

## **Important Care and Maintenance Information**

### **EXTERIOR**

#### **DRIVEWAYS, SIDEWALKS AND PATIOS**

##### **Concrete**

Driveways and sidewalks are generally made of concrete. Concrete is a strong material that wears well and will perform for many years. Following installation, concrete will shrink as it cures. This shrinkage causes stress in the concrete, which often results in surface cracks as this stress is released. This cracking can be somewhat controlled by the installation of control joints in the concrete. These deliberate joints in the concrete are more susceptible to cracking than the remainder of the slab, thereby reducing the potential cracks will occur in the slab surface itself. These cracks when they occur are generally cosmetic and do not require repair unless they acceptable standards as set out by your Builder. Seasonal variations in temperature may also cause cracks in concrete slabs. Soil movement beneath the concrete due to frost penetration can crack and/or raise sections of the concrete. This change in height may change the direction of surface drainage causing water to pool against the foundation wall of your new home. Should this occur repairs should be under taken to prevent water from pooling as it may then seep through the foundation wall and into the home. Both of the instances above are natural occurrences that are beyond the builder's control.

Another potential cause of damage to concrete surfaces is road salt and other chemical contaminants. Road salt or other de-icing products used for ice control in the winter may adversely affect the surface of the concrete. As a result, road slush, which contains road salt, should not be allowed to melt on the concrete. A good alternative to de-icers, is sand or cat litter for increased traction on icy sections of the driveway or sidewalk. Common lawn fertilizer, contaminated surface water and run-off from stored materials can cause staining of the concrete surface that cannot be removed. Concrete sealers that are commercially available may reduce damage due to chemical contaminants. Care should be taken in the handling and storage of potential contaminants on or near any concrete surface.

## **Concrete Pavers**

Manufactured concrete products such as paving stones are also susceptible to surface damage and staining. The precautions pertaining to concrete surfaces listed above also apply to these products.

Concrete pavers are installed on a bed of coarse sand or fine gravel. Some localized settlement may occur due to compaction of these materials. Should some areas settle excessively, lift out the pavers in the low area and add sand to level the area out. Suitable material for this repair can be purchased in bag form from most home supply centers.

## **Asphalt**

Asphalt surfaces are seldom smooth and often have indentations. Tire impressions and checking or cracking at the edges due to expansion and contraction are other common characteristics. Damage to the surface may also occur in hot weather as the surface softens due to the heat. Sharp or pointed objects such as motorcycle kickstands or trailer hitches can penetrate the surface under such conditions. Gasoline and solvents will dissolve asphalt quickly. Any spills or fluid leakage from automobiles should be removed immediately. Periodic sealing of the asphalt surface (every two to five years) with an acrylic-based sealant is recommended. These products are readily available at most home supply centers.

## **Gravel**

Gravel driveways require raking periodically to fill in depressions to maintain an even surface. Crowning the driveway to the center or sloping it to one side is a good method of controlling surface water.

## **SITE DRAINAGE AND GRADING**

The intent of site drainage patterns is to prevent surface water from pooling near or against the perimeter foundation wall of your new home. This is accomplished adjacent to the house by sloping the soil away from the residence on all sides. This minimum 2% grade needs to be maintained at all times. Window wells are a means of providing a window for a basement below grade. Window wells must be kept free of ice, snow, leaves and other debris which may block the drainage system provided and flood your

new home. Depressions due to soil compaction following construction may occur adjacent to the foundation walls. These depressions should be filled and graded to direct surface water away from the walls for a distance of at least two meters (6'). At no time should water be allowed to pool against the foundation walls.

In addition to the drainage considerations adjacent to your new home, overall property drainage systems may include surface depressions (swales), drain tile curtain drains and catch basins. Ice, snow, leaves and other debris can block the flow of drainage and must be seasonally maintained by the owner. Care must be taken not to permanently alter the drainage flow so as to cause an ongoing drainage problem.

During periods of excessive rainfall, standing water may occur due to soil saturation. Such conditions are beyond the control of the owner or builder.

## **DRAIN TILE AND SUMP**

In most jurisdictions, there is a requirement for a perimeter drain tile system to be located below the level of the basement or crawlspace floor. This system is generally comprised of perforated pipes that are covered with gravel to allow water to seep into them. This drain tile carries the water away from the perimeter of the house to prevent it from accumulating against the foundation wall or footing. The drain tile then carries the water to a sump or catch basin. The sump allows any sediment in the water to settle to the bottom of the sump. The clear water is then drained off by another pipe to the municipal storm sewer, ditch or a rock pit located in the yard. Access pipes or cleanouts are installed to allow the perimeter drain tile to be inspected and cleaned. The location of these cleanouts should be identified for future reference. Sumps and catch basins should be cleaned every two years, as a minimum, to remove any excessive sediment, leaves or other debris. Exterior stairwells are often equipped with a drain and sump at the bottom of the stairwell to prevent flooding of the basement. These drains must be kept clear of debris. Deep-rooted plants or trees should be avoided next to the foundation walls as deep roots can clog a drain tile system.

The requirement for a perimeter drain tile system may be waived by the authority having jurisdiction in arid regions, regions with free draining soils, or some rocky lots. In areas of blasted rock, it is virtually impossible to stop the movement of water through the rock. Exposed areas of rock in a crawlspace may seep water in wet conditions. Care must be taken to ensure that any visible water is drained away and that the area is adequately ventilated.

## LANDSCAPING

Frequent watering of the grass is essential during the first few weeks after an area has been sodded or seeded. Once the grass is established, weekly watering is adequate. This will promote a deep root system that will result in a healthier, more drought resistant lawn. Frequent light watering results in a shallow root system that causes the lawn to dry out and die in drought conditions. For the same reason, grass should not be cut shorter than two inches in height. Fertilizing twice a year and controlling weeds will promote a healthy lawn. Consult your local home garden centre for suitable products.

During the spring thaw, do not allow snow or ice to accumulate in shaded areas as this will damage the grass. Any accumulations of snow should be distributed evenly over a large area so that it melts evenly.

Some minor settlement will occur over some areas of new lawns or landscaping. These areas should be filled and re-seeded to maintain a level surface.

When installing flowerbeds, be careful not to interfere with the drainage system. Ensure that flowerbeds are graded away from the foundation wall and that a minimum clearance of eight inches is maintained between the ground level and the bottom of the exterior wall cladding. Never allow soil or gravel to come in contact with untreated wood materials or your exterior finish. Trees and shrubs should be kept clear of the house. Deep rooted plants or trees could interfere with the performance of the perimeter drainage system of the house. Newly planted trees or shrubs require a shallow depression around their base. The depression should be worked periodically to loosen the soil to allow air and water to penetrate to the root system. Once the plant is established (approximately two years), the depression can be filled in; however, never raise the soil above the level of the base of the trunk as this will kill the tree. In some arid locations, the installation of lawns, planters, trees or shrubs directly adjacent to your new home is not recommended. The water required to sustain the health of the lawn or plants causes the soil to expand or collapse depending on the composition of the soil. This will adversely affect the load-bearing ability of the soil and may cause structural damage to the residence.

## **EXTERIOR COMPONENTS**

### **VINYL, METAL OR COMPOSITE SIDING**

Generally, vinyl, metal or composite siding materials will not require refinishing. Metal and composite siding materials can be re-painted, vinyl siding cannot. Due to their smooth surface, these materials can be kept clean by washing with a garden hose and mild detergent and some light scrubbing. Never use a pressure washer to clean the exterior cladding. Excessive water pressure can cause damage to the surface of the cladding and/or force water into the wall cavity. Vinyl and metal siding materials are installed loosely to allow for expansion and contraction due to the variations in the outside temperature. Damaged or very loose siding should be replaced/refastened to prevent further damage to the siding and to prevent the entry of water into the wall cavity.

### **WOOD SIDING**

Wood siding and shingles can be cleaned with a mild detergent and a garden hose. Do not use a pressure washer to clean wood siding as this will damage the surface and force water into the pores of the wood. Painted wood siding or shingles will generally require re-painting or staining within five years. This will vary depending on the type and quality of the product used the initial coverage, and the exposure to the elements. The siding will require re-painting or staining whenever the surface begins to fade, discolor or peel. Moisture in wood siding causes most exterior paint failures. This moisture may be from garden sprinklers, damp shrubbery close to the wall, small cracks in the siding or around door and window details. Spot repair of affected areas can sometimes extend the life of the remaining surfaces. Please note that if spot touch ups of the painted/stained surfaces are undertaken, the new paint/stain color will likely not match that of the existing surface due to fading and weathering. This cannot be avoided. Siding installed on the south and west elevations, especially dark and bright colors which fade more rapidly, may require more frequent repainting or staining to maintain their original appearance and also to provide adequate protection for the siding. For best results, follow the manufacturer's recommendations for surface preparation.

Decks, handrails and windowsills may require cleaning and “touching up” more frequently than other components of the house due to their horizontal orientation.

## **STUCCO**

Stucco consists of a mixture of sand, lime, water and Portland cement. Conventional stucco applications, including those with an acrylic top finish coat, are not waterproof. The protection from water penetration comes from the building paper and flashing installed prior to the application of the first coat of stucco. The stucco does help in shedding water, but will become saturated after a prolonged period of rain.

Control joints are installed at each floor to compensate for the movement of the building frame caused by the wood components which shrink in size as they dry. Hairline cracks may appear in the finish coat after the drying and shrinking process is complete. These cracks should be expected and it is suggested that they be left until near the end of the first year, or until all shrinkage has taken place and then, if desired, they can be repaired. Please note that the repair of the crack is often more unsightly than the original crack. Cracks less than 2mm (1/16”) in width do not require repair. Larger cracks should be sealed to prevent the entry of bulk amounts of water into the wall assembly.

Most surface dirt on stucco can be cleaned with a garden hose. A pressure washer should never be used to clean stucco surfaces as considerable damage and excessive water penetration can occur. Over time, mildew and moss can grow on any shaded surface on any type of cladding. A mild solution of bleach and water may remove this growth.

## **MASONRY**

Neither the mortar joints in the brickwork nor the bricks themselves are entirely waterproof. Periodically, the mortar joints should be checked for cracks. Hairline cracks are not problematic; however, if these cracks are excessive, they should be repointed to reduce the potential for moisture related problems. Repointing involves cleaning out loose mortar to a depth of at least ½” and filling the space with new mortar which is available at your local building supply store. The bottom course of brick contains intentional openings (weep holes) which allow for the drainage of moisture from the

cavity located behind the brick. These openings must remain unobstructed and must be a consideration when landscaping.

White dust or staining on the masonry surface is referred to as efflorescence. It is the result of salts within the masonry or mortar that migrate to the surface of the brick with time. It can usually be controlled with water and a light scrubbing. More persistent occurrences can be washed off with muriatic acid or baking soda. Should efflorescence continually reoccur in a localized area, it may be due to a specific water source such as a leaking gutter. If so, the problem should be identified and corrected.

## **CAULKING**

Flexible sealing compounds are generally referred to as caulking. Numerous varieties exist and have many specialized uses. Caulking is generally used to seal gaps between dissimilar materials on the exterior of the building and to seal gaps or joints in exterior finishes. As the building moves due to the shrinkage of the building framing members and/or the finishing materials themselves, considerable stress is placed on the caulking materials. While a caulking joint should never be the only means of preventing water from entering a building, it is one of the initial means of keeping water out. Therefore, caulking requires examination annually before the wet weather arrives. Any cracked or damaged caulking should be removed and replaced.

When caulking, use a high quality material formulated for your specific purpose. Some caulking's are for interior use or cannot be painted. Consult with your builder or local home supply centre for an appropriate product.

## **WINDOWS**

Window glazing is typically made of glass with the exception of some skylights that may use an acrylic glazing. Current building standards require the use of double glazed sealed units mounted in thermally broken frames. There is a wide assortment of frame types and the material used can vary widely. Windows may open in different fashions: they may slide horizontally or vertically, open outwards like a door or tilt open in the fashion of an awning. Typical windows require minimal maintenance. Window hardware should be cleaned and lubricated annually. Any accumulated grime or debris should be removed from between the window and the frame. Vinyl window tracks can be lubricated with a silicone spray to ease operation.

Most window designs incorporate a drainage track at the bottom of the window to collect any condensation that runs off of the glazing. These tracks will have weep holes to the outside to drain this moisture. These holes must be kept clean and can be maintained with a short piece of wire or a cotton swab.

If high relative humidity levels occur inside your new home during periods of very cold weather, condensation and frost on the inside face of the windows will occur. This is a ventilation issue and is not a fault with the window. Condensation can result in the growth of mold on the window frame that can be controlled with a mild solution of bleach and water.

Condensation between the layers of glass within the window frame indicates that the sealed unit has failed. The glazing unit will require replacement as there is no method of repairing sealed units. If failure of the sealed unit occurs after the expiry of the first year of warranty coverage, contact your window supplier as the cost of this repair may be partially borne by the manufacturer.

Acrylic skylight glazing does allow the migration of moisture through it; therefore, condensation between the double-glazing can be expected. This form of skylight usually has a vent that can be opened to allow for additional airflow between the acrylic glazing units. Check with your skylight manufacturer for further information in this regard.

## **DOORS**

Exterior swing doors are generally made of solid wood, metal, wood over a foam core or fiberglass. Sliding patio doors are usually constructed with metal or vinyl frames and are supplied by the window manufacturer. Interior doors are usually a wood veneer over a hollow core. The man door between the garage and the house will be provided with an automatic door closer (*in some cases as it is no longer required by code in many areas.*) and seal (weather-stripping).

Exterior doors are exposed to detrimental weather conditions and extreme temperature variations from the inside to the outside which can harm the surface of the door. Variations in the relative humidity from the interior to the exterior can also affect the door. Collectively or separately, these conditions can cause doors to warp or change in

dimension. Seasonal variations can occur up to ¼" in any direction. It is prudent to refrain from trimming a binding exterior door as the problem may rectify itself with a change in climatic conditions. Some exterior doors have restrictions imposed by the manufacturer as to the color the door may be painted. The heat absorbed by darker colors can cause failure of the sealing compounds in the glazing and/or cause excessive warping of the door. The wrong paint color may void the manufacturer's warranty; therefore, any such restrictions should be reviewed prior to the door being painted.

Interior doors are generally sized to allow a gap up to 18mm (¾") at the bottom of the door between the door and the floor covering. This gap is provided to allow for the circulation of air beneath the door.

### **WEATHER-STRIPPING**

Weather-stripping is installed around doors and windows to reduce air infiltration. Check the weather-stripping annually to ensure that the seal is adequate. Some weather-stripping is adjustable and the door should be slightly difficult to latch or lock. Petroleum jelly can be used to lubricate rubber or vinyl products to maintain their flexibility.

### **FINISH HARDWARE**

The factory finish on exterior locks and door handles will wear with normal use. This is especially evident with brass finishes in marine environments. To restore this finish, remove the factory lacquer finish with a scouring powder, then polish the hardware. Once a uniform appearance is obtained, the surface can be sealed with a coat of clear lacquer.

Interior door hardware can be wiped clean with a damp cloth and polished with a soft dry cloth. It should be noted that natural body oils and many hand lotions are detrimental to brass finishes and will cause tarnishing.

Door hardware and locks can be lubricated with powdered graphite or light oil.

## **DECKING AND HAND RAILS**

Sundecks, balconies and handrails are exposed to rain, snow and sun. Cracking, warping and splitting of wooden deck materials is normal and cannot be prevented. Painted surfaces will chip and peel and should be touched up annually before the onset of poor wet weather. Open seams in wood trim should be sealed with a suitable caulking to prevent the entry of water. Care must be taken not to damage any deck membranes and any damage must be repaired immediately. Usually, cleaning with mild soap and water is adequate.

## **ROOF AND GUTTERS**

### **Roof**

If the roof of your new home is sloped, it will typically be surfaced with asphalt or fiberglass shingles, cedar shingles or shakes (which may or may not be treated with a preservative), clay or concrete tile, metal or a composite manufactured product. Flat or slightly sloped roofs may be surfaced in both built-up tar and gravel or torched on rolled sheet goods. The typical life expectancy of these various roof materials ranges from 10 - 25 years. The life expectancy of the roof will depend on the product used and the care and maintenance provided. Loose, broken or missing shingles following heavy windstorms should be repaired or replaced. It should be noted that most manufacturer's warranties for shingles do not cover wind damage in conditions exceeding 80 kph (50 mph) unless otherwise specified. Storm related damage is not the builder's responsibility; therefore, maintenance repairs should be made as soon as possible after such occurrences to prevent leakage. Leakage can cause serious damage to the interior of your new home or further damage to the remainder of the roof. Asphalt shingles and some roll roofing have granules on the surface to protect the product from damage due to ultra-violet radiation from sunlight. If bare areas of the underlying roof material are present, they should be protected with additional granules. This material is available at most roofing material supply stores. In addition, these types of roofs will become soft in hot weather and the top surface can become damaged from people walking over it. Deflection of the roof sheathing or the lifting of the shingles due to expansion can cause variations in the roof surface.

Cedar roofing should be washed annually with a garden hose and any accumulated debris such as needles or moss should be removed from between the shingles or shakes.

The shingles should not be pressure washed as the high-pressure water causes irreparable damage to the composition of the shingle. Wood roofs become very slippery when wet and extreme caution must be undertaken when working on a wet roof. Wood shingles will crack and split with time. This weathering is generally not a concern unless it causes a roof leak. If such a leak occurs, it should be repaired immediately by installing a piece of sheet metal beneath the cracked shingle. Older wooden roofs are very brittle and traffic on the roof can cause extensive damage to the shingles.

Flat roofs should be inspected by a professional every two years and all recommended maintenance should be carried out. They typically have drains that need to have debris removed regularly. They many times have overflow that could indicate heavy rainfall overwhelming drains or possible obstructed drains.

All forms of roofing are intended to shed water and prevent its entry into the residence. Obstructions that prevent the free flow of water off of the roof surface or to a drain can cause leakage and/or premature failure of the roofing material. The roof and ancillary flashings must be kept free of debris and build-up of ice or snow. While cleaning the roof is recommended annually, the roof surface should also be checked for excess debris after every heavy windstorm. This is especially true if trees surround the home. Please note that coniferous trees will also deposit debris in sufficient quantities to impede the free flow of water.

Regardless of the type of roof material used, the area beneath the roof surface will be vented to the outdoors. Sloped roofs generally have an attic which is vented at the perimeter (eaves), gables or at the ridge of the roof. Flat roofs are also vented. This unobstructed ventilation is crucial to the longevity of the roof and roofing material. At no time should you allow this venting to become blocked.

All penetrations through the roof, such as skylights, plumbing stacks, vents etc., need to be checked annually and re-sealed as necessary.

### **Ice Dams**

Snow melting on the roof and freezing as it runs off at the un-insulated overhang or eave of the roof can cause ice damming. Ice dams can cause water to back up under the shingles which will result in a leak inside. This is a natural occurrence and generally is

not due to a builder defect. When ice dams occur, the snow and ice should be removed off of the roof at the eaves and valleys.

## **Gutters and Downspouts**

Although gutters are not required by all building regulations, they are often installed at the perimeter of the roof to control the runoff of rainwater from the roof. They also serve to prevent the rainwater from being deposited alongside the foundation wall where it could eventually seep into the basement or splash water and mud up onto the surface of the wall. If the gutters or the down pipes become clogged with debris or ice, water damage can occur. Keep gutters, roof drains and downspouts free of obstructions such as leaves, tree needles and moss. Washed down by rain, particles from asphalt shingles can settle in the gutters and reduce their efficiency. As with the roof, the gutters should be checked for obstructions at least twice a year, and after every heavy windstorm or after prolonged periods of freezing and thawing. When cleaning out the gutters, do not allow the leaves and debris to clog the down pipes of your new home.

## **STRUCTURE**

### **FOUNDATION**

The most common material used in foundation construction is poured in place concrete. Alternative methods of construction include masonry block walls and wood walls constructed of pressure treated preserved wood.

If constructed of concrete, it is important to understand that concrete shrinks as it cures. As with concrete flat work, such as driveways, the concrete of the vertical wall may crack as the stresses caused in the concrete due to shrinkage are released. Minor shrinkage cracking cannot be avoided in conventional concrete foundations and floors. These cracks have little effect on the structural integrity of the building. As previously referenced, hairline cracks in the foundation wall may allow the entry of water. These can be repaired from the outside with an asphalt-based sealant. If exterior access is not possible, numerous concrete patching compounds are available commercially, which can be installed to the inside surface of the concrete wall.

## **BASEMENT FLOOR SLABS AND CRAWL SPACE GROUND SEALS**

The floors of basement style homes will be cast-in-place concrete. This surface may not be perfectly smooth and is generally not intended as a finished floor surface. As concrete shrinks while curing, stress cracks are common. Cracks will generally form at corners and across doorways and at the perimeter of the floor where it abuts the foundation walls. As the floor is not a structural component, there is generally no reason to repair cracks in a concrete floor unless they are larger than 3mm (1/8") in width. These can usually be filled with concrete grout.

Concrete floor slabs can be painted. The product used should be alkali resistant and allow continued curing of the concrete. Painted concrete floors often flake or peel and require continual touch-up.

Efflorescence may appear on areas of the concrete floors and walls. Efflorescence is a white powder on the surface of the concrete which is caused by salts in the concrete mix that are brought to the surface by the water in the concrete mix. It is cosmetic only and can be removed with a brush. Once the concrete has cured, it will likely stop appearing although an alternative water source could cause efflorescence to continue indefinitely. If this is the case, the alternate source of water should be identified and remedied.

A polyethylene vapor barrier is generally installed beneath the concrete floor to stop the migration of ground water through the concrete. Despite this vapor barrier, some moisture may still transmit through the concrete. Storage items should be raised up off of the floor and kept away from the walls. This allows for the flow of air around the stored items and helps to prevent the growth of mold or mildew.

Crawl space floors are required to be sealed with a vapor retarder barrier. This can be a polyethylene barrier weighted down with rocks or gravel or a concrete skim coat. Although it is common for both to be used together, either method is acceptable. If a concrete skim coat is used, it will generally be a lower strength concrete and will measure approximately 50mm (2") thick. It may be very roughly finished and is not intended as a finished floor. It will likely crack extensively due to its weak strength and the manner in which it was installed. This is normal and no repair is necessary unless the cracks exceed 10mm (3/8") in width.

## WOOD FRAME

The most common means of building the structure of a new home is a method called western platform framing. This method incorporates a vertical frame of 2"x4" or 2"x6" studs with continuous plates of the same width at the top and bottom of the wall. The wall studs are generally on 16 "or 24" spacing. Plywood, lumber or oriented strand board (OSB) sheathing is used on the exterior of the frame. The floor "platforms" are constructed using 2"x8", 2"x10", 2"x12" floor joists of solid lumber or manufactured floor joists with plywood or OSB sheathing screwed or nailed to the top surface. To help eliminate squeaks and to provide additional structural rigidity, glue is often applied to the top of the floor joist prior to the installation of the floor sheathing. The interior and exterior walls of the structure and/or the perimeter foundation wall generally support the floor joists. For space considerations, beams constructed of several joists nailed together, or engineered wood products, may be used to support the joists in lieu of a wall. For larger loads or longer spans, a specialized manufactured beam may be used for added strength. Posts at intermediate locations may support these beams. Most roofs are constructed using prefabricated wood roof trusses spaced 600mm (24") apart. Detailed roof structures may be framed by hand using roof rafters and ceiling joists. Trusses are capable of spanning large distances while carrying considerable weight; therefore, it is likely that the interior walls on the top floor of your home carry no roof loads and the load is supported by the exterior walls only. As the design and installation of the truss is engineered, this can be confirmed by your builder or by the supplier of the trusses.

Following installation, the wood used to construct your new home will shrink as it dries out. This shrinkage will cause minor changes in the size and the shape of the wood members. These changes do not affect the structural integrity of the wood frame, but may cause changes in the finishes used throughout your new home. The most common changes are cracks or nail pops in the finished surfaces of the drywall on the walls and ceilings. The movement that results from the shrinkage of the structure may also affect other finishes such as flooring and wood trims. Minor floor squeaks may appear and doors may begin to bind. Any necessary repairs in this regard should be postponed until towards the end of the first year to allow the majority of the wood shrinkage to occur.

## **INTERIOR FINISHES**

### **FLOOR FINISHES**

#### **HARDWOOD**

Kiln dried material is used for the construction of hardwood floors. However, these materials are susceptible to movement caused by variations in humidity levels in the living space. Low humidity levels will cause the wood to separate slightly at the seams of the flooring. High humidity levels will cause the wood to expand. If excessive, this expansion may lead to cupping or swelling in the center of the board. These movements vary seasonally and can be somewhat controlled by monitoring the indoor moisture levels. The movement of the flooring may also create noises as it expands and contracts. The appearance of hardwood flooring should be protected from furniture scratches, water damage and surface wear due to sand and other debris being left to sand away at the floor. Hardwood floors should be swept or vacuumed regularly. A damp mop should be used sparingly with a mixture of ¼ cup white vinegar and 1 gallon of water. There is no need for wax on today's hardwood floors.

#### **RESILIENT FLOORING**

Whether it is a tile or sheet product, resilient flooring is susceptible to damage from indentations or scratches, particularly those caused by furniture. The floor should be protected from such damage by using furniture pads beneath heavy furniture legs. The ability of a given flooring product to withstand abuse varies greatly from product to product and related damage is not a warranty issue.

Resilient flooring should be cleaned with lukewarm water and vinegar. Harsh cleaners can cause fading or affect the composition of the flooring material making it hard and brittle. Consult with the supplier of the specific flooring product for their recommendations, as specialty products are available for different floorings to both clean and restore the sheen. Detergents often cause adjoining carpeted areas to mat down as the soaps are carried onto the carpet from the resilient floor areas.

Once construction is complete, movement of the floor structure due to shrinkage can also affect the floor. While flooring installers apply filler at the seams of the wood underlay materials, it is not always possible to achieve and retain a perfectly level

subfloor. This can result in minor ridges becoming visible beneath the flooring under certain light. Generally, these are only cosmetic and do not require any action.

## **CARPET**

Carpeting care basically consists of avoiding spills, cleaning high traffic areas regularly to remove surface dirt and vacuuming the entire carpeted area weekly to remove dirt. Consult your flooring supplier for the specific cleaning and maintenance requirements of the flooring products used in your home. Carpets and rugs should be professionally cleaned every year or two depending on the use and appearance. Less expensive carpeting is more susceptible to matting. This is primarily noticeable in high traffic areas and cannot be prevented other than by the use of carpet runners. Warranties from the carpet manufacturer generally pertain to fiber loss only and do not cover “appearance retention”.

## **CERAMIC TILE**

Ceramic tile is very durable. For routine cleaning use a mild detergent; do not use waxes or sealers. As the grout is porous and will absorb water which will lead to staining, annual sealing of the grout joints with a clear liquid silicone sealer should be carried out. Your new home will not have a seal on the grouting. It is recommended that the homeowner seal the grout prior to use.

## **MARBLE, GRANITE and OTHER NATURAL STONE**

Although strong and attractive, spills can permanently stain natural marble. All spills should be cleaned up immediately. Cleaning of marble should be done with a clean, soft cloth and warm water. Also, care should be taken to prevent scratching of the surface. Sealers are available at your local hardware store for natural stone products. Some stone products will have a change of appearance with a sealer application. Investigate the possibility of this and make an informed decision.

## **COUNTERTOPS AND CABINETS**

### **PLASTIC LAMINATES**

Laminated countertops will burn or de-laminate if hot pots or pans are placed directly on the surface. Protective potholders should be used if the hot items are to be placed on the countertop. Electrical appliances may also require protection when in use. The damage caused by hot items is generally not repairable so it is best to error on the side of caution. Abrasive cleaners or steel wool should not be used, as the surface of the laminate will scratch. The ability to withstand scratching does vary with the laminate material used. If allowed to remain on the surface, household bleach or solvents can stain or discolor the laminate. Water must not be allowed to remain on joints in the countertop as this will result in the substrate of the countertop swelling due to the excess moisture. This damage is irreversible.

Clean the surface of plastic laminates with a damp, soapy cloth or sponge. For stubborn stains, use a mild household cleaner and rinse thoroughly with clear water. Be aware that some liquid cleaners contain abrasives and/or solidify at the mouth of the container. These hard solid pieces can scratch the surface if they inadvertently get on the cleaning cloth or sponge used to clean the laminate surface.

### **MANUFACTURED MARBLE**

Sinks and countertops made of manufactured marble or other man-made compounds often have specific cleaning requirements. The manufacturer of the product should be contacted for these instructions. Generally, they can be cared for in a manner similar to plastic laminates; abrasive cleaners should not be used. These surfaces are also heat sensitive.

### **CABINETS**

Vinyl surfaced cabinets are very susceptible to heat damage. If the kitchen is equipped with a self-cleaning oven, the cabinet drawers and cabinet doors adjoining the range should be kept open when the range is in self-clean mode to allow excess heat to dissipate. If heat is allowed to build up, the surface may delaminate. This precaution should also be taken when the oven is used for a prolonged period at a high temperature.

Most cabinet surfaces can be cleaned using a damp cloth and a mild detergent. Abrasive cleaners should not be used. Grease splattered on the surfaces should be removed immediately as it becomes more difficult to remove as it solidifies.

## **PAINT**

The majority of the interior drywall surfaces of your new home will be finished with either a latex (water-based) or alkyd (oil-based) paint. Maintenance can quite easily be carried out by gently washing the painted surfaces with a mild soap or detergent solution. Abrasive solutions or over scrubbing should be avoided as this will remove the paint.

## **PLUMBING**

### **GENERAL**

The plumbing in your new home will likely consist of plastic or copper piping for the supply of potable water throughout the home and PVC plastic piping for the waste disposal. Other products are available but are less common.

A main water supply shut off has been provided to shut off the water supply to your new home. This can be used in the event of an emergency and should be located upon occupancy for future reference. Additional shutoffs may also have been provided to the sink supply lines and toilets to allow for routine maintenance.

The waste lines have been provided with clean outs throughout the residence. These may be located within cabinets, inside closets or clearly visible on a wall surface. These clean outs must remain accessible as they are the means of access to the piping should a blockage occur. P-traps are present at the outflow of all waste piping. These traps are designed to provide a barrier of water which prevents the entry of sewer gases into the home. Sinks or drains which are used infrequently may lose this water barrier due to evaporation. If sewer gases are detected, running water down the waste pipe will re-prime the trap and likely stop the odor. Any waste materials, including grease, fat and petroleum products, should not be disposed of down the plumbing system. These materials will accumulate in the piping, especially in the P-traps, and can significantly

reduce the flow of water through the waste system. These substances are also very detrimental to the municipal sewage treatment systems and private septic systems. If on a septic system bleach usage should also be kept to a minimum. Excessive bleach can kill off the bacterium that is critical to the operation of the septic system.

## **FIXTURES**

The surfaces of the plumbing fixtures are susceptible to damage from abrasive cleaners. Use of abrasive products and steel wool pads should be avoided, as these products will cause the finish of the fixture to become dull and porous. Refer to the manufacturer's recommended maintenance procedures for specific information relating to your products. Plumbing fixtures are intended for normal household use only. Caustic products should not be disposed of in the household fixtures.

## **HOT WATER TANK**

The water temperature of the hot water tank can be adjusted on the thermostat located on the tank. This may require the use of a screwdriver. An average setting for the water temperature is 120 deg. F. This temperature is hot enough for most uses but will not cause scalding or burns. If hotter water is needed for a special purpose, the thermostat on the tank can be set to a higher temperature; however, the thermostat must be reset to a normal setting when finished.

If the house is to remain unoccupied for a substantial period of time, the water temperature should be turned down or switched off at the tank or breaker panel. Some hot water tanks have a "vacation" setting on the thermostat for this purpose.

Hot water tanks are equipped with a pressure relief valve at the top of the tank. This is a safety feature that will open and relieve water pressure if the tank exceeds its rated working pressure. If water or water stains are evident at the discharge pipe leading from the relief valve, contact a plumber as this is an indication that the normal operating pressure of the tank has been exceeded.

A typical hot water tank has a life expectancy of 8 to 12 years. Periodic draining of the tank will remove sediment from the base of the tank and prolong its life. The sediment has an insulating effect, especially with immersion type elements, which causes the heating elements to operate longer than necessary with a consequent increase in cost

and energy consumption. Prior to draining water from the tank, the power supply or fuel source must be turned off. Do not restore power to the tank until it has been refilled as it may explode due to excessive pressure caused by the heating of air instead of water. The tank can be drained by attaching a garden hose to the outflow drain at the base of the tank and routing the hose to a nearby floor drain. Draining can only be accomplished by gravity feed; therefore, the outflow of the drain used must be lower than the base of the tank. Alternatively, the hose can be run outside as long as the outflow is lower than the tank.

## **HOSE BIBS**

Hose bibs (garden hose connections) often have a valve inside the house that can be shut off to allow the hose connection to be drained from the inside before winter to prevent freezing and possible bursting of the exterior section of the piping. These shut-off valves should be identified and shut-off in the winter months. Once the water supply has been shut off, the exterior valve should be opened to allow the exterior portion of the piping to drain. This process is reversed in the spring once the threat of freezing is gone.

Some hose bibs are "frost free" which means that the valve is connected to a long stem that allows the water to be shut off inside the wall in the warm environment. The outer portion of the piping then drains freely. Garden hoses should not be left connected to the hose bib during freezing weather as neither can drain. Ice forming in the hose due to undrained water can break the hose or the hose bib and cause the supply pipe to freeze.

## **TOILETS**

Toilets generally refill as follows: flush causes water in the tank to rise, which in turn lifts a ball float to a preset water level. Once the ball float reaches this level, the water flow valve is shut off. If set too high, the water level will rise in the tank and run down the overflow pipe into the toilet bowl without shutting off the water. To rectify this, simply adjust the height of the ball float so that the water is shut off before it reaches the height of the overflow outlet. If water continuously runs into the toilet bowl from the tank, there may be a poor seal at the flapper valve at the base of the tank. This seal can

be cleaned with a stiff brush or steel wool. A worn flapper valve would require replacement.

Water dripping from the base of the toilet tank is likely due to condensation on the tank versus a leak of any connections. High interior humidity levels will result in condensation on the cold surface of the toilet tank as the tank is refilled with cold water. Some toilets and some basins are made of glazed and kiln-fired vitreous china, while some basins and bathtubs are made of enameled steel. Both are very durable and attractive. To clean these fixtures, use mild powdered or liquid cleaners. Avoid abrasive cleansers or pads as they will damage the finish.

## **PLUGGED TOILETS AND DRAINS**

Toilets are very susceptible to blockage. New toilet designs use very little water per flush. This results in a lower volume of water carrying away the waste. Repeated flushing may be required in some instances to remove solid waste. Dense tissue paper and some thick toilet papers are unsuitable for these toilets. Never dispose of hair, grease, lint, diapers, sanitary products, “Qtips” or plastic in the toilet. Hair, grease, large food particles or other solid forms of waste can plug drains. Should they become plugged, try removing the debris from the trap beneath the fixture. Alternatively, a plunger can be used. Once partially cleared, very hot water may complete the job. A more severe blockage may require a plumber. As commercial drain cleaners are very corrosive they are not recommended.

## **TUB AND SHOWER ENCLOSURES**

A shower curtain will prevent water from running onto the bathroom floor while the shower is in use. To prevent damage to the flooring or walls, any spills or puddles of water should be cleaned up immediately. Caulking is used to seal seams and prevent water from entering behind the enclosure. If a separation occurs around your bathtub between the tub and the wall tiles or between the wall and the enclosure itself, it should be filled immediately with a tub sealer or caulking compound available at any home supply centre. Leaving the gap unsealed may cause serious water damage to adjacent materials.

You should apply a clear liquid silicone sealer to the grout joints of tub or shower enclosures that are finished with ceramic tile. This should be done every six months. This sealer is used to prevent the porous grout from allowing water to seep through to the substrate material behind the tile. This sealing cannot be done until the grout has cured for approximately six to eight weeks. Please note, this is a liquid product and should not be confused with silicon based caulking. Follow the manufacturer's recommendations for application.

Some tub enclosures have specific cleaning requirements. Generally, abrasive cleaners are not recommended and harsh chemical cleaners should be avoided entirely. Follow the manufacturer's recommendations for maintenance. Also, you should never step into a bathtub with shoes on as trapped grit and dirt can damage the tub surface.

## **FLOOR DRAINS**

Many municipalities require a floor drain primer which automatically provides water for the P-trap located below the floor surface. This P-trap is similar to those used under sinks and when full of water; it will form a seal against gases entering from the sewer system. As this water will evaporate with time, the seal must be maintained by pouring a liter of water down the drain every two to three months if an automatic primer is not present.

## **ELECTRICAL SYSTEM**

### **GENERAL**

The electrical system in your home has been installed in accordance with the requirements of the provincial electrical code. The power supply is fed to the home via underground or overhead cable. With underground service cables, piping, gas lines, etc., care should be taken when digging on your property. For information on these underground services, contact your utility provider, cable supplier or your local building department.

Circuit protection will be via circuit breakers located in the electrical panel(s). The main power shut-off will be located inside the electrical panel or immediately adjacent to it. This panel and the location of the main breaker should be located upon moving in, before an emergency occurs.

Should the circuit breaker “trip”, it is likely due to overloading of a specific circuit or a short circuit in an appliance cord. The start-up load of electric motors can also temporarily overload a circuit. To correct tripped breakers, isolate the cause of the overload or short and disconnect it. The circuit breaker can then be reset by turning it to the "off" position and then to the "on" position. If the breaker continually trips, contact an electrician.

## **G.F.C.I. CIRCUITS**

A ground fault circuit interrupter (G.F.C.I.) is an additional electrical safety device installed in the electrical system. This device is a breaker that can be located in the main electrical panel or within specialty outlet receptacles and is designed to provide protection from ground faults. The G.F.C.I. is extremely sensitive and will trip if grounding of the electrical current is detected.

Ground faults usually occur in older appliances and electrical equipment or inexpensive extension cords. A poorly insulated extension cord lying on wet ground will often cause a ground fault. Because water and electricity are a poor combination, protection is installed to the outlets in the bathroom and outdoors.

If this breaker trips, unplug the source of the ground fault and reset the breaker either at the panel or at the outlet itself.

G.F.C.I. outlets should be tested monthly to ensure their proper operation.

## **SMOKE AND FIRE DETECTORS**

Smoke detectors have been installed in accordance with the requirements of the Building Code.

They should be tested monthly to ensure their proper operation, and should be cleaned twice a year with a vacuum.

Please note that these devices are connected directly to the electrical system of the home yet still require batteries as a back up in a power failure. Batteries should be replaced twice every year.

## **HEATING AND VENTILATION**

### **HEATING**

There are numerous types of thermostatic controls for any given heating system. The accuracy of these controls can vary due to internal heat gains caused by a continued demand for heat. At times, it may be necessary to ignore the numerical temperature settings and set the thermostat for a temperature that is comfortable. Adjusting a thermostat to a setting higher than the temperature desired will not speed the rise in temperature.

The various heating systems available all have specific requirements for maintenance in order to operate at maximum efficiency. The operation of your specific system is best determined by reviewing the instructions provided by your builder or the manufacturer.

Heating systems can be noisy at times due to the expansion and contraction of the pipes and other metal components of the distribution system. These noises are particularly noticeable when starting up or cooling down, or at night (when it is quieter) and do not affect the performance of the system.

Systems that rely on burning fuel to generate heat require makeup air for combustion. This air supply must not be blocked as dangerous back drafting conditions can occur.

Heating systems will not operate unless the thermostat setting is higher than the room temperature. Solar heat gains can warm a room or area to the extent that the thermostat is warm enough not to be calling for more heat. The heating system will then remain turned off and other rooms not positively affected by the heat of the sun can become cool.

With forced air systems, the heat outlets and cold air returns must be kept free of any furniture or floor coverings which could block the free flow of air. In addition, the filters must be cleaned or replaced at least twice a year to allow the unobstructed flow of air

through the furnace. The quality of the replacement filter used dramatically affects the air quality within the home.

## **VENTILATION, CONDENSATION AND RELATIVE HUMIDITY**

The optimum year round humidity level to be maintained within the residence is approximately 50%. Due to seasonal variations of the relative humidity outdoors, this level of humidity can be impossible to maintain without the use of specialized mechanical equipment. Mechanical means of maintaining a constant humidity within the home are available. Furnace humidifiers that add moisture to the indoor environment are available, but they must be checked frequently when in use to ensure that the proper water level is maintained within the unit.

Due to Building Code/Bylaw requirements pertaining to energy conservation, current standards for house construction require that the exterior envelope of the building be sealed against incidental air leakage. This sealing of the exterior walls prohibits the leakage of warm air to the outdoors from within the residence.

Warm air has the ability to hold more moisture than cold air; therefore, daily activities within your new home such as showering, boiling water, and even respiration create moisture in the form of water vapor. Surprisingly, this can total 7 - 9 liters' (1½ to 2 gallons) of moisture per day with four occupants. The warm air holds this water in suspension and as this moisture-laden air comes in contact with cold surfaces it will condense and water will form. Condensation will fuel the creation of mold and mildew. Your builder installed system called THE WHOLE HOUSE FAN to meet building codes and assure proper ventilation occurs daily.

*The failure of an owner to properly ventilate and maintain proper heating levels can seriously affect a new home and the health of the occupants. Any resultant damage due to an owner's actions would not be covered under the warranty.*

The key to controlling humidity levels within the home and avoiding condensation is adequate ventilation. Ventilation allows the warm moist air to be exhausted from the home and replaced with dry cool air from the outdoors. This will marginally increase the cost of heating as this cold air is brought up to room temperature; however, this added cost is necessary to offset the harm the high humidity levels will cause. As the outdoor temperature drops, the surface temperature of the exterior walls will also drop.

The air inside the house will not be able to sustain as high a level of relative humidity. This will cause condensation to occur on cold surfaces.

Windows or the toilet tank of the toilet used most frequently can be used as a guide to determine whether or not the proper relative humidity is being maintained. As soon as condensation occurs on inside window surfaces or on the tank of the toilet, steps should be taken to reduce the relative humidity by controlling the moisture sources and/or by increasing ventilation.

As previously stated, ventilation is often the only effective means for removing moisture. Dehumidifiers are only practical in limited areas. If vented outdoors, exhaust fans in the kitchen and bathroom will remove moisture created from cooking and bathing before the vapor can circulate through the house. These fans should not exhaust into the attic space as this will only exhaust the moisture into the attic potentially causing problems. These fans need to be run often enough to remove the air borne moisture. The length of time required will depend on the number of occupants, the activities undertaken and outdoor climatic conditions. Many new homes are now provided with intermittent timer controls that regulate the operation of these fans which should never be tampered with or turned off. Windows are an effective means of ventilation and depending on weather conditions, thoroughly airing out the home for 15 minutes a day may suffice. In addition, opening a window near the source of moisture while the exhaust fan is in operation will allow for cross ventilation and more effective moisture and odor removal.

## **RANGE HOODS AND EXHAUST FANS**

Range hoods and exhaust fans are provided to reduce or eliminate cooking odors and excess moisture. Not all range hoods vent directly outdoors. For efficient operation and to reduce potential fire hazards created by grease accumulation, filters should be washed in mild detergent. They can also be run through a dishwasher.

## APPLIANCES

Any appliances included with the purchase of your new home, which have been installed by the builder or his agents, will have been checked to ensure their proper operation.

Appliances generally come with instructions, which detail the operating procedures for the specific appliance. These instructions must be followed in order to maintain the manufacturer's warranty.

Any warranty cards provided with the equipment should be completed and sent to the Manufacturer to ensure your warranty obligations are met.

With dryers, check and clean the exterior vents on a monthly basis as they commonly become plugged with lint which reduces the efficiency of the dryer and can be a fire hazard.

# Home Maintenance Checklist

Spring	Summer	Fall	Winter	Periodic
Activate Exterior Hose Bibs	Provide Fence Maintenance	Remove Leaves and Debris from Guttering	Check and Repair Weather-stripping	Pressure Wash Deck
Fertilize Lawns	Clean and Care for Deck	Check and Seal Windows	Verify Furnace Operation	Pressure Wash Siding
Clean Windows and Repair Screens	Clean Siding	Change Batteries in Programmable Thermostat	Vacuum Air Registers	Check and Maintain Roof Shingles
Unclog and Secure Gutters and Downspouts	Check Crawlspace	Service Heating System	Re-caulk Bathtub	Check Flashing
Check Grade Around Foundation	Maintain Yard Growth	Close Critter Entrances	Maintain Fireplace and Chimney	Lubricate Door Hinges and Hardware
Test Sump Pump	Test and Lubricate Garage Door	Shut Off Hose Bibs	Check Crawlspace	Vacuum Out-of-the-Way Spots
Inspect and Maintain Laundry Room	Remove Rust on Railings	Check and Maintain Dishwasher	Replenish Flashlight Batteries	Verify Caulking Conditions Re-caulk as needed
Treat Nesting Bee's	Check and Flush Water Heater	Clean Out Gutters	Change Furnace Filters	Assure Emergency Shut-off Access
Test GFCI Outlets	Check Skylights	Clean Outdoor Drains	Test GFCI Outlets	Assure attic and crawl ventilation is not obstructed
Change Furnace Filters	Clean Shower Heads	Check Toilets	Prevent Ice Build-up on Roofing & Guttering	
Change Batteries in Carbon Monoxide and Smoke Detectors	Change Furnace Filters	Clear Out Sink Drains	Remove Hose from Bib	
	Test Carbon Monoxide and Smoke Detectors	Change Furnace Filters	Shut Off Exterior Water Valves if Applicable	
	Test GFCI Outlets	Test Carbon Monoxide and Smoke Detectors	Test Carbon Monoxide and Smoke Detectors	