ARLINGTON FOREST CITIZENS ASSOCIATION HOMEOWNER'S MANUAL

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INTRODUCTION

The purpose of the Housing Committee under the Neighborhood Conservation Plan is to stimulate interest in each property in Arlington Forest in order to encourage property maintenance and to sustain value and appearance.

The Committee sponsored, to that end, the House Tour in the Fall of 1984 and organized the Neighborhood Banquet in the Spring of 1985. The Banquet had been an annual event but had not been held for several years. It is now, once again, an on-going event, held the last Friday evening May and supported by many Foresters. The third project of the Committee is the manual.

The manual is not meant to be a definitive guide to all home repair problems. The information has been collected from homeowners familiar with the house structures and from professionals who have worked on its repairs. The Committee hopes that this manual will acquaint each homeowner with his and her home, so that the right questions may be asked when problems occur. We hope that the manual will help each home occupant maintain his/her property to the pride of each resident, on each street, in each section to the total advantage of the Forest.

PREAMBLE

ARLINGTON FOREST is an established community of single family homes in Arlington County, Virginia. Arlington has the enviable quality of being urban in cosmopolitan exposure and easy availability of services as well as suburban in comfortable homes close to parks and recreation facilities. It is a stable community, yet growing as part of the national capital area. Within the metro area, Arlington has the lowest unemployment rate, tax rate, and office vacancy rate. It is not only an attractive county, it is also an excellent financial investment for land and home owners.

ARLINGTON FOREST is an established community of 850 single-family homes in this well located county. At the time of its development in the late 1930's, ARLINGTON FOREST represented design concepts in the forefront of community planning. Using curving streets instead of rigid rectilinear plans and locating power lines between back years rather than on the street were two notable improvements. Moreover, the families that have been attracted to ARLINGTON FOREST represent the highest standards of community awareness and pride. They have been a continuous source of Arlington's civic, business, and religious communities' leaders.

The **ARLINGTON FOREST CITIZENS ASSOCIATION** was begun in 1940, one year after ground was first broken for homes on Arlington Boulevard, then called Lee Boulevard, and South Park Drive. Our Association has spearheaded activities to develop a human community, as well as a brick-and-mortar community. It has facilitated protection for the FOREST from potential high-rise commercial encroachment as well as intrusive traffic. AFCA continues unabated today, thanks to the generosity of many Foresters who are committed to its activities.

Why live in ARLINGTON FOREST? Here are some advantages:

- Easy access to Washington, D.C.
- Available public transportation by rail or bus
- Walking distance to a major Metro subway interchange
- Security with very low crime rate
- Nearby schools, churches, shopping center & shopping mall
- Limited traffic on roads internal to the FOREST
- Low taxes yet effective and responsive county services
- Shaded, well-established residential sites
- An historic area in the midst of national historical sites
- Attractive parks and recreational opportunities which include a community center, swimming pool and tennis club, and amphitheatre
- Active Citizens Association with regular newsletter

Is it any wonder that ARLINGTON FOREST is an area in which its residents take great pride?

TABLE OF CONTENTS

a. Lawns

b. Shrubs and trees

c. Fences and borders

d. "Perennials for Shade"

e. Year-round gardening hints

PROFILE OF THE FORESTERS

The 1980 Census data gives us the following information about Neighborhood 29, which is Arlington Forest.

As of April 1, 1980, there was a population in the Forest of 2,257 persons of whom 19.1% were under 15 years old and 14% were 65 and over. The median age was 34.8 years.

Of the 837 households surveyed, 14.7% consisted of one person and 2.4% had six or more. There are 679 families of which 87% were maintained by a married couple, 11.2% by a female householder and 2.8% by a male householder with no spouses present. There were 295 families with childeren under 18.

There were 654 persons living in the Forest aged 3 and over enrolled in school, from nursery school through college. Those in college included only those students actually living in the neighborhood while attending school. Of persons 16-19 years old residing in the Forest, 3.2% were not enrolled in schools and were not high school graduates. Of residents 25 years old and over, 92.7% graduated from high school and 41.4% completed four years of college.

Veterans numbered 22.8% of the civilian population over 16 and among the male civilians numbered 47.1%.

Of the working residents leaving the home for employment, 53.3% drove alone to work, 18.2% rode in carpools, and 20.4% used public transit. It will be interesting to compare these figures with the new census since Ballston Metro is within walking distance.

The labor force counted 70.6% of all residents 16 years and over; the unemployment rate was 1.9%. Of the 1128 people employed for pay, 59.3% worked for wages or salary for private companies, businesses, or individuals, while 37.9% held local, state, or federal government jobs. The self-employed represented 2.8%

The median income in 1979 of households was $32,511 which means that half had incomes below and half above this figure. Households with incomes less than $7500 were 5.3%. In 1979, the poverty level for a four-person family was $7412. There were 53 persons below that level at that time.

There were 850 housing units in this neighborhood which comprised 1.1% of the 75,182 housing units in the County. Of the 837 year-round occupied units, 679 or 81.1% were owner occupied and 158 or 18.9% were renter occupied. At that time there were 13 vacant units with a rental vacancy rate of 1.9% but not homeowner vacancy. Sixty per-cent of all householders lived in their units 10 years or more. Forty-eight per-cent of the renters moved into their units in the 15 months before the census.

The census found that 16.5% of the housing units were built before 1940 and .75 in 1970 or later. Houses with three bedrooms represented 93.3% of the total. All houses had a minimum of two.

Utility gas was used by 69.5% of the households for heating, by 64.8% for cooking, and by 92.7% for water heating. Data on heating systems indicate that 99.1% had central heating systems and 90.6% had central air-conditioning.

Financial data for the Forest show that the median value for specified owner-occupied homes was $87,700 as compared to $92,000 for the County as a whole. The median contract rent paid for rental units in the Forest was $405 per month compared to $292 for the County.

Mortgaged properties numbered 56.2% and non-mortgaged 43.8%. Selected monthly owner housing costs are the sum of mortgage payments, real estate taxes, property insurance, and utilities. The median selected-monthly-owner housing costs for units with a mortgage were $424 and for units not mortgaged $175. Median gross rent was $501 which counts contract rent and the estimated average monthly cost of fuel and water.

To keep the high standards of community quality which we enjoy, we hope that each resident will endorse the following housing and maintenance goals.

HOUSING AND MAINTENANCE GOALS

Usage of ARLINGTON FOREST property should be consistent with the overall character of the FOREST which was thoughtfully designed as a community of single family homes. Traditionally respected aspects of such communities are

- well-kept houses
- tended lawns and tasteful landscaping
- orderly and attractive porches
- cars parked in driveways

that permit each of us to enjoy the uncrowded forested ambience so envied in a metropolitan area.

Property usage that generates noise, traffic, and unsightly support and recreational equipment is inconsistent with ARLINGTON FOREST. Renting to several individuals which may result in a "boarding house" status highlighted with four vehicles in front of a house (instead of two in a driveway), substantial commercial use, or granny flats used beyond their original intent creates the "urbanized" condition owners sought to avoid by living here.

Relationships, cordial ties between and among neighbors, link a neighborhood to assure security and peace. The ties are strengthened by block parties, cooperative projects like yard sales, citizens' association support, annual banquets, etc. At the same time, the privacy, even anonymity, people value is honored. Disruption caused by noise from pets, vehicles, machinery would be diminished since each of us is aware of the person next door. Ugliness resulting from abandoned vehicles, dilapidated property, and careless parking would be non-existent for the same reason.

Maintenance, practically speaking, is care. It need not involve hundreds of dollars — it sometimes involves no money but only our energy: shoveling snow, raking branches, carrying trash cans out of sight, regular lawn cutting, weeding grass strips, and considering adjacent sidewalks and road space as part of our property. Adequate standards of maintenance involve each resident, owner or renter.

Rental properties are integral to a community like ARLINGTON FOREST. It has occasionally been the case that a rental property can be distinguished from an owner/resident property when absentee owner and renter forget that they are both part of the community. A blighted property is not only a financial loss but it may also become a psychological one from which the whole community may suffer in time.

Change is inevitable but it is often overlooked that change can be controlled. Through the Arlington Forest Citizens Association and civic participation, excessive traffic and commercialization can be stopped.

With careful consideration of our goals, change within the neighborhood can also be managed for the benefit of all. Homeowners planning to change their lots with fences, sheds, additions, or

taking down trees would survey their land from all angles, keeping in mind how the proposed changes affect neighbors and a neighborhood known for its leafy cool and quiet in summer as well as wooded privacy in winter.

With these goals in mind, the manual is a neighborhood's contribution to safe-guarding itself.

STRUCTURAL ELEMENTS AND REPAIR

FOUNDATIONS

Meadowbrook was the initial developer of the FOREST homes and built the majority of them. These have foundations of 10" poured concrete which is very strong (4000 p.s.i.). The homes built later by Broyhill in the Greenbrier Section on Galveston Street and Carlin Spring Road have cinder block foundations, which had become standard by that time. There is a 3/4" steel rebar (reinforcing bar) running the perimeter of the house. The floor in the basement is a 2 1/2" hard concrete. The exterior of the foundation was parged (plastered) and coated with black waterproofing. There is drain tile 4" around the whole house on the inside of the foundation under the slab which constitutes the floor. This tile empties into the basement floor drain which by today's codes would not be permissible. The practice today in building homes is to put drain tile around the outside of the foundation.

The homes built by Meadowbrook, which have the concrete foundations, may show signs of "effervescing" or "spalding." This is the leaching-out of salts within the concrete after a long time, forming a white powdery film on the basement walls. This does not weaken the strength of the walls.

The Broyhill homes have solid brick masonry exterior while the Meadowbrook homes have a brick veneer which is non-structural but is very strong and a factor of insulation.

A steel I-beam supports the basement ceiling and is the source of a crack which usually runs inside the basement. We can call it a "basic characteristic" of these houses but it has no structural consequence. Rather it is an aesthetic problem which can be handled with paneling.

The crack in the living room ceiling is not a structural problem either. This crack is due to the end-to-end placement of lath board when the ceiling and walls were constructed. If the lath had been applied in an overlapping fashion the crack would not occur.

There are two miscellaneous notes on the topic of the basement. There is a "way to the attic" from the basement which allows cable wiring and avoids exposed conduits outside the house. In the basement wall, behind the original furnace location, there is a 3" stack up to the second floor bathroom. If you take out the original medicine cabinet, you can run an electrician's snake adjacent to this 3" stack to the basement. This same method can be used to run the snake to the attic. It would take two people to handle this project. Be careful when exploring, however, because the original use of the chute was to discard razor blades!

The soil stack from basement through attic to the roof is another passage way allowing wiring. Twine weighted with something heavy can be allowed to fall from the attic down through the space. Then, pull it back up with the wiring attached. For further ideas about such useful spaces between the wall studs, wherever contractors had not put in fire blacking, consult the READERS' DIGEST YELLOW BOOK, an excellent detailed repair manual available in larger hardware stores.

Gas turn-off valves are near the top of the meter in the basement for the supply to the house and near the bottom of the meter for the supply from the street into the house. The latter is more important for turn-off in case of emergency. A wrench at least 12" in size is necessary to affect the 90-degree turn-off.

It would be wise to tag water valves as well as gas valves. The gas company will supply more information if needed.

"CRACKS IN PLASTER SURFACES"

by Joe Lederle

Cracks in plaster, with some exception, are an eyesore rather than a hazard. Most of them are caused by settling of the house, vibrations like heavy traffic of big trucks, blasting, and water. The damage caused by water is quite different from the other causes, and professional help is most likely required for repair. However, many home owners can take care of cracks before re-painting. The following is an outline for fixing cracks.

All FOREST houses, excluding additions, have plastered walls and ceilings. If cracks in plaster occur, they can be fixed in two basic ways:

A. with plaster or
B. with drywall tape and compound

A. Using Plaster of Paris (gaugin plaster) and Autoclaved Lime

1. Use an old-fashioned can opener and firmly rip it along the crack until a V-shaped opening is achieved. The plaster is an average of « to 3/4" thick. This total thickness consists of 2 layers: a base coat about 5/8" and a finish coat about 1/8". The base coat is applied over rocklath. Rocklath is 3/8" thick in pieces of 16" by 48" and very similar to sheetrock. Care should be taken not to dig into the paper surface of this rocklath. Unless the crack goes all the way through, this would only weaken the lath further.

2. Examine both edges along this V opening to see if re-nailing is necessary. Using the fingers with a fair amount of pressure, you should find no movement at any stud or joist.

3. Use a dry brush and remove all loose matter and dust.

4. Use clean water and a brush to wet the inside of the crack.

5. Make a putty of 50/50 proportion of gauging plaster and autoclaved lime. Consistency should be about that of soft ice cream. Use clean cold water and mix no more than what can be used up in about 10 minutes.

6. Use a plastering trowel or putty knife and squeeze mixture firmly into the crack. Do not tarry in one spot but move along briskly; making sure that the surrounding surface is kept clean. Shrinkage will occur depending on the depth and width of the crack.

7. Repeat Step 6 until surface is flush and smooth. For the final polishing, use a wet brush in front of the trowel.

Note: Do not use sandpaper on plaster. Plaster is not easy to use by an unskilled person because the setting time is rather short.

The Plaster of Paris (known in the trade as gauging plaster) and the autoclaved lime are both in power form and only a few places sell them. Hechinger's and paint stores sell what would be suitable for repair of small cracks but for plastering 3 or 4 square feet, other supplies would be better. The smallest quantity available at wholesalers, like Metro Building Supplies in Vienna, is 25 pounds. Hudson Supply Company in Manassas sells 50-60 pound quantities.

The lime should be made into putty before gauging plaster is added. Lime will not set by itself. DO NOT use lime without mixing it with the gauging plaster.

B. Using Drywall Tape and Joint Compound

1. Scrape off all loose paint and make the surface clean about 6" on each side of the crack.

2. Use a 6" flexible putty knife and force as much drywall compound into the crack as possible. After the crack is filled, proceed to spread a band of compound about 1/16" to 1/8" thick and about 4" wide over the center of each crack. Take the drywall tape and cut a piece to fit the length of the crack. If the crack is in a corner, fold in half along the tape width. Place this cut tape at one end of the crack and over the center of the crack. Use the putty knife to embed this tape firmly and evenly into the wet compound. Repeated strokes may be necessary to get it down tight. Do not leave any excess compound on top or sides. Do not leave air bubbles under the tape. Let it dry 24 hours or more before applying a top coat.

3. After the tape job is thoroughly dry, use a putty knife (6" will do fine) and apply an even top coat. Do not apply to thick at any one time. Repeat until all tape is covered and the edges are "feathered" without any ridges or pits. Each coat must be dry before the next may be applied. If the patch is a corner, do one side at a time; i.e., one side must be dry before the other side is taped.

4. Use a medium grade sandpaper and sand any bumps or ridges until a smooth and even patch is achieved. If Steps 2 and 3 were done properly, very little sanding is required. Touching up with compound is ok at any time, providing the surface is dry. Painting may begin as soon as the patch is dry. A prime coat is recommended before finish paint is applied.

Note: For several reasons, the average person will find B. preferable to A. Besides the skill involved, drywall materials are also readily available in various quantities and are relatively inexpensive. Done well, the result is good, i.e., hardly noticeable and lasting.

HEATING/VENTILATION/INSULATION

In discussing furnace capacity, the BTU in-put (most likely 100,000) is not the only factor in selecting an efficient furnace. The pushing power of a furnace and the air duct capacity are very important. Sufficient cold air return is an improvement needed in the ARLINGTON FOREST home. One possibility is to take some of the closet space, particularly in the hall linen closet, to put in a duct. This air return affects not only heating but air conditioning as well (details in the Energy section.)

Chimneys need to be checked every few years to be sure they are not clogged. This can be done by the home-owner by pulling out the flue cover and checking with a mirror to see if daylight is visible. Otherwise a furnace man or chimney sweep is needed. Several fires in the FOREST could have been prevented if This procedure had been regularly practiced.

The use of a "whole house" ventilating fan could be an important factor in temperature control. This fan can be installed in the hallway ceiling with the control switch in the linen closet. It will pull air through the house from whatever window is open, on either the first or second floors, or from the cool of the basement. These fans are available at Hechinger's.

Since there is no insulation in bedroom ceilings, the attic should be given attention. The temperature in the attic should be the same as outside. Insulation should be put in between the ceiling joists and the, perhaps, covered with plywood (2x8 sheets of 1/2") or with boards (1x8 or 1x6) to provide flooring and allow maximum storage as well as insulation. The trap door which allows access to the attic should also be insulated. One suggestion is a "box" of 1" thick Styrofoam fitted to the door opening that can easily be lifted aside or pulled into place to seal off that loss of air.

Speaking of ceiling — some bedroom ceilings look very wavy, as if a good plaster job is needed. The cause of this unattractive surface is that 1 1/2" cane fingers like ceiling tiles were used for surfacing and the plastered over and where the panels were not nailed into place, the material sags. A good plaster job will improve the situation.

BASEMENT LEAKS

A concern to every FORESTER is the cause and elimination of leaks. The first place to check is the basement.
Some causes of basement leaks may be:

- the entry point of sewer, water, or gas lines from the front.
- landscaping where the ground was not raised for the plantings but rather plantings were put into an indentation in the ground. There is soft back-fill and clay around our homes and improper landscaping is a major cause of leaks.
- there are springs in the South side
- choked up roof gutters and basement window wells

Solutions could be:

- digging around the foundations of the house to waterproof the exterior and to put drain tiles around the outside. This is very costly for such small basements.
- drilling with a start drill or rotary impact drill/hammer (rented locally) through the basement wall, connecting PCV piping from each hole to the basement drain or sump pump allowing the water to drain that way rather than seeping on the floor. The homeowner can do this himself so it will be less costly in terms of money but it is exorbitant in terms of time.
- dehumidifiers
- sealants ranging from caulking, where appropriate, to silicone architectural water-proofings on interior walls. Sta-Dri is a waterproofing brand applied with a roller. Architectural Epoxy is applied with a brush. Silicones may be effective but are short term. Ask for specifics before purchasing.
- plastic bubbles and caulking over basement window wells should be considered if they are vulnerable. Digging out the inside of the window wells to a depth of 6-12" and putting 3-4" of gravel will help drainage. Then caulk the window frame and the edge of the bubble using a product like Butyl-flex, which are oil-based caulkings that will last 30-40 years since it is a high grade exterior caulking and never dries. Cleaning out the window wells regularly is also important.

BATHROOM LEAKS

Due to the age of the plumbing in the FOREST homes, the pipes may now require some major work. Galvanized pipes last 40- 50 years and the half-century birthday of many of the homes is only 2 years away. Horizontal pipes are the first to deteriorate. The downward angle of the horizontal pipe under tub should fall a specific number of inches but the kitchen ceiling restricts the fall. An excessive amount of water remains continuously in the pipe, speeding corrosion.

If there are leaks traced to the bathroom on the second floor, there are two primary spots to check:

- the gasket around the over-flow hardware (like an escutcheon) in the tub may be worn. As a result, water that overflows within the tub is not retained in the pipe but seeps around and outside it. Wax rings; gasket washers which abut the nut on the bottom and look thin, like cardboard; and rubber washers need periodic replacement. Block's Plumbing supplies them, along with helpful advice.

Both the drain in the tub and the overflow can be taken out for the purpose of replacing gaskets. For the drain, one can use vise grips and needle nose pliers to twist out the pipe. For the over-flow, there are two screws on the plate or perhaps the center ring which held the stopper chain is itself the screw. A tool called an internal pipe wrench will help if both drain and over- flow pipes need to be taken out. Access to tub fixtures is through the adjacent bedroom's closet in Meadowbrook homes and in the kitchen ceiling for Broyhill homes. Two people with flash lights are needed to work this project.

- the seam where the apron of the tub touches the floor may need GE Silicone or caulking.

The wall tiling, if well done, should not cause leaks because the bottom row of tile goes over the lip of the tub. Regular re-caulking of the tile-tub seam is advisable. When caulking the tile around the tub, the black fungus which accumulates must be scraped out and the, as importantly, let the area dry for several days before re-caulking. DAP latex caulks can be purchased cheaply at Hechinger's and can be used for the tile/tub job as well as the apron/floor seam. Run your moistened thumb across the caulking several times to finish it off.

Water pressure can be a problem when there is a buildup of minerals in pipes. The drain pipes of sink and tub should be snaked every other year for proper maintenance. A steel coil snake of 1/4" with a spring head, not cutting head, can be rented locally. Back-up into the tub when you empty the sink basin indicates there is blockage and it should be taken care of.

Use of lye or other caustic materials to clear pipes is not recommended, both for environmental reasons and plumbing reasons. Vapors are very strong and require immediate flushing with 10-20 gallons of water and then the same procedure 30 minutes later. After the water leaves the individual home, of course, then water treatment facilities must purify the water for re-use. These materials increase the corrosion of the pipes.

Simple metal "cups" like sieves, the same diameter as drain opening, should be placed in the drain of the tub and sink, if possible, to catch hair and other items which could slow the flow of water.

The bathroom sink trap may also need snaking out. If corroded piping needs replacement, it would be wise to use plastic pipe which can purchased at local plumbing stores or Hechinger's. the sink pipe goes 3" into the wall and threads into the stack.

In homes before additions may have brought changes, plumbing in the kitchen is in one section, in the wall behind the original sink/stove location.

One more note on the existing older bathrooms: There seems to be no ground fault, no grounded outlets, in the original houses. Due to the proximity of water to electrical appliances like hair dryers, there should be a ground fault receptacle in the bathrooms. If an addition is contemplated, the electrician will probably advise that such receptacles be added to bathroom and kitchen.

BASEMENT BATHROOMS

When our houses were built, a bathroom in the basement was an option. These homes could have roughed in toilets for about $10! (Options of a bathroom, screening the porch, and adding a fireplace would have added $517 to the base price of $5995 in 1940!)

This bathroom capacity may be recognized now by a knobbed shape of concrete in the basement floor, probably in the vicinity of the furnace. A bathroom in the basement, done correctly, requires air-hammering out the concrete floor and digging to find the SOIL drain, not at all the same as the basement drain designed for ground water or laundry water. To intercept the sewer

line, which is 3" in diameter within the house and becomes 4" outside to the street, requires major construction efforts.

If the basement already tends to be damp, a shower would increase the problem. Should you want to install one, the narrow basement staircase necessitates getting a shower that comes apart and can be re-assembled for installation unless there is an exterior basement door large enough for the shower unit.

ROOF/ATTIC

Consistent with all of our trees in ARLINGTON FOREST and our nearby parks are the number of squirrels which share the space. Hip roof ventilators, chimneys, and attics provide living space for them which can be inconvenient and even dangerous to the homeowner.

Hardware cloth (1/4" galvanized) or rabbit cloth or chicken wire (the name depends on where you came from) can be used to make a cap for the chimney or chimneys in our homes. This is an absolute must for the protection of the human occupants in our homes. Nests built there can prevent the escape of noxious gases from the furnace or create fires. The hardware cloth can also be used as caps over ventilators, or nailed over the louvers in the gable ends. To preserve the louvers, it is advisable to nail the hardware cloth on the outside of the house. ABC Distributors on Four Mile Run Drive sell the materials.

A helpful way to keep debris out of the gutters is to cover them with screening available at Metal Distributors in Alexandria. This screening comes in 3-foot lengths, aluminum or galvanized. Since the latter lasts 10-12 years, you may prefer aluminum which lasts longer. However, it also depends on the material of your gutters. If they are aluminum, use aluminum screening; if galvanized, use galvanized screening.

Only one new roof covering (i.e., shingles) can be placed over an existing roof. Because of weight, the next new roof requires that both old roofs be removed before the latest new one is added. Most of our houses would now be due for a third roof. A recommendation is for 20-year, class A Fiberglass, 240 lbs/sq. ft. or heavier shingles. 215 lbs/sq.ft. will do.

When an old roof is to be removed, catch debris falling between the roof boards into the attic by lining the attic ceiling with 2 or 3 mil plastic, keeping it in place by staples. Remove the plastic when the new roof is completed.

Attic space can be used for storage by installing a pull- down stairway, available in lumber supply and building stores. It should be of sturdy quality so as not to give way at the hinged section when stepped on with heavy loads. (See details under the "Storage section" in the manual.)

An attic ventilation fan with thermostat is very useful for temperature control. The switch can be put in the bedroom below.

SHEDS

Arlington County requires a permit for installing sheds of 150 square feet or more. Although the state does not require a permit, the county does if the structure is not pre-fab and is built by oneself. For our R6 zoning, there must be 15 feet between the dwelling and an out building (shed). If the distance is less than 15 feet, then the shed must be 8 feet from the boundary line. If walls, trees, or grade present problems, a variance may have to be requested from the Zoning Board of Appeals. This requires making a brief presentation and paying a fee. In any case, simply going to or telephoning the County office of permits for information can be very helpful and may save a lot of problems. Be prepared before contacting the office; know what you want to do and have specifics in order.

In addition to county considerations, keep in mind that any structure on such a small property is visible to everyone around. If care is given, esthetics and practicality can work together. Old sheds, rusting or dilapidated, can be refinished with sanding and then painted with metal paint. If the only alternative is to demolish it, the county sanitation/refuse office can give information on hauling. The County itself will provide for the hauling if the shed is collapsed and put at the curb. Call 558-2321.

TRASH/GARBAGE

Arlington County collects garbage in the FOREST on Thursday. This schedule is so rigorous that they collect trash even on Thanksgiving Day. Exceptionally bad weather may cause delay but it will occur. Covered cans or fastened plastic bags are required by the County and residents must remove all emptied cans within 24 hours. Again, this is not merely a County requirement but a neighborly gesture as well.

Our small "estates" are nearly communal in the sense that everyone around us can enjoy the attractive things we do on our property. On the other hand, when we use our yards as dump sites others can see that as well and it is not at all enjoyable. The back yards are a public as the front since we all live so close together. Take advantage of the hauling services of the County.

Bulky items such as dismantled sheds, old tires, unused bikes, furniture, or appliances will be picked up if prior arrangement is made by calling 558-2321.

Burning leaves is prohibited. Residents should rake leaves into the gutter in front of their homes where vacuum trucks will pick them up. There is usually a minimum of three runs each fall. Leaves collected by the County are used for mulch which is available also for residents the following spring.

Re-cycling of newspapers is easily done in Arlington. There are collection sites in the county. Perhaps the closest is located in the parking lot behind the Mason's Lodge across George Mason Drive from the Unitarian Church. Another one, which is managed by the county, is by Four Mile Run at Columbia Pike; on the edge of the small shopping center next to the jogging/bike trail.

Usable clothing and furniture will be picked up by Purple Heart Service Foundation (277-8737) and the Salvation Army (642- 9270).

The Arlington Forest Exxon Station participates in the state's oil collection/recycling program so oil from cars can be brought there in containers.

As for other items you no longer need but consider "too good" simply to discard, participate in the annual lawn/garage sales in the FOREST. You may still be able to enjoy your item from time to time at a neighbor's!

STORAGE

If you are considering remodeling the basement, you may want to include a full-width storage closet in your plans. This closet could run along one of the walls without windows. A depth of 20" would do, enough to store out-of-season clothes on a hanger bar. Several layers of 8' long shelves could be combined with a 5' hanger bar of aluminum (1" diam.) with a dowel run through it for weight support. Be sure to take precautions against mildew by venting the closet doors and installing a dehumidifier.

Another useful project that expands storage is shelves built into the wall of the basement stairs. Naturally you will want to use the inner wall or you will end up with cold storage. Those homes with rear additions could, in fact, use the outside wall which has the advantage of being deeper. The inner wall is only about 2 1/2" deep. Basically, the project involves knocking out a lot of plaster and then neatening up the openings with drywall compound. Shelves can then be fitted into the opening. A 4" deep shelf (particle board works fine) is sufficient for most cans, bottles, and boxes. This yields about 12 linear feet of new shelf space.

Under stairways, basement or living room, storage space can also be created. Even at the foot of the basement stairs, a closet could be included in the corner to serve as a pantry with shelves and tall space on the floor for larger, heavier items.

Existing closets may be more of a frustration but there is hope. First, consider putting two hanging bars in a closet - one placed as high as you can reach and the other placed so that short clothes just clear the floor. For most men this will work fine; women will have to find a way to hang full-length dresses. Commercial closet stretchers do not work in our homes because they are designed for full-width openings which our closets lack. Shoe racks or bags can be hung on the inside of closet doors.

Perhaps wall space is less important than storage. In that case, closets can be opened up and the door replaced by bi- folds. Bi-folds with mirrors are even more useful.

Remember the storage possibilities on the backs of doors, especially in the downstairs coat closet. Not only hooks and rods but containers like small plastic wastebaskets can be attached to hold keys, hats, mittens, scarves, etc. Plastic mug racks will also serve. There is no concern for overloading the hinges of these closet doors unless one was to buy a rack for canned goods.

Towel racks for family or guests are not plentiful in most homes. Adding at least two brass or plastic rods (impervious to moisture) to the back of bedroom doors allows drying space for two sets of towels and wash cloths.

Drums three feet high and 14" or so in diameter can hold out-of-season clothing and then be covered to serve as bedside tables or tables anywhere else for that matter. They are sometimes available at wholesalers or grain suppliers.

SECURITY

Dead bolt locks should be installed on all exterior doors, perhaps even on the basement door leading into the kitchen if you have unsecured basement windows and door. If a door is 1/3 glass, use a double cylinder (two keys) lock. In all cases, a good heavy strikeplate, now supplied with dead bolt locks, should be installed using long 2 « or 3" screws.

"Operation I.D." available from the library is another helpful approach toward security.

Basement windows may be protected by wrought iron grilling, one horizontal iron bar, or the use of plastic shields. One type of plastic is generically called polycarbonate plastic. It has a glazing 40 to 50 times stronger than acrylic and so it is expensive. Its disadvantage is that if placed in direct sun, it deteriorates. Acrylic will not deteriorate and if bought at 3 times normal thickness, it will serve as a deterrent.

A concern in sealing the basement for security purposes would be escape capability, if the space is used a living space, not merely work space.

Double hung windows should be pinned. Casement windows would need locking latches installed or a thin 1" piece of flat steel installed vertically in front of each window panel and anchored to the header and the sill. This piece of metal will divide the open window area in half, preventing easy entry, and will blend in with the metal window design. If planning to replace original windows, look for sturdy windows. Many of the vinyl replacement windows are easily forced open due to plastic and nylon locks and pins. Of course, locking windows on the first floor at night or when away is basic security practice.

Three police services in particular will be helpful for homeowners to avoid burglary. One is the security survey conducted by an officer at your home which may be requested from the police department. Another is "Neighborhood Watch" which can be organized by blocks. Ask for the blue brochure "Your Role in Crime Prevention" which has excellent security tips for your homes. Call the Crime Resistance Office 558-2976 for these and further information.

Doors to the exterior of our homes should be solid wood. A wide-angle door viewer should be inserted into the door to allow you to pre-view, without being seen, a caller at the door. Mail slots allowing direct entry to the house should have an interior hood attached on the inside of the door to prevent anyone from looking through it into the house.

Timers for lights, interior and exterior, or radio are an inexpensive precaution. Vary their placement from time to time.

Shrubs should be kept trimmed back to avoid providing shelter for an unwanted guest. Privacy fences can also conceal unwanted activity, requiring better security on parts of the house hidden by them.

In security matters, a nosey neighbor is a good neighbor! When calling the police department to report an unusual situation, the caller is asked name, address, and phone in case additional information is needed or to get back to the caller. However, the caller may also request anonymity and this will be respected.

ENERGY ISSUES

ENERGY EFFICIENCY

As charming as ARLINGTON FOREST homes may be, it should come as no surprise that they are not energy-efficient. Plenty of fresh air is available, inside the houses, since they were built in an era of cheap energy and before many now common energy- saving measures became available, such as vapor barriers, air- tight windows, etc. In particular, there is no insulation in the walls of our houses and the original 2" of insulation in the attic is now packed down to a minimum. The composition of a typical wall is the 3 3/4" brick veneer, 1" air space, 1" celotex type sub-sheathing, 3 3/4" wood stud and then 1" interior plaster wall.

The original furnace system is about 30% efficient. The theory of duct systems at the time require that heat ducts be on inside walls with air return on outside walls, the opposite of current thinking. Houses were laid on their lots in an apparent geometric fashion, without regard to the relationship between the house and the sun. The major advantage to the ARLINGTON FOREST house regarding energy efficiency is the forest, the mature trees that surround our area. In the summer especially, this factor is worth about one ton of power from an air conditioner.

A professional architect and ARLINGTON FOREST resident made detailed calculations of the heat loss from a FOREST home on a typical winter day (53 degree difference between inside and outside temperatures, 70 degrees - 17 degrees.) These calculations show that these houses lose a little over 63,000 BTU/hour. Of this, 22,000 BTU is lost through the attic, 41,000 through the walls, and 13,000 through the windows if steel casement, or 9,000 if wood double-hung. These three areas logically should receive priority attention from the homeowner.

The energy equation for a house consists of passive elements (heat loss) and active elements (heat generation). Let's examine the three areas mentioned above for improved insulation.

ATTIC INSULATION

Over one-third of the total heat loss in a FOREST home is through the attic. R-19 fiberglass insulation (the 6" thick pink type, not foil backed) installed between floor joists over the existing rockwool will cut heat loss from 22,000 to 1500 BTU! This is an incredible saving for a small investment of money and time. A second layer of the same insulation cuts attic heat loss in half again but at this point the saving are quite small. Also, a second layer precludes using the attic for storage.

Avoid the temptation to close your gable vents in the winter, thinking that this will keep the attic warmer. The open gable vents are necessary to allow the moisture generated by the house and its occupants to escape. Closing the vents or louvers could lead to serious condensation problems which eventually lead to rotting in the roof. This is the same reason for using unbacked insulation.

Remember to insulate the access trap door or pull-down stairs to the attic, as mentioned earlier. If you have the door, save a few lengths of insulation to pull across the opening before you close it.

Better yet, attach insulation to a piece of light wood or cardboard that you can easily slide across the opening.

Pull-down stairs create a challenge because they extend above the attic floor level when closed. A second idea for building an "insulation box," different from the one proposed earlier of styrofoam, is to build a frame out of 2x4's. Since most attic pull-down stairs are built for a 2'x4' ceiling opening, the frame will have to be a bit larger. Cut sides and top out of masonite, re-enforcing corners with 1/2" x 3/4" molding to facilitate gluing the box together. The box should be 16" high to clear the folder stairs and allow use of 16" R-19 insulation. Wrap the sides and top of box with insulation, held in place by wrapping duct tape around it all.

WALL INSULATION

There is little you can do to insulate the walls short of ripping them out, attacking from the exterior by removing bricks, or punching holes to pour in perlite or vermiculate. Cellulosic insulation can be blown into the space between the walls but at significant expense which may not be worthwhile when the actual energy saved is computed. However, it would be better than what is there now, practically nothing. Let's move on to windows!

WINDOWS

Here is a chart of heat loss for windows from the calculations cited earlier:

	Steel Casements	**Wood Double-hung**
Basic loss	13,000 BTU	9,400 BTU
Caulked	9,076 BTU	—
With storm window	—	5,600 BTU
Caulked w storm window	4700 BTU	—

For purposes of comparison, a good insulated replacement window would lose 4-5,000 BTU.

What conclusions are to be drawn? First, casements can be wonderful but not in steel! When steel, they can be made reasonably energy efficient with inside storm windows but at the cost of not being able to open them, assuming that they are not already badly warped or rusted shut.

Second, wood double-hung windows with tight storm windows are reasonably energy-efficient. Replacement windows offer at least as good energy efficiency as the alternatives without the bother of annual caulking, storm window installation or periodic painting. Each year improvements seem to be made to improve the efficiency of new windows. Replacement windows are, however, a major investment averaging $3000 or more, depending on characteristics of the windows and whether you install them or hire a contractor.

Some general considerations when planning to replace windows are:

1. GLAZING — triple glazing should not be necessary in our climate but double glaze is important. It is not how many layers of glass that counts but the larger the air space between the panes, the better.
2. STYLE — double-hung or casement is a matter of personal preference. Many feel that double-hung with muntins are more in keeping with the colonial style of the house.
3. CONSTRUCTION —
    - vinyl or aluminum windows will not need painting but come in limited colors, usually white or brown.
    - all vinyl with air spaces in the frames are the most energy efficient. They are less rigid, however, than other types and tend to loosen up in hot weather. They are also a bit noisy in rain storms.
    - vinyl with aluminum reinforcing are more rigid but aluminum is a conductor of cold. Make sure there is no metal-to-metal contact.
    - wood is a reasonably good insulator and is rigid. Vinyl-clad wood will not need painting.
4. COST —
5. SPECIAL FEATURES —
    - flip-out windows for easy cleaning
    - screens stored right in the window
    - blinds and/or muntins between panes
    - security precaution
    - taking out the metal casement sill frame as well as the window

In early 1984, the CITIZENS ASSOCIATION conducted an informal survey of Foresters who had replaced standard windows. Twenty residents responded. Seventeen rated their windows at least 8 on a scale of 0-10, 0 awful to 10 excellent. The three who were not satisfied were unhappy because one was having condensation problems and the other two were displeased with the installation of the replacements.

Although this is a limited response for drawing conclusions, here are some of the particulars:

ACROSEAL Window Corp. was used by three respondents.
WEATHER-CHECK, sold and installed by Bob Kilby, by three.
ALLIED ALUMINUM by three.
ANDERSON WINDOWS by two.
WASHINGTON GAS by two.
US ALUMINUM CORP by two.

The rest, used by one household each and with positive recommendation were BILT-BEST Windows and US STEEL CORP. Windows.

Prices varied considerably in our survey. We estimate that current replacements would cost between $4,000-6,000 for 13 windows.

Many of the responses were virtual testimonials to the insulation value of the new windows. In particular, people mentioned energy savings, no drafts, easy maintenance, easy opening, and improved value of the house. One resident was particularly happy to have the improved insulation without sacrificing colonial styling which was provide by muntins inserted in the windows. Muntins (wood or plastic) may be clipped in inside the window or installed permanently between the two panes of glass. Another resident noted that fuel oil consumption had decreased by 2/3.

One complaint most frequently given was increased condensation because the house is much more tightly sealed. Damage to sills and paint occurs from the added moisture. However, the condensation was controlled by reducing the setting on the furnace-mounted humidifier.

The second complaint was damage during the installation to walls and window sills if they are retained. The installers use considerable force to remove old casements and the make no attempt to save the glass. So there will be noise and mess.

It has been reported that a couple of homeowners removed metal casements without cutting them out. In fact, one person re-used a window in a new location. Here are some steps to follow.

The first step is to put 3" masking tape all around the glass panes to prevent undue shattering of glass during this procedure.

The next step is to locate the screws that must be removed. In the smaller windows like those in the bedrooms, there are 8 screws. They are located 6" in from each corner of the window, on all four sides of the outer metal frame. You can see the screws when you open the windows. Perhaps years of paint have somewhat concealed them and will need to be removed.

There is a total of 10 screws in the larger windows downstairs. The two additional small brass screws in these windows will be found after chipping out the glazing 6" in each direction from the top corners of the window. In the event that you find a hole where a screw should be, there may be instead a case hardened nail. This will have to be cut from behind with a cold chisel. After all the screws are removed, remove the caulking where the outside window frame abuts the brick to reduce the resistance when you take out the window unit.

Now you are ready to start knocking the window unit out which requires a heavy hammer. Work your way around the perimeter, from top to bottom. When loose enough, the set of windows with frame can be pulled or pushed outside the house.

The sill frame, however, is pulled inside from the inside of the house. There is still plaster damage and you have to remove any wood framing someone may have installed around the windows on the inside. When dislodging upstairs windows, tie rope around each side or end of the metal cross bar and slide the loosened window unit down a ladder to the ground. This will minimize the cleaning up of broken glass.

If you decide not to replace the metal sill unit of the windows at the same time as you replace the windows, you will conserve more heat if you finish off the window units on the inside by

covering the remaining metal with wood trim on the four surfaces. Then complete the job by making window frames. This is very attractive and a heat saver as well.

The basement windows also allow considerable heat loss. If no storm windows are available, stretching plastic on the inside is inexpensive and will conserve heat. Stretching plastic can also be unsightly when not reserved to basements.

The best advice of all regarding windows is to visit your neighbors. Everyone loves to share that kind of experience and you can see for yourself.

HEATING

In addition to preventing heat loss, improving temperature efficiency in FOREST homes can be accomplished in several ways.

One of the simplest ways is to install a "set-back thermostat." This allows you to reduce the heat in the house while you are sleeping or away but increase it to a comfortable level in time to wake up or return home. Many such thermostats have multiple set-backs for each day and also for different days of the week. Installation is not difficult; it involves removing four wires from the old thermostat or only two if you do not have central air. Then you attach them to the new unit. They cost under $100.

The furnace itself is an issue. The original standard "Columbia Air" oil burner was very reliable but not much of a fuel oil conserver. Replacement of this oil burner is necessary for any significant savings in energy generation. There are the options of a new oil furnace, replacement of the oil burner, conversion to gas, or conversion to heat pump.

A high-efficiency oil burner is relatively inexpensive in achieving the energy savings desired without a major investment. For a cost of about $400, oil use can be cut by as much as 75%. High efficiency (flame retention) oil burners are actually the most efficient heat generators in terms of turning the potential heat of fuel into actual heat. One disadvantage is that the oil tank is in the basement where space is scarce enough.

Many homes in the FOREST already have gas. Gas is cleanest and still the best regarding cost. Conversions to gas may have taken place before energy prices increased and the replacement gas furnaces may not be particularly efficient. Some more efficient gas burners have recently been developed and can be installed in existing gas furnaces. Also, the latest advance in gas heat is "pulse combustion" which can be even more efficient than the best of oil burners. The whole furnace, however, must be replaced to take advantage of pulse combustion. This is a major investment but to be considered especially if a new addition is being planned. Ask about the noisiness of these furnaces; that has been a complaint.

Also, keep in mind that energy costs must be figured not only by mechanical efficiency but also by the cost of the fuel. If one heating method has the most efficient system, but the cost of the fuel is much more expensive than another fuel, it may be more cost effective to use the cheaper fuel with its less efficient heating system.

Heat pumps are a relatively new idea and not yet widely used as a primary source of heat; they have been used, in small sizes sufficient for a room, to provide zoned heat for additions.

Finally, wood stoves may be used, particularly in additions or "rec room" environments. Wood stoves must be attached to a separate flue pipe. They cannot be tied into existing chimneys. They must clear the nearest point of roof by 2 feet in height and 10 feet on the horizontal to avoid potential down-draft in order to have good draw of air for the fire.

COOLING

The original ARLINGTON FOREST forced-air heating system makes the addition of a central air conditioner a fairly easy proposition, although by no means an inexpensive one. Many of the same installation problems discussed about heating apply to cooling and affect the efficiency of your air conditioning.

As an alternative to, or addition to, air conditioning, recall the option of fans. In the attic, where the temperature can reach 130 degrees, an attic exhaust fan will be very helpful.

A new electrical hook-up will be needed.

Casablanca ceiling fans are more than picturesque — ask any neighbor who has installed one on the porch or especially in the bedrooms and you will find a witness to their effectiveness.

The whole-house fan expands the attic exhaust fan concept by pulling air through the house and exhausting it through the attic. This not only keeps hot air from building up in the attic but also creates a cooling breeze throughout the house when there is cool air to pull through. It is less expensive than air conditioning, usually costing less than $300. When the outside air, however, is about 85 degrees, the air pulled through the house will no longer have a cooling effect, although exhausting attic air will still be beneficial. There can be a sort of "white noise" from the fan but (like planes overhead in some parts of Arlington) after awhile they say you get used to it!

Some whole-house fans require considerable construction effort. A hole must be cut for the louvers in the ceiling of the upstairs hall. Some cutting of an attic floor joist may be necessary and then the construction of a box in the attic for the fan itself. The gable vents will have to be enlarged or additional vents cut into the roof since this type of fan requires a larger exhaust area for exhausting the air. Additional wiring will be needed as well.

Whole-house fans can be easily and effectively winterized by covering with plastic and insulation or some fans can be propped up and the plastic with insulation placed between the fan and the louvers in the ceiling.

A forced-air system operates most efficiently when heated or cooled air is returned to the furnace or air conditioner to be re-treated. In this way, the furnace or air conditioner does not always have to "start over" with outside temperature air.

The two smallest rooms in our homes, the bathroom and the smallest bedroom, do not have return air vents. This means that they will heat or cool more quickly than other rooms, but there are no return air vents to provide circulation. This can cause a build-up of moisture, particularly in the bathroom but also in the bedroom if it is used as a baby's room. Using a warm-air vaporizer in the bedroom with the door closed is tempting an epidemic of peeling ceiling paint. Use a cool air vaporizer.

Consider installing an exhaust fan in the bathroom to cut down on mildew problems. Such a fan could be vented into the attic and to the outside through the louvers or directly from the bathroom to outside, cutting through wall and brick.

The kitchen does not have a cold air return either. This was done on purpose to reduce cooking odors in the system. Most kitchens seem to have a stove exhaust fan vented to the outside which should serve to get rid of moisture along with smells and grease.

When doing major renovation to a FOREST home, remember to discuss with the architect and/or contractor an increase in air return duct work. It could go up the back of the house as changes are made in the rear wall.

ENERGY AUDITS

Both the gas company and the electric company will perform energy audits on your home for a nominal fee. Much of their information will seem self-evident, especially if you have read this section carefully! Often, however, they will have new in- sights and particular details for you and they are also able to calculate the payback periods for different energy projects. Call 359-3009 for Virginia Power and 740-4440 for Washington Gas.

THE VIRGINIA ENERGY BOOK is an informative publication which you can receive by writing:

Virginia Division of Energy
2201 West Broad Street
Richmond, VA 23220.

LANDSCAPING

LAWNS

Growing grass in the FOREST is often like, well, growing grass in a forest — often frustrating and always challenging. There are a few basics, though, that can be managed with surprisingly good results.

The first is soil chemistry, and while you don't need to dig for the old high school textbook, understanding what we're starting with can be very helpful. Unfortunately, what we start with here is **C L A Y**. Two basic problems follow. One, because of its density, water is very slow to penetrate to the roots of the grass (usually 6-8"). Most water runs off rather than being absorbed and, if it does not run off, it just stands there. Two, this density of clay also prevents oxygen from penetrating into the soil, another requirement of plant growth. Let's see, that's air, water, earth — some of us have never gotten beyond the ancient Greeks' understanding of chemistry!

The second important chemical fact of life in the FOREST is largely a function of history. Hundreds of autumns mean millions of leaves and their decomposition means acid in the soil in unusually high concentrations. As with most things, this acid is a mixed blessing - great for azaleas and rhododendrons (just ask any transplanted mid-westerner who grew up thinking forsythia was the only flowering bush) but very hard on grasses. All successful lawns in the FOREST adjust for these two basics, clay and acidity in the soil.

A lot of guesswork can be taken out of the process by having the soil in your yard and flower gardens tested, and the state makes this very easy to do. You can contact the County Extension office at 855 N. Edison Street in the Jackson School (558-2475). They will provide you with containers for the samples and send them to Blacksburg for analysis.

Take separate samples from lawn, garden, and shrub areas. Results for the property at 5201 N. First St. showed clay soil with ph levels of 5.0 in the lawn, 5.5 in the flower garden, and 5.7 in the shrubs. Ph measures the acidity in the soil, with a reading of 7 representing neutral, lower readings indicating more acid. Recommendations by the state will vary according to which section of the property is sampled.

SOLUTIONS

Short of digging up your yard and replacing it, changing the chemical balance of lawns is a gradual process. Controlling the effects of clay soil is a two-step process, aeration and mixture.

Aeration involves punching holes in the soil, usually about 6" deep and 1/2" diameter, removing those "tubes" of clay. (There are several types of aerator, both mechanical and muscle driven, that can be rented or purchased.) This allows oxygen and moisture to penetrate to the roots of the grass promoting growth and spreading. The aeration holes should then be filled with organic material (peat moss, compost, or manure, etc.) which adds nutrients and breaks down the density of the clay. This can be done at any time, but is most useful in early spring. It is also one of the few treatments where more is frequently better.

The recommended mixture of soil is 30% organic material or about 2" mixed with 6" of soil. This comes to a little over 6 square feet of area if you were to start from scratch. Controlling the acidity of the soil is also pretty straightforward — crushed limestone applied to the yard (not to shrubs or flower beds) in spring and fall will neutralize the acid and promote healthy grass.

The big question here is how much? While this will vary for individual conditions, our area generally requires more than most. For the house at 5201 N. First, which was tested, the state recommends application of 170 pounds of crushed limestone per 1000 square feet on a lawn with this acidity. The lime should be applied in small amounts, about 50 pounds at a time at intervals of 1 to 6 months until the full amount has been applied. Remember that the total amount needed depends on the ph level in your particular yard so it's a good idea to have the test done first. The testing will also result in advice for fertilizer treatment.

A final common problem in FOREST lawns is a result of maturity. Forty-year-old lawns are a lot like the houses themselves: solid but sometimes needing to be refreshed. Maturity sometimes means a buildup of thatch, dead grass and debris that makes it even tougher for water and nutrients to get in. A firm "combing" with a thatch rake is the best treatment, best done in the Fall, or late Spring after the grass has started to grow. This and the other soil treatments will also help to control moss and other weeds that can threaten especially shady areas.

Everything discussed so far assumes that the grass in your yard is generally satisfactory but needs some improvement. If there are bare spots or whole areas that need re-seeding, it is once again best to start with the basics. Grass didn't grow there for a reason, and that reason is likely to have something to do with the soil itself.

Treating the soil before planting seed may be the best guarantee of success. The treatment is basically the same as for existing lawns. This includes raking the area and treating it with organic material to a good depth so as to prevent problems related to clay.

Because we are in a transitional zone for climate, hybrid grasses are usually most effective. These should be hybrids that do well in shade and can withstand the heat of summer. Tall fescues, sometimes combined with Kentucky blue, are the standards recommended and, given the proper care, they will do very well here. Zoysia is another grass used in the climate. It is especially popular because of its tendency to spread fully and require little maintenance.

Some properties have lawn growing over a grade, usually in the front. An excellent option to minimize care is to plant groundcover. After you have taken the soil sample, select a groundcover to your liking: delicate or coarse, one color or variegated, vine or plant, etc. Laying black plastic to help control the weeds while the cover takes hold is a good idea.

Then the individual cuttings are planted through small holes made in the plastic. Mulch is put on top. Some suggestions, depending on soil conditions and amount of light, are: pachysandra, ivy, periwinkle, ajuga, sweet woodruff, etc. The Arboretum has resource materials you could consult and so does our own County library which has an extensive gardening section. The leaves will present a challenge in the fall. This can be handled by vacuuming up the leaves if you planted vines or raking if you are able to get in among the plants.

SHRUBS AND TREES

Perhaps the most obvious assets of ARLINGTON FOREST are the many beautiful and mature trees that were retained when the area was first developed or have been planted and cared for by the Foresters before us. They give shade to keep us cool in the summer and provide much of the character of the neighborhood. Under normal circumstances, these trees require very little care — most have been around longer than we have and will be here long after we're gone.

In fact, the State recommends fertilization of trees only if they exhibit poor growth and color. If growth is poor, the Extension Service suggests application of 2 pounds (one quart) of 5-10-5 fertilizer for each inch of trunk diameter as measured 3 feet above the ground. The fertilizer should be applied about a month before the average date of the last frost in the Spring. Spread the fertilizer in a band around the tree about 2 feet from the trunk and extending out several feet beyond the ends of the branches. Scatter fertilizer evenly in this area, then water liberally.

The biggest problem faced by trees in our area is the gypsy moth which attacks hardwood trees and has been appearing in the County since 1982. It is here to stay, it seems, and the following steps are recommended:

- August through April, look for the egg masses on tree trunks, fences, under the eaves of houses (when cleaning gutters).
- scrape them off, collecting them, in order to destroy them. Do not let them fall to the ground to crush them because that will not work. Soak them in bleach, alcohol, or ammonia.
- once the larvae are hatched and become caterpillars, the best way to try to protect the trees is to tie cloth or burlap strips around the oak trees in May. This will provide them a cool "resting" place during the day and you can remove them with pincers ad destroy them in a jar of alcohol.
- when the moth stage arrives, traps are available on the market and this may help.

Additional information is readily available at the Extension Office. The County does survey to determine the extent of the infiltration and there is area spraying.

Besides controlling pests, keeping trees trimmed provides the best advantage to the overall landscape. Dappled or broken shade encourages a variety of plants to grow while dense shade seriously inhibits all growth. It is also important to notice the effect of your trees on your neighbor's yard because of the same effects. You may both want to discuss it and share the expense or work of tree trimming.

The variety of flowering and other shrubs are another major asset of the FOREST, making all of us look forward to spring. Most of these shrubs also require relatively little care, although the unusually cold winters of the early 1980's (not to mention the heavy snows of 1987) have created some problems and resulted in some losses. AS with larger trees, fertilizing is only required if growth is poor, exhibited by light green leaves and short thin twigs.

At the the First Street property, the azalea beds with a ph of 5.7 were not acid enough, so the Extension agent recommended using 10 pounds of aluminum sulfate per 100 square feet in the shrub area. This should also be applied slowly and distributed over the entire root area of the bushes. (Azaleas should be trimmed just after blooming and only small amounts should be trimmed each year in order to insure good flowering each season.)

Finally, the test results indicated a need for 2 pounds of 10-10-10 fertilizer in the flower garden.

A fertilizer of 5-5-5 should be used in shrub areas (where the numbers indicate the percentage of nitrogen, phosphorus, and potassium in the mixture.) This should be applied uniformly over the root zone starting about 6" from the base of the shrub and extending about a foot beyond the ends of the branches. Fertilizer should be applied in early spring, about a month before the last frost in amounts as follows:

Height of Plant in Feet	**Amount of 5-5-5 in Pounds/Shrub**
0-3	1/4 (half cup)
4-8	1/2 (1 cup)
8+	1 (2 cups)

Since not only our homes but also our lots are small, choice of plantings must take into account size as well as color, shape, and texture. Small trees (called "under trees" which grow 30-40 feet at maturity) to be considered for the FOREST would be: katsura tree, goldenrain tree, Marshall seedless green ash, red buds, dogwood, Bradford pears, saucer leaf and star magnolias, and Chinese or Japanese cut-leaf maples.

Trees to avoid because of size are tulip, silver maples, pines, and magnolias. There are so many lists that could be given! The best advice is to spend time at the Arboretum, Dumbarton Oaks, and Brookside Gardens, noticing the different plantings at different seasons — you will have so many ideas you will need an estate to use them all!

An additional advantage to al-time favorite greenery here such as hollies (which need at least one male to several females), dogwood, smaller magnolias, honeysuckle and trumpet vine is their attraction to birds (not pigeons!). Hummingbirds, robins, cardinals, woodpeckers, mockingbirds - they'll come and amuse you if they find the right environment. Food, shelter, and the water will draw them. Keep your cat on a leash and watch the feathery creatures gather!

FENCES AND BORDERS

A final aspect of outside maintenance and care which should be considered is the use of fences and other border materials to isolate or accentuate certain parts of your property.

While some level of privacy is desirable for any home, one must think about how fences affect others in the vicinity. A few guidelines will allow for the desired privacy without damaging the openness of the area. First, think about how the fence will influence light, visibility, and air flow.

Second, learn what the county ordinances require on size and location. Investigate before you construct what may have to come tumbling down.

High fences do not protect against crime. Experience has proven that high fences encourage burglary by protecting not the homeowner, but the criminal, shielding him/her from view once inside the fence.

In general, then, planning should consider the following:

- fence height should not be greater than is necessary for its intended use since it can have a significant impact on adjoining properties and general open space
- height and design should conform to other fences in the area
- the degree of openness of fences depends on their use, and it is often better to use fencing that is "broken" or staggered, not solid, to allow air flow and minimize the effect of shadows
- planting may often be integrated with fencing to soften the visual impact and, in many cases, natural barriers like shrubs and small trees can be used instead of fencing. Have that soil testing done and visit the horticultural "museums" in the area to discover the optimum species. Some types do not grow well here, like lugustrum, because it is not hardy enough.

Decide what your reason is for a fence: is it to block the view, to prevent traffic, to delineate your border, to create a special secret place? How much space do you have? Do you want bloom and seasonal interest or a plain, monochrome background? Must it be a vertical marker or could it be on the horizontal? Do you need evergreen for a screening all year long or is it acceptable for the leaves to fall? To stimulate your creative thinking, here are some suggestions: photinia (loves sun and has beautiful red color among its leaves); privet, tried and true; cherry laurel; and prickly types like barberry and ornamental orange.

"PERENNIALS FOR SHADE"

by Mrs. MacGregor's Gardeners

The perennials listed here will thrive in "light shade" if the soil is humus-rich and free of tree roots. "Light shade " is found in clearings between well-spaced trees, against north-facing walls with no direct sun but good light, and in east-facing borders reached by morning sun only.

Borders shady in the morning but sunny in the afternoon (west-facing) are not suitable for shade-loving plants. No flowering perennial is likely to do well in the dense shade of closely planted evergreen trees. Hostas might succeed if the shade is not too dense. If the trees are deciduous, try perennials that flower in spring and then go dormant since they will receive the benefit of light for their flowers early, through the leaf-less trees.

These perennials will die down in winter, unless otherwise indicated. All of the following can be obtained in our Garden Shop in the Forest.

1. ANEMONE (Anemone vitifolia "robustissima"). Most robust of Japanese anemones, spreads fast, flowers late summer. There are also SNOWDROP ANEMONE (Anemone sylvestris) and VIRGINIAN ANEMONE (Anemone virginiana). SNOWDROP flowers in the spring, in moist soil, but tolerates drier summer soil. The VIRGINIAN is similar, taller, and flowers later.
2. COLUMBINE (Aquilegia). Columbines do well in light shade, flower in spring or early summer, and can be grown from seed. Leaf miner often damages leaves.
3. ASTILBE. Must have moist, rich soil and then they will do well in sun or light shade. Colors are pink, orange, read, and white. The flower is unique, rather feathery.
4. BRUNNERA MACROPHYLLA. Flowers in spring, succeeds in dry soil although it prefers moist, will co-exist with tree roots, and will seed itself in light shade.
5. BELLFLOWER (Campanula). Blue flowers (there is a white one, LATIFOLIA) in spring, early summer, or summer. Don't remove spent flowers if you want them to naturalize which they do readily if allowed to set seed. But if you want re-bloom, cut off stalks of spent flower. Ask about these details when shopping.
6. EPIMEDIUM. Does well in shade, even dry shade. Flowers may be white, mauve, orange, yellow, rosy pink, crimson or bicolor. Some clump and spread slowly, others are less dense but spread quite fast. EPIMEDIUMs flower in spring.
7. DISPORUM FLAVUM. New from Japan, this beautiful plant bears its nodding flowers of lemon-ice yellow in early spring. Glossy foliage is attractive all season. It is related to SOLOMON'S SEAL and, like it, tolerates dry shade although it grows more luxuriant in moist rich soil.

Also ask about HARDY GERANIUMS, LIRIOPE, PHLOX, TOAD LILY, PULMONARIA, COWSLIP-PRIMULA, CHINESELANTERNS, HOSTA, BEGONIA, HELLERBORUS, BERGENIA CORDIFOLIA, GREATER CELANDINE, GOLD STAR.

YEAR-ROUND GARDENING HINTS

January

- Good time to ready cold frame for use. Use mixture of two parts garden loam, one part sand and one part compost or aged manure to replace soil lost in transplants.
- Clean crusty clay pots in a mixture of one cup white vinegar and one cup household bleach in one gallon warm water. Soak until loose, up to 12 hours; use steel wool on stubborn pots.

February

- Send off garden seed orders now, take advantage of seasonal discounts.
- Never fertilize in dry soil, could burn plant roots. Water about two hours before fertilizing.
- Good air circulation is necessary for cacti and succulents. Indoor garden should be well ventilated, not drafty.

****March****

- Transplant small (2-3 feet) dormant dogwood trees. The larger the tree the greater the risk of death due to transplant shock.
- Don't leave stubs after pruning. Stubs usually die and are entry points for decay fungus.
- Fertilize naturalized bulbs. Broadcast 5 pounds of bone meal per 100 square feet.

****April****

- If the soil in your garden stays muddy after a rain, consider building raised beds. They are good replacements for rocky, or compacted soil, and are easy to work.
- Plant early vegetables now, such as onions, sugar snap peas, lettuce, spinach.
- Prune roses now for winter kill and fertilize.

****May****

- About mid-month plant cucumbers, peppers, summer squash, beans, chard, okra, and tomatoes.
- Don't use grass clippings treated with herbicides as mulch or compost.
- Set out flowering bulbs, i.e., canna, gladiolus, dahlia, tuberous begonia.
- In case of late frost protect plants with plastic bottles with the bottoms cut off.

****June****

- Prune spring flowering shrubs soon after blooming.
- Broken branches and suckers from tomato plants will often root if stuck into loose moist soil.
- Water garden early enough in the day so that leaves will dry before nightfall.
- Protect yourself, spray garden chemicals only on calm days and wear protective clothing. Wash hands and clothing thoroughly after using garden chemicals.
- Garden plants need one inch of rain or equivalent per week.

****July****

- Plant a second crop now for fall tomatoes. You will probably have to grow your own plants from seed or root suckers.
- Harvest squash, beans, and cucumbers regularly, plants will continue to produce.
- Soak the garden about once a week, encourages deeper roots and makes stronger plants to withstand drought.

****August****

- Time to start planting the fall garden, edible-podded peas, Chinese cabbage, kale, lettuce, spinach, carrots, beets, turnips.
- Don't forget to water. Give your garden a once-a-week soaking. Continue to harvest regularly.

- This is a good time to get a soil test (every two years.)

****September****

- Autumn is a good time to transplant needle evergreens.
- First fall lawn fertilization may be done now.
- Store leftover garden seeds for next year in airtight bags in a cool dry place.
- Hang garden herbs to dry in the attic or screened porch or other dry well ventilated locations.

****October****

- Bring house plants inside — avoid early frost — check for bugs before bringing the pots in the house.
- Start a compost pile with your leaves; remember do not use grass clippings treated with a herbicide during the summer.
- Time to plant spring flowering bulbs. Transplant deciduous trees and shrubs after leaves drop, or wait until spring.

****November****

- Look for gypsy moth eggs, tan fuzzy patches that look like a piece of camel hair coat, 1" long and 1/2" wide, attached to trees, rocks, fences, lawn furniture.
- Second fall lawn fertilization may be done now.
- Rough spade or till your garden plot, add organic matter and lime if indicated by soil test, and put the plot to bed for the winter.
- If you house plants need water every day or two, it's a sign they are potbound; use a new pot about 1-2" deeper and wider.

****December****

- Protect roses by mounding dirt around their bases, add a cover of 4-6" of mulch. Order roses now for spring planting.
- Don't use fertilizers containing nitrate of soda or sulfate of ammonia to melt snow on your concrete driveway and walks. They cause breakdown of concrete surfaces.
- When Christmas cactus buds show signs of opening, start a regular watering program and keep plant cool for the best show.
- Sunflower seeds attract chickadees, tufted titmice, finches, cardinals, and grosbeaks. Suet attracts woodpeckers and goldfinches.

Source: The Virginia Gardener, published by the Department of Horticulture, Extension Division, Virginia Polytechnic Institute and State University, Blacksburg, VA