



River Hills Homes



HOMEOWNER MANUAL

Version 1.01/07.16

RECOMMENDED HOMEOWNER MAINTENANCE SCHEDULE

Item	Page	Monthly Interval (1 thru 6)					
		1	2	3	4	5	6
Air Filter-HVAC System							Replace
Balconies		Inspect, Replace & Caulk as needed	Inspect, Replace & Caulk as needed	Inspect, Replace & Caulk as needed	Inspect, Replace & Caulk as needed	Inspect, Replace & Caulk as needed	Inspect, Replace & Caulk as needed
Caulking – Exterior (entrances & windows)				Inspect			Inspect
Caulking - Interior (wet areas)				Inspect/Replace			Inspect/Replace
Clothes Dryer Lint Duct & Filter							Clean Out Vent
Condensation Line – HVAC (if applicable)		Inspect	Inspect	Inspect	Inspect	Inspect	Inspect
Exterior Drainage				Inspect/Replace			Inspect/Replace
Faucet Aerator				Clean			Clean
Fireplace Flue/Chimney							Inspect/Clean
Front Door Finish Metal/Fiberglass		Clean	Clean	Clean	Clean	Clean	Clean
Garage Doors				Lubricate			Lubricate/Inspect
Garbage Disposal		Flush/Clean	Flush/Clean	Flush/Clean	Flush/Clean	Flush/Clean	Flush/Clean
Gutters/Downspouts				Inspect/Clean			Inspect/Clean
HVAC System Check				Clean Drains			Inspect/Clean Drains
Plumbing Drains				Inspect/Clean			Inspect/Clean
Range Hood Fan Filter			Clean		Clean		Clean
Screens (doors & windows)				Inspect			Inspect/Clean
Smoke Detectors		Test	Test	Test/Replace Batteries	Test	Test	Test/Replace Batteries
Water Heater							Flush
Weep Holes							Inspect/Clean
Window				Clean Tracks as Needed Oil tracks with silicone grease			Clean Tracks as Needed Oil tracks with silicone grease

Item	Page	Monthly Interval (7 thru 12)					
		7	8	9	10	11	12
Air Filter-HVAC System							Replace
Balconies		Inspect, Replace & Caulk as needed	Inspect, Replace & Caulk as needed	Inspect, Replace & Caulk as needed	Inspect, Replace & Caulk as needed	Inspect, Replace & Caulk as needed	Inspect, Replace & Caulk as needed
Caulking – Exterior (entrances & windows)				Inspect			Inspect
Caulking - Interior (wet areas)				Inspect/Replace			Inspect/Replace
Clothes Dryer Lint Duct & Filter							Clean Out Vent
Condensation Line – HVAC (if applicable)		Inspect	Inspect	Inspect	Inspect	Inspect	Inspect
Exterior Drainage				Inspect/Replace			Inspect/Replace
Faucet Aerator/Shower				Clean			Clean
Fireplace Flue/Chimney							Inspect/Clean
Front Door Finish Metal/Fiberglass		Clean	Clean	Clean	Clean	Clean	Clean
Garage Doors				Lubricate			Lubricate/Inspect
Garbage Disposal		Flush/Clean	Flush/Clean	Flush/Clean	Flush/Clean	Flush/Clean	Flush/Clean
Gutters/Downspouts				Inspect/Clean			Inspect/Clean
HVAC System Check			Clean Drains		Clean Drains		Inspect/Clean Drains
Plumbing Drains				Inspect/Clean			Inspect/Clean
Range Hood Fan Filter			Clean		Clean		Clean
Screens (doors & windows)				Inspect			Inspect/Clean
Smoke Detectors		Test	Test	Test/Replace Batteries	Test	Test	Test/Replace Batteries
Water Heater							Flush
Weep Holes							Inspect/Clean
Windows				Clean Tracks as Needed Oil tracks with silicone grease			Clean Tracks as Needed Oil tracks with silicone grease

Air Conditioning/Heat Pump (HVAC)

Please make sure you have registered your system with manufacturer – It is **the CLIENT’S RESPONSIBILITY**.

Your home may be equipped with a heat pump system or a traditional air conditioning system. A heat pump is designed to provide both air conditioning and heating as needed. A heat pump system is also equipped with auxiliary heating for additional heat or as a backup. A conventional air conditioner system only supplies cooling. If you have a conventional air conditioning system, please also refer to the section on furnaces. The manufacturer’s maintenance suggestions should be reviewed and followed. Air conditioning can add much to the comfort of your home, but it can be used improperly or inefficiently, resulting in wasted energy and frustrations. These hints and suggestions are provided to help you maximize your air conditioning system.

Modifications

Do not tamper with or add to your air conditioning/heat pump system. For any modification that is needed, contact an HVAC Contractor that is listed on your “Subcontractor Contact List” section of this manual. Tampering with the air conditioning/heat pump system will void your warranty. If any changes are made to the air conditioning /heat pump system, please note that any warranty issues that arise are the result of the changes made and the responsibility will fall on the person or contractor who made the changes.

Whole House System

To fully and efficiently utilize your air conditioning system, you must understand that it is a total, whole-house system. The air conditioner unit is the mechanism in your home that produces cooler air. The air conditioning system involves everything inside your home including, for example, drapes and windows. The heating and cooling system in your home is designed and sized using the *International Residential Code*. This is state regulated and all homes in Texas must meet these requirements. These requirements may also not be exceeded by more than 20%. A big part of the air conditioner’s job is to remove excess humidity from within the home. Units must be capable of maintaining a 20 degree temperature differential within the home from the outside temperature. On extremely hot days your system may not appear to be cooling as well since they are designed only to maintain this 20 degree differential. ***This is not a system failure!!!***

Closed System

Your home air conditioning is a closed system, which means that the interior air is continually recycled and cooled until the desired air temperature is reached. Warm outside air disrupts the system and makes cooling impossible. Therefore, you should keep all windows closed. The heat from the sun shining in through windows with open drapes is intense enough to overcome the cooling effect of the air conditioning unit. For best results, close the drapes on these windows. Your air conditioning design also contemplates that all interior doors should remain open most of the time for air circulation.

Time

Time is of paramount importance in your expectations of an air conditioning system. Unlike a light bulb, which reacts instantly when you turn on a switch, the air conditioning unit only begins a process when you set a thermostat. For example, if you come home at 6:00 p.m. on a day when the temperature has reached 90 degrees, and then set your thermostat to 75 degrees, the air conditioning unit will begin cooling, but will take much longer to reach the desired temperature. During the entire day, the sun has been heating not only the air in the home, but the walls, the carpet and the furniture.

At 6:00 p.m. the air conditioning unit’s starts cooling the air, but the walls, carpet and furniture release heat and nullify this cooling. By the time the air conditioning unit has cooled the walls, carpet and the furniture ... you may well have lost patience.

Evening Cooling

If evening cooling is your primary goal, set the thermostat at a moderate temperature in the morning while the house is cooler, allowing the system to maintain the cooler temperature throughout the day.

The temperature setting may then be lowered slightly when you arrive home, with better results. Setting the thermostat at 60 degrees will **not** cool the home any faster and can result in the unit “freezing up” and not performing at all. Extended usage under these conditions can damage the unit.

Adjust Vents

You will find it advantageous to adjust the cooling vents to maximize airflow to occupied parts of the house. Likewise, when the seasons change, it will probably be necessary to re-adjust them for comfortable heating.

Humidifier

If you have a humidifier being used in your home, turn it off when you use the air conditioning; otherwise, the additional moisture can cause a freeze-up of the cooling system. Humidifiers are not recommended as moisture causes damage to homes.

Thermostats

The HVAC system will come on automatically when the temperature at the thermostat registers below the setting you have selected. Once the HVAC system is on, setting the thermostat to a higher temperature will not heat the home any faster.

Homeowner General Maintenance

The following suggestions are intended to assist you in getting the maximum usage and enjoyment from your heating and air conditioning system. We recommend that air filters be changed every six (6) months or as needed. In areas with heavy dust, more frequent changes may be in order. Fresh filters can significantly reduce operating costs and will prolong the life of your system. **YOU MUST PLACE ALL PANELS BACK SECURELY IN PLACE OR THE SYSTEM WILL NOT OPERATE PROPERLY OR NOT AT ALL. Burning of candles is not recommended as it causes filters to clog quickly.**

While using your air conditioning system, every sixty (60) days pour one cup of bleach down the condensate line to kill any algae that may grow on the inside of the drain line. This keeps the condensate line free from obstruction and minimizes the chances of it backing into your home.

Builder recommends an inspection by a heating professional every six (6) months. Check the operation of your system well in advance of peak operating seasons. Notify the appropriate subcontractor of problems before seasonal service demands are the greatest. The professional should clear all drain lines including emergency drain with pressurized air.

Keep all vents and registers clean and free of dust, cobwebs and debris. Keep plants and grass trimmed well away from the outdoor unit.

If any panels on the face of your furnace unit are removed for any reasons, be sure they are securely and correctly returned to their proper positions; otherwise the system will not properly function.

Non-Emergency

Lack of air conditioning service is not an emergency unless we are experiencing extreme weather conditions. Problems will be handled by the heating and air conditioning contractor in the order received. **SEE AFTER HOURS SERVICE PROCEDURE.**

Freon or Coolant

The outside temperature must be 70 degrees or higher for Freon or coolant to be added to the system.

Compressor

It is important to maintain the air conditioning compressor in a level condition. Failure to do so may cause the unit to malfunction. Additional information may be reviewed under "Open Cell Foam Maintenance Guidelines" under Insulation Section of this Manual.

Heat Pump/Furnace

Good maintenance of the Heat Pump or furnace can save energy dollars as well as prolong the life of the HVAC system itself. Carefully read and follow the manufacturer's literature on use and care. The guidelines here include general information.

Modifications

Do not tamper with or add to your Heat Pump/Furnace system. For any modification that is needed, contact an HVAC contractor that is listed on your Subcontractor Information. Tampering with the Heat Pump/Furnace system will void your warranty. If any changes are made to the Heat Pump/Furnace system, we must assume that any warranty issues that arise are the result of the changes made and the responsibility will fall on the person or contractor who made the changes.

Adjust Vents

Experiment with the adjustable registers in your home to establish the best heat flow for your lifestyle. Generally, heat can be diminished in seldom used or interior rooms. In a two-story home, with one Heat Pump or furnace, the heat flow can be balanced by restricting the registers in the top story and opening the registers on the lower story. Rooms farther away from the Heat Pump or furnace will usually need to have their vents opened more. This is an individual matter and you will need to balance the system for your family.

Avoid Overheating

Do not overheat your new home. Overheating may cause excessive shrinkage in framing lumber and may materially damage the home. In the beginning, use as little heat as possible and increase it gradually.

Filters

A clogged filter can slow air flow and cause cold spots in your home. Although it takes less than one minute to change the filter, this is one of the most frequently overlooked details of normal furnace care.

Furnished Home

The heating system design was planned with a furnished home in mind. For example, draperies, blinds, screens and the like will contribute to the efficiency of your system. If you move in during the cooler part of the year and have not yet acquired all of your window coverings and furnishings, the home may seem cooler to you than you would expect.

Odor

The heating system typically emits an odor for a few moments when it is first turned on after an extended period of not being used (such as after the summer months if you do not use air conditioning). This is caused by dust that has settled in the ducts and should pass quickly.

Return Air Vents

For maximum comfort and efficient energy use, arrange furniture and draperies to allow unobstructed air flow from registers and cold air returns.

Temperature

Normal temperature variations from floor to floor (depending upon the style of home) can be as much as 10 degrees or more on extremely cold days. The Heat Pump or furnace blower will typically cycle on and off more frequently and for shorter periods of time during severe cold spells.

Trial Run

Have a trial run early in the fall to test the Heat Pump or furnace. (The same rule applies to air conditioners in the spring). If service is needed, it is much less inconvenient to discover it prior to the heating or cooling season.

The breaker for the HVAC system blower is located in the **main breaker box**.

Thermostats

The HVAC system will come on automatically when the temperature at the thermostat registers below the setting you have selected. Once the HVAC system is on, setting the thermostat to a higher temperature will not heat the home any faster.

Building Codes

HVAC systems will be installed in accordance with local building codes, as well as engineering designs of the particular home. The **2012 International Residential Code** specifies the minimum and maximum requirements for each home and is state mandated.

Gas Furnace

Gas Odor

IF YOU SMELL GAS, LEAVE YOUR HOME IMMEDIATELY, AND CALL THE GAS COMPANY.

Combustion Air

Furnaces have combustion air vents to run to them. Never cover these or block the cold air in any way. Outside air is needed to supply the furnace with sufficient oxygen. Blocking the combustion air vent will cause the furnace to draw air down the vent pipe and pull poisonous gasses back into your home. If the air vents become loose, Builder will secure as needed during the first year of ownership.

Furnace Pilot

The furnace is equipped with a Hot Surface Ignition System (electronic ignition) that eliminates the waste of a constantly burning pilot. The radiant sensor ignition control lights the main burners upon a demand for heat from the thermostat. If the unit fails to function, please contact your heating contractor.

Appliances

Read and follow all manufacturer requirements for each appliance in your home.

Manufacturer Service

If a problem arises with an appliance after the one year limited warranty period with Builder, call the customer service number listed in the manufacturer's warranty booklet. When reporting warranty items to the appliance manufacturer, be prepared to supply the following:

- 1) the date of purchase (closing date);
- 2) the serial number and model number (found on a metal plate on the side or bottom of each appliance); and
- 3) a description of the problem.

Registration

MAIL WARRANTY REGISTRATION CARDS DIRECTLY TO THE MANUFACTURER. FAILURE TO DO SO COULD LEAD TO A SHORTER MANUFACTURER WARRANTY TERM.

Appliance Warranties

All appliance warranties are assigned to you at the closing. The appliances are warranted directly to you in accordance with the terms and conditions of the written warranties supplied by their manufacturer. An appliance failure does not constitute an emergency.

Attic Access

The attic space is not intended for storage of excessive weight (excessive weight could jeopardize the integrity of the trusses and void your warranty). Access is provided for purposes of maintaining mechanical equipment that may traverse the attic space. When performing any needed tasks in the attic, caution should be used not to step off wooden members onto the drywall. This can result in personal injury and/or damage to the ceiling below. Such injury or damage is not covered by your limited warranty. Please contact your Project Manager for more details if planning to use as storage so it can be designed for your loads.

Balconies

Second floor covered balconies are open to the weather. Builder takes great care in securing the balcony with the structure of the home. This includes the required flashing at walls and doors to secure the area from leaking. The deck is constructed with a slope to insure that water will drain away to the edge. In addition a "Torch Down" roofing membrane is installed to seal the flashing and the deck is sealed. The finish product usually will have tile installed on the deck and metal railing installed per code to prevent falls.

The tile covering is grouted in place and will require periodic checking to maintain the grouting and caulking at areas that connect to the house. Waterproofing membranes will eventually become worn or damaged due to use of the area. Homeowner maintenance is required for maintaining the grout and caulking and inspecting and maintaining the wall and door flashing.

If damage to the inside or outside of the home is due to lack of maintenance to the balcony, it will not be covered under warranty.

Brass, Chrome & Bronze

Brass and chrome fixtures such as plumbing hardware, towel rings and bars, doorknobs and exterior light fixtures are factory treated with a clear protective coating, electrostatically applied, to provide beauty and durability.

Atmospheric conditions, direct sunlight, caustic agents (such as paints) or scratches from contact with sharp object may cause the protective coating to crack or peel, exposing the natural finish and resulting in spotting, discoloration or rust.

Cleaning

Initial care for these products requires only periodic cleaning with a mild, non-abrasive soap and buffing with a soft cloth.

Tarnish

Brass, like sterling silver, and chrome will gradually tarnish and eventually take on an antique appearance.

Corrosion

Water with a high mineral content is corrosive to any brass, chrome or bronze, coated or solid. Corrosion damage to the external surfaces or internal workings of plumbing fixtures is normal when exposed to water with high mineral content.

Brick, Stone and Stucco

Brick, stone and stucco are the most durable and lowest maintenance finishes for a home's exterior.

Tuck-pointing

After several years, face brick and stone may require tuck-pointing (repairing the mortar between the bricks and stones). Otherwise, no regular maintenance is required.

Weep Holes

You may notice small holes in the mortar along the lower row of bricks, stone or stucco or over the door and window openings. This allows moisture to escape if any has accumulated behind the brick. Do not fill these weep holes or permit landscaping materials to cover them.

Settlement Cracks

Settlement cracks are common and should be expected within certain tolerances in bricks and stone and mortar joints.

Color Variations

If any repairs or changes are made to your brick, stone and stucco variations in the color of the brick, stone or stucco and/or mortar will result. Color will vary in time, however, the color may blend depending on conditions.

Performance

Masonry walls shall perform in accordance with the following:

- Masonry walls shall not bow in an amount equal to or exceeding one inch from bottom to top.
- Masonry shall not have cracks exceeding 1/8 of an inch in width.
- Masonry shall not contain loose pieces or deteriorate. Masonry shall not have dirt, stains or debris left from construction activities.
- Joints and gaps between masonry and adjacent material shall not equal or exceed ¼ of an inch in width and shall be caulked to help prevent moisture and air penetration.
- Mortar shall not cover any designed opening, such as a vent, plumbing cleanout, weep holes, etc.

Stucco Tolerances

Cracks	1/8 of an inch wide or less
Gaps between stucco panels	1/16 of an inch wide or less
Gaps with another surface material	1/4 of an inch wide or less
Surface imperfections	Should not be visible more than six feet away

Additional cracking and other damage to stucco may be caused by the following types of activities: pressure washing, acid cleaning, drilling holes, attaching fixtures or ornamental décor, patio covers, plant holders, awnings, hose racks and other similar devices. Improper use, care or maintenance may void portions of the statutory warranty and the manufacturer’s warranty.

Cabinets

Cleaning

Products such as lemon oil, Liquid Gold and Old English Furniture Polish and Scratch Cover are suggested for caring for wood finish cabinets. Follow container directions. Use such products a maximum of once a month so as to avoid excessive build-up. Stay away using from paraffin-based spray waxes or washing cabinets with water as both of these items will damage the luster of the finish.

Hinges

If hinges catch or drawer glides become sluggish, a small amount of silicone lubricant will improve their performance. All hinges should operate freely and should not bind.

Moisture

Damage to cabinet surfaces and warping can be caused by operating appliances that generate large amounts of moisture – such as a crock-pot. When operating such appliances, place them in a location that is **not** directly under a cabinet. While cooking food on your stove, be sure to turn on the vent hood.

Separations

Gaps which develop between cabinets and the ceiling, or cabinets and walls, are normal and may be corrected by caulking (and paint touch up, if applicable). This falls under home owner maintenance.

Warping

Exposure to extreme temperature, humidity changes, or moisture may cause warping of cabinet doors and drawer fronts.

Wood Grain

Readily noticeable variations in wood grain and color are expected and are normal in all style selections. Variations in wood cabinet grain must be excessive in appearance to warrant replacement under warranty. Only visible damage to the wood caused during the construction of the home will be replaced under warranty.

Caulking

Time and weather will shrink caulking and dry it out so that it no longer provides a good seal against moisture and air infiltration. As a matter of routine maintenance, check the caulking and make repairs as needed. Caulking

compounds and dispenser guns are available at hardware stores. Re-caulking is a routine homeowner maintenance item and not a warranty item.

Latex Caulk

Latex caulk is appropriate for an area that requires painting (along the stair stringer or where a countertop backsplash meets the wall).

Silicone Caulk

Caulking that contains silicone will not accept paint but works best where water is present (e.g., where the tub meets the tile or a sink meets the countertop).

Wet Areas

Homeowner maintenance of caulking around tubs and showers (especially at joints and protective wall coverings such as tile or marble panels) is absolutely necessary to prevent damage to wood and other materials behind and below these wet areas.

Concrete

Foundation/Concrete Slab

The foundation and/or the concrete slab of your home has been designed and installed in accordance with the requirements of our structural engineer. Even though the foundation and or concrete slab has been designed by an engineer and constructed in accordance with engineering requirements, cracks can still develop in the wall. Unless there is water seepage coming through such a crack, it is most likely a surface crack and will not be detrimental to the structural integrity of your home. Unless cracks exceed 1/4" in width or vertical displacement they are not covered by the Limited Warranty.

By maintaining good drainage, your home's foundation is protected as well as the concrete flatwork (e.g., porch, patio, driveway, sidewalks, entry walks, etc.).

Flatwork

To properly care for your exterior concrete, always be aware of areas where water is collecting and fill this in. Do not allow downspouts to drain in such a way that the water can get under the concrete.

Cracks in Flatwork

Although we use accepted construction procedures for the installation of concrete flatwork, this does not guarantee there will be no cracking. Due to normal expansion and contraction, some cracking in concrete occurs in almost all homes. Cracks do not mean that your foundation or flatwork is not operating properly. Unless cracks exceed 1/4" in width or greater they are not covered by the homeowner's Limited Warranty. When cracks are covered, the repair provided is sealing the crack. Concrete is not replaced due to cracking.

By maintaining good drainage away from your home, you are protecting your home's foundation. Maintenance of drainage away from all concrete slabs will minimize cracking and other forms of movement.

Expansion Joints

Expansion joints have been used to help control expansion; however, concrete is also susceptible to shrinking. If the concrete shrinks, moisture can penetrate underneath the concrete and lift the expansion joint. If this occurs, the gap can be filled with a gray silicone sealant, which can be purchased at most hardware stores.

Heavy Vehicles

Do not permit heavy vehicles (e.g., moving vans, concrete trucks, etc.) to drive on your concrete work. This concrete is not intended to bear the weight of these types of vehicles.

Spalling

Repeated hosing of concrete for cleaning animal urine, radiator overflow, fertilizer, ice melting agents and/or road salts are some of the causes of spalling (e.g., chipping or flaking). Builder is not responsible for the repair of spalling.

Cleaning of the garage floor by hosing can also cause settling and increase soil movement by allowing water to penetrate any existing cracks. Builder will not be responsible for repairs needed due to such action.

Sweeping/Cleaning

Do not wash patios, porches, drives, etc. with cold water from an outside faucet when temperatures are extremely high and the hot sun has been shining on the concrete. The abrupt change in temperature can damage the surface bond of the concrete. Sweeping is the recommended method of keeping exterior concrete clean. If washing is necessary, do this when temperatures are moderate.

Settling or Heaving of Flatwork

Excessive settling or heaving of over one inch or more should be reported in writing so that an inspection can be made. **Please refer to your warranties to determine coverage.**

Concrete Flatwork

Concrete flatwork is in essence a “floating surface.” It is not attached to your home’s foundation. The concrete flatwork is not a structural (load bearing) element of your home and is not covered by warranties covering your home’s foundation. Concrete flatwork will move due to expansion/contraction of soils on which it rests; cracks in such flatwork are normal.

Concrete Tolerances

It is normal for small surface cracks to appear in the concrete. Exterior concrete surfaces, corners and edges must be relatively smooth and free from damage, with no objects that protrude through the surface. Some surface finish variation or color variation is to be expected and is normal. Cracks in exterior concrete may not exceed 1/4 of an inch in width or vertical displacement. If the home has a concrete slab, it is normal for small surface cracks to appear in the concrete. These small cracks will not affect the soundness of the slab.

Stairs or stoops not to separate from foundation by one inch or more.

Construction Methods

Builder build homes that meet or exceed local building codes. Construction methods can differ from home to home due to variations in plans, elevations and the requirements of local building codes.

Counter Tops

Always use a cutting board when cutting, chopping, etc. Protect the countertops from heat and extremely hot pans. Do not use counter tops as ironing boards.

Caulking

The caulking between the counter top and the wall, along the joint at the backsplash and around the sink may shrink, leaving a slight gap. Maintaining a good seal in these locations is important to keep moisture from reaching the wood under the laminates and prevent warping. Refer to the “*Caulking*” section, for maintenance tips for this condition.

Cleaning

Avoid abrasive cleaners that will damage the luster of the surface. Only use cleaners and sealers approved by the installer.

Mats

Rubber drain mats can trap moisture beneath them causing the surface to warp and blister. Dry the surface as needed.

Wax

Wax is not necessary, but can be used to make counter have a shiny appearance.

Granite tops are subject to variation in color and appearance. Slight cracking in granite is common. The granite is **not defective**.

Hard surfaces

Hard surfaces include grout, concrete countertops, ceramic tile, flagstone, marble, granite, slate, quarry tile, travertine, and finished concrete. Flagstone, marble, granite, slate and other quarry tile are considered natural products.

Grout is the material placed in the gap between two adjoining hard surfaces. This area is referred to as a grout line. Grout lines may crack, deteriorate, change shade or discolor over time, and it is homeowner maintenance to re-grout these areas as needed.

Hard surface tolerances

Variation between adjacent material surfaces	1/16 of an inch in width or less
Levelness of hard surfaces and countertops	1/4 of an inch in width or less over a six foot measurement
Pits, depressions or unevenness on concrete countertops	1/8 of an inch in width or less over a 32 inches measurement
Separations or cracks in concrete countertops	1/16 of an inch in width or less and 1/64 of an inch or less in vertical displacement

Hard surfaces must not be broken, cracked, stained, chipped or have great color variations. Hard surfaces made of natural products have size variations that may cause irregular layouts or grout lines. Moreover, natural products may have color variations and small surface imperfections. An imperfection in a non-floor hard surface must not be noticeable when viewed from a distance of two feet.

Declaration of Restrictions

A Declaration of Covenants, Conditions and Restrictions (sometimes referred to as Deed Restrictions or CC&R’s), if applicable, govern the activities within your community. Parking restrictions, use restrictions, building restrictions, and in some cases, the creation and powers of a Homeowners Association are described in your Declaration of Restrictions (a copy is included in the closing packet). Also consult your Declaration of Restrictions and, if applicable, your Homeowners Association before making any structural or cosmetic changes to your home.

Doors, Locks and Hardware

The doors installed in your home are typically steel, fiberglass and wood products subject to the natural characteristics of each material such as shrinkage and warpage. Due to natural fluctuations of humidity and the use of forced air furnaces, showers, and dishwashers, and so on, interior doors may require minor adjustments from time to time by the homeowner. Putty, filler, or latex caulk can be used to fill any minor separations that develop as mitered joints in the door trim; follow this with painting which is a homeowner's responsibility.

Bi-fold Doors

Interior bi-folds will sometimes stick or warp due to weather conditions. Applying a silicone lubricant to the tracks can minimize this inconvenience. This is a homeowner maintenance item.

Door Adjustments

Due to normal settling of the home, doors may require minor adjustments for proper fit. It is a homeowner's responsibility to touch up paint and make these minor adjustments from time to time.

Exterior Finish

Doors that are in direct sunlight require more maintenance. To insure longer life for your exterior doors, plan to repaint them at least once a year or as needed.

Failure to Latch

If a door will not latch due to minor settling, this can be corrected by making a new opening in the jamb for the latch plate (re-mortising) and raising or lowering the plate accordingly or by utilizing longer wood screws in the hinges.

Hinges

A squeaky door hinge can be remedied by removing the hinge pin and applying a silicone lubricant. Do not use oil as it can gum up; graphite works as a lubricant but can create a gray smudge on the door or floor covering beneath the hinge if too much is applied.

Hinges with removable hinge pins, such as interior and exterior doors, should be lubricated by removing the hinge pin and rubbing it with a graphite tube or lead pencil. This helps cut down on the dust accumulated by oil.

Hinges without removable hinge pins, such as cabinets and house-to-garage doors can be lubricated with oil based lubricants, such as WD-40. It is recommended that a very small amount of oil is used; then work the door back and forth and wipe away all excess oil.

Keys

Keep a duplicate privacy lock key where children cannot reach it in the event a young child locks himself/herself in a room. Some types of privacy locks can be opened with a small screw driver or similarly shaped device.

Locks and Handles

Lubricate door locks with graphite or other waterproof lubricant. Avoid oil as it will gum up. All locks and handles should be tightened on a regular basis to avoid damage to the hardware and door. This is a home owner maintenance item and not a warranty item.

Slamming/Sticking

Slamming doors can damage both doors and jambs, and can even cause cracking in walls; this can work hardware loose and cause the door to sag.

The most common cause of a sticking door is the natural expansion of lumber due to changes in humidity. When sticking is due to settling during a damp season, do not plane the door unless it continues to stick after the weather changes. Use sandpaper to smooth the door. Be certain to repaint the area of the door where it was sanded to seal against moisture.

Before planing a door due to sticking, try two other steps: First, apply either a paste wax, light coat of paraffin, or candle wax to the sticking surface; or second, tighten the screws that hold the door jamb or door frame.

Warping

If a door warps slightly, keep it closed as much as possible; this often helps return it to normal.

Weather Stripping

Weather stripping and exterior door thresholds occasionally require adjustment or replacement and is a homeowner's maintenance responsibility.

Doorknobs and Locks

Doorknobs and locks should operate correctly. Some slight adjustments may be needed due to normal shrinkage of the framing. These adjustments will be done by Builder as a courtesy at your first walk thru performed after move in. After such time this maintenance item will be the responsibility of the homeowner. (This process is performed most effectively after your home has gone through one full season of use).

Door Performance Standards

General:	All doors are to be painted or stained and free of scratches and dents. Locks and latches must work smoothly and secure the door snugly. Screens must be free from holes and securely installed in their framework.
Exterior:	These doors are designed to provide security, weatherproofing and air infiltration seals to the exterior of your house. Weather-stripping is provided around the jamb of the door to seal the opening from air infiltration. Improper installation will allow visible light between the door and the frame. It is NOT possible on garden doors to seal completely so that daylight is not visible at top and bottom center.
Sliding Glass	Sliding glass doors are installed on tracks and shall operate smoothly. These door tracks require cleaning and lubricating periodically to keep them functioning properly. Glass panels within the doors must be free of cracks, condensation between sealed insulated panels or other damage.
Interior Doors:	All interior doors must have a gap at the bottom to allow for the flow of air throughout the home. A gap should be at least 1/2 of an inch but should not exceed one and a half inches except on closet doors when the gap may not exceed two inches at the bottom. Laminated doors shall not separate.

Drywall

Cracking, nail "pops" or seams may become visible in walls and ceilings. These are caused by the normal shrinkage of the wood and normal deflection of rafters to which the drywall is attached. The standards used to judge the appearance acceptability for drywall have been established by the National Association of Home Builders. It states, ***"Any such blemishes that are not readily visible from a distance of 6 feet under normal lighting conditions are acceptable."*** Builder will repair such blemishes **only once during the warranty period**. Builder will touch up the paint in the repaired areas, however, an exact match between original and new paint cannot be expected. Drywall cracks up to 1/16" are within tolerance and will not be repaired.

Repairs

Most drywall repairs can be easily made. To correct a nail pop, reset the nail with a hammer and punch. Cover it with spackle, which is available at paint and hardware stores. Apply two or three thin coats when it is dry, sand the surface with fine grain sandpaper, texture and repaint. Indentations caused by sharp objects can be filled with spackle in the same manner. Hairline cracks can be repaired with a coat of paint; slightly larger cracks can be repaired with spackle or caulk and repainting.

Ceiling, Wall and Beam Tolerances

Wall Crown, bow or depressions	1/4 of an inch or less over a length of 32 inches
Changes in any 8' vertical measurement	1/2 of an inch or less
Decorative ceiling crown, bow or depressions	1/2 of an inch or less over a length of 32 inches
Decorative beam and post cracks	1/2 of an inch or less in width

Drywall Tolerances

Bow or depressions	1/4 of an inch or less over a length of 32 inches
Changes in any 8' vertical measurement	1/2 of an inch or less
Ceiling bow or depressions	1/2 of an inch or less over a length of 32 inches
Squared corners	Within 3/8 of an inch over a length of 32 inches
Cracks	1/16 of an inch or less in width
Crowning	1/4 of an inch or less in width within a 12 inch measurement

Electrical

The master control panel located by the electric meter contains the electrical breakers for your home. The control panel includes a main shut-off that controls all the electrical power to the home. In addition, there is a sub panel typically in the garage with individual breakers that control the separate circuits. Be certain you are familiar with the location of the master control panel and sub panel.

Each breaker is marked to help you identify which breaker is connected to which major appliance, outlet or other service. Should a failure occur in any part of your home, always check the breakers in the panel boxes first.

Breakers

Circuit breakers have three positions ... on, off and tripped. When a circuit breaker trips, it must first be turned off before it can be turned on. Switching the breaker directly from the tripped position to the on position will not restore service.

Outlets

If an outlet is not working, check first to see if it is one that is controlled by a wall switch or the ground fault interrupter converter (GFCI). It may also be necessary to check the main breaker as well as another appliance.

Breakers Tripping

Breakers will often trip due to overloads caused by plugging too many appliances into the circuit, a worn cord, a defective item or operating an appliance with too high of a voltage requirement for the circuit. The starting up of an electric motor can also trip a breaker.

If any circuit trips repeatedly, unplug all items connected to it and reset. If it trips when nothing is connected to it, an electrician is needed. If the circuit remains on, one of the items that was unplugged is defective and requires repair or replacement.

Buzzing

Fluorescent fixtures use transformer action to operate them. This action sometimes causes a “buzzing” sound. This is normal.

Fixtures, Outlets, Doorbells and Switches

Electrical fixtures, including outlets, doorbells and switches, shall be installed and operated according to the manufacturer’s specifications under normal circumstances. The electrical components shall not cause lights to dim, flicker or burn out excessively. Some dimming may occur when a/c system engages or during peak hours depending upon your service. A moderate momentary amount of dimming at these times is normal

Flickering Lights

Any flickering of an individual light other than fluorescent lights should be reported to Builder within the warranty period. In the event all of your lights are flickering repeatedly, please contact your local utility provider.

GFCI (Ground Fault Circuit Interrupter)

GFCI receptacles have a built-in element that senses fluctuations in power. Quite simply, the GFCI is an indoor circuit breaker. Installation of these receptacles is required by building codes in the bathrooms, kitchen, outside and garage (areas where an individual can come into contact with water while holding an electrical appliance or tool). Heavy appliances such as refrigerators, freezers or power tools will trip the GFCI breaker. Do not plug a refrigerator or food freezer into a GFCI controlled outlet because it is likely that the GFCI will trip and ruin the contents.

Each GFCI receptacle has a test and reset button. If a GFCI breaker trips during normal usage, it may be an indication of a faulty appliance and some investigation is in order. Please remember that one GFCI breaker can control up to three or four outlets.

Grounded System

Your electrical system is a three-wire grounded system. Never remove the bare wire that connects to the box or device.

Light Bulbs

You are responsible for replacing any burned out bulbs other than those noted on the walk through list before closing. Some small can lights and fixtures are sealed due to energy codes and may retain enough heat to cause premature bulb burnout; if this occurs replace with LED bulbs as they create much less heat.

Light Fixtures

Some fixtures have an on/off switch located on the fixture. If a hanging light fixture does not work, make sure the switch is on. If your fixture does not have a switch, reset any tripped circuit breakers.

If a luminous light fixture does not work, make sure all fluorescent bulbs are installed properly. Adjust any tubes that are flickering or buzzing. Check wall switches, circuit breakers and GFCI breakers.

Modifications

Do not tamper with or add to your electrical system. For any modification that is needed, contact an electrical contractor that is listed on your Sub-Contractor's List. Tampering with the electrical system will void your warranty. If any changes are made to the electrical system, we must assume that any warranty issues that arise are the result of the changes made, and the responsibility will fall on the person or contractor who made the changes.

Power Surges

Power surges can result in damages to sensitive electronic equipment such as televisions, alarm systems, computers and the like. Builder does not warranty against damages caused by power surges and recommends that you install surge protectors (available at retail stores) for added protection.

Unused Outlets

If there are small children in your home, install safety plugs to cover unused outlets. This also minimizes air infiltration that can sometimes occur with these outlets.

Underground Cables

In areas with underground utilities, check the location of buried service by contacting your local utility service. In most cases, but not all, wires run in a straight line from the service panel to the nearest public utility pad. Maintain positive drainage around the foundation to protect this service.

Smoke Detectors

Smoke detectors must operate according to the local fire code and the manufacturer's recommendations. **Read the manufacturer's manual for detailed information on the care of your smoke detectors. Maintain fresh fully charged batteries.**

Once a month to ensure that all safety equipment and smoke alarms work properly, they should be cleaned (vacuumed) and tested to prevent a false alarm or lack of response to a fire. Replace all smoke detectors batteries every three months. After cleaning, push the red button to test; the alarm should sound. For your safety, it is important that these devices be kept clean and in good operating condition.

BUILDER DOES NOT REPRESENT THAT THE SMOKE DETECTION DEVICE WILL PROVIDE THE PROTECTION FOR WHICH IT IS INSTALLED. The homeowner is responsible for obtaining insurance.

Wiring and Outlets for Cable Television, Telephone, Ethernet or Other Services

Wiring and outlets for cable television, telephone, Ethernet or other services in your home shall be installed and operated according to the manufacturer's and service provider's specifications.

Performance Standard

The electrical delivery system consists of wiring, panels, breakers, fuses, switches and receptacle outlets. Electrical systems are designed to carry a specified maximum load. Installing or placing too many electrical fixtures or appliances on an electrical circuit will overload the circuit and create a safety hazard. Electrical systems shall be used only for the purposes for which they were designed. All electrical wiring and electrical components shall be installed and function according to the National Electrical Code (NEC).

The performance standards apply only to electrical wiring and components located on the home's side of the meter. The local utility company is responsible for any defects that may occur at or beyond the meter. All wiring installed in the home shall be in compliance with the NEC.

Expansion and Contraction

All building materials are subject to expansion and contraction caused by changes in temperature and humidity. Dissimilar materials expand or contract at different rates. This movement results in separation between materials, particularly dissimilar ones. The effects can be seen in small cracks in drywall and paint, especially where moldings meet drywall, at mitered corners, where tile grout meets the tub or sink and so on. This can be alarming to an uninformed homeowner, but, in fact, it is very normal, especially in central Texas known for extreme fluctuations in temperature and humidity.

Shrinkage of the wooden members of your home is also inevitable and occurs in every new home. Although this is most noticeable during the first year, it may continue beyond that time. In most cases, paint and caulking is all that is needed to conceal this minor evidence of a natural phenomenon. Properly installed caulking will shrink and must be maintained by the homeowner.

This type of expansion and contraction is also applicable to the masonry and concrete portions of your home.

Fireplaces

Wood Burning

Most of us feel a fireplace is an excellent way to create a warm, cozy atmosphere. However, without sufficient information, your use of the fireplace can result in heat (and dollars) being wasted. To help prevent this, consider the following facts and suggestions.

Burning a fire should be looked upon as a luxury, adding much to the atmosphere but just a little heat to the home. About 10 percent of the heat produced by a fire is radiated into the home. As a fire burns, it draws warm air from the house for combustion. This means that you pay to heat the air in your home, and the fireplace then uses it to burn, sending 90 percent of the resulting heat up the chimney.

Ordinarily the air used by the fireplace for combustion is replaced with cold outside air that is drawn in through cracks around doors and windows or exterior vent designed into your home. However, your home is constructed so tightly that this does not happen. A fresh air vent has been installed to provide it with combustion air and reduce the amount of heated air the fire draws from your home. Open this vent prior to starting the fire as you do the damper, if applicable.

When not in use, the damper and the fresh air vent should be closed. Leaving them open is equivalent to having an open window in your home. If the fire is still burning, but you are finished enjoying it, use glass doors to prevent heated air from being drawn up the chimney until your damper can be closed.

One caution on the use of glass doors – do not close them over a roaring fire, especially if you are burning hard woods (e.g., oak or hickory) because the fire could break the glass. Also when closing the doors over a burning fire, open the mesh screens first. This prevents excessive heat build-up on the mesh, which might result in warping or discoloration.

Your objective in building a fire should be a clean, steady, slow-burning fire. Always begin with a small fire first to allow the components of the fireplace to heat up slowly. Failure to do so may damage the fireplace and can void the warranty. Start the fire by burning kindling and newspaper under the grate; stack two or three layers of logs with air space between them and place the largest logs to the rear. One sheet of paper burned on top of the stack will help the chimney start to draw. Any logs six inches in diameter or larger should be split. Do not burn trash in the fireplace and never use any type of liquid fire starter.

Old ashes and coals should be removed from under the grate when completely cool. A light layer is desirable as an insulator and will help to reflect heat.

Chimney Flues

The timing on having your chimney cleaned is determined by the way you use your fireplace and the type of wood you burn. Heavy use with soft woods or improperly seasoned woods will result in the need for more frequent cleaning. Creosote and other wood burning by-products accumulate inside the flues over a period of time. Damage or fire may result from burning fires in an excessively dirty chimney flue. A qualified chimney sweep should be hired for this cleaning

Chimney Separation

A slight separation of a brick chimney in a newly constructed home may occur. Separation from the main structure in excess of ½ inch in ten feet will be repaired; caulking is acceptable in the majority of cases.

Discoloration

Discoloration of the firebox or brick is a normal result of use and requires no corrective action. Mortar style fireplaces may develop cracks due to temperature changes and other factors.

Draw or Downdraft

Although extremely high winds can result in a downdraft, this condition should be temporary and occasional. The cause of a continuous malfunction will be determined and corrected. Also, trees located too close to a fireplace can cause a down draft. Your home is built relatively airtight and a window may have to be opened in order to maintain an effective draft.

Glass Doors

Damage to glass doors, when included with the home, will be corrected by Builder if noted during the walk through. Homeowners should follow manufacturer's instructions for using glass doors.

Mortar Cracks

Normal shrinkage of mortar results in hairline cracks in masonry. Exterior masonry may also have chips, irregular surfaces, color variations and so on that occur during manufacturing, shipping or handling. Unless such conditions affect the structural integrity of the home, they will not be repaired.

Ventless Fireplace Units/Gas Fireplaces

Ventless fireplaces are designed for gas logs only. These manufactured logs do not actually burn, but give the appearance of a "real" fire. The heat source of this unit is natural gas or propane. Do not, under any circumstances, burn wood in this type of fireplace. This type of unit requires special operation and maintenance procedures that are different from those of wood burning fireplaces. Please refer to the fireplace instructions to determine the proper use of this ventless unit.

Performance Standards

Fireplaces may include refractory panels, synthetic logs, gas logs, fireplace doors, masonry hearths and facing, chimneys, fireplace fans, dampers and fireboxes.

- Refractory panels shall not have cracks or gaps.
- Fireplace doors shall operate smoothly and align with one another.
- Mortared joints shall not have cracks that equal or exceed a 1/4 of an inch in width.
- A gas fireplace shall not have a gas leak.

- If the fireplace contains gas logs, the logs shall be positioned in accordance with the manufacturer's specifications.

Flooring

Refer to the manufacturer's recommendations for additional information on the care of all floor covering products.

Carpet

Cleaning

One can add years to the life of carpeting with regular care. A carpet wears out because of foot traffic and dirt particles that become trampled deep into the pile beyond the suction of the vacuum. The dirt particles abrade the fibers like sandpaper and dull the carpet.

Vacuuming high traffic areas daily helps to keep them clean and helps to maintain the upright position of the carpet nap. Wipe spills and clean stains immediately. For best results, blot or dab the spill or stain; avoid rubbing it. Test stain removers first on an "out of the way" area of the carpet, such as a closet, to check for any undesirable effects. Professional cleaning should be performed as needed.

Carpet Seams

Carpet seams will be visible, especially in Berber and other tight weave carpets. Edges of carpet along moldings and edges of stairs should be held firmly in place. In some areas, metal or other edging material may be used where carpet meets another floor covering.

Ceramic or Porcelain Tile

Cleaning

The ceramic tile installed on walls or countertops in your home may be washed with any non-abrasive soap or detergent; abrasive cleansers will dull the finish.

Ceramic tile floors are one of the easiest floor coverings to maintain. Simply vacuum as needed. Occasionally wet mopping with warm water as needed. Avoid adding detergent to the water. If you feel a cleaning agent is required, use a mild solution of warm water and dishwashing liquid. Rinse thoroughly.

Grout Discoloration

Grout that becomes yellowed or stained can be cleaned with a fiber brush, cleanser and water. Grout cleansers and whiteners are available at most hardware stores. Also, be careful what you use to clean the flooring; it may have a tendency to stain the grout since it is not sealed.

Separations

Expect slight separations to occur in the grout between tiles. These slight separations in the grout are commonly due to normal shrinkage conditions. This grout is for decorative purposes only; it does not hold the tile in place. Cracks in the grout can be filled by using "tub caulk" or premixed grout that can be purchased from flooring or hardware stores. Follow package directions. This maintenance is important to protect the underlying surface from water damage.

Sealing Grout

Sealing grout is a homeowner’s decision. Once sealed, ongoing homeowner maintenance of that seal will be necessary. Please be aware that sealing grout will void the warranty coverage on such grout. Only use cleaners and sealers approved by the installer.

Tile Flooring Tolerances

Out of square	1/4 of an inch over 6 foot measurement
Alignment of patterned pieces	1/8 of an inch
Gaps in seams	1/4 of an inch in width
Gaps between tile and similar materials	1/4 of an inch
Ridges or depressions	1/2 of an inch over 6 foot measurement

Stained Concrete

Stained concrete is the process of adding a color to the concrete slab inside the home. This is done normally right before the home is ready to sheetrock. Care is taken to protect the finished product by covering the floors with a protective sheathing. It is important to note that the stain color will not protect against shrinkage cracks that occurs naturally in the foundation. Please see section for shrinkage crack tolerances under concrete.

One of the attractive features of stain concrete is to show variations in the finish of the concrete surface. It will also enhance variations in colors of the concrete product itself. Colors will vary along with the finish. No two jobs will be alike.

Stained concrete does have a hardened finish applied to the floors to give it a shiny finish. Please note that even though it is a durable surface, **it will scratch. DO NOT drag furniture or heavy items over it unprotected. DO NOT lay rubber backed mats on a sealed concrete floor. Doing so could result in permanent discoloration due to trapped moisture and the rubber will stick to the sealer.** You can place a tiny cotton or linen cloth directly on the floor and then lay the rubber backed mat over it to protect the floor. When using carpet pads under area rugs, be sure to use a high quality pad. The inexpensive pads have a high amount of rubber in them and will also stick to your floor.

Cleaning Stained Concrete Flooring

Dry dust mopping and occasional wet mopping will keep your floors looking great. For floors that need deeper cleaning to remove stains, try using a drop of dishwashing liquid. Talk with your concrete subcontractor or stain manufacturer for recommendations about the best type of cleaning, waxing and sealing products to use on your floor.

Finished Concrete Flooring

A finished concrete floor, not intentionally designed for drainage, shall meet the tolerances listed below. Floors designed for drainage, such as laundry room, garage or basement, will be purposely sloped to allow water to flow into a drain or in a particular direction.

Finished Concrete Flooring Tolerances

Humps, depressions or unevenness	3/8 of an inch or less over a length of 32 inches
Separation joints, cracks	1/4 of an inch or less in width ¼ of an inch in vertical displacement

Hardwood Floors

In caring for hardwood floors, a routine of preventive maintenance is the primary goal. The homeowner is responsible for this routine maintenance.

Cleaning

Sweep on a daily basis or as needed. Never wet mop a hardwood floor. Excessive water causes wood to expand, possibly damaging the floor; it is imperative that water be cleaned up immediately. Do not use water-based detergents, bleach or one step floor cleaners on hardwood floors.

Mats

Use protective mats at the exterior doors to help prevent sand and grit from getting on the floor. Gritty sand is one of wood flooring's worst enemies.

New Wood Floors

When new, splinters of wood may appear. Dimples or scratches can be caused by moving furniture, dropping heavy or sharp objects, high heels, etc. Some shrinkage or warping can be expected, especially around heat vents or any heat producing appliances. Warping will occur if the floor becomes wet repeatedly or is thoroughly soaked even one time. A dulling of the finish in heavy traffic areas is likely; a white filmy appearance is caused by moisture (often from wet shoes).

Shoes

Keep high heels in good repair. Heels that have lost their protective cap (thus exposing the fastening nail) will exert over 8,000 pounds of pressure per square inch on the floor. That is high enough to damage hardened concrete; it **will** mark your wooden flooring.

Spills

Food spills should be cleaned up immediately using a very dry cloth. Use a vinegar and warm water solution for tough food spills.

Wax

Waxing and the use of products like Murphy's Oil Soap are neither necessary nor recommended. Once you wax a polyurethane finish floor, recoating is difficult because the new finish will not adhere to the wax. The preferred maintenance is preventive cleaning and annual recoating to maintain the desired level of luster. This should be done according to manufacturer's instructions. For more information, please contact your flooring distributor.

Furniture Legs

Install proper floor protectors on furniture used on hardwood flooring. Protectors will allow chairs to move easily over the floor without scuffing. Clean the protectors on a regular basis to remove any grit that may accumulate.

Burns

Burns from cigarettes can be difficult or impossible to remove from your hardwood flooring. Small burns can be removed by sanding lightly and staining the area with commercial wood stain. Large burns should be referred to a flooring professional.

Animal Scratches

Keep your wood floors clean, especially near entrances and frequently traveled areas. Dirt and hair on the ground acts like sandpaper, gouging into the surface of the floor when your animal runs across it. Animal nails may also scratch hardwood floors.

Yellowing and Warping

Be aware that yellowing and warping of the surface can result from rubber backing on area rugs or mats.

Wood Flooring Tolerances

Humps, depressions or unevenness	3/8 of an inch over a length of 32 inches
Gaps or separations	1/4 of an inch in width
Cupping of floorboard strips	1/4 of an inch over a 3 inch wide measurement

Sub-Flooring and Stairs

Underneath the top layer of flooring is a layer referred to as the sub-floor that acts as the main support of the flooring. The sub-flooring shall be relatively smooth and not bow or have humps. Ridges or depressions or slope that equals or exceeds 1/2 of an inch in any 32 inch direction.

If there are stairs in the home, steepness and dimensions must be in accordance with Code. Stairs may not make excessive squeaking or popping sounds under normal residential use.

Garage Overhead Door

Since the garage door is a large, moving object, periodic maintenance along with the following manufacturer's instructions will insure safe and reliable operation.

Wood or metal garage doors shall be free of scratches and dents. These doors are designed with a spring systems to operate smoothly. If the spring is loose or broken, have a professional replace or adjust the high-tension spring. Garage doors with openers have sensors to protect the homeowner. Do not block or remove sensors or other safety device.

Thirty (30) Weight Oil

Every three (3) months, apply a silicone oil or similar lubricant to all moving parts – track, rollers, hinges, pulleys and springs. At this same interval, check to see that all hardware is tight and operating as intended without binding or scraping. Avoid over lubricating to prevent dripping on cars and the concrete flooring.

Locks

If the lock becomes stiff, apply a silicone or graphite lubricant. Do not use oil on a lock as it will stiffen in winter and made the lock difficult to operate.

Opener

To prevent damage to the garage door opener, be sure the door is completely unlocked and the rope pull has been removed before using the operator.

Painting

The garage door should be repainted when the home is repainted or more often if needed to maintain a satisfactory appearance.

Safety

Do not allow anyone except the operator near the door when it is in motion. Keep hands and fingers away from all parts of the door except the handle. Do not allow children to play with or around the door.

For your safety, after the expiration of the one year limited warranty, have any needed adjustments made by a qualified specialist. The door springs are under a considerable amount of tension and require special tools and knowledge for accurate and safe surfacing. Have the door inspected by a professional garage door technician after any significant impact to the door.

Sag

The garage door may sag slightly due to its weight and span.

Wax

Paraffin wax, rubbed on the side jambs, will help the door operate smoothly.

Gas Shut-Off (if your home is equipped with gas)

There is a shut-off on the gas line near its connection to each item in your home that operates on gas. In addition, there is a main shut-off at the meter. These are pointed out during the homeowner's walk-thru. If you suspect a gas leak, **LEAVE THE HOME FIRST** and call the gas company immediately for emergency service outside of home.

Grading and Drainage

The final grade around your home have been inspected and approved for proper drainage. Each property has been graded to the requirements of the *International Residential Code*. It is your responsibility, as the homeowner, to maintain the drainage as established at the time of your closing. Keep dirt from direct contact with wood to reduce the chance of termite infestation.

Positive Drainage

It is essential that you maintain the slopes around your home to permit the water to drain away from the foundation. Failure to do so can result in major structural damage and will void warranty.

Roof Water

If you have gutters, do not remove the splash blocks or downspout extensions from underneath the downspouts. Keep these in place and sloped at all times; this enables the water to drain away from your home quickly.

Rototilling

Be cautious when rototilling. This can significantly change drainage swales. If rototilling is done, it should be done parallel to the swales rather than across them.

Backfill Settlement

Backfilled or excavated areas around the foundation and at utility trenches should not interfere with the drainage away from your home. If these areas settle, it is your responsibility to correct the drainage as part of home owner maintenance. This includes settling of the septic tank or propane tank, if applicable.

Erosion

Builder is not responsible for weather related damage of any kind to yards.

Recommendations

Builder will inspect and document your concerns that are presented to us in writing during the one year limited warranty period and advise you as to corrective actions.

Swales

In many cases, drainage swales do follow property boundaries. Builder will not alter drainage patterns to suit individual landscape plans. Typically a lot receives water from and/or passes water on to other lots. For this reason, homeowner changes in grade often affect those adjacent or nearby. Builder advises against making such changes. Maintenance of positive drainage away from the foundation as well as all concrete slabs and walks is the homeowner's responsibility.

Landscaping

Landscaping can change the drainage patterns of your lot. Consult a professional landscape contractor in the event you desire to add landscaping to your lot.

Sprinkler System

If you install a sprinkler system or irrigation system, make sure that drainage is sufficient and not ponding. Additionally, do not allow sprinklers to spray water on the exterior walls of your home, including doors, windows, roof, siding, stone, or stucco. This will cause blistering, peeling, splintering, mildew and other types of damage to the home. If it is determined that the irrigation or sprinkler system has caused damage, it will not be covered under warranty.

Trees

Trees planted within five feet of the foundation can damage the structural integrity of the home. Trees planted in close proximity to the foundation can develop a root system that can penetrate beneath the foundation and draw moisture from the soil. Precautionary measures such as the installation of a root shield injection system must be taken to maintain moisture equilibrium. See Trees section for additional information.

Watering

Watering should be done in a uniform systematic manner as equally on all sides of the foundation to keep the soil moist, not saturated. Areas of soil that do not have ground cover may require more moisture as they are more susceptible to evaporation, causing a moisture content imbalance.

During extreme hot and dry periods, close observations should be made around the foundation to insure adequate watering is being provided, preventing soil from separating or pulling back from the foundation.

During periods of frequent rains, watering should be limited, and/or stopped as necessary and monitored closely. The rule for drainage is: "water should dissipate from areas in the immediate location of the home within 24 hours after a normal rain and within 48 hours after a rain in swales that are designed for drainage purposes." After a period of abnormally heavy rains, or daily rains, it may take longer for the water to dissipate in these areas.

Performance Standard

Ponding of water within 5 feet of the home for more than 24 hours is unacceptable.

Gutters and Downspouts

Check gutters periodically and remove leaves or other debris (twice a year and after each heavy rain or wind storm). Materials that accumulate in gutters can slow down the drainage of water from the roof, cause overflows or clog the downspouts.

Extensions and Splash Blocks

Extensions should discharge outside of the rock or bark beds so that water is not dammed behind the edging materials that might be used.

Ladders

Use caution when leaning ladders against gutters as they may damage the gutters.

Leaks

If a joint between sections of gutters drip, caulk the inside joint using a commercial gutter caulking compound that is available at hardware stores.

Free from Debris

As part of a normal maintenance, the homeowner should keep gutters clear of debris which might clog them and cause the water to run over the downspout or the gutter's edge. It is the homeowner's responsibility to check gutters periodically to insure proper functioning.

Overflow

Gutters are installed with a slight slope so that roof water will flow to the downspouts. Gutters may overflow during periods of excessive heavy rain. Small amounts of water (up to 1 inch) will stand for short periods of time in gutters immediately after rain. No correction is required for these conditions.

Downspouts

Downspouts are designed to carry water to the ground, which then direct the flow away from the foundation of the home. These downspouts are for protection of the foundation, and it is the homeowner's responsibility to maintain them. They should discharge water away from the foundation without eroding any of the ground around them.

Insulation

Blown In

The last step in any work done in your attic (e.g., the installation of a television antenna) should be to confirm that the insulation lies smoothly and evenly. Be careful! Do not step on drywall ceilings; it may cause personal injury or damage to drywall.

Building Codes

Insulation installed in your home meets or exceeds the building codes applicable to your home at the time of construction.

Open Cell Foam Maintenance

Read through the information and follow these easy steps to ensure energy efficiency and proper functioning of your home.

Information Points:

1. Higher Humidity Levels

Spray foam houses will typically see higher humidity levels than a traditionally insulated home. Humidity levels over 60% may represent a performance issue with your HVAC system. In this circumstance, we recommend contacting your HVAC installer to have the system serviced. *(If you are still under your 2 year warranty please also contact warranty@riverhillsbuilder.com)*

2. Thermostat Operation

Owners typically find that they need to keep their homes a few degrees cooler than they have in a traditionally insulated home. This is due to the higher humidity level however these homes operate at a much higher efficiency than a traditionally insulated home even at a slightly lower temperature level.

3. Window Moisture

The fresh air systems that equalize humidity during the winter months do not react as quickly to humidity changes as the air conditioning systems that run in the warmer months of the year. When extreme temperature fluctuations occur during these months, condensation may form at the windows. Additionally, residential HVAC systems are designed for a 20 degree temperature disparity. As an example, if it is 90 degrees outside, the system is designed to ensure down to 70 degrees inside. The systems we install will typically work outside of these parameters however condensation may form on the windows as a consequence.

Proper Maintenance:

1. Condensation Cleanup

If condensation occurs, the Owner should quickly and thoroughly dry the area. Failure to do so can lead to damage, rot, mildew or any combination of the above to surfaces surrounding exterior glass. If this occurs and is not due to the causes listed above, the Owner/s should contact their HVAC installer to have the system serviced. *(If you are still under your 2 year warranty please also contact warranty@riverhillsbuilder.com)*.

2. Exhaust Fans

Your home comes equipped with a number of exhaust fans, the purpose of which is to remove extra humidity and cooking odors from the home. Showering, doing laundry, cooking and running the dishwasher all create surplus humidity and the provided fans should be used at all of these times.

Landscaping

Additions

Prior to the installation of patio additions or other personal improvements, review the soils and take soil conditions into consideration in the design or engineering of your addition. You are responsible for maintaining the drainage that has been set up for your lot and accepted by the county.

Backfill

In some cases there are areas around your foundation that may have been backfilled. Soil may or may not be as dense as undisturbed ground. Water can penetrate through the backfill area to the foundation. This can cause potentially severe problem such as cracks in the foundation walls and floor slab movement. Avoid this problem through proper installation of landscaping and good maintenance of drainage patterns. See also “Grading and Drainage” section of this manual.

Backfilled areas may settle and require prompt attention to avoid damage to your home and voiding of the structural warranty.

Downspout extensions should be oriented so that roof run-off is channeled well away from the foundation area of the home. Routine inspection of downspouts, backfill areas as other drainage components is an excellent maintenance habit.

Bark or Rock Beds

Do not allow edgings around decorative rock or bark beds to dam the free flow of water away from the home. A woven membrane can be used between the soil and rock or bark to restrict weed growth while still permitting normal evaporation of ground moisture.

Irrigation

Make provisions for efficient irrigation. Conduct operational checks on an as needed basis to ensure proper performance of the system. Sprinkler heads should be directed away from the home. Drain and service sprinkler systems on a regular basis. Builder is not responsible for any damage that occurs due to sprinkler heads hitting any of the exterior surfaces.

Planting

Locate plants and irrigation heads out of the way of pedestrian and bicycle traffic and car bumpers. Space groves of trees or single trees to allow for efficient mowing and growth. Prune woody plants as needed. Do not plant trees near the home. Group plants with similar water, sun and space requirements together.

Requirements

Check with your local building department, Architectural Control Committee and your Homeowners Association, if applicable, prior to designing, installing or changing landscaping for any regulations you may be required to follow.

Utility Lines

Settlement will not disturb your utility lines; however, you may see a slight depression develop in the front lawn along the line of the utility trench. To correct this, spread top soil to level the area.

Waiting to Landscape

Non-landscaped ground erodes. Correcting erosion is the homeowner’s responsibility. Damages to neighboring property caused by non-landscaped ground on your lot will be your responsibility.

Drainage

Always maintain a proper slope away from your home to maintain efficient drainage. See “Grading and Drainage” section of this manual for additional information.

Mirrors & Bath Accessories

From a distance of two feet or greater, there shall be no noticeable damage or imperfections on mirrors, interior glass and shower doors. Mirrors, interior glass and shower doors as well as other interior fixtures, such as towel bars and door handles, shall be securely attached to a supporting surface. Shower doors must not leak and must open or close smoothly without requiring excessive force.

To clean your mirrors use any reliable liquid glass cleaner or polisher available at most hardware or grocery stores. Avoid splashing water under the mirror. The moisture will cause the silvering to deteriorate. Also avoid pushing or leaning on your mirrors. This can cause chips or cracks at the mounting brackets.

Mildew

Moisture is the only mildew growth factor that can be controlled in a residential setting. Excessive moisture in the home can have many causes, including poor ventilation, high humidity, water intrusion, spills, leaks, overflows, and condensation. Residential home construction is not, and cannot be, designed or built to exclude all the conditions needed for mildew to grow and spread. Good housekeeping and home maintenance practices by homeowner are essential to control excessive moisture levels and mildew growth, because if moisture is allowed to remain on the growth medium, mildew can develop within 24 to 48 hours. Steps to be taken in this regard include:

- Inspect regularly for signs of leaks or water intrusion such as discoloration or wet spots and take notice of musty odors or any visible signs of mildew. Inspect and clean condensation pans for refrigerators, air conditioners and other appliances frequently;
- Promptly clean up and thoroughly dry spills, condensation and other sources of moisture. Replace any materials that cannot be properly and thoroughly dried, such as drywall, insulation, carpets and upholstery;
- In severe cases involving flooding or other significant accumulation of moisture the homeowner should contact a qualified professional;
- Seek to prevent water intrusion into the home by regular caulking and painting and maintaining the appropriate grade to allow water to drain away from the house. Keep irrigation systems the proper distance from the home;

Exterior surfaces will develop mildew – this is a homeowner maintenance issue and is not covered by the limited warranty nor is it a health concern.

The following will insure better air quality by reducing the chances of mildew growth:

- When taking a shower/bath always turn on your vent fan. If you do not have a fan, crack your window.
- When cooking always turn on your vent hood.
- When doing laundry, always turn on vent fans.
- Check for leaks at water lines, i.e. refrigerator icemaker, washing machine, dishwasher, garbage disposal, etc.

If you suspect a water leak:

- Turn off the water either under the cabinets or the main water line that is generally located at the front left or right property line about 10 feet from the street.
- Clean up any standing water.
- Call the Builder's Warranty Department at 830-643-0501.
- Contact the plumbing contractor as noted on your Subcontractor List.

Please notify Builder in a quick and timely manner if you are still within your one (1) year warranty period so that we can review the area and insure your investment and quality of life are not compromised.

Model Homes

Model homes have several functions. They are used as sales offices, to demonstrate products in the home and as a showcase. These multiple uses can require larger air conditioners and other types of equipment that are neither appropriate nor desirable for residential usage. The model homes also may display a variety of features, finishes, materials, colors and products that are not included in your home. The following was prepared to clarify some items and features in your new home that may differ from that in the models. Please consult your sales representative for an explanation of any differences.

- **Color Variances:** Variations in color occur in all manufactured products. Although every effort is made to provide consistent color, variances may be noticeable in paint, brick, stone, tile, mortar, carpet and other colored surfaces. Exposure to sun and water will alter the color more rapidly. These variances may be especially noticeable where a repair has been made. **An exact color match of materials during the initial construction of your home or during subsequent repairs is not an item that is covered by Builder's warranty.**
- **Entrances and Walkways:** The entrances and walkways of the model homes can vary in size and location from your home.
- **Interior Features:** The model homes are used as sales offices. Therefore, the models may have features such as window coverings, window tinting, security systems, built-in features, slight plan changes, music systems and other differences from the production homes.
- **Marketing:** The representation of features, settings, finishes and other items that are used in advertising and sales materials may differ from those in your home.

Paint and Stain

Interior

The interior woodwork has been painted with a latex enamel that can be cleaned with a wet sponge. Interior walls have been painted with a latex paint and should be touched up with matching paint rather than being wiped with a wet sponge. Spackle may be used to cover any small defects prior to paint touch-up. Do not use soaps, abrasive cleaners, scouring pads or brushes.

Exterior (Wood Surfaces)

Regular painting and repair will preserve the beauty of and add value to your home. Check the painted/stained surfaces of your home's exterior annually. Repaint before much chipping or wearing away of the original finish occurs; this saves the cost of extensive surface preparation. Plan to refinish the exterior surface of your home as often as your paint manufacturer suggest for central Texas. The chemical structure of the paint used on the exterior is governed by the climatic conditions. Over a period of time, this finish will fade and dull a bit. Builder is not responsible for color variations.

Fading

Fading due to the sun and weather is normal. Periodic repainting will be required. Builder is not responsible for color variations.

Maintenance

When you wish to repaint exterior wood work on your home, popped nails should be reset; the blistered or peeling portions should be wire brushed or scraped with a putty knife, sanded and spotted with primer. The entire area can be repainted. Be certain to apply a top quality exterior paint that has been formulated for local climate conditions. Do not allow sprinklers to spray water on the exterior walls of your home. This will cause blistering, peeling, splintering,

mildew and other types of damage to the home. Trim painted white or light colors will more readily show grain and cracks and, therefore, requires additional maintenance.

Severe Weather

Hail, wind, flooding and lightning or other severe weather can cause a great deal of damage in a storm, and your home should be inspected after such weather. Report damage caused by severe weather to your insurance company promptly.

Stain

For interior stain touch-up, use a small brush and apply paint only to the damaged area. Touch-up may not match the surrounding area exactly, even if the same paint mix is used.

When it is time to repaint a room, prepare the wall surfaces first by cleaning with a mild soap and water mixture or a reliable cleaning product. Do not scrub the walls with excessive pressure; do this very gently.

Touch-Up

When doing paint touch-up, use a small brush and apply paint only to the damaged area touch-up may not match the surrounding area exactly, even if the same paint mix is used.

Plumbing

Your main water shut-offs are sometimes located in the garage and always in the front of your meter box. This is helpful to know if you install a sprinkler system or if you plan an addition to your home. It is also important to know and remember the location of the shut-off for emergencies such as a water line freeze or break. Other water shut-offs are located under the sinks in the bathroom and the kitchen. Each toilet has a shut-off valve behind the toilet bowl on the wall.

Modifications

Do not tamper with or add to your plumbing system. For any modification that is needed, contact a plumbing contractor that is listed on your "Subcontractor Information" section of this manual. Tampering with the plumbing system will void your warranty. If any changes are made to the plumbing system, we must assume that any warranty issues that arise are the result of the changes made and the responsibility will fall on the person or contractor who made the changes.

Debris in Pipes

Even though your plumbing lines have been flushed to remove dirt and foreign matter, small amounts of minerals may enter the line. Aerators on the faucets strain much of this from your water. However, minerals, etc. caught in these aerators may cause the faucets to drip because washers wear more rapidly when they come in contact with foreign matter. Any tampering or alterations to the plumbing will be considered the cause of the debris in the pipes and will not be covered by the limited warranty. See "Dripping Faucets" section of the manual for additional information.

Clogs

Many plumbing clogs are caused by improper garbage disposal usage. Always use plenty of cold water when running the disposal. This applies to grease also. Supplied with a steady flow of cold water, the grease congeals and is cut up by the blades. If hot water is used, the grease remains a liquid and then cools and solidifies in the sewer line. Allow the water to run a minimum of 15 seconds after shutting off the disposal. Any charges for sending the plumber

to unclog a drain that have been caused by the homeowner will be the homeowner's responsibility to pay. Builder does not recommend putting any grease in drains.

Clogged traps (P-traps) can usually be cleared with a "plumber's helper" (plunger). If you use chemical agents, follow directions carefully to avoid personal injury or damage to the fixtures. Chemical agents are not recommended with a septic system.

Clean a plunger drain stopper, usually found in bathroom sinks, by loosening the nut under the sink at the back, pull out the rod attached to the plunger and lift the stopper. Clean and return the mechanism to its original position.

The main causes of toilet clogs are various domestic items such as disposable diapers, excessive amounts of toilet paper, sanitary supplies, Q-tips, dental floss, toys, etc. All items listed with exception of toilet paper are not recommended for septic systems.

Air in System

Occasionally, air may be injected into the water lines from unknown sources, but often from the utility company managing the water, causing knocking or thumping sounds within the pipes when the water and/or shower faucets are turned on. This is not covered under any warranty.

Dripping Faucets

A dripping faucet may sometimes be repaired by shutting off the water at the valve directly under the sink, then remove the faucet stem, change the washer and reinstall the faucet stem. The shower head is repaired in the same manner. Replace the washer with another of the same type and size. You can minimize the frequency of this repair by remembering not to turn faucets off with excessive force.

Freezing Pipes

Provided your home is heated at a normal level, pipes in the home should not freeze at temperatures above 30°F. Heat should be set at 65° if you are away during the winter months. Keep garage doors closed to protect plumbing lines that may run through this area from freezing temperatures.

Garbage Disposal

Do not load the disposal unit with food items before turning it on. For proper operation, turn on the cold water and start the disposal unit. Then, drop the food items slowly into the unit.

When the unit sounds clear, turn it off and leave the water running for several seconds. This allows the food waste to be carried into your sewer lines. Use of the disposal with septic system is not recommended and should only be in case of an emergency.

Only foods that are non-fibrous and easily pulverized should be placed into the disposal unit. Examples of foods not to place in the disposal unit are corn husks, celery, onion skins, olive pits, bones and solid or liquid grease. These items may cause your unit to overload or jam. If this happens, follow these corrective measures.

Turn off the disposal unit and the cold water. Wait three minutes for the disposal unit to cool, then press the reset button usually located on the bottom of the unit.

If this does not correct the problem, your disposal unit is probably obstructed. Follow these steps for proper removal.

Always verify that the disposal unit switch on the wall is in the "off" position before attempting a repair yourself.

Check the circuit breakers. An overload of this type may have tripped the circuit. Reset any tripped circuit breakers.

If your disposal unit has a service wrench, insert one end of the wrench into the bottom of the unit. Work back and forth until the disposal unit turns freely. If your disposal unit does not have a service wrench, insert a broom handle or mop handle into the throat of the unit and rotate the impeller back and forth. The obstruction will be loosened so that it can be removed.

After verifying that the disposal unit switch is in the “off” position before attempting a repair yourself.

Leaks

If a major plumbing leak occurs, the first step is to turn off the supply of water to the area involved. This may mean shutting off the water to the entire home; then contact the appropriate plumbing contractor. If possible, the water should be gotten up as quickly as possible. Any delays in contacting Builder or allowing water to stand will reduce our liability for repairs.

If a leak is noticed under a sink or toilet, turn off the water at the main shut-off valves located under or behind the unit. The next step would be to arrange for service.

If you notice a leak in the tub or shower, turn off the water at the main shut-off valve and do not use the shower or tub until service can be provided.

If there is a leak in the water heater, turn the shut-off valve on top of the heat to “off”. Turn off the gas if your water heater is powered by gas or the circuit breaker if you have an electric water heater; then drain the water heater.

If you notice water spots (darkened areas) on your walls or ceilings, you may have a water leak. Determine the source of water if possible and take steps to prevent further damage. If the leak can be traced to one location (one toilet, sink or tub), turn off the water to that particular fixture. Contact the Warranty Department at 830-643-0501 for service. If the leak cannot be isolated, turn off the main water service to the home.

Low Pressure

It will occasionally be necessary to remove and clean the aerators on faucets to allow the proper flow of water; normally every three or four months is sufficient.

Marble or Man-made Marble

Marble and man-made marble will not chip as readily as porcelain enamel but can be damaged by a sharp blow, scratched by items sitting on them and burned by items such as curling irons. Equal care should be given, however, avoid abrasive cleansers or razor blades on man-made marble as both will cause certain damage to the surface.

Exterior Faucets

Outside faucets are not freeze proof; therefore, it is recommended that you remove garden hoses during cold weather and leave faucets open to drip. If a hose is left attached, the water that remains in the hose can freeze and expand back into the pipe causing a break in the line. Repair of a broken line that feeds an exterior faucet is a homeowner maintenance item. Builder does not warrant exterior faucets against freezing.

Porcelain

A sharp blow from a heavy object can damage porcelain enamel. It can also be scratched. Do not stand in the bathtub wearing shoes unless you have placed a protective layer of newspaper over the bottom of the tub. If paint is splattered onto the porcelain enamel surfaces during redecorating, it should be wiped up immediately. If some spots are dry before being noticed, use a recommended solvent. Clean porcelain finishes with a non-abrasive cleanser designed for bathroom usage.

Running Toilets

To stop running water, check the shut-off float in the tank. You will most likely find it has lifted too high in the tank, preventing the valve from shutting off completely. In this case, adjust the set screws on the top of the valve until the shut-off float stops the water at the correct level. The float should be free and not rub the side of the tank or any other parts.

Also check the chain on the flush handle; if it is too tight it will prevent the rubber stopper at the bottom of the tank from sealing, resulting in running water.

Stainless Steel

Stainless steel sinks should be cleaned with soap and water to preserve their luster. Avoid abrasive cleaners; these will damage the finish. An occasional cleaning with a good stainless steel cleaner will enhance the finish.

Tank/Bowl Care

Toilets are made of vitreous china, a glasslike material that is almost impervious to staining. Cleaning your toilets with toilet bowl cleaner and a brush or cloth. Vitreous china is brittle and will easily break or shatter if hit with a hard object. Do not stand on your toilets. Uneven pressure applied to the toilet can break the wax seal at the base of the toilet, thereby causing a leak.

Toilets which are designed to use less water, approximately 1.6 gallons have been installed in your home in an effort to reduce the amount of water used and the amount of wastewater treated and returned to our water sources. All of this results in a lower utility cost to you and an improvement to our environment.

Since these toilets use approximately 50% of the water that older, traditional toilets use, you need to be aware of a few inconveniences you may experience. The toilets have a tendency to become clogged more frequently than a traditional toilet because of the newer toilet's reduced water flush capacity. On the occasions where one needs to dispose of a large amount of tissue, it is advisable to flush the toilet prior to the disposal of all tissue. Educating your family members as to the capacity of the toilet will help avoid unnecessary stoppages. Do not place objects other than toilet paper in the toilet.

Always keep a plumber's plunger on hand to use in the event of a stoppage of a toilet. If a stoppage occurs, close the shut-off valve on the back side of the toilet. Usually a few vigorous pumps with the plunger will free the obstruction. Stoppages that are not construction related are the homeowner's responsibility. If you are unable to clear the obstruction yourself, we suggest that you call a plumber.

Do not use drain cleaners in toilet. The harsh chemicals in drain cleaners can damage the toilet seals and cause a leak.

The flush valve in your toilet should last for many years. If it fails or begins to leak, a new flush valve can be purchased at a home center or hardware store. If you are not entirely comfortable with this do-it-yourself project, a plumber can perform this task.

Toilet Seat Cover

Do not stand on the toilet seat cover. It is not designed for this purpose and may crack.

Plumbing Problems & Solutions:

Problem	Likely Cause	Solution
No hot water from electric water heater	Tripped circuit breaker	Check and reset circuit breaker
Hot water recovery is slow	Temperature setting too low. Burned out heating element	Adjust temperature setting Replace heating element
Toilet runs constantly	Water level in tank is too high	Adjust float arm stem in tank downward
Toilet makes loud noise when flushed	Water level in tank is too high	Adjust float arm stem in tank downward
Toilet makes loud noise when flushed	Ball cock in water tank is not working properly	Replace ball cock in toilet water tank
Toilet makes dripping or gurgling noise	Warped or worn out flapper valve	Replace flapper valve
Toilet backing up or overflowing	Obstruction in line	Turn toilet intake valve off and plunge toilet
Hose sprayer in sink drips	Dirty or defective	Clean or replace
Slow draining sink or bathtub	Blockage such as hair in drain	Remove hair or blockage
Water flow from faucet is reduced	Aerator at tip of faucet is clogged	Unscrew aerator screen and rinse
Water splatters out of faucet	Air in water supply line	Open all faucets in home for 5 minutes
Water leaking from under sink	Loose plumbing fitting	Hand tighten couplings on drain pipe
Water dripping from shutoff valves	Loose packing nut	Open valve all the way, then tighten the nut.
Garbage disposal clogged	Obstruction in line	Use disposal wrench in bottom of disposal
Garbage disposal will not operate	Tripped reset button	Check reset button on bottom of disposal

Roof

Leaks

If a leak occurs, try to detect the exact location; this will greatly simplify locating the area that requires repair when the roof is dry.

Limit Walking

Limit walking on your roof. The weight and movement can loosen the roofing material and break the integrity of the roofing material, which can, in turn, result in leaks. Never attempt to walk on the roof of your home when the shingles are wet—they are extremely slippery.

Severe Weather

After severe storms, do a visual inspection of the roof for damages. Notify your homeowner insurance company if damage is noted. Even when properly installed, wind driven rain may enter through vents. This is not a defect.

Septic System

An aerobic treatment system is used to treat household wastewater that includes all water from toilets, bathtubs, showers, sinks and laundry. It automatically reduces household wastewater to a clear, odorless liquid in just twenty-four (24) hours. After treatment, the effluent (i.e. treated wastewater) is acceptable for surface or subsurface application.

Aerobic System Process

Aerobic systems treat wastewater using natural processes that require oxygen. Bacteria that thrive in oxygen-rich environments work to breakdown and digest the wastewater inside the treatment system. Aerobic systems treat the wastewater in the following states:

Pretreatment

The pretreatment chamber is used to reduce the amount of solids that enter the aeration chamber. Solids can include paper and other materials that are put down the drain or flushed into the system. This pretreatment is primarily the same as a septic tank.

Aeration

The second compartment of the system is the aeration chamber. In this chamber, air is introduced to the wastewater by means of an aerator (i.e. air blower motor) used to force air thru diffusers in the wastewater. The forced air mixes with the bacteria that digest the solids in the wastewater. This mixture of wastewater and oxygen is called the mixed liquor.

Clarifier

The wastewater from the aeration chamber then enters the clarifier (also call the settling chamber or quiet zone) through an opening in the bottom of the wall that separates the two compartments. There is very little movement in the clarifier which allows any remaining solids/sludge to separate from the effluent and return back to the aeration chamber. The remaining effluent then flows from the clarifier into an approved disposal method (i.e. pump tank for spray irrigation or subsurface disposal or any other method approved by the local authority).

Items that are Safe to Use in Your New System

It is acceptable to use household cleaners as long as they are not over used. By following the directions on the labels, you should be fine with the amount of chemicals being introduced into the system.

Other than regular household sewage and minor use of cleaners, no other products should be introduced into the system.

Items that are NOT Safe to Use in Your New System

The proper operation of the system depends upon proper organic loading and the life of the aerobic bacteria inside the system.

- Do not put strong disinfectants, bleaches, toilet cleaners or sanitizers, other than small amounts used in daily house cleaning and laundry, into the system. Do not use liquid fabric softeners.
- Do not put chemicals that have high volumes of bacteria killing agents into your system. Do not put commercial, industrial, or chemical waste into your system.
- Do not allow any discharge, backwash, and/or exhaust from any type of water softener to enter the system. Do not allow surface water to pond around the system. Do not allow non-sewage water flows caused by rain or ground water infiltration, storm water infiltration, and leakage from improperly maintained plumbing fixtures, excessive volumes of water, etc. to enter the system. Do not allow air conditioner condensation lines, other than those a/c lines installed to directly discharge into the pump tank to flow into you system.
- Do not put coffee grounds, shrimp shells, or any level of cooking grease and/or oils into the system.
- Do not allow pet shampoo or pet dip to flow into your system.
- Do not put disposable diapers, papers towels, tampons, sanitary napkins, condoms, or any rubber/plastic products, large quantities of paper products, tobacco products (including cigarette filters), or similar items into the system. Do not put non-biodegradable items into your system.

- We strongly discourage the use of a garbage disposal. However, if you choose to use a garbage disposal, a grease/trash trap should be installed in front of the system. The grease/trash trap will stop undesirable waste materials from entering the system.
- Do not put chemicals that are designed to clean out drains or correct “septic tank” problems into your system.
- Make sure the aerator is never exposed to water or fire ants. Your warranty does NOT cover water or fire ant damage.
- Make sure the system is not exposed to vehicular traffic.
- The system will NOT produce water that is safe for human consumption. Always be sure children are not allowed to play on or around any part of the system. Do not allow pets or livestock around the system or any of its components.

The Control Panel

Each system has its own control panel. This panel is located under the aerator cover on top of the system (location may vary). This control panel is equipped with a complete “System Malfunction” alarm system. If for any reason the air pressure in the aeration system drops or the system has high water, the alarm will sound and the red light will come on. If you hear your alarm system sounding, something is not working properly with the system. You will need to call your service provider for repair. Their number will be located on a label on the aerator cover or the control panel and on your Contractor’s Information List. A mute switch is located on the aerator cover (location may vary) to allow the sound to be interrupted until your service provider arrives.

NEVER ATTEMPT TO SERVICE THE CONTROL PANEL YOURSELF, CALL YOUR AUTHORIZED SERVICE REPRESENTATIVE. AS WITH ANY ELECTRICAL DEVICE, THERE IS A CHANCE OF ELECTRICAL SHOCK IF YOU ATTEMPT TO SERVICE THE SYSTEM YOURSELF.

Periodic Pumping

Determination of the need for pumping can be made only by a trained service person by testing the tank’s contents and/or effluent.

Please refer to the Owner’s Manual for any additional information. If you do not have a manual, please call your installer provided on your Subcontractor’s Information List.

Siding and Trim

Exterior siding can be made of wood, vinyl or cement. Exterior trim is installed at corners, eaves and around windows and doors.

Siding and Trim Performance Standards

- Siding and knots within the siding shall not become loose or fall off.
- Siding and trim shall be properly spaced and aligned.
- Siding shall not bow or cup or have gaps equal to or exceeding 1/4 of an inch in width.
- Joints and gaps between two pieces of siding or between siding and adjacent materials shall be caulked.
- Siding, trim and eave blocks shall be installed with proper corrosion-resistant nails or screws.
- Fasteners (nails or screws) shall not protrude from the finished surfaces or leave stains.
- Siding shall not have cracks or splits equal to or exceeding 1/8 of an inch in width.
- Trim and eave blocks shall not have warp equal to or exceeding 1/2 of an inch in any eight-foot measurement.
- Trim and eave blocks shall not cup in an amount equal to or exceeding 1/4 of an inch in any six-foot measurement.
- Trim and eave blocks shall not have cracks or splits equal to or exceeding 1/8 of an inch in width.
- Siding shall not cup more than 1/4 of an inch in any six foot measurement.
- Siding shall not bow more than 3/8 of an inch in a 32 inch measurement.

Some types of exterior siding and trim will need to be repainted or re-stained periodically. The homeowner is responsible for proper maintenance of the exterior siding and trim, as well as repainting or restaining as necessary. Damage to the siding and trim may be caused by, but not limited to, the following activities: pressure washing, acid cleaning, drilling holes, attaching fixture or ornamental décor, patio covers, plant holders, awnings or hose racks and other similar devices or fixtures.

Trees

While the Builder seeks to preserve trees, they can deteriorate and die due to a number of factors, including disease and disturbance to root systems. Over or under watering can harm trees. No representation or warranty is made regarding the trees located on your lot. You may wish to consult with an arborist to determine appropriate actions to preserve your trees.

Unauthorized Option and Upgrades by Buyers

River Hills Homes does not permit the installation of options by anyone other than River Hills Homes and its subcontractors and suppliers prior to the close of escrow. The unauthorized use of independent contractors, other than those who are under contract with River Hills Homes, or any work or changes made by the buyer, will void any warranty, implied or written, with respect to any and all damage caused, directly or indirectly, as a result of the work and is a direct violation of your contract! River Hills Homes reserves the right to remove and destroy any unauthorized alterations, materials or furnishings and possessions of the buyer, made by you or any unauthorized subcontractor, prior to the closing of escrow, at the sole expense of the buyer.

Vents

Attic

A sheet of plastic can be placed over the insulation in the attic in front of vents to protect ceilings from driving snow/rain. Be cautious in placing this so as to not displace the insulation or step off wood members onto drywall.

Range Hood

Remove and clean the filter. Clean accumulated grease deposits from the fan housing.

Dryer Vent

Remove the dryer hose from the dryer vent stack. Check for lint build up or blockage. This will help increase the life expectancy of the dryer.

Water Heater

Carefully read and follow the manufacturer's literature for your specific model of water heater.

Electric Water Heaters

Drain Tank

Review and follow the manufacturer's timetable and instructions for draining several gallons of water from the bottom of the water heater.

Temperature

Set the water heater thermostat at the recommended setting; higher settings waste energy. The recommended thermostat setting for normal everyday use is “140 degrees” on electric models.

No Hot Water

If you discover you have no hot water, check the electrical breaker, temperature setting, and water supply valve before calling for service. Refer to the manufacturer’s literature for specific locations of these items and other trouble shooting information.

Gas Water Heaters

Drain Tank

Review and follow the manufacturer’s timetable and instructions for draining several gallons of water from the bottom of the water heater.

Temperature

Set the water heater thermostat at the recommended setting; higher settings waste energy. The recommended thermostat setting for normal everyday use is “normal” on gas models.

No Hot Water

If you discover you have no hot water, check the pilot, temperature setting, and water supply valve before calling for service. Refer to the manufacturer’s literature for specific locations of these items and other trouble shooting information.

Pilot

Never light a gas pilot or turn on electricity when the water heater tank is empty. Always turn off the gas or electric power before shutting off the cold water supply (located at the top of the tank).

To light the water heater pilot, first remove the cover panel on the tank to expose the pilot. Then rotate the on/off pilot knob to the “pilot” position. When the knob is in this position, the red button can be depressed. While depressing the red button, hold a match at the pilot. Once the pilot light continue to hold the red button down for 30 to 60 seconds.

When the red button is released, the pilot should stay lit. If it does not, wait several minutes to allow the gas to dissipate from the tank and repeat the entire process. If it stays lit, rotate the on/off/pilot knob to the “on” position. Reinstall the cover panel and adjust the temperature setting with the regulating knob on the front of the tank.

Water heaters sometimes collect small quantities of dirty water and scale in the main gas lines, which may extinguish the pilot light.

While away from home for an extended period, set the temperature to its lowest point and leave the pilot lit.

Safety

The area around a gas-fired water heater should be vacuumed as needed to prevent dust from interfering with proper flame combustion. The top of a heater should not be used as a storage shelf.

Windows, Screens, and Patio Doors

In heavy rains, water may collect in the bottom channel of window frames. Weep holes are provided to allow excess water to escape to the outside. Keep the bottom window channels and weep holes free of dirt and debris for proper operation.

Closed windows stop infiltration of air, dust and moisture. Glass in windows shall be fitted properly and not be damaged or broken as a result of construction activities. Windows with condensation between sealed insulated glass panels are considered broken and must be replaced. Windows installed properly will operate easily and smoothly without excessive pressure or force. Screens installed in windows shall not be torn or damaged as a result of construction activities. Gaps between the screen frame and the window frame may not equal or exceed 1/4 of an inch.

Weep holes allow condensation or minor moisture intrusions to drain outside. Keep weep holes free from dirt build-up and debris. Tinted window film or coating may damage some sealed insulated glass units. Improper use, care or maintenance may void portions of the statutory warranty and the manufacturer's warranty.

Cleaning

It is recommended that quarterly you clean aluminum metal surfaces with warm water. Do not use a powdered cleaner. After each cleaning, apply a silicone lubricant.

Condensation

Condensation on interior surfaces of the window and frame is the result of high humidity within the home and low outside temperatures. The humidity level within the home is largely influenced and controlled by your family's lifestyle.

Homeowners with humidifiers should closely observe manufacturer's directions, especially during extremely cold periods. River Hills Homes cautions the homeowner against the use of humidifiers as moisture can easily damage your home.

Door Locks

Acquaint yourself with the operation of the door hardware for maximum security.

Door Tracks

Keep patio door tracks clean for smooth operation and to prevent damage to the door frame. Silicone lubricants work well for these tracks.

Sticking Windows

Most sliding windows (both vertical and horizontal) are designed for a ten-pound pull. If sticking occurs or excessive pressure is required to open or close, apply a silicone lubricant. This is available at hardware stores. Avoid petroleum-based products.

Storing Screens

Many homeowners remove and store screens for the winter to allow more light into the home. Use caution in removing screens. They are easily perforated and frames bend if not handled with care. River Hills Homes does not recommend the removal of screens.

Broken Glass

If any panes of glass become broken, you should contact a glass company for re-glazing. Glass is very difficult to install without special tools, and, therefore, it is strongly recommended that you do not attempt the repair yourself.

BROKEN GLASS IS WARRANTABLE IF DOCUMENTED DURING THE TIME OF THE COMPLETION OF THE HOME WITH THE RIVER HILLS PROJECT MANAGER. IF WINDOW GLASS BREAKS AFTER COMPLETION OF THE HOME AND MOVE IN, THE REPAIRS IS SUBJECT TO THE DETERMINATION BY RIVER HILLS HOMES AND THE WINDOW SUPPLIER IF IT IS A WARRANTED ITEM.

Glass Blemish

Glass is a manufactured product that can have minor blemishes and minor distortion. **THIS IS NOT A DEFECT.** Glass blemish and distortion is subject to review by the manufacturer of the product and will determine if it exceeds ASTM established standards for the industry.

Glass Scratch

ASTM requirement for Detection Distance states that the inspection should be **VISIBLE** at a distance of 10 feet, viewed on an angle of 90 degrees or less, and the lighting should be of daylight level without direct sunlight or other uniform backlight that simulates daylight. **IF SCRATCH GLASS IS DETERMINED TO MEET THESE GUIDELINES, IT MUST BE DOCUMENTED DURING THE TIME OF COMPLETION OF THE HOME WITH THE RIVER HILLS HOMES PROJECT MANAGER.**

Weather Related Damage

High winds, rain, hail, tornado, hurricane, downing trees, lightning and floods or other acts of God and nature will not be covered under warranty. It is suggested that you report to your homeowner insurance the damage from the fore mentioned.

Wood Trim

Separation of wood trim from the adjacent material is a normal result of shrinkage which can require caulking and/or touch up painting as a repair. It is a good idea to wait until after the first heating season and make all such repairs at one time.

Wood will shrink less lengthwise than across the grain. All lumber is more vulnerable to shrinkage during the heating season.

Shrinkage may also cause a piece of trim to pull away from the wall. Drive another nail in close to the existing nail hole (but not in it). Fill the old nail hole with putty and touch up with paint as needed. If the base shoe (small trim between the base molding and the floor) appears to be lifting from the floor, this is probably due to slight shrinkage of the floor joists below. Similar to a piece of trim that is pulling away, this can be corrected by removing the old nails and re-nailing.

Shrinkage may occur during the first two years or longer depending on weather, the temperature you maintain in your home, and whether or not you have a humidifier (not recommended).

During a damp period, some swelling may occur. In most cases, this will not be noticeable except where a door may fit more tightly than usual. See "Doors and Locks" section of this manual.