exposed electrical wires;
- Broken water lines;
- Clogged sewage lines;
- Major roof leaks;
- Broken entrance door;
- Natural disasters.

Emergencies will fall into one of two categories—those happening during the regular workday or those that occur after hours or on weekends.

1. EMERGENCIES DURING THE REGULAR WORKDAY

For emergencies occurring during the regular workday, the following procedure should apply:

- The emergency is identified and the maintenance office is notified.
- A work order with an emergency classification is generated and assigned to a mechanic, or a contractor's service is solicited.

- The emergency is corrected immediately.
- The completed work is inspected and appropriate action taken to prevent future similar occurrences.

2. AFTER-HOURS EMERGENCIES

While the same basic procedure will apply for emergencies that occur after hours or on weekends, some additional steps need to be taken. The HA should implement a system for notifying the appropriate personnel. There should be an after-hours emergency phone number for residents and other interested parties to contact a designated person. The responsibility for responding to such after-hours calls should be shared on a rotating basis among qualified maintenance personnel.

To assure that after-hours emergencies are handled in an expeditious manner, the following should be readily available:

- A list of qualified contractors, listed by skills, including phone numbers and addresses;
- Written guidelines for contracting on a non-competitive proposals basis;
- Open purchase agreements for acquisition of supplies and equipment;
- Access to needed materials, tools, equipment, and keys (authorized persons should know their locations).

All necessary information should be maintained in an "Emergency Response" file that is continuously updated and readily available to all designated emergency personnel.

SECTION G SERVICE CONTRACTS

HAs may need to contract with outside firms when the required services exceed the capabilities of their maintenance staffs, when there are other limiting factors like insufficient time or resources to perform them, when tasks require licenses or certifications the maintenance staff does not have, or when tasks can be performed more economically by a contractor. Some examples of such work include:

- Utilities-system inspection and repair;
- Boiler-plant maintenance;
- Extermination services;
- Vacant-unit preparation and painting;
- PM painting;
- Vehicle maintenance;
- Cooling and air conditioning services;
- Grass mowing;
- Snow removal.

Before contracting for services, careful consideration should be given to several factors:

- State and federal procurement requirements;
- Staff or union objections to using non-HA personnel;
- Cost difference between the HA's and the contractor's performance of the task;
- Availability and capacity of HA's employees to monitor the contractor's performance;
- Cost of training staff for a technical or licensed job.

The services should be procured in accordance with the HA's procurement policies, based on HUD regulations at 24 CFR 85.36. Before soliciting offers for services, HAs are required to make independent cost estimates. If the estimate is less than $25,000 (or lesser amount if required by state law), small-purchase procedures may be used. If the estimate exceeds the small-purchase limitation, the sealed-bid or competitive-proposal method, as applicable, should be followed.

Detailed statements of work and specifications should be developed for all contract services, clearly outlining the acceptable quality, quantity, and timeliness of the service required. When the competitive-proposals method is used, the Request For Proposals (RFP) should clearly state the evaluation factors and their relative importance, such as price, the contractor's qualifications, and the experience necessary to successfully complete the task or service requested. The HUD regulations require that the RFP be solicited from an adequate number of qualified sources through publication, and that a fixed-price or cost-reimbursement contract be awarded to the selected responsive and responsible firm.

Prior to awarding the contract, the contractor's qualifications, experience, and responsibility should be confirmed by checking the references. This should also include the contractor's past history of meeting deadlines. HAs should reserve the right to reject any bid or proposal, regardless of price, that is determined not to be responsive to the specifications, terms, and conditions defined in the solicitation documents. The HA should also require that it be named an "Additional Insured" by endorsement to the contractor's insurance policy. The endorsement should require notification of the HA if the policy lapses or is canceled. The contractor should not be permitted to start work until the HA has received the endorsement along with satisfactory performance and payment bonds.

In general, the steps outlined below should be followed to execute a contract for services and to monitor its progress (for more details, see HUD 7460.8 REV-1):

- Conduct a pre-bid or pre-proposal conference:
  - Clarify bid or RFP terms of the specifications;
  - Clarify the nature or structure of the required proposal;
  - Clarify the necessary qualifications;
  - Provide public and uniform responses to offerors' questions.

- Execute a contract with the selected contractor. (Make sure that the contract is covered with performance-payment bond(s) issued by insurance companies listed on the most recent Treasury Circular 570).
- Conduct a pre-construction conference:
  - Clarify the technical nature of tasks;
  - Explain prevailing wage-rate obligations;
  - Clarify affirmative-action compliance and reporting requirements;
  - Confirm work and payment schedules;
  - Provide the contractor with the necessary construction report and payment forms and explain their use.
- Issue a notice to proceed.
- Perform regular inspections and keep a daily construction log.
- Review and process change orders.
- Develop a timely payment authorization system that minimizes the HA's exposure.
- Require regular receiving reports.
- Perform final and follow-up inspection.
- Utilize warranty-enforcement protections.

SECTION H STAFF

Upon determination of the goals and schedules for the fiscal year, develop staffing requirements (see Chapter Three) to accomplish the stated tasks. A general rule of thumb is that one maintenance employee is required for every 50 dwelling units, although this will depend upon the age and condition of each development and its resident composition. For example, an authority with 250 units may have five maintenance employees: one Working Foreman, two Maintenance Mechanics, one Maintenance Mechanic Assistant, and one Laborer.

SECTION I BUDGET

The final requirement of the annual plan is to develop a fiscally responsible budget, based on established goals, schedules, staff, and known income sources. Budgeting is a vital process. Careful planning helps to increase the efficient use of available dollars. In addition, the budget provides a tool for monitoring on-going costs and allocations, which will allow the HA to measure the true cost of goods and services, to identify savings (if any), and to quantify the authority's unmet needs requiring capital improvements. The general steps to follow in the budgeting process are:

- Define financial needs of each development:

  At least six months before the beginning of the fiscal year, data should be collected on the previous

and current year's spending. In this process, input from the staff and residents is very important. They should be consulted about additional needs for the new fiscal year. Once identified, the items should be prioritized so that available funds can be allocated for the most important or pressing needs.

- Consider the revenue:

  Although revenues are generally fixed by HUD allocations and rent collections, a good maintenance program can increase the value of available funds. For example, reducing the vacancy turnaround time and renting out the units without delay, timely repair of energy-related defects, reducing or eliminating costly vandalism, and involving the residents in maintenance will increase the HA's income. Additionally, HAs should consider ways to improve rent collections.

- Formulate an overall HA budget:

  The overall budget for the HA should be coordinated with the anticipated maintenance costs which normally represent the bulk of the operating budget. Maintenance work items should be prioritized to ensure that the most important items are completed with available funds. The maintenance budget should fit into the overall budget for the entire HA.

- Seek board approval:

  The operating budget should be approved by the Board of Commissioners before submission to HUD.

- Submit budget to HUD:

  The operating budget should be submitted to HUD at least 90 days before the start of the fiscal year. Managers, staff, and residents should be informed of any changes to the proposed budget, when the approved budget is received from HUD.

- Allocate spending authority:

  Levels of spending authority should be established and implemented. The spending authority will be pyramid-shaped, reflecting the shape of the organizational chart and budgetary responsibilities.

- Monitor results:

  On a regular, on-going basis, actual expenditures should be reviewed against the established budget. Any abnormalities should be identified and corrected on a timely basis.

END OF CHAPTER TWO

MAINTENANCE GUIDEBOOK I - MAINTENANCE PROGRAM
CHAPTER THREE - STAFFING

SECTION A ORGANIZATION

The structure of a maintenance organization will depend on the skills and abilities of the maintenance staff and the characteristics and conditions of the development. While the "standard" guideline for staffing a maintenance department is one maintenance employee for every 50 dwelling units, the specific needs and composition of each development will influence the actual staffing requirements. For example, developments for the elderly generally require less maintenance than do other types. Other factors that may affect the make-up of a maintenance staff are building types (for example, high-rises), extra-large grounds, poorly constructed units, installed heat pumps, widely scattered sites, age of a development, completed modernization, and mix of unit types (for instance, 4-bedrooms units generally require more maintenance than do 2-bedrooms units).

Small HAs have limited staffs because of their size and operating budgets. Therefore, maintenance employees in these HAs have to be more versatile and capable of assuming more diverse responsibilities than their counterparts employed by larger HAs.

SECTION B JOB DESCRIPTIONS

The responsibilities and required qualifications for each maintenance job are outlined in the job description, which provides a reference on which basis interviews can be conducted, and a standard against which an employee's performance should be measured. The job description should provide information in at least three important areas:

- Responsibilities and duties of the job, and the tasks normally performed by the employee;
- Supervision received and given;
- The knowledge and skills necessary to meet the qualifications.

Included in Appendix B are sample position descriptions which can be used as model formats, or can be custom-tailored to meet the specific needs of an HA.

SECTION C RECRUITMENT AND PROMOTION

Timely and careful searches for required personnel, both new and for promotion, are significant HA functions. The time and expense involved in finding and promoting the best-qualified personnel will be more than made up in improved efficiency, and in the reduced need for training, supervision, and disciplinary action.

HAs should have established recruitment and promotion policies that include:

- Provisions for timely employment and promotion;
- Clearly defined organizational structure, job classifications, and job descriptions;
- Collective-bargaining agreements, if applicable;
- Equal-employment opportunities;
- Standardized interview procedures and testing methods;
- Reference checks.

HAs may want to develop and maintain a pool of qualified candidates from which to select employees as opportunities arise. To facilitate this effort, the HA should develop a network for each class of job to be filled at some point in the future. Candidates for this network could be selected from present staff, residents, local employers, trade schools and associations, and placement services.

SECTION D TRAINING

To continuously improve overall performance, it is important to provide the HA staff with on-going training opportunities. The training is used to refine or develop new technical skills and to make employees familiar with new policies, procedures, and performance standards. HAs are encouraged to also include its residents in the training, where appropriate. Depending on the nature and complexity of training, it may be conducted by in-house personnel, videos, or outside sources. Smaller HAs may find it more effective to use the latter or to take advantage of pertinent seminars. Training should be a high-profile effort covering, at least, the following topics:

- Basic vocabulary and techniques useful in understanding housing issues and physical facilities;
- Techniques for supervising, inspecting, estimating, and scheduling;
- Performance standards of the HA;
- Contracting and contractual obligations;
- Specific skill training for technical employees.

In developing and implementing a training program or plan, the following steps should be included:

- Establish and prioritize training needs:
  A review of completed work orders may indicate the need to improve the mechanic's skill in the field or plumbing or the maintenance of electrical equipment. Areas with the greatest needs or weaknesses should receive the most attention.
- Develop training strategies:
  Determine what training can be conducted by in-house personnel and what will require training by outside sources. Determine what topics should be covered and what models or mock-ups will be needed for those topics. Schedule a time and place for training.

- Obtain training materials:

  Identify and obtain training texts, manuals, and videos most applicable to the training course and comprehension level of attendees.
- Plan training sessions in advance:

  Plan sessions as far in advance as possible so that all affected parties can plan and prepare for them.
- Include safety concerns in the agenda:

  Every training session should include information concerning applicable safety rules and regulations, including those of OSHA, government standards and regulations, required protective clothing and equipment, and known hazards.
- Resident participation in all applicable training programs should be encouraged by HAs.

SECTION E EVALUATIONS

An employee's performance should be evaluated at least once a year, although more frequent reviews can be conducted as needed. The evaluations should be based on written standards and the job description. (See Appendix B for sample Employee Performance Evaluation.) The reasons for conducting performance evaluations include:

- To discuss with the employee his or her strengths and weaknesses and areas for improvement;
- To assess the employee's potential for promotion;
- To build a documented record of performance (both good and bad) for future reference and to support any necessary personnel action.

Some principles to keep in mind when developing an employee-evaluation system are:

- Standards should be clear and easily understood;
- Evaluation and feedback should be as frequent as possible;
- Performance standards should be objective and easily measurable;
- The evaluation, employee's response, and any required follow-up should be documented.

SECTION F RESIDENTS, MINORITIES, HANDICAPPED

HUD encourages the involvement of residents in the maintenance of HA developments whenever such work can be performed by them while maintaining an acceptable level of quality. Their participation in the maintenance of the development usually results in better care and decreased vandalism. Further, Section 3 of the Housing and Urban Development Act of 1968, and HUD's implementing regulations at 24 CFR 135, require that HAs provide economic opportunities to low-income persons during the course of their operations. HUD recently issued revisions to Part 135 which require that HAs establish specific goals in employment, training, and contracting. HAs should review the revised regulation to ensure that their employment practices are consistent with it. Federal and local laws prohibit discrimination against minorities and the handicapped in hiring when their training and capabilities qualify them for employment.

END OF CHAPTER THREE

MAINTENANCE GUIDEBOOK I - MAINTENANCE PROGRAM
CHAPTER FOUR - INSPECTIONS

SECTION A GENERAL

Annual inspections of units and systems, covered in detail in Guidebook Two, are to be conducted in accordance with PHMAP indicator #7, and should be an integral part of every HA's maintenance program. To achieve an "A" rating, PHMAP indicator #7 requires that all dwelling units be inspected on a yearly basis, that any emergency items be corrected within 24 hours, and that any non-emergency items identified during the inspection be corrected within 25 days. The condition of all units should meet or exceed the Section 8, Existing Housing Program quality standards (HQS), included in HUD Handbook 7420.7, Chapter 5, and local housing code requirements. The inspections should be conducted using HUD Form 52580, or its equivalent.

In addition to inspecting the dwelling units, PHMAP indicator #7 requires that all major development systems also be inspected on a yearly basis. Examples of these include natural-gas pipelines, storm-drains, and electrical-distribution, water and sewage, heating, and cathodic-protection systems. In addition to the PHMAP requirements, there are other factors which may necessitate more frequent inspections. Some of these are necessitated by manufacturers' recommendations, seasonal or climate conditions, codes, and regulations.

SECTION B OTHER INSPECTIONS

In addition to annual unit and system inspections, HAs should conduct regular inspections of the buildings and grounds. The condition of grounds and interior common areas plays a major role in determining residents' attitudes, as well as the community's image of the development. As a result, these areas should be inspected weekly. The inspections should concentrate on, but not be limited to:

- Trash on grounds,
- Cars improperly parked,
- Vandalism and graffiti,
- Newly vacated units (skip-moves),
- Hallways and corridors,
- Light conditions and other security problems,
- Common areas,
- Erosion problems,
- Sidewalks,
- Fencing,

- Playgrounds,
- Exterior furnishings,
- Lawns and trees,
- Landscaping.

Any deficiencies noted should be taken care of as soon as possible. If necessary, a work order should be generated to correct the problem.

END OF CHAPTER FOUR

MAINTENANCE GUIDEBOOK I - MAINTENANCE PROGRAM
CHAPTER FIVE - PREVENTIVE MAINTENANCE

SECTION A PROGRAM

The intent of preventive maintenance (PM) is to ensure that the affected facilities, equipment, and systems remain in good operable condition at all times. PM minimizes the need for regular maintenance and extraordinary repairs, and extends the lifetime of facilities, equipment, and systems. Therefore, it should not be considered an extra load for the maintenance staff, or a prohibitive budgetary limitation.

A good PM program will allow the maintenance department to be proactive, rather than just reacting to emergencies and resident requests. This reduces the number of work orders, which results in less work load on the maintenance staff and more satisfaction among residents.

SECTION B SCHEDULED WORK

All PM scheduled in the annual plan should be carried out on a timely basis to ensure proper functioning of the affected facilities, equipment, and systems. There should be enough flexibility, however, to handle the routine and emergency tasks that come up.

SECTION C THE PM SYSTEM

The complete PM system consists of five basic steps:

1. Identify the facilities, equipment, and systems that require preventive maintenance.
2. Designate the necessary PM for each item and establish PM frequencies.
3. Schedule the PM.
4. Generate PM work orders.
5. Perform the work or contract it out.

1. IDENTIFY FACILITIES, EQUIPMENT, AND SYSTEMS

The first step in the PM process is to identify the items that need PM. Examples would be buildings, boilers, furnaces, heat pumps, air conditioners, vehicles, and lawn mowers.

2. DESIGNATE THE NECESSARY PM FOR EACH ITEM AND ESTABLISH PM FREQUENCIES

PM for a building may require activities such as painting of wood and metal surfaces, caulking around doors and windows, roof repair, and removal of leaves from gutters. Concurrently, the PM frequency should be determined for all identified items. At least one complete PM cycle should be planned for each fiscal year, scheduled as discussed above. In addition, manufacturers' recommendations and specifications, as well as historical data, should be considered when planning the frequency of preventive maintenance. Work affected by climate or seasonal changes also needs to be identified.

3. SCHEDULE THE PM

The PM schedule should be established for the identified items on the basis of technical recommendations and established sound practices. To the maximum extent possible, the PM should be evenly scheduled; for example, scheduling one-tenth of all PM work items for each of ten months would allow two months for seasonal or other maintenance activities. Additionally, completion of the PM items should allow flexibility and time for the maintenance staff to handle other maintenance work. Work should be scheduled by geographic location; all work at each site should be completed before moving to another. It is important to stay on schedule.

4. GENERATE PM WORK ORDERS

All PM work should be assigned through the work-order system. Each month, work orders should be generated for all PM work scheduled for the following month. The work orders should be given to the maintenance foreman or supervisor prior to the month when the work is to be completed so he or she can plan for and schedule the staff's work. Residents should be given advance notice if the scheduled work will affect them or their units.

5. PERFORM THE WORK

PM work items should be completed during the month as scheduled. However, some occurrences such as emergencies, adverse weather, and extraordinary repairs, may affect completion. Items not completed should have work orders written for the following month. If a 10-month PM cycle is programmed, the two months not scheduled for PM may be adequate to complete the unfinished work, provided seasonal or other requirements permit.

SECTION D RECORDS

HAs should maintain a PM folder for each development's sites, buildings, equipment, and systems. The records should contain a PM schedule for each item, and a log showing the PM work performed and the date. In addition, the records should contain the manufacturer's specifications and recommendations, service and maintenance manuals, historical data, applicable safety measures, and any other work instructions, including a checklist similar to the sample included in Appendix C.

END OF CHAPTER FIVE

MAINTENANCE GUIDEBOOK I - MAINTENANCE PROGRAM
CHAPTER SIX - VACANT UNITS

SECTION A PROGRAM

One of the prime objectives of an HA is to have vacant units reoccupied as quickly as possible. Since rents generate a significant portion of an HA's income, a substantial number of vacancy days cuts into this source of income. Also, there is a great need for public housing, as indicated by lengthy waiting lists. The more quickly the units are turned around, the more this need is met. Finally, vacant units are an invitation to vandalism and security problems, which create an undesirable and unsafe environment.

Vacant-unit turnaround is also a PHMAP indicator. To receive an "A" rating for indicator #5, vacant units must be prepped and leased within 20 days. To ensure that this time limit is met, HAs should develop an aggressive system to ensure that all relevant inspections, work orders, and work are completed in an expeditious manner.

SECTION B SCHEDULE

Inspections should be scheduled and work orders issued for vacant-unit turnaround as soon as notice is given or a vacant unit is discovered. All HA staff members, and housing and maintenance personnel in particular, should be instructed to keep a constant watch for vacant units (for cases of skip-moves). Vacant units should be inspected as soon as possible (move-out inspection in the presence of the resident, if possible), the unit secured, the locks changed, the utility meters (if applicable) read, prep work completed, and the unit re-occupied.

For planning purposes, the HA should review move-out records of the previous year during formulation of the annual plan. Those records will enable them to estimate the vacancies likely to occur during the coming year. When appropriate, transfers should also be included in the estimate to plan the work load.

SECTION C VACANT-UNIT TURNAROUND SYSTEM

A good vacant-unit turnaround program should be carefully planned, promptly scheduled, and completed. Following is a generalized guide to assist HAs in developing their vacant-unit turnaround programs. This guide may be adjusted to fit the actual needs.

- Notice is received, or it has been detected, that a unit will be or is vacated.
- Exit inspection is conducted with resident (if possible).

- Deficiencies found during inspection are noted, and those, if any, which are chargeable to the resident are identified. (Have the resident sign the inspection form.)
- Where applicable, utility meters are read.
- The unit is secured and locks are changed.
- Complete custodial clean-out is performed.
- Appliances and heating system are serviced. (Areas of high vandalism may require that appliances be removed until reoccupancy takes place.)
- Electrical and plumbing systems are repaired as needed.
- Doors and windows are adjusted and kitchen cabinets repaired.
- Floor tile, walls, and ceilings are repaired and the unit painted.
- Unit is inspected to ensure that all needed work has been completed.
- Move-in inspection is conducted with new resident. (Write work orders for any items that are missing or needed and complete them within 24 hours.) Determine whether any disability accommodations are required. Complete the move-in inspection form to identify condition of the unit so that the new resident will not be held liable for existing defects. Then have him or her sign it.
- Instruct new resident on cleaning techniques, proper operation of appliances, procedure for requesting maintenance, and emergency service.

Again, vacant-unit turnaround is PHMAP indicator #5. Having the unit prepped and reoccupied within 20 days should always be the objective.

SECTION D RECORDS

All inspection reports, resident charges, checklists, work orders, and contracts should be maintained in a permanent filing system. Such records will assist management in resolving debated issues, maintaining readily available materials, supplies, and equipment, budgeting for repairs or replacements, and estimating future vacancy rates.

At least two forms should be used in the vacant-unit turnaround process: one inspection form which is used for both the Move-Out Inspection and for the Move-In Inspection, and the Vacancy Control Log. This same form is used for the annual unit inspection (See Appendix D).

1. MOVE-IN INSPECTION

This form or checklist should be used when conducting the entry inspection with the new resident. It should contain:

- Development number,
- Unit number or address,
- Names of Inspector and new resident,
- Date,
- Missed or unfinished work items,
- Status of unit, appliances, and fixtures,
- Instructions given to the resident,
- Inspector's signature,
- Resident's signature.

2. MOVE-OUT INSPECTION

This form should be used for conducting the exit inspection with the vacating resident (except when the resident is unavailable). It should contain:

- Development number,
- Unit number or address,
- Names of Inspector and former resident,
- Date,
- Deficiencies and work required to correct them,
- Defects for which the resident is responsible,
- Inspector's signature,
- Resident's signature,
- Date(s) work is completed and by whom (to be completed after inspection by HA staff),
- Date unit is inspected for reoccupancy and by whom (to be completed after inspection by HA staff).

3. VACANCY-CONTROL LOG

HAs should establish a system to track the vacancies as required by PHMAP indicator #5. The log should include, but not be limited to:

- Development number,
- Unit number or address,
- Bedroom size,
- Date vacated,
- Date of work order issued,
- Work order number,
- Date of work-order completion,
- Date the unit was rented,
- Whether the unit is accessible for mobility-impaired residents (including whether certain features have been limited because of load-bearing structural members and if access to another floor is limited to stairs) or for sight or hearing impaired.
- Comments.

Sample forms are included in Appendix D for review or use as models.

END OF CHAPTER SIX

MAINTENANCE GUIDEBOOK I - MAINTENANCE PROGRAM
CHAPTER SEVEN - WORK ORDERS

SECTION A PROGRAM

The work-order system is the heart of any maintenance operation. It serves to identify the source, nature, and priority of work, the costs of labor and materials used, the time of performance, and other pertinent information. On the basis of work orders, the maintenance staff completes the tasks and the HA controls the flow of maintenance work, the related procurement, back charges to residents, and plans for future needs. The effectiveness of the work orders as a measure of demands, needs, and costs is dependent upon how completely and accurately they are filled out and how widely the work orders are used.

All maintenance work should be assigned through the work-order system. The effectiveness of an HA's work-order system is measured under PHMAP indicators #6 and #7. To receive an "A" rating for indicator #6, HAs must correct 99% of emergency items in a fiscal year within 24 hours, and outstanding work orders at the end of the fiscal year must not exceed 4% of work orders received during that fiscal year. To receive an "A" rating for indicator #7, components #3 and #4, unit and system deficiencies noted during annual inspections must be corrected within 25 days.

SECTION B SCHEDULE

The scheduling of work orders should be based on each HA's priorities. However, in general, they are as follows:

#1 Emergency—Life-threatening, or extreme property damage;
#2 Urgent—Major inconvenience to resident, property damage;
#3 Vacancy Prep—Prepare unit for occupancy;
#4 Routine—Resident or management request;
#5 PM—Planned and seasonal maintenance;
#6 Special Projects—Any type of deferred maintenance.

Service response times should be established by HA policy; the following can be used as a guideline:

#1 Emergency—Immediate;
#2 Urgent—Same day;
#3 Vacancy Prep—Within 48 hours;
#4 Routine—Within 72 hours;
#5 PM—Within 120 hours;
#6 Special Projects—Within 30 days.

Work orders should be scheduled and issued daily (except for preventive maintenance, which should be scheduled on a monthly basis as discussed in Chapter Five), using the following considerations:

- Priorities—Highest priorities should be scheduled first;
- Location—Work orders should be grouped by development or site to minimize travel time;
- Time Required—Estimate time required for each work order and arrange assignments accordingly.

Residents should be notified in advance of any scheduled work affecting them.

SECTION C WORK-ORDER SYSTEM

Work orders should be issued for all HA maintenance, including, but not limited to, grounds work, custodial work, vacancy turnaround work, routine repairs, deficiencies noted during inspections, and all PM work. The work orders should be logged in, assigned to a priority category, and coded for materials usage. In general the following procedure will apply:

1. WRITE THE WORK ORDER

The order is made on a three-part work-order form. (See sample in Appendix E.) One part is for maintenance records, one is to be given to the resident, and the third is for the unit files. Work orders should be logged on the Work Order Tracking Form. See Section D for the information which should be included in that form.

2. SCHEDULE THE WORK ORDER

Work orders should be scheduled on the basis of priorities (ranked from #1—Emergency to #6—Special Projects).

3. ASSIGN THE WORK ORDER

Individual work orders should be assigned by the Maintenance Supervisor or Foreman. The assigned mechanic will receive two copies of each work order, in the order in which they are to be completed, unless the work does not affect the property occupied by the resident. Upon completion, one is left with the resident and the other is placed in the unit file after review by the Supervisor.

4. PERFORM THE WORK

After ensuring that he or she has the needed supplies, materials, and equipment, the mechanic completes the work, keeping records of all time and materials used.

5. COMPLETE WORK ORDER

The mechanic completes the work order by describing the work performed, materials used, and the date and time completed. He or she also determines whether a resident charge is involved, then reviews the completed work order with the resident and requests the resident's signature (which may be refused). The mechanic leaves one copy of the completed work order with the resident, even if he or she refused to sign it.

6. RETURN COMPLETED WORK ORDER

Completed work orders are returned to the issuing office, where the resident charges are verified. If they are confirmed, appropriate steps are taken to apply them against the resident's account. It is also necessary to record the materials and supplies used and to return excess items to the stockroom.

7. LOG COMPLETED WORK ORDER, AND FILE

The completed work order will be logged on the Work Order Tracking Form and will be included in the file kept on each individual unit. A copy of the work order should be placed in the resident's file when the work affects a resident's unit.

8. REVIEW OF WORK ORDERS

The work orders should be reviewed on a regular basis to determine the amount of work completed, the work yet to be done, the actual hours expended in completing work items, and the supplies and materials consumed in completing work items. Careful and consistent review of these records enables management to control the progress being made, maintain adequate inventories, ensure accountability of maintenance persons, and make well-informed decisions.

SECTION D RECORDS

There are two primary forms used for the work-order system: the Work Order Form and the Work Order Tracking Form. The Work Order Form documents the request for and the completion of maintenance work. The Work Order Tracking Form documents the amount and status of work orders, including their receipt, completion, and those which are outstanding. This information is necessary to document PHMAP performance and prepare annual plans.

The format of work orders can vary, depending on the needs of individual HAs, but all should include the following information:

- Work order number;
- Source of request (resident, maintenance, management);
- Location (development, address, unit #);
- Project number;
- Dates (origination, assignment, work performed, completion, approval);
- Work order type (emergency, urgent, vacancy prep, routine, PM, special projects);
- Work description (requested/estimated, actual);
- Actual time and materials;
- Name of staff member or contractor who performed work;
- Resident (phone number, resident damages/charges, signature);
- Date and time emergency was abated.

The format of the Work Order Tracking Form can also vary, depending on individual needs, but at a minimum, the following information should be included:

- Authority's name;
- Month, year;
- Work-order numbers;
- Type of work and priority;
- Date work orders were received;
- Completion date and time;
- Days from receipt to completion;
- Hours from receipt of work request to completion for emergency WO's.

Samples of a Work Order Form and a Work Order Tracking Form are included in Appendix E. If necessary, additional monthly summaries or activity reports could be developed. Some examples would be Monthly Activity Summary, Individual Development Summary, and Vacancy Preparation Summary. Samples of these are also included in Appendix E for review.

END OF CHAPTER SEVEN

MAINTENANCE GUIDEBOOK I - MAINTENANCE PROGRAMS
CHAPTER EIGHT - INVENTORY AND PROCUREMENT

SECTION A PROGRAM

Because inventory and procurement activities can affect the productivity of maintenance staff, it is important to have an adequate inventory of materials, spare parts, and appliances. It should be ensured, however, that inventories do not get too large, which would unnecessarily tie up funds which could be used for other important items. Excess inventory would also take up storage spaces which are normally limited in smaller HAs. These issues should be considered by a well-run HA.

SECTION B INVENTORY-CONTROL SYSTEM

An inventory-control system should identify all materials, supplies, and equipment required to ensure continuity in the maintenance operation. The HA should keep records of all items in stock, and should know how many items are normally needed, when to reorder, and when and where each item is used. Each inventory item should be assigned a part number, and a maximum and a minimum inventory (the latter will indicate the need for reorder). Maintaining an economical supply should be based on experience, historical information, general availability, and lead times.

When items are purchased, a copy of the purchase order is sent to the stockroom, where an authorized person should check the delivered materials against the purchase order to verify that the correct items and quantities are received. The materials are then stored in the proper location and entered into the inventory or accounting system (depending on how the HA tracks and accounts for inventory items). This transaction should take place within 24 hours of receipt, at the latest, to ensure that in the case of discrepancies and damages, the vendor can be held responsible. Any warranty received with the delivered items should be maintained and enforced by the HA, when necessary.

Materials should only be issued by authorized personnel, and only for an approved work order or a stock-replenishment request (in the case of maintenance-truck inventories or secondary stockrooms). Issued materials should be deleted from the inventory or accounting system.

A purchase requisition for stock and non-stock items is generated by the Maintenance Supervisor, Foreman, or another authorized person, when an item reaches its established minimum-inventory level or when it is not stocked. The requisition is sent to the person who ensures that funds are available and issues a purchase order to the selected vendor, with a copy to the stockroom. When the material is received and inspected, the packing slip is matched against the purchase order for verification. The

matched purchase order, receiving document (if one other than the purchase order is used), and packing slip are forwarded to Accounts Payable.

SECTION C PROCUREMENT SYSTEM

Procurement should be conducted according to an HA's procurement policy and reflect requirements of HUD regulations at 24 CFR 85.36, contained in the HUD Handbook 7460.8 REV-1. HAs must:

- Have a written procurement policy;
- Have a contract-administration system;
- Have a written code of standards of conduct;
- Award contracts only to responsive and responsible contractors;
- Maintain sufficient written records to support all procurement.

HUD regulations provide for four basic procurement methods: small purchases, sealed bids, competitive proposals, and non-competitive proposals. As a guideline, the following may be helpful:

- Petty Cash—Used for purchases under $500.
- Small Purchases—Less than $1,000, requires only one quotation if the price is reasonable.
- Purchases over $1,000 but less than $25,000 (or a lesser amount, if required by state procurement law)—Requires a sufficient number, but not less than three price quotes—in person, by telephone, or in writing—which are to be documented in the procurement file.
- Purchases over $25,000—Must be formally advertized.

Procurement is one of the most important functions HAs perform. It is essential that the Executive Director, Maintenance Supervisor or Foreman, or any other authorized personnel involved in the procurement activities be thoroughly familiar with and follow the HUD regulations at 24 CFR 85.36 and the established procurement policy and procedures of the HA.

SECTION D RECORDS

The records required for inventory control and procurement are the work order, purchase requisition, purchase order, and the stock-replenishment request. (Refer to Chapter Seven for information on work orders.) The purchase requisition can be formatted to suit the needs of an individual HA, but should contain at least the following information:

- Date,
- Requestor's name,
- Item name and description,
- Part number,

- Quantity,
- Suggested vendor (if known),
- Date required,
- Comptroller's signature,
- Approval signature.

The purchase order can also be formatted to suit the needs of an individual HA, but it should be at least a three-part form. One part will be kept by Purchasing, one will go to the stockroom for use in receiving materials, and one will go to Accounts Payable after material is received and verified. The form should contain at least the following information:

- Date,
- Ship-to address,
- Bill-to address,
- Vendor name,
- Vendor address and telephone number,
- Item name and description,
- HA part number,
- Vendor or catalog part number,
- Quantity,
- Due date,
- Unit and extended price,
- Discounts (if applicable),
- Special shipping instructions (as needed),
- Payment terms,
- Authorized purchasing agent signature.

The stock replenishment requisition is a simple form used for internal tracking of inventory movement from the stockroom to a maintenance truck inventory or a secondary stockroom. This form should contain the following information:

- Date,
- Truck or stockroom identification,
- Item name and description,
- Part number,
- Quantity,
- Approval signature.

Sample forms have been included in Appendix F for review or for use as models.

END OF CHAPTER EIGHT

MAINTENANCE GUIDEBOOK I - MAINTENANCE PROGRAM
CHAPTER NINE - ENERGY AND MAINTENANCE

SECTION A RELATIONSHIP BETWEEN MAINTENANCE AND ENERGY USE

Maintenance and energy consumption are interrelated. Systems that consume energy should be included in an HA's comprehensive maintenance program. Well-maintained equipment operates at or near original operating specifications for its entire life cycle, resulting in the optimum use of energy. Poorly maintained equipment will become less and less efficient and require more and more energy.

The major energy consumers in HAs are water heaters, appliances, and water, lighting, and heating, ventilating, and air-conditioning (HVAC) systems. Proper installation, care, and maintenance of these systems, in addition to consumer habits, are vital to minimizing the energy-consumption levels of HAs.

The HA's performance in energy conservation is evaluated by PHMAP indicator #4. To receive an "A" rating for this indicator, the annual energy consumption compared to the average of the three-year rolling base, must not increase.

SECTION B OPERATING AND MAINTENANCE MEASURES

There are several HA- and resident-related operating and maintenance measures that can be implemented to control or reduce energy consumption. The HA measures include procedures controlled by the HA, while the resident-controlled measures are dependent on the residents' understanding of and concern for energy conservation, and their cooperation.

1. HA-CONTROLLED PROCEDURES

HA management should monitor the utility bills, checking for any spikes in energy usage, and determining why they have occurred. In addition, the HA's maintenance program should provide for the inspection, adjustment, and replacement of items such as:

- Extinguishing pilots in furnaces at the end of each heating season;
- Cleaning refrigerator cooling coils annually;
- Fixing dripping faucets or leaking hot-water pipes;
- Caulking around windows and entrance doors and replacing as needed;
- Performing efficiency tests on boilers and furnaces;
- Setting controls on furnaces and water-heaters annually for proper and economical operation;
- Weatherstripping doors and replacing as needed;

- Installing locks on the doors of water heaters to prevent tampering with the temperature control after it has been set not to exceed the 120 degrees F required by HUD.
- "Shutting down" vacant units by closing windows, turning off lights, appliances, and domestic hot-water heater, and setting the space-heating thermostat at 60 degrees F.

Implementation of these measures should result in energy conservation.

2. RESIDENT-CONTROLLED PROCEDURES

The resident-controlled energy conservation measures depend on the daily activities in the dwelling unit that only the resident can control. Residents should be taught the principles and practices of energy conservation. If they understand the potential for wasting energy and the financial implications associated with it, they will be more likely to turn off unnecessary lights and TV, and report improperly functioning appliances and leaking faucets to the HA immediately. For example, residents could be instructed in the proper use and cleaning of appliances, how to conserve water, to turn off unnecessary lights, efficient use of washers and dryers (use only with full loads), proper use and care of storm windows and doors, and efficient thermostat settings. An on-going educational program, including orientation for new residents, can increase the operating efficiency of the dwelling units considerably.

SECTION C UPGRADING ENERGY CONSERVATION

Energy-conservation measures can be upgraded by modification or replacement of systems to improve operating efficiencies and reduce energy consumption. Examples of energy conservation measures may include:

- Installing check or retail utility meters;
- Installing or adding to ceiling insulation;
- Installing or adding to wall insulation;
- Insulating bare hot-water and steam pipes;
- Caulking and sealing building joints;
- Adding or replacing weatherstripping for windows and doors;
- Installing clock thermostats for units with individual heating controls;
- Insulating water heaters located in unheated spaces;
- Adding insulation to air ducts in unheated spaces;
- Adding storm windows and storm doors;
- Replacing old windows and doors with energy-efficient ones (units with insulated glass);
- Replacing incandescent lighting fixtures with fluorescent units in spaces where lights are continuously needed (for example, corridors);
- Adding flow restrictors to shower heads and kitchen faucets;
- Insulating floors over unheated crawl spaces;

- Upgrading burners for oil-fired heating equipment;
- Upgrading boiler controls for central, group, or building heating systems;
- Installing electronic ignition on gas-operated domestic water heaters;
- Replacing electric-resistance heating units with heat pumps;
- Installing capacitors, peak-load controllers, and time-clock controls to monitor and control electrical usage.

Additional information is available at 24 CFR 965.305, 308, and 309, and 24 CFR 968.115.

Most, if not all, of these measures will require capital expenditures. Before any measures are implemented, however, a cost-benefit analysis should be prepared for comparing the total cost of installation and the associated total savings. If the analysis shows a payback period of 15 years or less, the energy-conservation measure should be implemented.

END OF CHAPTER NINE

MAINTENANCE GUIDEBOOK I - MAINTENANCE PROGRAM

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MAINTENANCE GUIDEBOOK I - MAINTENANCE PROGRAM

APPENDIX A

SAMPLE MAINTENANCE PLAN

MAINTENANCE PLAN

The Housing Authority of _____

GENERAL INFORMATION

The HA was formed in (year) for the purpose of providing low-income public housing, and owns and operates three public housing developments: Hooker Heights (80 units), Fairfield Heights (90 units) and Westview Manor (75 units). The mission of the HA's Board of Commissioners and staff is to provide decent, safe, and sanitary housing to low-income individuals and families.

STAFFING PLAN

The Executive Director is responsible for the day-to-day operation of the HA. The Executive Director implements policies and procedures instituted by the Board of Commissioners. All staff answer to the Executive Director, or his/her designee, per the established Organizational Chart.

The HA's strategy for meeting the day-to-day maintenance needs of the properties is to assign specific maintenance staff to each development. The assignment of maintenance staff to specific locations will be at the discretion of the Executive Director, or his/her designee. The maintenance staff will answer directly to the Working Foreman (hereinafter referred to as Supervisor).

The maintenance staff consists of five people including the Working Foreman. One maintenance mechanic is assigned to Hooker Heights, a family development; one maintenance mechanic is assigned to Fairfield Heights, an elderly mid-rise building; and one maintenance mechanic is assigned to Westview Manor, an elderly mid-rise building. The fourth maintenance mechanic is assigned to vacancy preparation activities with support from the various development-based mechanics and the Working Foreman.

GOALS AND OBJECTIVES

The goals and objectives of the HA maintenance department are to maintain each and every development in a condition equal to or greater than HQS requirements, to meet and exceed all maintenance related PHMAP indicators, and to properly utilize the existing staff with a reasonable amount of overtime, within budget and on schedule.

A. ROUTINE AND SEASONAL WORK

The three mechanics assigned to the developments are responsible for all routine and seasonal requirements in their respective developments. Based upon last year's average volume of routine work orders logged by the HA, (45 work orders per month for Hooker Heights, 60 work orders per month for Fairfield Heights and 40 work orders per month for Westview Manor) there will be adequate time available to handle seasonal requirements in each development. To assist the maintenance operation, the HA will continue its service contracts to address boiler maintenance at Hooker Heights and Fairfield Heights, and to handle cycle painting of apartments throughout the HA.

The basic processing of work orders will be as follows:

1. Origination

   The issuance of a regular work order may be based upon information received from residents, staff, commissioners, or the general public. When information received in the Work Center indicates a work order needs to be issued, it is the Work Center Clerk's responsibility to ensure the expeditious computer input and issuance of the work order. Seasonal items will be scheduled and loaded into the computer for weekly access by the Supervisor.

2. Assignment

   The method used to assign work orders to specific maintenance mechanics will be based upon the location of the requested work. However, it is expected that work orders will generally be completed in sequence, without regard to the degree of difficulty associated with its completion. If the assigned maintenance mechanic cannot complete any portion of the work order, he/she will immediately notify the Supervisor of the problem.

3. Closing

   At completion of all work items on a work order, the maintenance mechanic will completely fill out and sign the work order form. All completed work orders will be returned to the Work Center each day. Before leaving the apartment where the work is being done, the maintenance mechanic should leave a copy of the Work Order for the resident. If the resident is present, a copy of the Work Order should be given to the resident. In the event the resident is not present, a copy of the Work Order should be left in a conspicuous place, such as on the kitchen counter. In addition, any time a unit is entered for maintenance purposes when the resident is not at home, the maintenance mechanic must fill out and leave a completed copy of the Work Order in a conspicuous place within the apartment.

   At receipt of completed work order forms, it is the responsibility of the Work Center Clerk to ensure the expeditious updating of the work-order computer records, including the posting of any associated resident charges. The updating and closing of work-order records should normally be accomplished within 24 hours of receipt of completed work orders in the Work Center.

B. ANNUAL INSPECTIONS

Living units and major systems inspections are required annually to meet PHMAP requirements. The HA plans to perform its annual living unit inspections with its three Housing Managers and its major systems inspections with the maintenance Working Foreman. The inspections will be evenly scheduled over the first ten months of the year to allow time for corrective and follow-up work.

1. Frequency

   All dwelling units of the HA will be inspected at least annually. A move-out inspection will be conducted in all vacant apartments within 2 (two) working days after becoming vacant. A move-in inspection will be conducted with the resident at the time of move-in for any apartment being newly occupied.

2. Standard

All inspections will utilize the HUD Housing Quality Standards (HQS). All conditions noted during any inspection which do not meet HQS will be documented in writing. One HUD Inspection Form 52580-A will be filled out for each inspection performed.

3. Correction of Deficiencies

a. Unit Deficiencies Which Are HQS Violations

All HQS violations identified during any inspection will require the following actions:

1) Documentation on Form 52580-A in the Decision and Comment columns at the applicable Item Number.

2) Issuance of, or inclusion on, a Work Order specifying the action needed for correction of the HQS violation. Any work order issued which includes work to correct a HQS violation must be unit-specific, that is, it must deal with only one unit.

3) Date of Final Approval must be entered at the appropriate place on Form 52580-A when each HQS violation has been corrected.

b. Unit Deficiencies Which Are Not HQS Violations

For all unit deficiencies identified during an inspection which will require repair work, but are not HQS violations, issuance of, or inclusion on, a Work Order specifying the action needed for correction of the deficiency will be required.

c. Goals

It is the goal of the Board of Commissioners that identified unit deficiencies be corrected as follows:

1) HQS violations which constitute emergency items, as defined by HUD, should be alleviated or corrected within 24 hours.

2) All identified unit deficiencies which do not constitute HQS violations should be corrected within an average of 25 calendar days.

C. MAKING VACANT APARTMENTS READY FOR OCCUPANCY

The HA has assigned one maintenance mechanic full-time with support from each development mechanic, to return vacant apartments to occupancy in less than 20 days. In addition, in the case of a glut of vacancies or extensive damage to an apartment, outside contractors may be utilized to expedite the return of vacant units for occupancy.

The procedures for preparing apartments for occupancy are:

1. Upon vacancy, apartments will be inspected by the Supervisor, who will prepare, or who will cause to be prepared, a punch list of items to be inspected, repaired, or replaced in the vacant apartment.

2. The list of work items for the apartment will be provided to the Work Center Clerk, who will issue a work order for the apartment to be made ready for occupancy and attach the listing of work items for that apartment.

3. The Supervisor will be responsible for assignment of all work orders to maintenance mechanics.

4. A Make-Ready listing of items to be accomplished will be provided to the maintenance mechanic.

5. Items listed on the Make-Ready sheets will be checked off by the maintenance mechanic as they are completed.

6. Upon completion of all items listed on the Make Ready sheets and any other items which may be listed on the Work Order form, the maintenance mechanic will complete the Work Order form and return both the Work Order form and the Make Ready sheets to the Work Control Center.

7. The Supervisor will then inspect the apartment to ensure all maintenance items have been accomplished. If deficiencies are found, the Supervisor will take the necessary steps to have the deficiencies corrected.

8. The Supervisor will then notify the Housing Manager that maintenance repairs have been completed in the apartment.

D. PREVENTIVE MAINTENANCE

The HA has developed a PM schedule for each development that will enable the development mechanic to perform the required PM activities on a weekly basis in conjunction with the normal routine work orders and emergencies without disruption or creating a demand for overtime to accomplish the task.

The PM schedules have been designed to be completed in no more than ten months, to allow sufficient time for other maintenance work and to program those seasonal PM requirements into the proper sequence so that the entire PM program will be completed on a timely, cost-effective and overtime-free basis.

E. EMERGENCY SITUATIONS

The assignment of one maintenance mechanic to each development not only provides adequate time to respond to routine and PM work orders, but also to quickly react to any emergency within a development, since the mechanic is already on-site. Emergencies arise when resident and/or HA staff are faced with a health or life-threatening situation or there is a condition which might result in serious structural or system damage if not corrected within a 24-hour period.

Emergencies will fall into one of two categories; 1) those happening during the regular workday or 2) those that occur after hours or on weekends. The HA has procedures for each category and the information is contained in an Emergency Response folder that is available in each development office, work center, central office and to all designated emergency personnel.

F. EXTRAORDINARY REPAIRS

The HA has made no allowance in this year's plan for extraordinary repairs because it has just completed the final phase of a $3,000,000 CIAP grant that completed the modernization of the newest development, and because Hooker Heights and Fairfield Heights were modernized three years ago.

G. SERVICE CONTRACTS

The HA has contracted with outside firms to provide cycle painting, landscaping, HVAC repair and vehicle maintenance. Each of these contracts were procured in accordance with the HA's procurement policies, based upon the HUD regulations at 24 CFR 85.36.

All contractors were selected with the competitive-proposal method and the total amount of the contracts are well within our operating budget for this year.

H. MATERIALS, SUPPLIES, AND EQUIPMENT

Based upon an analysis of the consumption and use of materials and supplies for last year, the HA has budgeted a 5% dollar increase in items to be consumed based upon the continued and expanding emphasis on the HA's PM program.

The HA has no plans to purchase equipment this year because of the availability of CIAP funds during the past three years, with which the HA was able to replace and/or add every item that was needed.

I. BUDGET

The HA budget has been developed based upon established goals, schedules, staff requirements, and known income sources. The HA believes it has developed a very fiscally responsible budget.

MAINTENANCE GUIDEBOOK I - MAINTENANCE PROGRAM

APPENDIX B

SAMPLE JOB DESCRIPTIONS
SAMPLE EMPLOYEE PERFORMANCE EVALUATION

POSITION DESCRIPTION

MAINTENANCE SUPERINTENDENT

DATE:_____ REVISED DATE:_____

POSITION GRADE:_____

REPORTS TO: Deputy Executive Director, Executive Director

POSITION SUMMARY: Responsible directly to Deputy Executive Director for directing and coordinating the activities of staff and contractors engaged in preventive and rehabilitative maintenance for the Authority's developments. Day-to-day responsibilities are carried out through the maintenance employees. Technical knowledge and judgment are required in formulating and interpreting plans, purchasing supplies and equipment, and in inspection and evaluation of work performed. Work is performed under the general supervision of the Deputy Executive Director and is evaluated through observation of program effectiveness and efficiency, and by review of reports.

MAJOR DUTIES AND RESPONSIBILITIES INCLUDE:

1. Plans, organizes and directs a program of building and grounds maintenance encompassing all HA-owned properties.

2. Reviews plans or works with subordinates and employees, advises on technical areas and variations of schedules.

3. Assists subordinates with disciplinary problems and employee counseling and hiring.

4. Assists Manager, Property Management Branch, provides technical information and advice on ongoing and proposed projects, handles special projects as required.

5. Inspects buildings, grounds and equipment; plans and develops renovations and long range preventive maintenance programs.

6. Responsible for maintaining the specifications and inventories of supplies and equipment, checking daily the equipment maintenance and assuring that adequate supplies are on hand and that work is performed as scheduled. Supervises the requisition and disposal of supplies. Makes periodic audit checks of supplies and equipment and takes immediate corrective action to the fullest extent of the law when discrepancies occur.

MAJOR DUTIES AND RESPONSIBILITIES: (Continued)

7. Makes the appropriate arrangements for the Authority's reimbursement for damages and/or losses caused by negligence of vendors, contractors or employees. Damages or losses caused by employees include, but are not limited to supplies, tools, checked-out tools and equipment.

8. Coordinates work with related state, local, and federal agencies and with Housing Authority departments concerned.

9. Conducts and supervises safety and training programs for employees.

10. Controls vehicles, repair records and vehicle assignments.

11. Composes and updates programs of emergency preparedness, maintenance and communication for severe weather and other emergencies.

12. Maintains time and attendance records, including records on chronic absences and unauthorized leave.

13. Assists in preparation of annual budget, prepares necessary correspondence and other administrative tasks incidental to carrying out responsibilities. Closely monitors all area expenditures by subordinates and takes immediate corrective action to insure strict compliance with approved budgets.

14. Answers fire and emergency alarms, responds to emergency situations.

15. Advertises and disposes of surplus materials, vehicle, etc.

16. Monitors emergency calls after hours to assist on-call mechanics as needed.

17. Supervises a variety of secretarial/clerical related duties such as typing, data transcribing, answering telephones, dispatching, filing and operating photocopy machines.

18. Initiates correspondence, memos, forms and reports for the Department.

19. Supervises and coordinates the work order system: receives work reports by phone or in writing, logs in work orders and inputs into the work order system; dispatches work order to appropriate personnel; receives completed work orders; initiate chargebacks if applicable; generates work order activity/status reports and files completed work order in appropriate files.

MAJOR DUTIES AND RESPONSIBILITIES: (Continued)

20. Supervises and coordinates the Preventive Maintenance (P.M.) System: keeps P.M. System up-to-date by adding/deleting files as items are installed or salvaged; routinely previews P.M. files and initiates pre-printed work orders for scheduled P.M. work; receives completed P.M. work orders for scheduled P.M. work; receives completed P.M. work orders and documents work performed in master file; re-schedules P.M. work; then re-files and generates P.M. activity/status reports.

21. Dispatches departmental personnel.

22. Supervises the controlled stockroom: receives stock, verifies that all items shown on the shipping list were delivered in good condition and agree with the P.O.; controls the stock shelves; issues stock and document transaction; issues, receives, and maintains checkout tools and equipment; keeps inventory control system current; keeps vendor lists current; locates replacement and spare parts for Maintenance personnel; picks up spare parts as required; and keeps the controlled stockroom clean and in order.

23. Supervises the performance of limited bookkeeping/accounting functions for the Department: allocates and recaps time/material cost to each cost center; maintains Departmental payroll and attendance records; keeps outside contractor cost records; etc.

24. Generates Departmental monthly activity reports per pre-established format (both manual and computer reports).

25. Coordinates assigned purchasing functions for the Department following established policies and procedures.

26. Performs other related duties as required and/or assigned.

REQUIRED KNOWLEDGE, SKILLS, AND ABILITIES:

1. Must have extensive knowledge of local, state, HUD, and national life-safety and building codes.

2. Must be able to keep and interpret statistical records, develop statistical reports, and develop and monitor maintenance budgets.

3. Must be able to read and interpret blueprints, building specifications, and HVAC system component operating and maintenance information.

4. Must have considerable knowledge of maintenance, grounds care and cleaning equipment, materials, supplies, methods and procedures, and be able to convey this knowledge through training to subordinate personnel.

5. Must have working knowledge of Preventive Maintenance, work orders and maintenance accounting systems. Experience in developing and implementing the system is highly desirable, though not essential.

6. Must be able to communicate well, both orally and in writing, with all levels of the Housing Authority's staff.

7. Must be willing and able to work flexible hours.

8. Ability to effectively plan and supervise the activities of a number of subordinates engaged in various maintenance activities and to make accurate estimates of time and materials required.

9. Thorough knowledge of the assembly and maintenance of various types of heating, ventilating, air conditioning and refrigeration equipment.

10. Thorough knowledge of methods, practices, tools and materials used in major building trades.

11. Ability to establish and maintain effective working relationships with subordinates, residents, other departments, Housing Authority officials and the general public.

12. Ability to inspect and determine need for maintenance and to plan programs of Preventive Maintenance.

EDUCATION AND EXPERIENCE:

1. Graduation from an accredited four year college or university with a Bachelor of Science or Engineering or one of the building trades.

2. Six years experience in the building trades or related fields and progressively responsible experience in building maintenance, including ten years supervisory experience of apartment/building maintenance, urban renewal or public housing work.

3. Must have masters level mechanic ability in two or more of the trades classifications with hands-on working experience of five years in each trade classification.

4. Or an equivalent combination of education and experience to meet the required knowledge, skills and abilities.

SPECIAL REQUIREMENTS:

1. Must have a valid vehicle operator's license.

2. Must be bondable.

3. Must be insurable by the agency's fleet insurance carrier.

POSITION DESCRIPTION

MAINTENANCE MECHANIC II

DATE:_____ REVISED DATE:_____

POSITION GRADE:_____

REPORTS TO: Maintenance Superintendent

POSITION SUMMARY: This is the highest classification maintenance mechanic which requires advance skills or certification. Personnel in this classification must have the ability to be certified in one or more of the trades classifications but will perform a wide range of maintenance-related tasks outside their primary area of assignment or certification. The Maintenance Mechanic II is responsible to dress for the weather.

MAJOR DUTIES AND RESPONSIBILITIES INCLUDE:

1. Must practice safety precautions and be safety conscious at all times.

2. Performs required planned and corrective (repair) maintenance to building surfaces, fixtures, systems and equipment.

3. Performs equipment preventive maintenance tasks such as: checking for proper equipment operation; lubricating bearings, changing air filters, and changing heat exchanger and condenser coils.

4. Performs electrical and plumbing systems preventive maintenance tasks such as: inspecting plumbing fixtures for leaks and repairs, checking drain lines to insure they are free of obstruction, checking appliances for proper operation, testing light switches and electrical outlets and conducting ground fault detection tests.

5. Performs such mechanical tasks as repairing and/or replacing space temperature and HVAC equipment controls.

6. Performs such carpentry work as: hanging doors and installing windows, replacing/repairing door and window hardware, re-glazing windows, installing and/or repairing cabinets and handrails; repairing roofs, gutters and downspouts; replacing floor tiles and repairing carpet; and patching plaster walls and ceilings.

MAJOR DUTIES AND RESPONSIBILITIES: (Continued)

7. Performs such masonry work as: repairing cracked concrete, replacing broken masonry brick and ceramic tiles, re-grouting ceramic tile and sealing concrete and exterior brick walls.

8. Performs such plastering and sheetrock repair as: mixing plaster and drywall mud, removing old plaster and lathe; installing lathe, ground coat and white coat; installing and repairing drywall; bends and feathers edges to match surrounding surfaces.

9. Performs such plumbing tasks as: repairing faucet washers, seats, stems, spigots, valves, and hardware; resetting commodes, tubs and sinks; repairing water leaks, replacing and/or repairing flush valves or flush tank hardware; and clearing clogged drains and soil lines.

10. Performs such painting tasks as: preparing surfaces for painting by patching plaster holes, sanding, scraping or masking; painting with brushes, rollers or sprayers; performing touch-up painting after work in an area; spot painting metal surfaces for corrosion control, etc.

11. Performs miscellaneous maintenance related tasks for a variety of situations as directed by immediate supervisor.

12. Performs necessary manual labor to keep housing projects in a decent, safe and sanitary condition.

13. Plans, lays-out, coordinates and directs other maintenance personnel as assigned by the Maintenance Superintendent.

14 Utilizes a wide range of powered and non-powered hand tools such as drills, sanders, sewage line cleaners, saws, hammers, pillars, screwdrivers, wrenches, oilers and volt-ohm-amp meters.

15. Troubleshoots maintenance problems using visual and appropriate testing equipment.

16. Operates and makes all installations and repairs in accordance with local, state and national codes.

17. Participates in off-shift and weekend emergency maintenance coverage as scheduled.(Schedule consists of a pay period)

18. Ability to install electrical appliances.

19. Performs such other duties as may be assigned.

REQUIRED KNOWLEDGE, SKILLS, AND ABILITIES:

1. Knowledge of the principles, practices, tools and materials used in one or more building trades (i.e. carpentry, plumbing, painting, masonry, heating or electrical trades).

2. Knowledge of occupational hazards and safety procedures of the trade.

3. Skilled in the use and care of common hand tools required in building and equipment maintenance and construction work.

4. Ability to perform maintenance and repairs in one or more trades.

5. Ability to follow oral and written instructions.

6. Ability to perform tasks requiring moderately heavy manual work.

7. Ability to establish and maintain effective working relationships with other employees, tenants and the general public.

8. Ability to assign duties and supervise subordinate employees if necessary.

EDUCATION AND EXPERIENCE:

1. Graduation from a standard high school

2. Must have at least three or more years proven experience comparable to a certified journeyman level craftsman in more than one of the building trades or be a Vo-Tech graduate with a journeyman rating and certified in one or more of the trades classifications.(electrical, painting, plumbing, carpentry, masonry, plastering or utility services)

3. Or an equivalent combination of technical training and experience to meet the required knowledge, skills and abilities.

SPECIAL REQUIREMENTS:

1. Must have a valid vehicle operator's license.

2. Must be bondable.

3. Must be insurable by the Authority's fleet insurance carrier.

POSITION DESCRIPTION

MAINTENANCE MECHANIC ASSISTANT

DATE:_____ REVISED DATE:_____

POSITION GRADE:_____

REPORTS TO: Maintenance Superintendent

POSITION SUMMARY: Perform maintenance, grounds care and custodial duties as assigned. This is the entry level position into the Maintenance Department. Duties include, but are not limited to: mowing with push-type and riding mowers, edging, trimming, raking and debris pick-up, reseeding, fertilizing, installing and repairing curbing, pavement and sidewalks, cleaning out vacant units, cleaning offices and common areas in project offices, providing labor support to other maintenance mechanics and any other tasks as assigned. Maintenance Mechanic Assistant is responsible to dress for the weather.

MAJOR DUTIES AND RESPONSIBILITIES INCLUDE:

1. Must practice safety precautions and be safety conscious at all times.

2. Performs specific grounds care tasks in accordance with established procedures. The tasks include, but are not limited to: mowing, trimming, edging, pruning, fertilizing, watering, reseeding; applying fungicides, herbicides, insecticides and sterilants; sweeping walks and drives; patching parking lots and drives; repairing signs; removing snow, spreading sand and/or ice-melt, etc.

3. Makes ground care decisions such as cutting height, pruning, plant spacing and applying insecticides.

4. Operates and maintains powered grounds care equipment such as tractor mowers, riding mowers, push mowers, edgers, trimmers, vacuums, blowers, sprayers, spreaders and chain saws.

5. Uses and maintains non-powered grounds care equipment such as shovels, axes, hoes, wheelbarrows, saws, trimmers and hedge clippers.

6. Reports to immediate supervisor any items requiring maintenance as well as any unusual or unsafe conditions.

MAJOR DUTIES AND RESPONSIBILITIES: (Continued)

7. Transports trash and debris to landfill using a predetermined route of travel. Prepares vacant units for occupancy by way of washing walls, stripping and buffing floors, cleaning appliances and windows and other duties as instructed by the Working Foreman or Director of Operations.

8. Performs minor maintenance tasks such as repairing washers; unstopping sinks, tubs and commodes; repairing commodes and drain pipes; replacing ceiling or wall receptacles, light switches or blown fuses; paint surfaces cabinets, equipment.

9. Assist Maintenance Mechanics with general labor duties in the installation and repair of gas, sewer and water lines, the installation or repair of plumbing fixtures or other similar activities.

10. Performs other duties as directed by the Maintenance Superintendent.

REQUIRED KNOWLEDGE, SKILLS, AND ABILITIES:

1. Knowledge of cleaning materials, equipment and methods commonly employed in the custodial care and cleaning of buildings, facilities and equipment.

2. Knowledge of general grounds care procedures and maintenance.

3. Ability to exercise care in the use of materials, equipment and tools.

4. Ability to follow oral and written instructions.

5. Ability to perform tasks requiring moderately heavy manual work.

6. Ability to establish and maintain effective working relationships with other employees, tenants and the general public.

EDUCATION AND EXPERIENCE:

1. Must have completed the 8th grade. Graduation from an accredited high school is desirable.

2. One year of working experience in the care and maintenance of buildings and/or grounds.

3. Or an equivalent combination of technical training and experience to meet the required knowledge, skills and abilities.

SPECIAL REQUIREMENTS:

1. Must have a valid vehicle operator's license.

2. Must be bondable.

3. Must have or be capable of obtaining a valid commercial vehicle operators license.

POSITION DESCRIPTION

LABORER

DATE:_____ REVISED DATE:_____

POSITION GRADE:_____

REPORTS TO: Maintenance Superintendent

POSITION SUMMARY: This is a position for part-time, nonpermanent unskilled manual labor. A person utilized in this class is responsible for performing custodial, groundskeeping and/or maintenance support tasks that do not require previous experience and minimal skills. Work is usually performed as a member of a group with specific instructions being given and close supervision exercised at all times.

MAJOR DUTIES AND RESPONSIBILITIES INCLUDE:

1. Must practice safety precautions and be safety conscious at all times.

2. Performs specific grounds care tasks in accordance with established procedures. The tasks include, but are not limited to: mowing, trimming, edging, pruning, fertilizing, watering, reseeding; applying fungicides, herbicides, insecticides and sterilants; sweeping walks and drives; patching parking lots and drives; repairing signs; removing snow, spreading sand and/or ice-melt, etc.

3. Operates and maintains powered grounds-care equipment such as tractor mowers, riding mowers, push mowers, edgers, trimmers, vacuums, blowers, sprayers, spreaders, chain saws.

4. Uses and maintains non-powered grounds care equipment such as shovels, axes, hoes, wheelbarrows, saws, trimmers and hedge clippers.

5. Reports to immediate supervisor any items requiring maintenance as well as any unusual or unsafe conditions.

6. Assist Maintenance Mechanics with general labor duties in the installation and repair of gas, sewer and water lines, the installation or repair of plumbing fixtures or other similar activities.

7. Sweeps, mops and waxes floors, cleans and paints walls and woodwork; cleans bathroom fixtures and kitchen appliances.

8. Perform other duties as directed by the Maintenance Superintendent.

REQUIRED KNOWLEDGE, SKILLS, AND ABILITIES:

1. Some knowledge of cleaning materials, equipment and methods commonly employed in the custodial care and cleaning of buildings, facilities and equipment.

2. Some knowledge of general grounds care procedures and maintenance.

3. Ability to follow oral and written instructions.

4. Ability to perform tasks requiring moderately heavy manual work.

5. Ability to establish an effective working relationships with Authority employees.

EDUCATION AND EXPERIENCE:

None Required

SPECIAL REQUIREMENTS:

1. Must have a valid vehicle operator's license.

2. Must be able to read and write.

EMPLOYEE PERFORMANCE EVALUATION

DATE: _____

NAME: _____ JOB LOCATION: _____

JOB TITLE: _____ LAST EVALUATION: _____

Please complete this form carefully and thoroughly. Remember, its purpose is to:

1. Provide objective criteria for personnel performance evaluations on a standard basis within your organization.
2. Compel you to examine all of the individual traits affecting employee performance.
3. Help you to support your conclusion and recommendation for job classification and conclusion and improvements.
4. Produce fairer evaluations of employees.

PROCEDURE:

Pages 2 through 5 describe fifteen personal traits identified with job success or failure. Decide for each the level at which the employee performed for this rating period. Write the corresponding value number in the rating column. Add the numbers to obtain a total score.

Transfer this total to the rating scale on page 6. This will indicate, and support, your overall opinion of the employee's performance.

Refer back to pages 2 through 5 to comment on the employee's principal strengths and weaknesses. Your comments should be consistent with your rating of individual traits.

Finally, you should describe the employee's reaction to this evaluation, if you discuss it, and make your recommendation for any changes in the employee's job classification or rate of pay.

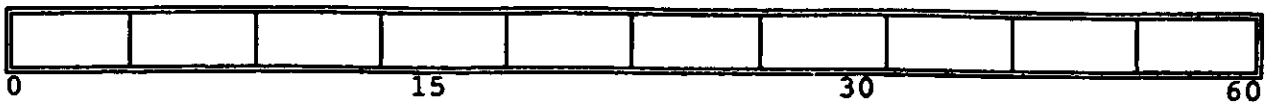
PERSONAL TRAITS	UNSATISFACTORY 0	SOME DEFICIENCIES EVIDENT 1	SATISFACTORY 2	EXCEPTIONAL 3	CLEARLY OUT-STANDING 4	INSERT NUMBERICAL RATING (0 - 4)
KNOWLEDGE: The blending of job-related education skills and experiences	Severly lacking in knowledge	Noticeable deficiencies in job knowledge	Understands job. Knowledge still to be acquired.	Completely understands all aspects of the job.	Understands why all job functions are performed and inter-relationship with other jobs	
QUANTITY: Level of satisfactory output generated per unit of time.	Usually below acceptable standard.	Barely acceptable level of output. A slow worker.	Satisfactory Meets expectations of average output.	Usually exceeds the norm. A fast worker.	Exceptional producer. Generates maximal output.	
ACCURACY: Absence of errors.	Constantly commits errors.	Error level too high. Needs improvement	Makes average number of mistakes.	Very accurate. Commits few errors.	Extremely accurate. Rarely commits an error.	
JUDGMENT: Capacity to make reasonable decisions.	Frequently makes irrational decisions. Poor judgments.	Too often selects wrong alternative.	Usually exercises sound judgment.	Above average reasoning ability. Seldom errs in judgment.	Sustains high level of sound judgment. Decisions best under circumstances.	

INNOVATION: Imagination and creativity used to lower costs & improve profit.	Never offers a new procedure or new idea.	Rarely suggests new ideas.	Average number of suggestions for improving methods/procedures.	Often suggests beneficial changes and profit/cost improvements	Very innovative. Constantly offers imaginative suggestions for improving operations.	
APPEARANCE & HABIT: Personal habits, clothing and grooming (evaluation should consider job).	Frequently offensive	Occasionally sloppy appearance or display of offensive habits.	Usually prperly dressed/ groomed. Few poor personal habits.	Rarely exhibits poor appearance or offensive habit.	Always properly dressed for the job. Personal habits are never offensive or poor taste.	
ORDERLINESS: Organization of the individual's work and work area.	Usually disorderly and chaotic.	Frequently unorganized or work area in disarray.	Works sufficiently organized to efficiently perform the job.	Highly organized and efficient worker. Few instances of lack of order.	Exceptionally precise in organization work. Extremely efficient.	
COURTESY: Respect for feelings of others. Politeness on the job.	Frequently rude. Causes noticeable discomfort to others.	Occassionally impolite to coworkers or others.	Observes common courtesies, does not offend.	Very conscientioius of other's feelings and rights. Always polite.	Extremely courteous, well mannered/polite. Always considers comfort/ease of others.	

COOPERATION: Willingness to help others accomplish their objectives.	Uncooperative. A "roadblock" to coworkers, and clients.	Too often uncooperative when faced with reasonable requests for assistance.	Generally a cooperative person on the job.	Very cooperative. Often offers assistance. Can be counted on to help.	Extremely cooperative. Constantly offers aid and always available to help others.	

INITIATIVE: Voluntarily starting projects. Attempting non routine jobs & tasks.	Little initiative. Never volunteers. Sticks to job rountine.	Shows some initiative. Should do more without having to be told.	Does not shirk. Voluntarily attempts to solve nonrountine job problems.	Above average. A self starter. Will generally volunteer.	Highest priority on job completion. Accepts difficult/unpleasant jobs to achieve goals.	
RELIABILITY: Dep[endability and trustworthiness.	Not reliable. Often fails to deliver a complete job.	Occasionally leaves rountine tasks incomplete.	Can be relied on to complete all aspects of job.	Completes work with little supervision. Completes special projects.	Extremely motivated, loya and trustworthy. Accepts all asisgnments and performs exceptional.	
PERSEVERANCE Steadfast pursuit of job objectives when faced with unexpected obstacles.	Frequently quits when faced with unexpected obstacles.	Is sometimes deterred by obstacles which should be overcome.	Is not stopped by most obstacles, works through them.	Displays sufficient drive to overcome unusually difficult obstacles.	Always displays extreme determination. Will rarely quit until objective is reached.	

STABILITY: Even temperment. Acceptance of unavoidable tension and pressure.	Volatile, inconsistent personality. Disrupts work environment.	Occasional display of temper or emotion to disrupt and hinder performances	Even tempered. Absorbs rountine pressures of job.	Can tolerate unusual pressure/tension without hindering performance.	Performs consistently and effectively under extreme pressure. Never visibly falters.	
ATTENDANCE: Availablity for work.	Frequent unexcused lateness or absence. Poor attendance.	Obsences or lateness below standards.	Satisfactory attendance record.	Rarely late or absent.	Almost never late or absent. Always accepts overtime work, if offered.	
ALERTNESS: Ability to quickly understand new information and situations.	Very slow to grasp ideas and events.	Usually needs extra instruction.	Understands new ideas/developments without excessive explaination.	Fast learner. Grasps new information qucikly.	Extremely bright. Analyzes and understands with minimum of instructions.	
TOTAL						



SUMMARY SCORE _____(mark total numerical rating on scale above)
(total)

COMMENT ON PRINCIPAL STRENGTHS: _____

_____

_____

_____

COMMENT ON PRINCIPAL WEAKNESSES AND SUGGESTIONS FOR IMPROVEMENT:

_____

_____

_____

HAS THIS EVALUATION BEEN DISCUSSED WITH EMPLOYEE? [ ]YES [ ] NO

COMMENTS: _____

_____

_____

YOUR RECOMMENDATION FOR PRESENT AND FUTURE JOB CLASSIFICATION:

_____

_____

_____

RATEDBY: _____ TITLE: _____

APPROVED BY: _____

I have reviewed this evaluation and I completely understand it's contents.

Date: _____ *Employee Signature:* _____

MAINTENANCE GUIDEBOOK I - MAINTENANCE PROGRAM

APPENDIX C

SAMPLE PREVENTIVE MAINTENANCE PROCEDURES

The Housing Authority of:_____

P reventive **M**aintenance **P** rocedure

Electrical Systems

TASK DESCRIPTION	D	W	M	Q	S	A
Electric Motors						
1. Lubricate non-sealed bearings per manufacturer's recommendations.			x			
2. Check motor alignment, motor mounts, bearing wear, amperage draw and voltage.						x
Lighting Fixtures and Switches						
1. Check operation of light fixtures and switches by turning lights on and off.					x	
2. Check for broken light globes, diffusers and reflectors and replace.					x	
3. Check for broken or missing light switch covers and replace.					x	
Outlets						
Use test light to check outlets. If test light does not glow, identify and correct problem. Check polarity.					x	
Electrical Panel, Meters and Motor Starters						
1. Check electrical equipment rooms:			x			
a. Be sure they are clean and properly ventilated.						
b. Make sure they are properly SECURED. For safety reason, NEVER leave an electrical room unlocked.						
2. Check electrical panel for signs of heating and tighten all connectors.						x
3. Test circuit breaker operation.						x
4. Tighten all connectors on electrical panels, meters and motor starters. Check contacts for pitting, corrosion and wear. Check load with amp. probe. Check HA owned meters for proper operation.						x
5. Tighten main power switch gear completely. Clean contactors, tighten lugs, replace springs where required, etc..	**Every five years**					
6. Check all electrical buss ducts and connections for hot spots.	**Every five years**					
Transformers						
1. Monitor peak electrical load on transformer.			x			
2. Keep trash off transformers. DO NOT stack anything whatsover on the transformers.			x			
3. Clean transformer surfaces.			x			
4. Tighten all connections and visually inspect entire unit.						x
5. Check unit, check all connectors, check transformer protection, and conduct electrical test.	**Every five years**					

D -> *Daily*
W -> *Weekly*
M -> *Monthly*
Q -> *Quaterly*
S -> *Semi-Annually*
A -> *Annually*

The Housing Authority of:_____

P reventive **M**aintenance **P** rocedure

Electric Space Heaters

TASK DESCRIPTION	D	W	M	Q	S	A
1. Check operation: a. Turn thermostat to highest and lowest settings and check response of unit. b. Listen for any unusual noises or vibration as an indication of fan misalignment.				x		
2. Clean and inspect fan motor and blades.				x		
3. Lubricate non-sealed motor bearings.				x		
4. Check electrical heating element and clean.						x
5. Check electrical cord. Replace or repair as necessary.				x		
6. Check for any code violations: a. Electrical plug arrangement - no octopus plugs. b. Extension cord vialation - broken insulation. c. Overloaded circuits.						x

D -> *Daily*
W -> *Weekly*
M -> *Monthly*
Q -> *Quaterly*
S -> *Semi-Annually*
A -> *Annually*

The Housing Authority of:_____

P reventive **M** aintenance **P** rocedure

Electric Wall Heaters

TASK DESCRIPTION	D	W	M	Q	S	A
1. If radiant heat, check for proper operation, including thermostat.						x
2. Units with blowers:						x
a. Check fan for proper operation. b. Check fan for vibration and proper speed. c. Clean fan motor and blades, if required.						
3. Vacuum out dust.						x

D -> *Daily*
W -> *Weekly*
M -> *Monthly*
Q -> *Quaterly*
S -> *Semi-Annually*
A -> *Annually*

The Housing Authority of:_____

P reventive **M** aintenance **P** rocedure

Electrical Ranges

TASK DESCRIPTION	D	W	M	Q	S	A
1. Check voltage to unit. Notify Maintenance Supervisor of any abnormal readings.						x
2. Check unit for proper operation. Check oven and surface heating elements at various temperatures.						x
3. Check oven door operation.						x
4. Check oven light and replace as required.						x
5. Clean grease from all electrical connections.						x
6. Inspect power supply cord and plug. Replace if insulation is broken						x
7. Clean unit.						x

D -> *Daily*
W -> *Weekly*
M -> *Monthly*
Q -> *Quaterly*
S -> *Semi-Annually*
A -> *Annually*

The Housing Authority of:_____

P reventive **M** aintenance **P** rocedure

Electrical Motors

TASK DESCRIPTION	D	W	M	Q	S	A
1. Check motor alignment.						x
2. Check motor mounts.						x
3. Check amperage draws and voltage on all electric motors. Compare with nameplate and/or engineering data.						x
4. Check bearing wear. (Lubricate motor bearing as specified in manufacturer's literature).						x

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The Housing Authority of:_____

P reventive **M**aintenance **P** rocedure

Emergency Generator

TASK DESCRIPTION	D	W	M	Q	S	A
1. Check batteries and charger. Maintain proper level in batteries with distilled water.		x				
2. Check engine coolant and inspect unit for coolant leaks.		x				
3. Check engine crankcase oil. If low, add oil per manufacturer's recommendation.		x				
4. Check converter oil (if not direct hookup).		x				
5. If connected as a diesel unit, check fuel level and reorder if low.		x				
6. Perform operational check under load and document.		x				
7. Inspect and clean and/or replace air filter.		x				
8. Brush or vacuum clean radiator core.			x			
9. Check all control operations.			x			
10. Change engine crankcase oil and oil filters.				x		
11. Drain and flush coolant system. Replace coolant.					x	
12. Inspect all belts and hoses and replace as required.						x
13. Complete engine tune-up and check and change convertor oil as required.						x
14. Annual inspection and operational checks:						x
a. Test operation under load.						
b. Test all controls and switch gear.						
c. Take voltage/amperage readings.						
d. Check generator bearings.						
e. Review log kept by HVAC Mechanic.						

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The Housing Authority of:_____

P reventive **M**aintenance **P** rocedure

Battery Emergency Lighting

TASK DESCRIPTION	D	W	M	Q	S	A
1. Check for proper operation during a power outage - Disconnect AC power by unplugging unit or using the test switch.			x			
2. Change battery and/or light bulbs as required.			x			

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The Housing Authority of:_____

P reventive **M**aintenance **P** rocedure

Large Exhaust Fans

TASK DESCRIPTION	D	W	M	Q	S	A
1. Check to see if units are operating properly. Listen for any unusual noises or vibrations and correct.			x			
2. Lubricate all non-sealed bearings.			x			
3. Inspect belt condition, alignment and condition on belt driven units. Replace, align and adjust tension as required.			x			
4. Inspect exhaust fan superstructure.			x			
5. Check motor and fan bearings.				x		
6. Clean fan or blower blades (where applicable).				x		
7. Inspect general condition of exterior and interior of unit. Treat and paint corroded areas.						x
8. Check operation of all controls. Clean contactors on larger units.						x
9. Check amperage and compare with amperage on motor nameplate and manufacturer's recommendations.						x
10. Clean exhaust grill.			x			

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The Housing Authority of:_____

P reventive **M**aintenance **P** rocedure

Small Bathroom Exhaust Fans

TASK DESCRIPTION	D	W	M	Q	S	A
1. Check switch operation.						x
2. Check operation of fans:						x
a. Listen for any unusual noises or vibrations for indication of misaligned fan.						
b. Check fan for proper speed.						
3. Open housing and clean fan motor and blades if required.						x

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P reventive **M** aintenance **P** rocedure

Exterior Building Surfaces

TASK DESCRIPTION	D	W	M	Q	S	A
1. Check for graffiti and remove.	x					
2. Make sure foundation vents are open in the summer and closed in the winter.					x	
3. Inspect walls for cracks, painting requirements and condition of grout on brick walls.					x	
4. Check building numbers and signs - repaint and tighten as required.					x	
5. Check condition of entrance steps, handrails, porches and patios - make the necessary repairs.					x	

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The Housing Authority of:_____

Preventive **M**aintenance **P**rocedure

Roof

TASK DESCRIPTION	D	W	M	Q	S	A
1. Remove any trash or debris from roof.			x			
2. Note areas of standing water on flat roofs and check condition of drains.			x			
3. Thoroughly inspect roof for damage and deterioration before each rainy season. Check for the following items:					x	
a. Blisters, wrinkles, cracks or loose seams.						
b. Punctures.						
c. Raised fasteners.						
d. Bare felt.						
e. Lack of aggregate.						
g. Loose or damaged gravel guards.						
h. Loose or cracked flashing.						
i. Cracked or loose expansion joints.						
j. Damaged scuppers and hatches.						
k. Leaking pitch pans.						
l. Caulking and solder joints.						
m. Gutters and downspouts (check to see if they are clean; clean when necessary).						
n. Ridge and saddle condition.						
4. Perform minor roof repairs, as needed.					x	
5. Clean gutters and downpouts. Some buildings with gutters are shaded by trees and, therefore, the gutters may require cleaning two or more times a year, including one after trees lose their leaves.						x

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P reventive **M**aintenance **P** rocedure

Doors and Door Hardware

TASK DESCRIPTION	D	W	M	Q	S	A
1. Check door latching and locking operation: a. Open and close door - check for any difficulties or problems and correct. b. Make sure panic bars, door knobs and door pulls work and are not loose. c. Lock and unlock door - check for any problems.					x	
2. Check, adjust and lubricate door closures.					x	
3. Lubricate door hinges - using door hinge lubrication.					x	
4. Inspect door and door frame for general condition and alignment and make necessary repairs. Check door glass, kick plates, push plates, weather stripping, etc..					x	

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P reventive **M**aintenance **P** rocedure

Windows and Window Hardware

TASK DESCRIPTION	D	W	M	Q	S	A
1. Check general condition of windows and window frames. Make any necessary repairs.					x	
a. Replace broken or cracked panes.						
b. Replace rotten wooden sills or frames.						
c. Prime pitted metal frames.						
d. Recaulk missing or cracked caulking.						
2. Check window lock operation.					x	
3. Open and close windows to check operation.					x	
4. Check window screens and replace torn screens.					x	

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P reventive **M**aintenance **P** rocedure

Interior Building Surfaces

TASK DESCRIPTION	D	W	M	Q	S	A
Walls and Ceilings						
1. Check for general condition. Patch all cracks and holes.					x	
2. Look for water stains as an indication of roof or plumbing leaks.					x	
3. Check ceramic tile walls for grouting condition, and cracked or missing tiles. Replace as required.					x	
4. Check bathroom mirrors and cabinets. Replace broken glass.					x	
Floors						
1. Inspect concrete floors for cracks and pitting. Patch as required.					x	
2. Check tile floors for missing, cracked or loose tiles. Replace as required.					x	
3. Check carpeted floors for wear, loose seams, tears and condition. Repair as required.					x	
4. Check for loose baseboards and reattach.					x	
Cabinets, Desks, Bookshelves and other Furniture						
1. Check for general condition. Look for warping, missing panels, missing hardware and loose formica.					x	
2. Tighten latches and hinges.					x	
3. Lubricate hinges.					x	
Stairs						
1. Look for loose stair treads and reattach.			x			
2. Tighten loose handrails.			x			

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P reventive **M**aintenance **P** rocedure

Garbage Diposal Unit

TASK DESCRIPTION	D	W	M	Q	S	A
1. Check for proper operation: a. Turn on and make sure it rotates. b. Check for vibration.						x
2. Look down with light into the surface of the unit to check the condition of blades. Remove any foreign material.						x
3. Clean with cleaner/disinfectant.						x

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P reventive **M**aintenance **P** rocedure

Refrigerators

TASK DESCRIPTION	D	W	M	Q	S	A
1. Check operation by turning thermostat to highest and lowest setting and listen to hear if the compressor responds.					x	
2. Clean compressor and compressor compartment. Inspect for any refrigerant oil leaks. Notify Maintenance Supervisor of any leaks.					x	
3. Clean condensor coils.					x	
4. Check condition of door gasket and adjust or replace it if necessary.					x	
5. Inspect cord and plug. Replace if insulation is broken.					x	
6. Lubricate door hinges.					x	
7. Inspect interior of unit for interior wall cracks.					x	
8. If refrigerator has fan:					x	
a. Check operation of fan motor.						
b. Lubricate non-sealed bearings.						
c. Clean fan motor and blades.						

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P reventive **M**aintenance **P** rocedure

Water Coolers

TASK DESCRIPTION	D	W	M	Q	S	A
1. Check operation of water valve.				x		
2. Inspect for water leaks.				x		
3. Check drains for clogging. Clean drains.				x		
4. Check water temperature.				x		
5. Inspect the water bowl for scale buildup.						x
6. Clean compressor, compressor compartment, fan motor, fan blades, and condenser coils. Straighten any bent fins.						x
7. Inspect cord and plug (or wiring) for breaks in insulation.						x

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The Housing Authority of:_____

P reventive **M**aintenance **P** rocedure

Gas Range

TASK DESCRIPTION	D	W	M	Q	S	A
1. Check surface and oven burners for proper operation: a. Check auto pilot operation. b. Check color of flame.						x
2. Clean and adjust burners.						x
3. Check for any gas leaks.						x
4. Check oven door operation.						x
5. Check oven light and replace as required (if oven has a light, be sure to check to electrical cord and plug to the unit).						x
6. Clean range.	x					

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The Housing Authority of:_____

Preventive **M**aintenance **P**rocedure

Domestic Hot Water Heaters (NG & Elec)

TASK DESCRIPTION	D	W	M	Q	S	A
1. Check operation, including controls.						x
2. Inspect unit and piping for leaks.						x
3. Drain water from heater until it clears to remove sediment.						x
4. Natural gas fired units:						x
a. Inspect and clean burners. b. Check auto pilot operation. c. Inspect condition of flue and clean.						
5. On electrical units, conduct amp/volt test.						x
6. Set temperature control no higher than 120 degrees F.						x
7. Check temperature/pressure valve for proper operation, and check that drain pipe has a length sufficient to satisfy code requirements.						x

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The Housing Authority of:_____

P reventive **M**aintenance **P** rocedure

Fire Pumps

TASK DESCRIPTION	D	W	M	Q	S	A
1. Operate pump at rated speed with water discharging to exercise pump and to check pump operation.		x				
2. Check conditions of pump seals, stuffing boxes, suction piping, strainers, pump drive and control equipment. Record in log.		x				
3. On centrifugal pumps, water level in the casing must be checked by opening the air vent cock to assure sufficient water for lubrication and cooling before starting.		x				
4. Test fire pump system under full rated load. Operate pump at full rated capacity to make sure entire system is performing properly.						x
5. Where applicable, check reservoirs and remove foreign material.						x
6. Repack pumps without mechanical seals.						x
7. Check motor amps and voltage. Make sure pump motors are not drawing more running amps than specified on motor nameplate or manufacturer's recommendations.						x
8. All gauges and instruments should be tested and recalibrated if required.						x

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P reventive **M**aintenance **P** rocedure

Sump Pumps

TASK DESCRIPTION	D	W	M	Q	S	A
1. Check to see if unit is operating properly.	x					
2. Lubricate all non-sealed bearings.			x			
3. Clean as needed.			x			
4. Check all controls.			x			

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P reventive **M**aintenance **P** rocedure

Trash Compactors

TASK DESCRIPTION	D	W	M	Q	S	A
1. Check to see if unit is operating properly: a. Check limit switch operation b. Check ram opertion. c. Check electric eye and clean reflector. d. Check hopper door for proper closing. e. Check if fire system (water and electric) is on - test by heating. f. Check last bag switch for proper operation.		x				
2. Check hydraulic fluid level (if used) and add, if required. Inspect for oil leaks.						x
3. Check sanitizing spray system (be sure fluid concentrate is being injected).						x
4. Remove debris from back of machine if there is any.		x				

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P reventive **M**aintenance **P** rocedure

Mowers and Edgers - Gasoline Powered

TASK DESCRIPTION	D	W	M	Q	S	A
1. Clean; use radiator brush to remove any dirt or grass that has accumulated on unit, including blades and the cylinder fins of the engine. Wipe dry cloth (except the engine).	x					
2. Visually check entire machine for any damage.	x					
3. Check blades to see if they are dented pitted, bent or dull. Sharpen blades if neccessary. Replace with new blades if they cannot be sharpend to a like new condition.	x					
4. Check engine crank case oil. If oil is low, add HD 30 paraffin based oil to bring up to proper level.	x					
5. Check or replace air and fuel filters.	x					
6. Check for loose fasteners and tighten.	x					
7. Check spark plugs, clean, regap or replace as neccessary.		x				
8. Lubricate all pivot points and controls.		x				
9. When engine is hot, drain crank case oil and refill with HD 30 paraffin based engine oil.		x				
10. Thoroughly check unit for proper operation and care. Make any neccessary repairs. Record conditon of the equipment.			x			
11. Check points, replace if pitted or burned.			x			
12. Spot paint any scrapes or scratches on existing paint on the machines. When necessary, completely repair painted surfaces of equipment to protect from rust and corrosion.						x
13. Store all grass cutting machines in a clean dry well ventilated area.					x	
14. Check operation of mowers and edgers and inspect condition of units. Make recommendations to the Grounds Supervisor for future operation and maintenance.						x

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P reventive **M**aintenance **P** rocedure

Hedge Trimmers and Weed Eaters - Gasoline Powered

TASK DESCRIPTION	D	W	M	Q	S	A
1. Clean with brush to remove any dirt, grass or leaves. Wipe with dry cloth.		x				
2. Oil hedge trimmer blades.		x				
3. Check nylon cord supply on weed eater.		x				
4. Inspect equipment for damage. Check blades on hedge trimmers for dents, damage and sharpness. Sharpen blades as required.		x				
5. Clean the air cleaner every four (4) running hours.		x				
6. Clean the fuel filter.		x				
7. Clean regap or replace the spark plugs.		x				
8. Thoroughly check unit for proper operation and care. Make any necessary repairs. Record condition of the equipment.			x			
Maintenance for Storage						
1. Drain fuel/oil mixture from fuel tank.						x
2. Remove spark plug and pour two tablespoons of SAE 30 oil into cylinder through spark plug hole. Crank engine for 12 revolutions, then replace spark plug.						x
3. Cover motor housing, blades and other metal with a light coat of oil to prevent corrosion.						x
4. Inspect equipment to see that it has been properly prepared for storage.					x	

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The Housing Authority of:_____

P reventive **M** aintenance **P** rocedure

Gasoline Engine Starting

TASK DESCRIPTION	D	W	M	Q	R	A
1. Engine starting procedures for push mowers, edgers, trimmers and "weed-eaters" and blowers:					x	
a. Open gasoline shut-off valve located near bottom of gas tank.						
b. Open gasoline throttle slightly.						
c. Close choke on carburetor.						
d. Crank engine with starter or rope starter.						
e. When engine starts, gradually open choke valve until engine runs smoothly.						
f. NOTE: when engine is difficult to start, operator should check the following:						
(1) Check to see if fuel line stopped up.						
(2) Check to see if choke is on.						
(3) Throttle valve stuck or improperly adjusted.						
(4) Throttle rod loose.						
(5) Cracked spark plug.						
(6) Loose or defective wiring.						
(7) If operator cannot get engine started, notify the Grounds Supervisor.						
2. Remember - SAFETY FIRST:					x	
a. Be sure to pick up large rocks and other debris in the path of the mower before starting.						
b. Always stop engine before cleaning or working near the reel or rotating blade.						
c. Be careful to avoid letting foot slip under guard of rotating blade while blade is in motion.						
d. Check oil, filter and gasoline every four (4) hours.						
e. Wear leather constructed shoes and safety glasses.						

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The Housing Authority of:_____

P reventive **M** aintenance **P** rocedure

Gasoline Engine Starting cont'd

Gasoline Engine Starting

TASK DESCRIPTION	D	W	M	Q	R	A
f. No smoking or open flames while filling engine with gas.						
g. Do not run engine in the building (this includes the automotive shop area).						
h. Do not operate the engine powered equipment without the proper guards.						
i. Be sure to remove wire from spark plug before attempting to make adjustments or haul the lawn mower.						
3. It is the responsibility of the equipment operator to dress for the weather and dress for personal safety:					x	
a. Wear long pants (work pants).						
b. Wear a shirt.						
c. Wear socks.						
d. Wear leather consturcted shoes - tennis shoes are NOT permitted.						
e. Wear safety glasses.						
f. Wear a hat (optional).						

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The Housing Authority of:_____

P reventive **M**aintenance **P** rocedure

Plumbing Systems

TASK DESCRIPTION	D	W	M	Q	S	A
<u>Kitchens and Rest Rooms</u>						
1. Check kitchen sink, bathroom lavatory, commode and urinal:					x	
a. Inspect fixtures for cracks.						
b. Inspect for plumbing leaks and repair. Check operation of all water valves and faucets.						
c. Check commode seat and hardware. Tighten if loose and replace as required.						
d. Check commode flush valve operation.						
e. Check drains to see if they are clear.						
f. Check commode base for leak.						
2. Check hot water heater (refer to domestic hot water heater P.M. procedure).						x
<u>Other Areas</u>						
1. Check floor drains to see if they are clear. Replace covers if broken.					x	
2. Check mechanical equipment room plumbing system. Check for leaks, proper hangers and possibility of water hammer.					x	
3. Open and close valves (slowly). Check all valves for leaks and repack as required.					x	

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The Housing Authority of:_____

P reventive **M**aintenance **P** rocedure

Space Heater (NG)

TASK DESCRIPTION	D	W	M	Q	S	A
1. Check operation:					x	
a. Listen for any unusual noises or vibrations.						
b. Turn thermostat to highest and lowest settings and check to see if furnace responds.						
2. Clean blower blades.					x	
3. Vacuum interior of unit.					x	
4. Check auto pilot operation.					x	
5. Clean burners and adjust.					x	
6. Lubricate non-sealed bearings.					x	
7. Check for any gas leaks.					x	
8. Inspect flue and condition and clean.					x	

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The Housing Authority of:_____

P reventive **M** aintenance **P** rocedure

Fan Coil and Small Air Handling Units

TASK DESCRIPTION	D	W	M	Q	S	A
1. Check air filters and clean and/or replace.				x		
2. Inspect all piping for leaks and repair.				x		
3. Vacuum interior of unit and clean blower blades (some units do not have blowers).				x		
4. Clean coils and straighten bent fins.				x		
5. Lubricate all non-sealed blower motor bearings.				x		
6. Check operation of all controls.				x		
7. If the blower is belt driven, check condition of belt, alignment and tension. Replace, adjust tension and realign as required.				x		
8. Clean condensate pan and make sure drain is clear of obstruction.				x		

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P reventive **M**aintenance **P** rocedure

Split DX Air Conditioning Units and Air to Air Heat Pumps

TASK DESCRIPTION	D	W	M	Q	S	A
Interior Evaporator						
1. Listen for any unusual noises or vibrations and check to make sure the unit is cooling properly. Report any problems to Supervisor.	x					
2. Replace filters.			x			
3. Check unit for proper operation:			x			
a. Check operation of all controls - cycle unit on and off.						
b. Listen for any unusual noises or vibrations and make sure the fan motor is properly aligned.						
4. Remove cover and clean all coils, fan blades, condensate pans, and make sure condenstarte drain line is clear of obstruction. Straighten any bent fans.				x		
5. Lubricate all non-sealed bearings.				x		
6. Check for refrigerant and oil leaks.				x		
7. Inspect all wiring and clean all controls.				x		
8. Check operation of supplemental electric heat strips on air-to-air heat pumps.				x		
Exterior Compressor and Air Cooled Condenser						
1. Check unit to make sure no trash, debris or vegetation is blocking proper air flow.	x					
2. Listen for any unusual noises or for "short-cycling".			x			
3. Check and complete inlet and outlet air temperatures.			x			
4. For units with variable outlet sections - check and oil linkage and inspect conditions of the baffles.					x	
5. Thoroughly clean condenser coils and fan blades, and straighten bent fins or fan blades.					x	
6. Lubricate all non-sealed bearings.					x	
7. Check for refrigerant and oil leaks.					x	
8. Inspect all wiring and clean all controls. Check contactors and tighten electrical connections.					x	
9. Thoroughly inspect both the interior and exterior of the unit for corrosion. Remove corrosion with sandpaper and/or naval jelly and repaint with a rust inhibitor paint.					x	

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The Housing Authority of:_____

P reventive **M**aintenance **P** rocedure

Window & Through-the-Wall Air Conditioning Units

TASK DESCRIPTION	D	W	M	Q	S	A
1. Check to be sure air conditioning unit is functioning properly.		x				
2. Listen for unusual knocks or noises.		x				
3. Inspect unit for condensate leaks.		x				
4. Clean filter if reusable; change filter if throwaway type.			x			
5. Remove unit for cleaning:						x
a. Blow out condenser and evaporator coils.						
b. Wash coils if they become sticky or clogged.						
6. Inspect all wiring and clean all controls.						x

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P reventive **M**aintenance **P** rocedure

Elevator

TASK DESCRIPTION	D	W	M	Q	S	A
1. Check cables for deterioration.					x	
2. Listen for unusual knocks or noises.					x	
3. Inspect break shoes for deterioration.					x	
4. Check all panel buttons in car(s) and on each floor for proper functioning.					x	
5. Check operation of elevator car doors, including electric eye safety devices.					x	
6. Test emergency communication system.					x	

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Preventive **M**aintenance **P**rocedure

Gas Boilers - Hot Water/Steam

TASK DESCRIPTION	D	W	M	Q	S	A
1. Check unit for proper operation and fill in daily operating log (provided by the boiler manufacturer):	x					
a. Blow down water column.						
b. Check water level in boilers and expansion tanks.						
c. Check water pressures and temperatures.						
d. Check pressures and condensate return temperatures.						
e. Check ignition or pilot light operation and flame failure detection system.						
f. Check operation of the gas valve.						
g. Look at the color and distribution of the flame and check flue temperature.						
h. Check the suction and discharge pressure of each circulating or condensate pump.						
i. Listen for any unusual noises or vibration and correct.						
j. Inspect all piping, valves and connectors for leaks.						
k. Inspect handholes and manholes for leakage.						
2. Review operating log for any marked changes in recorded water levels, temperatures and pressures. These are signals to analyze and correct the developing condition.	x					
3. Notify Maintenance Supervisor of any unusual noises, vibration, temperatures, pressures or water level changes.	x					
4. Oil blower motors.			x			
5. Clean exterior of equipment.				x		
6. Treat corroded areas of exterior surfaces and repaint.			x			

D -> *Daily*
W -> *Weekly*
M -> *Monthly*
Q -> *Quaterly*
S -> *Semi-Annually*
A -> *Annually*

The Housing Authority of:_____

P reventive **M** aintenance **P** rocedure

Gas Boilers - Hot Water/Steam

TASK DESCRIPTION	D	W	M	Q	S	A
7. Perform combustion efficiency tests and adjust dampers and burners for proper fuel/air ratio (CO2 test).			x			
8. Test all safety controls and valves.			x			
9. Sequence test all operating and safety controls and check.			x			
10. Check and clean pilot, igniters and burners.					x	
11. Clean blower blades.						x
12. Clean flues, dampers and water tubes.						x
13. Inspect flues, dampers and water tubes.						x
14. Perform operational check of all safety controls.						x
15. Inspect condition of refectory.						x
16. Drain and flush boiler.						x
17. Perform hydrostatic test pressure parts as required by insurance carrier or after tube repair or replacement.						x
18. Check general condition of boiler and make necessary repairs.						x
19. Conduct inspection of boiler with insurance carrier.						x

D -> *Daily*
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MAINTENANCE GUIDEBOOK I - MAINTENANCE PROGRAM

APPENDIX D

SAMPLE MOVE-IN/MOVE-OUT INSPECTION FORM
SAMPLE VACANCY-CONTROL LOG

Development Name: _____ _____ Housing Authority

Development Number_____

Address: _____

Resident Name: _____

Unit Inspection Form

___ Move In
___ Move Out
___ Other Inspection

Unit Inspection

Unit Condition/Work Needed
G= Good 1= Clean
F= Fair 2=Repair
P= Poor 3= Replace

ITEMS	UNIT CONDITION	WORK NEEDED	RESIDENT DAMAGE	WEAR & TEAR	REMARKS/DESCRIBE
Kitchen/Dining Area					
1 Disposal/Cap					
2 Sink & Faucet					
3 Range Hood/Exhaust Fan					
a Light					
b Shield					
4 Windows					
5 Glass					
6 Screens					
7 Drapery Liners/Shades					
a Rods					
b Hooks					
8 Light Fixtures/Globes					
9 Electric Outlets/Covers					
10 Refrigerator					
a Model #_____					
b Gasket					
c Freezer Door					
d Main Door					
e Shelves					
f Trays (Ice, Butterdish)					
g Crisper Drawers					
11 Cabinets					
a Doors					
b Shelf					
12 Countertops					
13 Range					
a Model #_____					
b Burners					
c Drip Pan					
d Door					
e Oven					
f Elements					
g Handles					
h Broiler Pan/Grill					
14 Floors					
15 Walls					
16 Ceiling					
17 Doors					
a Viewer					
b Letter Clip/Slot					
18 Door Locks					
19 Door Jam					
Living Room					
20 Floor					
21 Walls					
22 Ceiling					
23 Light Fixtures/Globes					
24 Windows					
a Rods					
b Hooks					
25 Screens					
26 Glass					
27 Drapery Liners/Shades					
28 Electric Outlets					
29 Smoke Alarms					

ITEMS	UNIT CONDITION	WORK NEEDED	RESIDENT DAMAGE	WEAR & TEAR	REMARKS/DESCRIBE
Bathroom #1					
30 Floors					
31 Walls					
32 Ceiling					
33 Doors					
34 Locks					
35 Door Jambs					
36 Tub/Stopper/Grab Bars					
37 Faucet					
38 Shower/Rod/Enclosure					
39 Wash Basin					
a Faucet					
b Handles					
c Stopper					
40 Cabinets					
41 Commode					
a Seat HC?					
b Tank					
42 Light Fixture					
a Shield					
b Bulb					
43 Medicine Cabinet					
44 Toothbrush Holder					
45 Electric Outlets/Covers					
46 Towel Rack/Soap Tray					
47 Exhaust Fan					
48 Emergency Alarm Cord					
Bathroom #2 - Half Bath					
49 Floor					
50 Walls					
51 Ceiling					
52 Doors					
53 Locks					
54 Door Jambs					
55 Wash Basin					
a Faucet					
b Handles					
c Stopper					
56 Cabinets					
57 Commode					
a Seat HC?					
b Tank					
58 Light Fixtures					
a Shield					
b Bulbs					
59 Medicine Cabinet					
60 Toothbrush Holder					
61 Electric Outlets/Covers					
62 Towel Rack/Soap Tray					
63 Exhaust Fan					

ITEMS	UNIT CONDITION	WORK NEEDED	RESIDENT DAMAGE	WEAR & TEAR	REMARKS/DESCRIBE
General Interior					
64 Stairways					
a Treads					
b Banister Handrail					
c Light Fixtures/Globes					
d Bulbs					
65 Hallways					
66 Storage Closets/Shelves					
67 Vestibule					
a Floors					
b Lights					
68 Basement					
a Stairway					
b Handrail					
c Floor					
d Walls					
e Ceilings					
f Doors					
g Door Locks					
h Door Jamb					
i Windows					
j Glass					
k Screens					
l Electric Outlets/Covers					
m Wall Heater					
n Storm Door					
a Glass (2)					
b Screens (2)					
69 Laundry Room					
70 Laundry Tub					
a Faucet					
b Legs					
c Stopper					
71 Washer/Dryer Hookup					
72 Hot Water Tank					
73 Outside Dryer Vent					
74 Floor Drains/Sump Pump					
Major Equipment					
75 Heating					
a Baseboard Heaters					
b Heatpump					
c Breaker Box					
d Thermostat(s)					
e Basement/Crawlspace Heater					
f Ventilating Fan Whole House					
g Fan Control Switch					
76 Air Conditioning					
77 Plumbing					
78 Electrical Wiring					
79 Structural - Drywall					

ITEMS	UNIT CONDITION	WORK NEEDED	RESIDENT DAMAGE	WEAR & TEAR	REMARKS/DESCRIBE
Unit Exterior					
80 Light Fixtures					
81 Walkways					
82 Parking Area					
83 Patio/Deck					
84 Storage Room					
a Door					
b Light					
85 Front Porch/Railings					
86 Storm/Screen Doors					
a Glass					
b Locks					
c Closer					
d Springs					
e Screens					
f Outside Light Globe					
87 Sliding Glass Doors					
a Glass					
b Locks					
c Rollers					
d Security Bar					
e Screens					
f Drapery Liner/Rod					
g Hooks & Cord Guide					
88 Walls					
89 Roof					
90 Gutters & Downspouts					
General Housekeeping					
91 Interior Trash					
92 Exterior Trash					
93 Cleanliness					
a Floors					
b Walls					
c Windows					
94 Extermination Status					
95 Crawl Space					
96 Attic					

ALL BEDROOMS: ITEMS	Bedroom #1				Bedroom #2				Bedroom #3				Bedroom #4			
	Cond.	WN	Resp		Cond.	WN	Resp		Cond.	WN	Resp		Cond.	WN	Resp	
97 Floors																
98 Walls																
99 Ceiling																
100 Doors																
a Locks																
b Jambs																
101 Windows																
102 Draper Liners/Shades																
a Rods																
b Hooks																
103 Glass																
104 Screens																
105 Electrical Outlets & Fixtures																
106 Closets																
107 Emergency Pull Cord																

MISCELLANEOUS REMARKS: (For each remark note bedroom # and the corresponding work item)

WORK ORDER NEEDED _____ YES_____NO

PREPARE WORK ORDER FOR THE FOLLOWING:

ESTIMATE OF CHARGES $

_____ _____

SIGNATURE OF RESIDENT OR AUTHORIZED REPRESENTATIVE **DATE**

_____

INSPECTED BY

_____

TITLE

VACANCY CONTROL LOG

Develop. Number	Unit Number & Address		Date Vacated	Date W/O Issued	W/O Number	Date W/O Completed	Date Rented	Comments

MAINTENANCE GUIDEBOOK I - MAINTENANCE PROGRAM

APPENDIX E

SAMPLE WORK ORDER FORM
SAMPLE WORK ORDER TRACKING FORM
SAMPLE MONTHLY ACTIVITY SUMMARY
SAMPLE MONTHLY ACTIVITY SUMMARY - EMERGENCY WOs
SAMPLE INDIVIDUAL DEVELOPMENT SUMMARY
SAMPLE VACANCY PREPARATION SUMMARY

_____ HOUSING AUTHORITY

Work Order

Work Order #: _____

Date: _____ Time: _____ Assigned To: _____

Resident: _____ Development #: _____

Address: _____ Resident Phone #: _____

Generated By: [ ] Resident [ ] Housing Authority

Permission to Enter: [ ] Yes [ ] No

Work Order Type:

[ ] Emergency [ ] Vacancy [ ] Urgent
[ ] P.M. [ ] Routine [ ] Special Project

Work Requested: _____

Actual Work Completed: _____

Date: Time to Complete: Mechanic:

Materials Used:	Quantity	Price	Total

Quality Checks:

Are All Smoke Detectors Operational? [ ] Yes [ ] No
Request Housekeeping Inspection? [ ] Yes [ ] No
Request Extermination? [ ] Yes [ ] No

Charge Resident? [ ] Yes [ ] No

Resident Signature:

Date:

Inspector Signature:

Date:

WORK ORDER TRACKING FORM

_____ Housing Authority

Month _____ Year _____

W/O Number	Date Received	Date Assigned	Assigned To	Work Requested	Work Order Type						W/O Completed		Days To Complete
					E	U	V	R	P	S	Date	Time	

Work Order Codes

E= Emergency
U= Urgent
V= Vacancy
R= Routine
P= Preventative Maintenance
S= Special Project

THE HOUSING AUTHORITY OF
MAINTENANCE DEPARTMENT
MONTHLY ACTIVITY SUMMARY

Month _____

Beginning Backlog	
Incoming Work Orders	
Subtotal	
Completed Work Orders	
Ending Backlog	

	Backlog Aging			
	0-5 days	6-10 days	11-15 days	15 + days
Priority				
Emergency				
HQS				
Vacancy Prep				
Routine				
PM				
Ending Backlog				

Remarks:

Hometown Housing Authority

MONTHLY ACTIVITY SUMMARY - Emergency Work Orders (WOs)
DATE:

WO Number	Received		Completed or Abated		Total Hours
	Date	Time	Date	Time	
Total:					

To calculate the total percent of emergency work orders completed within 24 hours, divide the number of work orders (the total of work orders listed in the "Work Order Number" column) which do not exceed 24 hours in the column for "Total Hours", by the number of emergency work orders in the first column and multiply by 100.

Time runs from moment situation is determined by HA as an emergency, not time WO's are cut.

HOUSING AUTHORITY OF _____

MAINTENANCE DEPARTMENT

INDIVIDUAL DEVELOPMENT SUMMARY

Month_____

Development #	Work Orders Completed E	U	V	R	P	S
Total Authority						

E = Emergency
U = Urgent
V = Vacancy
R = Routine
P = Preventive Maintenance
S = Special Project

This form can be utilized to summarize completed work orders by code, by development.

HOUSING AUTHORITY OF _____

MAINTENANCE DEPARTMENT

VACANCY PREPARATION SUMMARY

Month_____

Development #	Beginning Backlog	Units Rec'd	Units Returned	Ending Backlog	Avg. # of Days in Maintenance
Total Authority					

MAINTENANCE GUIDEBOOK I - MAINTENANCE PROGRAM

APPENDIX F

SAMPLE REQUEST FOR PURCHASE
SAMPLE PURCHASE ORDER
SAMPLE STOCK REPLENISHMENT REPORT

Request for Purchase

TO PURCHASING: Please furnish the following	Req. #:
	Date:
Source of Supply If Known:	When Wanted:

QUANTITY	Part or Cat. #	Description	Price

Purpose or Use:	P.O. #:
Deliver To:	Ordered From:
Date Ordered:	Approved By:
Initiated By:	
Sufficient funds available for purchase? [ ] Yes [ ] No	Comptroller Signature:

Purchase Order

_____ Housing Authority 1234 Main Street Anywhere, USA 12345 (404) 555-1234	P.O. #: Date:
To: Address: Phone #: Vendor #:	Purchasing Agent: Requisitioned By: Date of Required Delivery:

Delivery Terms: [ ] F.O.B. Destination [ ] F.O.B. Origin

Schedule

Item #	Description of Supply/Service	Quantity Ordered	Unit	Quantity Received	Unit Price	Total Price

Total amount of this order: _____
Less any applicable discounts: _____
GRAND TOTAL: _____

Name & Title of Contracting Officer	Signature of Contracting Officer	Date

Conditions

1. A Housing Authority shall constitute a political sub-division of the State of _____ within the meaning of the Retail Sales Tax Act
2. Invoices must state terms and discounts allowed.
3. We reserve the right to cancel the order, if delivery is not made as specified or within a reasonable time.
4. All materials must be in accordance with specifications and free from defects.
5. Payment will not be made until full shipment is received.
6. By accepting this order the seller agrees to and shall be bound by terms and conditions hereto stated.

STOCK REPLENISHMENT REPORT

Date:_____

Truck:_____

Item	Catalog #	Approved Quantity	Need	Work Order #