



# HOMEOWNER MANUAL

WARRANTY AGREEMENT  
CARE AND MAINTENANCE  
WARRANTY MEASURABLES

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Congratulations on your new home! JT B Homes has expertly designed and carefully constructed your home with quality materials and experienced craftsmen to ensure exceptional performance and satisfaction. All materials are subjected to our rigorous specifications for quality and durability prior to use. We supervise all work to ensure the best possible results.

Because our homes are built by hand, no two homes will be exactly alike, and minor differences can occur due to variations in human labor, home components, natural products, and the environment. Because your home is unique to you, it will require your attention and care to maintain in lifelong good condition.

JT B Homes is a highly respected brand throughout West Michigan, and we are proud of the high-quality homes and communities we build. Part of the value we create is in partnership with you, the homeowner, as you maintain your home in good working order. Regular maintenance is necessary due to normal wear and tear, the features of the materials used to build your home, and the service required by mechanical systems. Variations in temperature and humidity can also impact your home.

It is important to be proactive in monitoring and maintaining the upkeep of your home. **Minor adjustments and repairs done immediately by you at the first sign of a problem can save you much more time and money than waiting until later, when the problem may worsen and become more expensive and time-consuming to fix. Also note that failure to perform routine maintenance can void limited warranty coverage on your home, where applicable.** Manage your home and its care, and you can continue to enjoy your home at its best for years to come.

Please read through this manual carefully together with your family, so that everyone understands the importance and requirements of care and upkeep, and keep it filed so you can refer to it often. Because a home is so large and has many details, we may not be able to list every aspect of home maintenance here, but we will cover most of them. You can disregard any topics not applicable to your home.

Please also read through the manufacturer's manuals for the Purchaser products and systems in your home and activate their warranties by completing and mailing in the registration cards. We actively keep our information updated, but if any of our instructions conflict with the manufacturer's instructions, please follow the manufacturer's instructions.

Our standard is to build a defect-free home; however, sometimes mistakes or problems can occur. To uphold our commitment to this standard, we provide you with a one-year limited warranty on your home. You will find further details on your home's warranty within this manual.

Thank you for choosing JT B Homes, and . . .

# Welcome Home!

# ACKNOWLEDGEMENT OF RECEIPT



**This Homeowner Manual is designed to support you in the care and maintenance of your new JTb Home.**

By my signature below, I:

1. Acknowledge receipt of this manual.
2. Acknowledge receipt of the one-year limited warranty on my new home.

\_\_\_\_\_  
Homeowner

\_\_\_\_\_  
Date

\_\_\_\_\_  
Homeowner

\_\_\_\_\_  
Date

\_\_\_\_\_  
Development

\_\_\_\_\_  
New Home Address



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# YOUR NEW HOME WARRANTY

JTb Homes (“Builder”) has issued a limited one-year warranty for your home and limited two-year structural warranty. It is our policy to provide courteous and timely service for all warrantable home items as defined by the provisions of the contract. If you have a warranty claim, please contact our Warranty Department at [warranty@jtbhomes.com](mailto:warranty@jtbhomes.com) or 616-916-8895 during regular business hours (8:00 a.m. to 5:00 p.m.).

#### **BENEFICIARY OF LIMITED WARRANTY**

This limited warranty is extended exclusively to the original purchaser (“Purchaser”) of a new home built at:

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Address

---

Lot Number

---

Development

This limited warranty is not transferrable to a later owner or title holder.

#### **WARRANTY**

1. Builder warrants that for one year, beginning on the earlier of:
  - The date of closing;
  - The date after issuance of the Occupancy Permit that the Purchaser first moves any personal property into the home.

The home will be free from defects due to noncompliance with the building standards listed by the National Association of Home Builders 2011 edition.

2. Builder warrants that for two years, beginning on the earlier of:
  - The date of closing;
  - The date after issuance of the Occupancy Permit that Purchaser first moves any personal property into the home, the home will be free from major structural defects due to noncompliance with the building standards listed by the National Association of Home Builders.

#### **SCOPE OF WARRANTY**

1. This Limited Warranty covers only defects on work performed and materials installed by Builder or its subcontractors and does not cover defects in work performed and materials installed or completed by the Purchaser or by any subcontractor directed by the Purchaser.

2. This Limited Warranty covers defects in the home itself and excludes any improvement not a part of the home itself, such as landscaping, outbuilding(s), pool(s), or spa(s), retaining walls, etc.
3. This Limited Warranty is the exclusive warranty that is applicable to the home.
4. **This warranty precludes all other warranties, including warranties of merchantability and fitness for a particular purpose.**

### REMEDIES

If a defect occurs during the term of this Limited Warranty and is promptly reported to Builder, Builder will repair or replace the defective item. The previous sentence is Builder's only obligation. The choice among repair or replacement is the Builder's alone. Payment for incidental or consequential damages or full or partial loss of use of the home is not part of the remedy under this Limited Warranty. **Please see the Warranty Measurables section of this guidebook for detailed information regarding specific conditions and remedies that may arise.**

Purchaser agrees that Purchaser's and Builder's exclusive venue for any claim under this Limited Warranty is mediation and / or arbitration by the National Association of Home Builders. If a mediation or arbitration is conducted, Purchaser and Builder will each pay half of the fee charged by the mediator or arbitrator. All other expenses (including attorney's fees, expert witness fees, and other costs) will be paid by the party that incurs the expense, and one party will not be required to pay the expenses the other party incurs.

This Limited Warranty is given by the Builder and gives you specific legal rights. You may also have other legal rights pursuant to Michigan or federal law apart from this Limited Warranty.

### EXCLUSIONS

The following are excluded from the scope of this Limited Warranty:

1. Any defect which is caused or made worse by:
  - Negligence or improper maintenance by the Purchaser;
  - Changes of grade around the home by Purchaser or their contractors;
  - Dampness or condensation due to the Purchaser not maintaining adequate ventilation or dehumidification in the home;
  - Failure of Purchaser to notify Builder promptly upon discovery of a defect.
2. Settling of soil or minor concrete sprawling or cracking.
3. Conditions arising from normal wear and tear, alterations or additions by Purchaser or defects caused by any actions of Purchaser.

4. Any defects due to an outside force such as accidents, explosions, floods, windstorms or change in the level of the underground water table.
5. Any defects due to insect or pest damage.
6. Any bodily injury or damage to personal property or other consequential or incidental damages arising from the defects.
7. Partial or full loss of use of the home due to the defect.
8. Any condition that does not result in actual physical damage to the home.
9. Any damage caused by power outage or power surge, including but not limited to failure of the Purchaser to have a surge protector / battery backup to a sump pump.
10. Any equipment, appliance, or item for which the manufacturer provides a warranty. Claims under any such warranty must be made directly with the manufacturer. Builder will not be responsible for installation of the replacement item from the manufacturer.
11. Any damage that is covered by the Purchaser's homeowner's insurance policy. Purchaser agrees that Builder will not be liable in subrogation or otherwise for any matter that is covered under the Purchaser's homeowner's insurance policy.
12. The Builder is not responsible for any damage to the personal property of the Purchaser caused by any defect. It is the Purchaser's responsibility to have their personal property and the home covered by an adequate homeowner's liability and casualty insurance policy.
13. Purchaser understands radon is a naturally occurring gas and is not caused by the Builder. The Builder does not claim any expertise concerning such conditions and makes no representation or warranty, express or implied, about such conditions and expressly disclaims any liability for any type of damages that such conditions might cause to the home or occupants. Purchaser may wish to contact local, state or federal environmental agencies or other sources for additional information concerning radon.

*Please see the **Warranty Measurables** section for detailed information regarding exclusions.*

# CARE AND MAINTENANCE

## Structure

*For warranty information, refer to **Chapter 12, Section 4: Driveways and Sidewalks in Warranty Measurables.***

### *Exterior Concrete*

Your home's exterior concrete has been installed according to best practices for a cold weather climate. Salt, freeze-thaw cycles, and frost can have a negative impact on concrete, but you can extend the performance of your exterior concrete by sealing it. The curing compound we used during your home's construction must wear off before a sealer can be applied. This usually takes about four months.

The best sealers contain silanes or siloxanes, which help repel water and salts, but will need to be re-applied periodically. Frequency of applications will depend on the quality of the product and manufacturer's instructions. Please closely follow instructions for preparation and application of sealer.

Cracks may form in concrete walks and patios as they rise and fall due to seasonal cycles of freezing and thawing. This is a normal condition and is not covered by warranty. You may need to re-grade around these areas.

### **Care and Maintenance**

- *We recommend that you seal your concrete walks and driveways.*
- *Sweep off fertilizers from concrete areas.*
- *Minimize salt runoff from cars parked in driveway by removing melted slush and ice.*
- *Maintaining good drainage and maintenance of landscaping will protect your home's flatwork (porch, patio, driveway, sidewalks, and entry walks) as well as the foundation.*

### **Foundation / Concrete Slab**

*For warranty information, refer to **Chapter 2: Foundation in Warranty Measurables.***

The foundation of your home has been designed and installed in accordance with engineering guidelines. The foundation is concrete with steel reinforcing rods and cables. Still, it is the nature of concrete to form minor cracks. Hairline cracks are only an aesthetic issue but can be repaired by sealing the crack. Unless there is water seepage, cracking will not affect your home's structural integrity, and part of installation is to

allow for some cracking. If water is seeping through a crack, please contact our Warranty Department.

Slight cosmetic imperfections in foundations, such as visible aggregate or minor shrinkage or contraction cracks are possible and require no repair unless they affect the structural integrity of your home as defined in your warranty document. If a warrantable condition

exists in your home's foundation, contact our warranty department. We will correct warrantable problems as defined by the warranty document, provided you have complied with the drainage and landscaping maintenance guidelines.

**Minor cracking** at the outside corners of your foundation may be caused by expansion of brick. This is not warranted.

**Protective coatings** can be used on concrete floors; however, we discourage their use in garages, as they might fail due to mixing with oil and solvents and seasonal temperature variations. We are not responsible for results of the use of these coatings.

**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, available at hardware stores.

**Heavy vehicles** such as moving vans and concrete trucks should not be permitted to drive on your concrete flatwork (driveway). This concrete is not intended to bear the weight of these types of vehicles.

**Spalling** (chipping or flaking) in the concrete can be caused by repeated hosing of concrete for cleaning animal urine, radiator overflow, fertilizer, ice melting agents, and road salts. Spalling due to these causes is not a warranty item.

**Settling or heaving** that is excessive (over 1") should be reported to our warranty department for an inspection.

### *Framing*

The frame which makes up your home's inner and outer walls is made of wood studs, steel posts, wood beams, and an engineered steel-reinforced foundation. Many walls are considered structural or load-bearing, and improper modification of them can cause stress in areas not designed to handle heavy weight, potentially leading to structural damage or failure. If you wish to modify your home, do so only under the guidance of a professional.

### *Roof Trusses / Attic*

The roof trusses in your home have been engineered to carry the weight load of snow, roof sheathing and roofing. Unless outlined in your contract, the trusses are not designed to carry added weight of household goods or storage sheeting. Please choose an alternative location for storage of these items.

When working in the attic, be careful not to step onto the drywall. This can result in personal injury and damage to the ceiling below. These are not covered by warranty.

*For warranty information, refer to **Chapter 6: Roof** in **Warranty Measurables**.*

**INSULATION**

The effectiveness of blown insulation is diminished if it is uneven. After any work done in your attic, you should confirm the insulation rests smoothly and evenly.

**LEAKS**

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

**SEVERE WEATHER**

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

**Vents**

*For warranty information, refer to **Chapter 9, Section 5: Ventilation** in **Warranty Measurables**.*

Your home is outfitted with several different vents to remove hot air, fumes, and moisture from the kitchen, laundry room, bathrooms, furnaces, and water heaters. We are not responsible for birds and insects entering the vents.

**BATHROOM FAN VENTS**

These fans are low-maintenance and require only occasional cleaning of fan blades and vent cover. The fan motor is self-

lubricating.

**LAUNDRY DRYER VENT**

The dryer vent in your laundry room exhausts moist dryer air to the outside of your home.

**Care and Maintenance**

- *Inspect interior of dryer vent periodically to ensure vent is clear of any debris.*
- *Check the interior connection point of the vent to ensure there is no lint build-up and that the hose from dryer to vent connection isn't crimped or clogged.*
- *Clean out vent line every six months to keep it clear and operational. A blockage in the vent line is a fire hazard and could cause the dryer's heating element to malfunction. See manufacturer's manual for further instruction.*

**STOVE TOP HOOD FAN VENT**

These fans are low-maintenance and require only occasional cleaning of fan blades and vent cover. The fan motor is self-lubricating.

### Care and Maintenance

Remove and clean grease filter monthly by soaking it in hot soapy water. Do not use ammonia or ammonia-based products. Light brushing can help remove embedded dirt.

### Windows

*For warranty information, refer to Chapter 4, Section 3: Windows and Glass in Warranty Measurables.*

The windows and sliding glass doors are covered by the manufacturer's warranty. The warranty does not apply if windows and / or sliding glass doors are misused, altered, or used for beyond normal household purposes. If any panes of glass become broken, you should contact a glass company for reglazing. Glass is very difficult to install without special tools, and therefore we strongly recommend you don't

attempt the repair yourself.

### CONDENSATION

Condensation on windows can be a sign of excess humidity in your home. While a small amount of condensation around the windows is normal, an excessive amount of condensation can lead to damage. This damage will first be seen on window frames and sills where condensation collects. Further damage can include blistering paint and mold / mildew in walls, weakening structural components. See information on how to control humidity level on page 28.

The windows and door frames in your home are an extrusion of solid vinyl with thermally welded corners. With regular cleaning, you can maintain their appearance for years.

### Care and Maintenance

- *Use warm soapy water to clean the vinyl frames and aluminum metal surfaces.*
- *There is at least one water weep hole in the exterior ledge of the window frame. If the weep holes are clogged, water will accumulate. Check and clear them every six months.*
- *All windowpanes and screens should be inspected for problems every six months.*
- *The tracks on windows and sliding glass doors must be cleaned, lubricated, and adjusted as necessary every six months.*
- *Most windows and sliding glass doors are designed for a ten-pound pull. If they stick, or if excessive pressure is needed to open or close, apply a silicone lubricant.*
- *If you remove screens to store during winter, use caution, as screens are easily perforated, and the frames can easily bend.*

## Interior

### Appliances

Home appliances, including cooktops, microwave ovens and refrigerators come with manufacturer's manuals and warranties. Please refer to them for care and maintenance and warranty activation. When reporting warranty items to the manufacturer, be prepared to supply the following information:

1. Home closing date.
2. Serial number and model number (printed on a metal plate on the side or bottom of appliance).
3. Description of the problem.

### Cabinets

*For warranty information, refer to Chapter 10, Section 4: Cabinets in Warranty Measurables.*

Color of installed cabinets may be slightly different from samples shown during selection process. Color variations may be due to wood grain patterns, stain, and viewing in natural daylight.

Grain patterns on cabinets and cabinet doors cannot be matched if replacements are needed. Natural variations in grain pattern are considered normal.

“Under cabinet” appliances that generate heat or steam, including crock pots, coffee makers, and some radios, can damage wood and the surface paint of cabinets. This type of damage, and avoiding it, are the homeowner's responsibility. Place these items in a location that is not directly under a cabinet. To further prevent moisture damage, use the vent on the hood of your stove when cooking.

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

If repairs or replacements are scheduled, please do not clean or polish affected surfaces until after service is complete.

### Care and Maintenance

- *Clean and polish your wood cabinets every six months with products such as lemon oil, Liquid Gold, and Old English Furniture Polish and Scratch Cover, just as you would with fine wood furniture. Avoid paraffin-based spray waxes and water, as these will damage the luster of the finish.*

- *To clean painted or laminated surfaces, use mild soap with a damp sponge. Never leave standing water on any wood product. Consult a professional for scratches and gouges.*
- *Inspect, adjust, and tighten hinges annually.*
- *The hinges on your cabinet doors should be lubricated as needed. Apply a tiny drop of oil on top of the hinge and work the door back and forth several times so the oil moves into the hinge. Wipe excess oil with a dry towel.*

### **Caulking**

Over time, caulk will dry and shrink, and can separate due to expansion, contraction, and settling. When this occurs, the caulk no longer provides a good seal against air and moisture and will need to be repaired. Re-caulking is *not* covered by warranty.

**Latex caulk** is appropriate for an area that requires painting. **Silicone caulk** will not accept paint but works best where water is present (for example, where tub meets tile, or sink meets countertop).

### **Care and Maintenance**

- *Annually inspect and repair caulking that has cracked, shrunk, or discolored in the following areas: baseboards, crown molding, doors and door jambs, fireplace tile, tubs / showers / sinks, and windows.*
- *Maintenance of caulking around tubs and showers (especially at joints with 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.*
- *Caulking between the kitchen and bathroom countertop and wall, along the joint at the backsplash, and around the sink may shrink, leaving a slight gap. Maintaining a good seal is necessary to prevent moisture from reaching the wood under the laminates and causing warping.*

### **Ceilings and Walls**

*For warranty information, refer to Chapter 10, Section 6: Gypsum Wallboard or Drywall in Warranty Measurables.*

Ceilings and walls do not require special attention other than occasional cleaning, caulking, spackling of cracks, and painting. Remove any dust and cobwebs during cleaning. Spot-test any cleaning product in an obscure area before using.

The walls in your home are constructed of wood, metal, and other materials that are subject to normal expansion and contraction. This can result in shrinking and warpage of molding and trim.

### Care and Maintenance

- Routine maintenance for molding, trim and wall boards is minimal.
- Maintenance may include resetting of nails that have popped out of position, occasional touch-up painting, and re-application of caulking material.
- Use care when hanging pictures and decorative objects. Always use appropriate hangers for the object's weight. Repair nail holes easily with spackle or putty.

### DRYWALL

Drywall is a standard construction product and comprises most of the interior wall surfaces of your home. Minor cracks or nail pops may appear and result from normal shrinkage of lumber and / or normal settling of the home.

### Care and Maintenance

- To repair minor cracks, nail pops, indentations and nail holes, use a spackling compound or a latex caulking compound available at hardware stores and home centers.
- Spread the product with a blade or your finger and wipe the area with a moistened towel or sponge to smooth and blend with the existing surface. Apply two or three coats if needed.
- After drying, sand the surface with fine grain sandpaper, and complete the repair with touch-up paint.

### WOOD TRIM

*For warranty information, refer to Chapter 10, Section 3: Trim and Moldings in Warranty Measurables.*

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

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 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 and the temperature you maintain in your home.

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.

## Paint and Stain

*For warranty information, refer to Chapter 10, Section 6: Paint, Stain, and Varnish in Warranty Measurables.*

### INTERIOR

The interior woodwork has been painted with an oil or water-based paint that can be cleaned with a wet sponge. Do not allow area to become soaked with water. Walls have been painted with a flat latex paint and should be touched up with matching paint. Spackle may be used to cover any small defects prior to paint touch-up. It is recommended that you

wait a minimum of thirty days prior to washing any enameled surface. Do not use soaps, abrasive cleansers, scouring pads or brushes.

### EXTERIOR

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 approximately every three years or as often as your paint manufacturer suggests for your area and climate. The chemical structure of the paint used on the exterior is governed by the climactic conditions. Over a period of time, the finish will fade and dull a bit. Fading due to sun and weather is normal and repainting is required. (See also "Painted Surfaces" in the "Exterior" section.)

Do not allow sprinklers to spray water on the exterior walls of your home.

If severe weather (hail, wind) damages your home, it should be inspected and reported to your insurance company promptly.

### REPAINT

When you wish to repaint exterior woodwork 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 then be repainted. Be certain to apply a top-quality exterior paint that has been formulated for local climate conditions. Trim painted white or light colors will more readily show grain and cracks, and therefore requires additional maintenance.

You may want to paint your bathrooms and kitchen with more frequency than the rest of your house, due to exposure to steam, condensation, harsher conditions and usage. When it's time to repaint an interior 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.

## STAIN

Variations in wood grain and color on stained wood stairs, paneling, siding, doors and wood trim are inherent characteristics contributing to the natural beauty of these materials and cannot be controlled.

For interior touch-ups, Old English Furniture Polish and Scratch Cover are inexpensive, easy to use, and blend in with the wood grain. Follow directions on the bottle when using.

## TOUCH-UP

When doing paint touch-ups, use a small brush and apply paint only to the damaged area. The touch-up may not match the surrounding area exactly, even if the same paint mix is used. All paints change color as they age, so a perfect color match may not be possible for touch-ups. Regular painting is a better option for longer paint life.

## WALL CRACKS

Wait until the one-year warranty walk to repair drywall cracks or other separations due to shrinkage.

## *Countertops and Backsplashes*

*For warranty information, refer to Chapter 10, Section 5: Countertops in Warranty Measurables.*

Because countertops can be expensive and difficult to repair or replace, always use proper handling, and be proactive about cleaning and maintenance.

***IMPORTANT: Always use a cutting board when cutting food. Protect countertops from heat and extremely hot pans and utensils: if you cannot put your hand on it, do not put it on the countertop. Do not use countertops as ironing boards, and if you choose to smoke, keep cigarettes in an ash tray.***

We confirm that all countertops are in acceptable condition, and we will repair noticeable surface damage such as chips and scratches noted at that time. Repairs to surface damage that occurs during or after move-in are the homeowner's responsibility.

Over time, separation of countertops from walls, backsplash, and around sinks results from normal shrinkage of materials.

## CERAMIC TILE

Glazed ceramic tile is very durable, but unglazed ceramic tile is brittle, and can be broken by a sharp blow from a heavy object. Because an exact replacement match of ceramic tile may not be possible, please take special care to avoid breaking or damaging the ceramic tile on your countertops and backsplashes. The best way to avoid damaging your tiles is to use a cutting board and other protection when working in your kitchen. Save any unused tile for future repairs.

### GROUT

Routinely clean grout with warm soapy water. Do not use strong cleaners such as Lysol, which can stain the grout.

Grout sealers can change the color of the grout. Consult manufacturer's label instructions before use.

### COLORED GROUT

The color / shade may vary on a particular installation due to the wide variety of tiles available, environmental conditions, and finishing techniques. Natural factors of sun, temperature, and food or chemical reactions may combine with the aging process and change the color of the grout. If repair or replacement of tile or grout areas is required, matching the original or changed color of the grout may not be possible.

### GROUT CRACKING

It's normal for separations and cracks to occur in the grout between tiles / stones and at transition points with other building materials. You can repair these easily with prepared grout as part of routine maintenance.

#### Care and Maintenance

- *Use warm soapy water or a tile cleaner to keep tile clean and glossy.*
- *Always mop up liquid spills and excess water quickly to avoid staining and seepage damage to the substructure.*
- *If grout becomes stained, use the manufacturer's recommended cleaning agent.*

### PLASTIC LAMINATE

Plastic laminate kitchen countertops are constructed of a thin sheet of hard plastic laminated onto a wooden layer underneath. Laminated countertops will have one or more discernible seams. We will repair gaps or differential at the seams that exceed 1/16" during the warranty period.

#### Care and Maintenance

- *Do not place hot pans directly on the counter's surface, as this will break the bond of the two materials and may scorch the surface.*
- *Use warm soapy water to clean countertops, followed by water rinsing and towel drying. Avoid using harsh and abrasive cleaners.*
- *Remove standing water promptly to avoid buckling at seams.*

- *Laminate countertops may be stained by inks used to mark grocery products, especially meat and produce. These can be very difficult to remove, so we suggest you avoid placing these items directly on countertops.*

### **SOLID SURFACE**

Solid surface materials are man-made products that are very durable; however, they will require some care and maintenance.

Corian edges should be smooth and even. Where backsplash joints occur at corners, the top edges should be even within 1/16" during warranty.

#### **Care and Maintenance**

- *Remove spills promptly. Rinse the area with clear water to prevent staining.*
- *Do not cut foods directly on a solid surface countertop. Always use a cutting board.*
- *Do not place very hot pans or lit cigarettes on solid surface countertops.*

### **GRANITE AND QUARTZ**

Granite is known and prized for its variations in color and grain. Because of this, exact matches are not possible in original installations or replacements. Granite is sealed but remains porous. Sealing permits the stone to breathe while protecting it from damage. Quartz is non-porous and does not require sealing. Please consult a professional stone cleaning service for more information about caring for your stone countertops.

#### **Care and Maintenance**

- *Remove countertop spills and moisture promptly, especially fruit juices or other acidic liquids. Natural stones are alkaline in nature and can be harmed by acidic liquids.*
- *Avoid abrasive cleaners, which can scratch the stone.*
- *Avoid highly alkaline cleaners such as lye. Tars and oils can carry stains into the stone when they are combined with highly alkaline cleaners.*
- *Clean regularly with a "soap less" cleaner, then rinse with warm water. Thorough rinsing is very important, because residual soap or cleaning crystals can cause permanent damage.*
- *Avoid colored / tinted cleaning products, including dishwashing products, because they can transfer color to the stone.*
- *Do not use colored waxes or polishes on natural stone.*
- *Avoid dropping pots, pans, and other kitchen items onto your stone countertops. This can break or chip the counter surface.*

- *Don't sit on stone countertops. Excessive weight can cause them to break and may cause the countertop to pull away from the wall mount.*
- *Thoroughly dry the granite surface before any sealers or "top dressings" are applied. A chamois skin is ideal for drying natural stone.*

### **CULTURED MARBLE**

Unlike other products for your bath, cultured marble should last for the entire life of your home, if properly maintained. The maintenance rules are simple and easy to follow.

#### **Care and Maintenance**

- *Clean your cultured marble with a mild, non-abrasive cleaner. Do **not** use any abrasive cleaning products.*
- *Do **not** use acetone nail polish remover to remove spilled nail polish. Do not use sharp objects to remove paint or other dried matter on your cultured marble.*
- *Do not place hot objects such as irons directly on the surface of the marble.*
- *If you damage your cultured marble, contact the manufacturer.*

### **Mirrors**

To clean your mirrors, use a good quality glass cleaner or polisher available at most hardware and grocery stores. You can also make an eco-friendly solution of vinegar, water, and essential oils.

Avoid splashing water under the mirror, as 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.

### **Doors**

Doors have many components that require attention and maintenance.

#### **ADJUSTMENTS**

The doors installed in your home are wood products subject to the natural characteristics of wood such as shrinkage and warping. Due to natural fluctuations of humidity and the use of forced air furnaces, showers, and dishwashers, interior doors may require minor adjustments for a proper fit. It is the homeowner's responsibility to touch up paint or stain on unfinished areas resulting from such expansion or contraction.

#### **BIFOLD / BYPASS / DOUBLE DOORS**

Interior doors will sometimes stick or warp due to weather conditions.

## EXTERIOR DOORS

*For warranty information, refer to Chapter 4, Section 4: Exterior Doors and Chapter 10, Section 1: Interior Doors in Warranty Measurables.*

To ensure longer life for your exterior doors, refinish them at least once a year. Stained exterior doors with clear finishes tend to age faster than a painted door. Treat the finish with a wood preserver quarterly to preserve the varnish and prevent the door from drying and cracking. Reseal the stained exterior doors whenever the finish begins cracking.'

All exterior doors are installed with weather-stripping to ensure a proper seal. Every six months, inspect the weather-stripping, sweeps, and thresholds, and adjust or replace if needed.

## 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.

## LATCHES

If a door will not latch due to minor settling, this can be corrected by adjusting the opening in the jamb for the latch plate (remortising) and raising or lowering the plate accordingly.

## LOCKS

Door hardware has a very durable finish, but exposure to extreme sunlight and elements can wear off its finish. The mechanical components must also be maintained to continue functioning properly.

Once a year, lubricate the lock assembly with graphite or other waterproof lubricant. Avoid oil, as it will gum up. Be careful not to spill any lubricant on the hardware finish.

Clean with a soft, dry, clean cloth. Do not use chemical or abrasive cleaning solutions. Wipe off exterior hardware to remove salt or acid rain build-up.

## PRIVACY KEYS

Keep a duplicate privacy lock key where children cannot reach it in the event a child locks himself / herself in a room. The top edge of the door casing is often used as a place to keep the key.

## SLAMMING

Slamming doors can damage both doors and jambs and can even cause cracking in walls. Hanging from doorknobs and swinging the door back and forth can loosen hardware and cause the door to sag.

### STICKING

The most common cause of a sticking door is the natural expansion of lumber due to changes in humidity. When sticking is due to swelling 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 planning 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 jamb or frame.

### DOOR TRIM

Putty, filler, or latex caulk can be used to fill any minor separations that develop at mitered points in door trim. Follow with painting.

### WARPING

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

## *Electrical System*

*For warranty information, refer to Chapter 8, Section 5: Electrical in Warranty Measurables.*

Electricity is delivered through the electrical meter (located on the side of your home) to your breaker panel or subpanel. From there, the power is distributed throughout your home and controlled by switches and outlets. Your home has a 100-to-200-amp service panel, which is more than adequate for typical daily use.

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

Consult a licensed electrician to make any changes and / or additions to your electrical system. Please note a permit may be required and some changes may void your one-year warranty.

### AUXILIARY CIRCUITS

The electrical circuits in your home are designed to handle today's heavier demands. However, some major appliances and tools will perform better if they have dedicated circuits. If you are considering the purchase of these items, please consult a professional electrical contractor to discuss your needs and the possible addition of dedicated circuits.

### BUZZING

Fluorescent fixtures use transformer action to operate them. This sometimes causes a "buzzing" sound.

### CIRCUIT BREAKERS

Circuit breakers are the safety valves of your electrical system and are situated in an electrical panel. In case of a malfunction, a breaker switch will automatically be thrown into the “off” position. To restore power, simply move the switch to the “on” position. If power is not restored, flip the breaker “off” and “on” to ensure the breaker is reset.

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 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.

### GROUND FAULT CIRCUIT INTERRUPTER

Ground fault circuit interrupter (GFCI) outlets are sensitive safety devices installed in the electrical system. Essentially, it is its own circuit breaker. The GFCI will “trip” or turn off the circuit if a danger of electrical shock exists. GFCI receptacles are located in water-sensitive areas including kitchens, bathrooms, exterior areas, and the garage.

Other outlets in water-sensitive areas may have what looks like a standard receptacle but is actually on a circuit protected by a GFCI receptacle in another location. When a malfunction occurs, check all GFCI receptacles to determine if they need re-setting.

Do not plug your refrigerator or freezer or power tools into a GFCI outlet, as it may trip due to the motor. Especially avoid plugging a freezer or refrigerator into a GFCI outlet in the garage, as a tripped garage outlet could go undetected for some time, resulting in food spoilage.

GFCI outlets are designed to trip easily for your protection. If the outlet does not reset after a few attempts, stop using the outlet until the cause of the trip is determined.

#### **Care and Maintenance**

- *GFCI outlets must be checked for proper functioning annually. To do so, with a small appliance (such as a hair dryer or electric toothbrush) plugged into the outlet and running, press the “test” button. The appliance should shut off. Press the “reset” button and the appliance should start running again. If this does not occur, discontinue use of the outlet until the cause of the malfunction can be determined.*

### ARC-FAULT CIRCUIT INTERRUPTER

Changes in building codes have mandated arc-fault circuit interrupters (AFCI) for bedrooms. Similar to circuit breakers, AFCIs will interrupt an electrical circuit in a fraction of a second.

This is a safety feature as well as a fire prevention feature. Oddly, AFCIs can be easily tripped by vacuum cleaners, even when the vacuum cleaners are operating properly. If this occurs, the breaker switch will need to be reset.

### LIGHTING

All lighting and fixtures have bulb specifications imprinted on them. For safety and fixture longevity, use only the size and type specified. Light bulbs are Purchaser items covered only by a manufacturer's warranty. Do **not** install clear bulbs in fixtures encased by a globe, because of the additional heat they generate. Indoor and outdoor fixtures and bulbs should be replaced and inspected as needed.

Homeowner is responsible for replacing any burned-out bulbs.

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.

### OUTLETS AND SWITCHES

Tamper-resistant electrical outlets can be found in every room of your new home. Do not exceed the device capacity for which the outlets were designed. Increasing the capacity and using multiple extension cords can cause a fire.

If an electrical outlet does not have power, there are two possible explanations:

1. Some outlets are controlled by a wall switch. These outlets are typically installed upside down for easy identification. To check them, plug an appliance into the outlet and turn on nearby wall switches.
2. Check the circuit breaker. If it's tripped, reset it and try the outlet again. If the circuit breaker trips repeatedly, contact a licensed electrical professional. Remember to also check your GFCI outlets and reset any if tripped.

### POWER SURGES

Power surges can result in damages to sensitive electronic equipment such as televisions, alarm systems, and computers. Any damages caused by power surges are not covered by warranty, so we recommend you install surge protectors, available at retail stores.

### SMOKE AND CARBON MONOXIDE DETECTORS

A 110-volt smoke detector system with a battery backup is in each bedroom, in each hallway that adjoins a bedroom, and on each floor. There is one carbon monoxide detector installed on each floor. These installations fully comply with building code and fire safety

requirements. The detectors are powered by your home’s electrical system; however, a 9-volt battery is installed for backup during power outages.

**Care and Maintenance**

- *Replace the battery located on the backside of the housing semi-annually whether or not the detector is chirping. All batteries in every detector should be replaced at the same time.*
- *Each smoke detector unit should be tested annually by pressing the “test” button, which should result in an audible warning. This test assures you that the unit is functioning properly.*
- *When the nine-volt battery is low, you will hear an intermittent beeping or chirping sound. To replace the battery, turn the detector housing counterclockwise and separate it from the base of the alarm.*

**SYSTEM OUTAGE / FAILURE**

If electrical failure occurs, contact a qualified electrician to repair or alter any part of your wiring of electrical system.

**UNDERGROUND CABLES**

In areas with underground utilities, check the location of buried service by contacting your local utility service. In most cases, 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.

**Fireplaces**

*For warranty information, refer to Chapter 12, Section 1: Fireplace and Wood Stove in Warranty Measurables.*

Before using your fireplace, read the manufacturer’s manual carefully. Use caution: a fireplace contains an open fire inside your home, and it is crucial that you are able to handle it properly.

**GAS FIREPLACES**

Your fireplace is equipped with a gas log lighter. Please refer to the manufacturer’s instructions to determine the proper use of this gas log lighter. If you do not have instructions, please contact our service department for a copy prior to your use.

During the first few uses, you may detect an odor. This is normal and is due to burning off protectants and lubricants from the unit.

**Gas fireplaces are designed for gas logs only.** These are porcelain and a set is installed with your home purchase. These manufactured logs do not actually burn but create an illusion of a real fire. The heat source of this unit is natural gas. **Do not, under any**

**circumstance, burn wood in this type of fireplace.** This type of unit requires special construction, operation and maintenance procedures that are different from those of wood burning fireplaces.

In the event of a power outage, your fireplace can operate without electricity by installing two D-cell batteries in the location described within the manufacturer's manual. These batteries must be removed when household power is resumed.

*If you suspect a gas leak, leave home and call the gas company immediately for emergency service.*

### WOOD FIREPLACES

Wood fireplaces are not energy-efficient and should be considered a luxury. The fire draws in warm air (that you pay to heat) from the home for its combustion, but only about ten percent of the heat generated by the fire is radiated into the home, and the rest goes up the chimney.

A fresh air vent has been installed to provide the fireplace with combustion air and reduce the amount of heated air the fire draws from your home. It will also replace the air in your home that the fire uses for combustion. Open this vent prior to starting the fire as you do the damper.

When not in use, the damper and fresh air vent should be closed. Leaving them open is equivalent to leaving a window open. 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. When closing the doors over a burning fire, open the mesh screens first. This prevents excessive heat buildup on the mesh, which might result in warping or discoloration.

One caution on the use of glass doors: do not close them over a roaring fire, especially if burning hard woods (such as oak or hickory), because the fire could break the glass.

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. Any logs 6" 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 byproducts accumulate inside the flues over a period of time. Damage from fire may result in burning fires in an excessively dirty chimney flue. A qualified chimney sweep should be hired for this cleaning yearly.

## DISCOLORATION

Discoloration of the firebox is a normal result of use and requires no corrective action.

## DRAW OR DOWNDRAFT

Although extremely high winds can result in a downdraft, this condition should be temporary and occasional. Also, trees located too close to a fireplace can cause a down draft. Some homes are extremely airtight, and a window might have to be opened in order to maintain an effective draft.

## Fixture Finishes

Fixture furnishes 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 paint), or scratches from sharp objects may cause the protective coating to crack or peel, exposing the natural metal and resulting in spotting or discoloration. Brass, like sterling silver, will gradually tarnish and eventually take on an antique appearance.

### Care and Maintenance

- *Periodic cleaning can be done with a mild, non-abrasive soap and buffing with a soft cloth.*

## Flooring

It is natural for wood framed floor systems to move or deflect. Your floors may occasionally squeak due to drying wood, weather and normal settling.

For heavy objects such as pianos and pool tables, we recommend using floor coasters to distribute the weight and help prevent damage to the wood floor sheathing.

We cannot guarantee same patterns and colors in replacement floor coverings, so take good care of your flooring to maximize its life span. Misuse of flooring is not covered by warranty.

## CARPET

*For warranty information, refer to Chapter 11, Section 1: Carpeting in Warranty Measurables.*

Carpet wears out due to foot traffic and dirt particles that become lodged deep into the pile due to trampling. To extend the life of your carpet by years, adhere strictly to guidelines for preventative care and maintenance.

### Care and Maintenance

- *The best way to protect your carpet is to keep it clean, so vacuum frequently, especially in high-traffic areas. Every carpet should be vacuumed one time a week for every member of your family, including pets (four family members*

*= four weekly cleanings). Use only a vacuum approved by the Carpet and Rug Institute (CRI).*

- *Remove spots, spills, and stains as soon as they are discovered, according to manufacturer's instructions. For best results, blot or dab, and avoid rubbing. Test stain removers in an obscure area to test for any undesirable effects.*
- *Professionally clean your carpets according to manufacturer's instructions.*

Some problem conditions may occur with your new carpet; they and their remedies are as follows:

<b>Burns:</b>	Take care of any kind of burn immediately. First, nip off the darkened fibers. Then use soapless cleaner and a sponge with water. If the burn is extensive, consult a professional about replacing the damaged area.
<b>Candle Ash:</b>	Burning scented candles or oil lamps produces ash that gets distributed throughout your home by the central A/C and Heating system. This is especially noticeable on light-colored carpet when furniture is moved.
<b>Crushing:</b>	Furniture and traffic may crush a carpet's pile fibers. Frequent vacuuming in high-traffic areas and glides under heavy pieces of furniture can help prevent this. Rotating your furniture to change the traffic pattern in a room promotes even less wear. Some carpets resist matting and crushing because of their level of fiber, but this does not imply or guarantee that no matting or crushing will occur. Heavy traffic areas such as halls and stairways are more susceptible to wear and crushing. This is considered normal wear.
<b>Fading:</b>	All carpets will slowly lose some color due to natural and artificial factors in the environment. You can delay this by frequently removing soil with vacuuming, regularly changing air filters, keeping humidity and room temperature from getting too high, and covering windows to reduce sunlight exposure.

<p><b>Filtration:</b></p>	<p>If interior doors are kept closed while the air conditioning is operating, air circulation from the closed room flows through the small space at the bottom of the door. This forces the air over the carpet fibers, which in turn act as a filter, catching particulate pollution. Over time, a noticeable stain develops at the threshold.</p>
<p><b>Fuzzing:</b></p>	<p>In loop carpets, fibers may break. Simply clip the excess fibers. If it continues, consult the manufacturer.</p>
<p><b>Pilling:</b></p>	<p>Pills or small balls of fiber can appear on your carpet, depending on the type of carpet fiber and the type of traffic. If this occurs, clip off the pills. If they cover a large area, consult the manufacturer.</p>
<p><b>Ripping:</b></p>	<p>With wall-to-wall carpeting, high humidity may cause rippling. If the carpet remains rippled after the humidity has lowered, consult a professional to re-stretch the carpeting.</p>
<p><b>Seams:</b></p>	<p>Carpet usually comes in 12' widths, making seams necessary in most rooms. Visible seams are not a defect unless they have been improperly made or unless the material has a defect, making the seam appear more pronounced than normal. The more dense and uniform the carpet texture, the more visible the seams will be. Carpet styles with low, tight naps result in the most visible seams. Seams are never more visible than when the carpet is first installed. Usually with time, use, and vacuuming, the seams become less visible. You can see examples of how carpet seams diminish after they have been vacuumed and have experienced traffic in the model homes.</p>
<p><b>Shading:</b></p>	<p>Shading is an inherent quality of fine-cut pile carpets. Household traffic causes pile fibers to assume different angles; as a result, the carpet appears darker and lighter in these areas. A good vacuuming, which makes the pile all go in the same direction, provides a temporary remedy.</p>

<b>Shedding:</b>	New carpeting, especially pile, sheds bits of fiber for a period of time. Eventually these loose fibers are removed by vacuuming. Shedding usually occurs more with wool carpeting than with nylon or other synthetics. You should check your vacuum cleaner bags frequently in the first few months after moving in.
<b>Snags:</b>	Sharp-edged objects can grab or snag the carpet fiber. When this occurs, cut off the snag. If the snag is especially large, call a professional.
<b>Sprouting:</b>	Occasionally you may find small tufts of fiber sprouting above carpet surface. Simply use scissors to cut off the sprout. Do not attempt to pull it, because other fibers will come out in the process.
<b>Stains:</b>	No carpet is stain-proof. Although your carpet manufacturer designates your carpet as stain-resistant, some substances may still cause permanent staining. These include hair dyes, shoe polish, paints, and India ink. Some substances destroy or change the color of carpets, including bleaches, acne medications, drain cleaners, plant food, insecticides, and food or beverages with strongly colored natural dyes as found in some brands of mustard and herbal tea.

Refer to your care and maintenance brochures for recommended cleaning procedures for your particular fiber. Pretest any spot-removal solution in an inconspicuous area before using it in a large area. Apply several drops of the solution, hold a white tissue on the area, and count to ten. Examine both tissue and carpet for dye transfer and check for carpet damage.

**CERAMIC TILE FLOORS**

*For warranty information, refer to Chapter 11, Section 4: Tile, Brick, Marble, and Stone Flooring in Warranty Measurables.*

Ceramic tiles are available in a wide variety of colors and sizes, and glazed ceramic tile is identified by its shiny, smooth finish. We are not responsible for discontinued styles or grout color variations.

**Care and Maintenance**

➤ *Glazed ceramic floor tile should be swept or vacuumed on a regular basis to eliminate grit and fine dirt particles that can*

*scratch or dull its finish.*

- *Floor tile can be damp-mopped with water for general cleaning and to pick up dust. When damp-mopping, be sure to wring out the mop thoroughly to prevent droplets of water on the floor that will later become water spots.*
- *Mild, non-abrasive detergents can also be used if rinsed thoroughly to avoid leaving a dull film.*
- *Use door mats at entrances to help intercept dirt and grit.*
- *Furniture with metal casters / feet should not be used on the ceramic floor tile. Metal will quickly scratch and chip even the hardest floor tile.*
- *It is normal for grout in tile floors to separate from the area between tiles and the baseboard. When this happens, re-grout the area promptly to prevent the entry of water.*
- *Be careful with what you choose to clean the tiles, as it may stain the grout.*
- *Do not clean ceramic tile floors with a vinegar / water solution. Even a weak acidic solution like this will damage grout over time.*
- *Lightly colored grouts will show dirt faster than mid-tone colors and may require more frequent cleaning.*
- *Grout that becomes yellowed or stained can be cleaned with a fiber brush, cleanser, and water. These are available at most hardware stores.*
- *Over time, cracks that occur in grout between tiles are normal and can be filled using “tub caulk” or premixed grout from flooring or hardware stores.*
- *If you choose to seal the grout, the sealing must be maintained over time. Please note that sealing the grout will void its warranty coverage.*

**HARDWOOD FLOORS AND STAIRS**

*For warranty information, refer to Chapter 11, Section 3: Hardwood Flooring in Warranty Measurables.*

When hardwood floors are new, splinters of wood may appear. Dimples or scratches can be caused by moving furniture, dropping heavy or sharp objects, high heels, etc. Even the highest quality wood floors and stairs will scratch and dent, regardless of the finish or wood species. Water, sand, toys, pets, and shoes can all cause damage. Everyday wear is not covered by your warranty, so practice good care

and maintenance to keep your floors in good condition.

**Care and Maintenance**

- *Clean your hardwood floors and stairs as often as you vacuum your carpet. Sweep the floors and wipe with a soft, dry cloth. Do **not** use water, water-based cleaners or steam cleaners. Follow the manufacturer’s recommendations for floor care products.*

- *Waxing should also be done according to manufacturer’s instructions.*
- *Flooding hardwood floors with water will cause stains, warping, and the destruction of the flooring. Do not permit water or other liquids to stand on hardwood flooring. Wipe up spills immediately.*
- *Some shrinkage or warping can be expected, especially around heat vents or any heat-producing appliances.*
- *If gapping occurs, increase the humidity level of your home on your humidifier. Be sure that you do not raise it high enough to cause condensation on your windows.*
- *Do **not** use bleach or one-step floor cleaners on hardwood floors.*
- *Apply felt pads to the bottoms of chairs and tables to help reduce scratches and scuffs. Clean the pads on a regular basis to remove any grit that may accumulate.*
- *Do not drag heavy appliances or furniture across hardwood flooring. Permanent scratches in the finish can result.*
- *Most finishes and some wood species darken when exposed to sunlight, even with low-E protection on your windows. Rugs should be moved or removed periodically to allow different areas of the floor to age consistently.*
- *A dulling of the finish in heavy traffic areas is likely; a white, filmy appearance is caused by moisture (often from wet shoes). Use protective mats at exterior doors to help prevent water, sludge, sand and grit from getting on the floor. Be aware that yellowing and warping can result from rubber backing on mats.*
- *Burns from cigarettes can be difficult or impossible to remove. 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.*

**VINYL FLOORING**

*For warranty information, refer to Chapter 11, Section 2: Vinyl Flooring in Warranty Measurables.*

This type of flooring material will provide years of service when properly maintained.

**Care and Maintenance**

- *Sweep or vacuum daily to prevent particles from being ground into the surface of the flooring.*
- *Use a damp mop and clear water to lightly wash the flooring surfaces weekly.*
- *Remove spills immediately to avoid staining. Use a sponge or soft cloth. Dry the floor after removing the spill.*

- *Do not use abrasive cleansers or full-strength bleach on vinyl floors. Abrasives will dull the finish and cause permanent damage. Full strength bleach can etch and destroy the surface of the flooring.*
- *If the flooring surfaces receive hard use and become extremely dirty, use a mild detergent with water and apply with a sponge mop. After the soil deposits have been loosened, mop up excess solution. Rinse mop thoroughly with water to remove all detergent, then rinse the floor with water to remove soapy residue. Any film left on the floor can hold tracked-in dirt and leave a dull, cloudy appearance. Repair or replace vinyl floor caulking at the base of showers and tub / shower combinations with 100% silicone caulk. Inspect every six months.*
- *Avoid exposure to direct sunlight on your floor for prolonged periods. During peak sunlight hours, the use of drapes or blinds is recommended.*
- *Place a mat at your entryways to help reduce the amount of dirt that gets tracked into your home. Caution: rubber backed mats can cause yellowing of flooring.*
- *Protect your floor against burns, including cigarettes, matches, and very hot items.*
- *Vinyl flooring is relatively soft and will tear if heavy appliances, such as refrigerators, washers, or dryers are improperly moved across the surface. This damage is permanent and cannot be repaired. Use appropriate appliance dollies. Heavy furniture should be placed on pads to avoid point loads, such as sofa legs or table legs, from penetrating the surface.*
- *High heeled shoes can be particularly damaging to vinyl, causing permanent dents and gouges.*
- *Small cuts may be repaired with seam sealer.*

### LAMINATE FLOORING

Plastic laminate flooring is very durable. The high-pressure laminate surface prevents almost all dirt and grime from sticking to the floor. But, while it is very hard and scratch resistant, it is not indestructible. It can chip if hard objects are dropped onto it.

#### Care and Maintenance

- *Clean regularly by vacuuming and / or sweeping.*
- *For thorough cleaning, use a soap-free cleaner designed for laminates.*
- *Do **not** wax, sand, lacquer, or use scouring powders, steel wool, or abrasive cleaners.*
- *Wipe up spills of any kind immediately.*
- *Do not allow water to stand on laminate floors.*

- *Crayon, asphalt, shoe polish, paint, and nail polish can be removed with a soft cloth moistened with a citrus cleaner.*

## **Water Heater**

*For warranty information, refer to Chapter 7, Section 2: Plumbing Fixtures in Warranty Measurables.*

Warranties, lighting instructions, thermostat adjustment, and the hot water warning are provided by the manufacturer. Carefully read and follow this information. Instructions for lighting the pilot are usually found on the burner near the pilot access opening. We have also included pilot lighting instructions below.

Your water heater system is equipped with a relief valve feature that helps prevent damage from excessive pressure or temperature. If you notice water discharging from your water heater, it could indicate a temperature setting that is too high or that other service is needed.

“Normal” is the recommended water temperature setting for everyday use. If you need exceptionally hot water for a specific project, set the water heater’s thermostat higher, but remember to return it to the “normal” position when the project is completed.

Regular inspections of your water heating equipment, including the temperature control (120° F maximum) and pressure relief valve function, are necessary.

### **Care and Maintenance**

- *Inspect the pilot and burner to ensure normal flame patterns.*
- *Drain a few quarts of water from the tank every six months to help remove solids and hard water deposits. Follow manufacturer’s instructions for draining water from the bottom of the water heater.*
- *Drain and flush the water heater annually to remove any sediment and to clean the tank bottom.*
- *Annually lift and release the temperature relief valve handle to make certain it operates freely. Allow several gallons to flush through the discharge line. Make certain the discharged water is directed to an open drain.*
- *Check temperature control annually.*
- *Remove combustible / flammable materials surrounding water heater. Vacuum area as needed to prevent dust from interfering with proper flame combustion.*
- *Make sure all combustion air openings are unobstructed.*
- *Plan for an annual inspection of the water heater by a properly licensed technician (ideally when your furnace / air conditioning equipment is inspected).*

- *Perform all repairs, adjustments, and cleaning as needed.*
- *Check all gas connections for damage and / or leaks.*
- *Check the exhaust flue to make sure it is clear of snow and debris.*
- *Remove and inspect anode rod; replace as necessary.*
- *Do not use the top of the heater as a storage shelf.*

If you discover that you have no hot water, check the pilot, temperature setting, and water supply valve before calling for service.

**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 lights, 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. Condensation inside your new water heater may drip onto the burner flame. This causes no harm and, in most cases, will disappear in a short period of time.

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

***Heating and Air Conditioning***

*For warranty information, refer to Chapter 9, Section 4: Heating and Cooling in Warranty Measurables.*

Your home is equipped with a heating (and possibly an air conditioning) system. These systems have been designed to meet the heating and cooling requirements of your home in an energy efficient manner and according to local building codes.

The heating and cooling of your home will be affected by its orientation to the sun, use of window drapes, and many other factors. Temperature variations will also occur within your home between levels and its cantilevered / non-cantilevered areas. These variations can be mitigated by adding a

zoned heating and cooling system or by balancing the airflow. This is accomplished by simply setting the thermostat switch to the “fan” position instead of the “auto” position. The fan will continue to mix and move air evenly throughout your home, and the furnace or air conditioner will cycle on and off to maintain your desired temperature.

The manufacturer may offer warranty coverage on equipment parts and labor, so check the manual and send in registration to activate it. The contractor who originally installed the system may also offer an extended warranty. Contact info can be found on the heating system.

Your heating and cooling system is complex and should be periodically inspected and cleaned by professionals. Input manufacturer-recommended inspection dates into your calendar, and schedule service early to avoid delays during peak demand times. We recommend a trial run in early autumn to test the heating system, and a trial run in spring to test the air conditioner. If service is needed, it is much less inconvenient to discover it before the heating / cooling season begins.

### **HEATING**

Proper maintenance of the furnace can save thousands of dollars as well as prolong the life of the furnace itself. Carefully read and follow the manufacturer’s literature on use and care. The guidelines here include general information.

For optimum heating performance, program the thermostat for desired temperatures and times and leave it there. The furnace will come on automatically when the temperature at the thermostat registers below the setting you have selected. Manually adjusting the thermostat wastes energy; once the furnace is on, setting the thermostat to a higher temperature will not heat the home any faster. For automatic settings, do not set the temperature back more than 4° during the day, when you are away from home, or during overnight periods. Thermostats are calibrated to plus or minus 5°.

To vary the temperature in individual rooms, simply open or close the registers as desired.

The heating system design was planned with a furnished home in mind. For example, drapes, blinds, screens, etc. 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 your draperies and furnishings, the home may seem cooler to you than you expect. For maximum comfort and efficient energy use, arrange furniture and draperies to allow unobstructed air flow from registers and cold air returns.

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

### **FURNACE**

Furnaces have combustion air vents to operate. 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-out poisonous gasses back into your home.

The furnace is equipped with an 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.

You may hear some sounds through your registers which are actually generated from your furnace. They should be very slight and almost unnoticeable. These are normal.

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

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. This is caused by dust that has settled in the ducts and should pass quickly. The exact placement of heating ducts will vary from those positions shown in similar floor plans or in the model homes.

***If you smell gas, everyone in the home should exit the home immediately. Call the gas company promptly from a different location.***

#### **TROUBLESHOOTING**

One of the primary reasons that a furnace does not work is the pilot light is off. Another cause may be the on / off blower switch, which looks like a regular light switch and is located on the metal box outside of the furnace. When turned off, this switch overrides all furnace commands and shuts down the blower. This is usually done when maintenance service is being performed, although children have been known to turn the furnace off by using this switch.

The furnace will not operate if the gas valve in the furnace closet is turned off. It is the red knob on the metal gas pipe. It should be parallel with the pipe to be in the “on” position. The lower panel door must be positioned correctly for the furnace blower to operate. This panel compresses a button that tells the blower it is safe to operate. If this panel is not on tightly, the fan will not come on.

The breaker for the furnace blower is located in the breaker box on the exterior house near the electric meter.

After checking the above, if your system is still not heating properly, run through this check list:

1. Is the thermostat set above room temperature?
2. Is the thermostat selector set to “heat”?
3. Are the supply and return registers open and unobstructed?

4. Are the filters clogged?
5. Are the exhaust and intake areas free of snow and debris?

If none of these address the issue, contact the manufacturer or installation contractor for service.

### AIR-CONDITIONING

Since the air conditioning is combined with the heating system, the maintenance suggested for your furnace should be followed, as well as the manufacturer's maintenance instructions.

The air conditioner is a whole-house system, involving everything inside your home, including windows and drapes. It is also a closed system, meaning the interior air is continuously recycled and cooled until desired air temperature is reached.

Timing is key in this system. Set the air conditioner to cool gradually throughout the day, rather than having the system work harder to cool a hot house later in the day, which may be ineffective due to stored heat in the walls, carpet, and furniture.

If evening cooling is your primary goal, set the thermostat at a moderate temperature in the morning while the house is cool, allowing it to maintain throughout the day, then lower it slightly when you arrive home. Setting the thermostat at 60°F when the home is hot will not cool the home any faster and can result in the unit freezing up and not performing at all. Extended usage in this manner can damage the unit.

Tips for optimal cooling performance:

1. Be sure drapes and furniture do not restrict air circulation from registers or grilles, and keep clear of dust, cobwebs, and debris.
2. Keep exterior windows and doors tightly closed.
3. Close or angle window coverings to keep out direct sunlight.
4. Keep all interior doors open for optimal air circulation.
5. Adjust cooling vents to maximize air flow to spaces you use most in the home.
6. Clear away leaves, grass, paper, or anything that might impede air flow through the outdoor air conditioning condenser grille.

If your system is not cooling properly, check the following:

1. Is the thermostat set below room temperature?
2. Is the thermostat selector set to "cool"?
3. Are the supply and return registers open and unobstructed?
4. Has a circuit breaker controlling your cooling system been tripped?

#### 5. Are the filters clogged?

Lack of air conditioning is not considered an emergency unless weather conditions are extreme. Contact your heating and air conditioning contractor for service after your one-year warranty expires. To avoid the frustration of service delays during peak demand times, follow the Maintenance steps below to ensure your air conditioning system stays in good working order continuously.

#### **Care and Maintenance**

- *Replace filter every month for the first six months. Then check / replace every three months.*
- *Every 60 days, pour one cup of bleach down the condensate line to kill any algae that may be growing inside the drain line. Keeping the line clear minimizes chances of it backing into your home.*
- *Annually inspect thermostat to ensure proper operation.*
- *Have your cooling and heating systems inspected and serviced annually.*
- *Start your furnace well in advance of the cold season to ensure proper operation.*
- *Start your air conditioner well in advance of the warm season to ensure your condenser starts properly (min. 70° F). Do not run the system for an extended period of time during the cold season, or the system could freeze up.*
- *Add freon or coolant only when outside temperature is 70° or higher.*
- *Maintain the air conditioning compressor in a level position, or the unit may malfunction.*
- *Be sure furnace panels and filter panels are secure in their proper positions, or the unit will not operate.*
- *In winter, keep intake and exhaust free from ice and snow.*

#### **AIR FILTERS**

A dirty air filter will decrease air flow and heating / cooling capability. This causes the equipment to operate much longer in order to reach the desired temperature (which in the case of an extremely dirty filter may never happen) and will increase your operating costs.

#### **Care and Maintenance**

- *Filters should be replaced at least once a month for the first six months. This ensures optimal performance at the lowest operating cost and less wear and tear on your equipment.*

- *Installation of ceiling fans will assist in maintaining the comfort level of your home and help to control energy costs. It is recommended that you adjust fan airflow in a downward direction for the summer months and an upward direction for winter months.*

### CONDENSER

If the condenser (outdoor air conditioning unit) is running and the cooling ability is unsatisfactory, it may be because the cooling coils inside the furnace have iced up. This is sometimes due to a dirty air filter.

Turn the system off and allow the ice to melt before turning the system back on. One to two hours should be enough.

### FORCED AIR UNITS

These units (which power both the heating and air conditioning systems) house the fans and the air filters. The areas around your forced air unit must be kept clean and completely free of any combustible or flammable materials. You should have a licensed professional service technician inspect this system before the cold season to ensure proper operation.

### HUMIDIFIER

A humidifier is connected to your heating system, providing additional moisture to the air during the dry heating season. This will also help minimize shrinkage of wood floors and trim. Your humidifier will operate only during the heating season.

If you notice moisture forming on your walls or windows, lower the humidity setting. A good starting point is 35% but should be lowered as needed to prevent moisture accumulation on walls, windows, and other surfaces.

### Care and Maintenance

- *Check the filter annually and replace as needed.*
- *Make sure the water supply is turned on.*

### TIPS FOR AVOIDING CONDENSATION ON WINDOWS

Condensation begins to form on windows when warm, humid air inside your home comes in contact with the cold glass surface. The dew point – or the point at which water vapor turns into a liquid – is a function of temperature, pressure, and humidity. Because your home is airtight, warm humid air does not escape, but will form condensation on windows. This is why it is necessary to lower the humidity setting on your humidifier when outside

temperature drops. If this is not done, nothing can prevent water from forming on your windows and possibly damaging your woodwork. Such damage is not covered by warranty.

Outside Temperature	Recommended Relative Humidity
+40°F	40%
+30°F	35%
+20°F	30%
+10°F	25%
0°F	20%
-10°F	15%
-20°F	10%

**Care and Maintenance**

- *Keep the furnace filter clean to maximize air flow. Filter should be changed once a month for the first six months, then checked / replaced every three months thereafter.*
- *Run the furnace fan in the “on” or “continuous” position. This will keep the warm air washing the windows and will also bring in additional fresh air.*
- *Keep blinds open when possible and leave them up a little at the bottom to allow warm air to wash the window.*
- *Keep fresh air intakes open in your mechanical room. Providing fresh air to your home, and not putting your home under negative pressure, are important factors.*
- *Keep the humidifier on and the damper open at all times. The humidifier will only run during the heating season.*
- *Run bathroom fans during and after showers / baths.*
- *If your range hood is vented to the outside, run it when boiling large amounts of water.*
- *Make sure the weep holes on your windows are clear in the spring and fall. Any water you might see could be from the tracks not draining properly.*
- *Clean up any water that has condensed onto cooler surfaces; don’t let it accumulate on windows and sills.*
- *During the first year in your home, you must de-humidify the basement, because it is important to remove the latent moisture in the air.*
- *Adjust your humidity level down as outdoor temperatures fall. See table above for recommendations. If condensation continues to form, lower your humidifier further.*

- *As temperatures rise, adjust the humidifier up for additional comfort and to keep your hardwood floors and trim from gapping. The hardwood floor industry would like your humidity at around 40%, but this will cause condensation on windows at temperatures approaching 30°.*

## Plumbing

*For warranty information, refer to **Chapter 7: Plumbing in Warranty Measurables.***

### FIBERGLASS SHOWERS, TUBS, AND ENCLOSURES

Fiberglass units require very little maintenance. Periodic cleaning with a non-abrasive cleaner will allow them to perform for a long time.

### BATHTUB

If your tub has whirlpool jets, thoroughly read the manufacturer’s instructions for operation, controls, care, cleaning, and precautions / safety. We have also listed a few guidelines below:

1. Before turning the pump on, ensure that the water level is at least 2” above the highest jet. Early activation can cause the pump to burn out and invalidate the warranty.
2. When adding scent, bubble bath or other products which produce bubbles, use only half the amount recommended on the package, as the movement of the water will magnify the bubbles.
3. Every six months to a year, clean out the plumbing to remove accumulated soaps and oils. Fill the tub with hot water only and add four scoops of dishwasher detergent. Run the jets for twenty minutes. Drain and enjoy your freshened jets for another year.

### Care and Maintenance

- *Periodic re-caulking may be required around the perimeter where the unit meets drywall and floor. Inspect the caulking for cracks or separation and replace if necessary.*

### CERAMIC TILE SHOWERS AND TUB ENCLOSURES

Proper maintenance of your bath and shower areas will help prevent both mildew and water leakage, which can cause structural damage to your home.

### Care and Maintenance

- *To keep your shower and bathtub enclosure walls mildew-free, clean regularly with a tile cleaner or a fungicide such as ammonia.*
- *Inspect all caulking and grout every six months, and re-caulk or patch grouting as necessary. Scrape out loose, cracked, powdery joints and refill with new grout.*

- *When repairing the joint between the tub or shower tile and your wall, fill the cleaned, dry joint with a flexible caulking compound such as silicone caulk according to the manufacturer's instructions.*
- *Remove mold and mildew with a mold / mildew remover or a solution of chlorine bleach and water (one part bleach to four parts water), or soap and water.*

### **DRAINS**

Grease build-up is the most frequent cause of drain stoppage. We recommend that you put cooking oils and grease in the household trash. If you must pour these down the drain, always run cold water at the same time. Warm water will cause the oil / grease to coat and eventually clog the pipes. Petroleum-based products such as paint or lacquer thinner can damage pipes and should never be poured down the drain.

### **Care and Maintenance**

- *Sink and tub stoppers designed to trap hair and foreign materials should be cleaned regularly to ensure good drainage.*
- *Clean bathroom sink overflows by pouring a mild bleach solution (1 part bleach, 4 parts water) down them every six months.*
- *Drain traps should be inspected every six months to confirm that waste is flowing smoothly.*
- *Drains must be inspected for leaks and to ensure that all connections are tight every six months. Open any cabinets and visually check all pipe connections and shutoff valves.*

### **FAUCETS**

*For warranty information, refer to Chapter 7, Section 2: Plumbing Fixtures in Warranty Measurables.*

The best way to prolong faucet life is to avoid force when turning off the water. Unnecessary force may cut or otherwise damage O-rings, washers, sleeves or seats, requiring premature replacement of the faucet. Normal hand pressure should result in a full shutoff of water flow and drips. Loose or worn washers usually cause noisy pipes and faucets as well as drips.

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 into contact with foreign material. It will occasionally be necessary to remove and clean the aerators on faucets to allow the proper flow of water.

Normally every three to four months is sufficient. If extensive maintenance or overhaul of a fixture is required, your hardware store or home center can provide parts and instructions for the repair.

### **Care and Maintenance**

- *Inspect and tighten faucets every six months.*
- *Faucet aerators must be removed and cleaned every six months.*
- *Use only a soft cloth to clean and shine all handles and decorative finishes. Use of polish, detergents, abrasive cleaners, organic solvents or acid may cause damage.*
- *Replace valve gaskets as necessary. Disassemble the faucet according to manufacturer's instructions. Use only specified replacement parts for repairs.*
- *Always turn off the water supply and relieve line pressure before working on your faucet.*
- *A leaking faucet may result from a worn-out washer or from excessive sediment collected on the valve seat. Replacement stem assembly cartridges can be purchased at any plumbing supply store.*
- *If a sink faucet develops a leak, turn the water stop valve clockwise to the off position. The water stop valve is located underneath the sink.*
- *For a tub or shower faucet leak within the wall, turn off the house water supply at the main valve control and notify a professional plumber.*
- *If the water heater, garden or washing machine faucet valves leak at the base of the handle, tighten the packing nut located on the top of the valve.*

### **SINKS**

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. Avoid leaving food / produce on a stainless-steel surface, since prolonged contact with food / produce can stain the finish.

Porcelain sinks can be damaged by a sharp blow from a heavy object, and can also be scratched, so care should be taken with their use. Clean with a non-abrasive cleaner designed for bathroom usage. If paint is splattered onto porcelain enamel surfaces during redecorating, it should be wiped up immediately. If some spots are dry before being noticed, use a recommended solvent.

### **GARBAGE DISPOSAL**

The garbage disposal is self-cleaning and requires no maintenance or lubrication of the motor. Activate the warranty by mailing in the registration card with the manufacturer's

manual. Always operate the disposal with the splashguard in place and according to manufacturer's instructions.

For optimal performance with the least amount of wear and tear, run plenty of cold water when using the disposal.

Do not load the disposal with food items before turning it on. Turn on the cold water and start the disposal. Drop food items slowly into the unit. When the unit runs clear, turn the disposal off and leave the water running for several seconds. This allows the waste to be carried away.

Only foods that are non-fibrous and easily pulverized should be placed into the disposal. Foods not to place in the disposal include corn husks, onion skins, rice, potato skins, artichoke leaves, olive pits, bones, and solid or liquid grease. These items can cause your unit to jam.

If a jam or other problems occur, or the disposal will not start, follow the corrective measures in your manufacturer's manual.

## TOILETS

Toilets are made of vitreous china, a glasslike material that is almost impervious to staining. Clean your toilets with a toilet bowl cleaner and a brush or cloth. Vitreous china is brittle and will easily break or shatter if hit with a hard object.

Always keep a plunger on hand to use in the event of a toilet clog. If a clog occurs, close the shutoff valve on the back side of the toilet. Usually, a few vigorous pumps with the plunger will free the obstruction.

Stoppages that occur due to construction debris are covered by the warranty. If you experience a total main line stoppage within the first 30 days after closing, contact us for service. After that time, we recommend you contact a plumber. If the plumber can demonstrate the stoppage was due to construction debris or faulty installation, we will reimburse your cost for the plumber. This reimbursement does not include collateral damage or personal expenses.

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 top of the valve until the shut-off floats stop 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's too tight it will prevent the rubber stopper at the bottom of the tank from sealing, resulting in running water.

## Care and Maintenance

- *Water saver toilets have been installed in your home. Low flow or water saver toilets are designed to reduce water usage and are required by the building code. At times you will find a single flush does not clear the toilet bowl. When this happens, wait for the water tank to refill, then flush again.*

- Do **not** dispose of non-soluble or bulky matter, such as diapers, sanitary products, or flushable wipes through your toilet. Such items should be discarded in the trash bin rather than through sewer lines.
- Do **not** use drain cleaners in toilets. The harsh chemicals can damage toilet seats and cause a leak.
- Do **not** lean back against the toilet tank; it is not a backrest. Your tank has been checked for leaks during our inspection process.
- If your toilet is not filling properly, observe the level in the toilet tank when the valve shuts off. If the water level is too low, adjust the fill level using the adjustment on the float arm or on the fill tube, whichever is appropriate.
- The flush valve in your toilet should last for years. If it fails or begins to leak, you can purchase a new flush valve at a hardware store or home center. A plumber can complete the project if needed.
- Do not stand on the toilet seat cover. It is not designed for this purpose and may crack.

**SUMP PUMP**

*For warranty information, refer to Chapter 7, Section 3: Sanitary Sewer or Septic System in Warranty Measurables.*

The sump pump is plugged into a GFCI outlet, as part of code requirement, however GFCI outlets are prone to tripping. Periodically check the power to your sump pump.

Maintenance and cleaning of the sump pump is the homeowner’s responsibility. Failure to keep the sump pump intake and surrounding area clear of debris can result in failure of the pump. Homes that have sump pumps typically

have pea gravel under the concrete floor for water drainage. Periodically, these small stones flow through to the sump crock and may become lodged in the sump pump impeller. This situation is not covered by our warranty.

Our warranty does not cover any damages resulting from failure of a sump pump. **Make sure your homeowners insurance covers sump pump overflow.**

**Care and Maintenance**

- Check sump pump intake and impeller every six months for debris or impediments such as pea gravel.

**FROZEN PIPES**

Provided your home is heated at a normal level, pipes should not freeze at temperatures above 0° Fahrenheit. Heat should be set at 65° if you are away during winter months. Keep garage doors closed to protect plumbing lines that may run through this area from freezing temperatures.

**LEAKS**

*For warranty information, refer to Chapter 7, Section 1: Water Supply System in Warranty Measurables.*

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 water to the entire home; then contact the appropriate contractor.

If a leak is noticed under a sink or toilet, turn off the water to the fixture by using the shut-off valves located under or behind the unit. If a leak is noticed in the tub or shower, turn off the water at the main shut-off valve. Arrange and complete service before using again. Leaks from toilet tanks are covered by warranty for only 60 days after closing.

If there is a leak in the water heater, turn the shut-off valve on top of the heater 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 particular location, turn off the water to that fixture. If the leak cannot be isolated, turn off the main water supply and contact our service department.

**WATER MAIN SHUTOFF / SUPPLY VALVE**

Your entire water system has a main shutoff / supply valve that controls all of the hot and cold water flowing through your home. This is located in the front of your meter box. Be sure you are familiar with its location in case of emergency situations, 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.

If a water leak occurs that you cannot control by closing the water stop located at the individual fixture, you must turn off the water at the main shutoff / supply valve. Make sure all members of your household are familiar with the main water shutoff / supply valve location and operation.

**Care and Maintenance**

- *The main water shutoff / supply valve can become corroded from lack of use or from the presence of hard water. Open and close the valve at least annually to ensure that it operates freely. Lubricate the valve stem as needed.*

## Exterior

### Masonry

*For warranty information, refer to Chapter 5, Section 3: Masonry and Veneer in Warranty Measurables.*

Masonry (stone and brick) is one of the most durable and lowest maintenance finishes for a home's exterior.

You may notice small openings in the mortar along the lower row of bricks. These are "weep holes" and allow moisture to escape if any has accumulated behind the brick. Do not fill them or permit landscaping materials to cover them.

Settlement cracks are common and should be expected within certain tolerances in brick-and-mortar joints. If any repairs or changes are made to your brick, variations in the color of the brick and / or mortar may result.

#### Care and Maintenance

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

### Garage Doors

*For warranty information, refer to Chapter 12, Section 3: Garage in Warranty Measurables.*

Please refer to the manufacturer's operating instructions for complete operation, maintenance, warranty and safety information. Activate the warranty by sending in the registration card. The manufacturer's warranty does not apply if doors are misused, altered, or used for any purpose other than normal household use. The garage door might sag slightly due to its weight and span.

As a safety measure, automatic garage doors use photo cells to detect items in their path before closing. If the photo beam is interrupted by something in its path, the door will not close. The door will also be prevented from closing if the photo cells are out of alignment with one another. Misaligned photo cells are not a warrantable item. If this occurs, simply refer to the manufacturer's do-it-yourself instructions for re-alignment of the photo cells. Photo eyes can be affected by direct sun light. Direct sun light can make the photo cell think that something is in the way. Block the sun light and try to open with remote.

Installation of a garage door opener may void your garage door warranty. Check with your garage door manufacturer before installation of a garage door 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.

### **Care and Maintenance**

- *Lubricate track, door rollers, pulleys, springs, bearings, and hinges with a silicone lubricant or thirty weight automobile oil every six months. At the same time, check to see that all hardware is tight and operating without binding or scraping. Do not attempt to adjust the spring mechanisms of the overhead doors. Avoid over-lubricating to prevent dripping on cars and concrete flooring. Paraffin wax rubbed on the side jambs will help the door operate smoothly.*
- *Lubricate the drive chain every six months. Use only a lubricant recommended by the manufacturer. Other lubricants may damage the system.*
- *If the lock becomes stiff, apply a silicon or graphite lubricant. Do not use oil on a lock, as it will stiffen in winter and make the lock difficult to operate.*
- *Keep the electrical eye aligned and free of debris and other blockages.*
- *Repaint the garage door when the home is repainted, or more often if needed.*

### **GARAGE DOOR 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 professional. 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.

### **Hose Bibbs**

Outside faucets are not freeze proof; therefore, it is recommended that you remove garden hoses from hose bibbs when outside temps are forecast to fall below freezing and replace in the spring after freeze dangers have passed. If a hose is left attached, 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. We do not warrant exterior faucets against freezing.

### **Painted Surfaces**

The chemical composition of paint is affected by climate conditions. Over time, the finish might dull and yellow. This is part of the natural aging process and cannot be prevented. For a good color match when repainting, ask your paint supplier to color match from a chip of paint you've taken from the existing surface.

Paint will retain its beauty longer if you follow recommendations from professional painters. One of the most important recommendations is to avoid washing newly painted surfaces for at least three months. This allows the new paint to dry and set. After this period, when cleaning, avoid the use of strong chemical cleaners and abrasive cleaners, which can cause permanent damage to the paint.

### *Siding*

*For warranty information, refer to Chapter 5, Section 2: Aluminum or Vinyl Siding in Warranty Measurables.*

Modern siding is manufactured of man-made composite materials that require less maintenance than traditional, natural materials, including wood.

#### **Care and Maintenance**

- *Inspect the exterior siding annually, especially when exposed to weather conditions such as direct sunlight, extreme temperatures, high humidity, or direct rainfall.*
- *Do **not** allow irrigation water to spray directly on siding.*
- *Keep string trimmers away from all siding.*
- *Never clean the siding with chemicals, steel, wool, or wire brushes. There is no effective remedy for scuffed or scraped aluminum or vinyl siding, only replacement.*
- *Reset popped nails with a smooth finish hammer and touch-up paint as needed. If the nail will not reset, replace with a nail that is the next size larger in width.*
- *Look for gaps in caulking or caulking that is pulling away. Remove loose or peeling caulking, remove dirt and debris, and re-caulk the dry surface with an exterior, paintable caulk.*

### *Exterior Millwork: Wood and Composite Wood*

*For warranty information, refer to Chapter 5, Section 1: Wood and Wood Composite Siding in Warranty Measurables.*

Some of the exterior trim around windows and doors may be wood or composite wood products. Certain imperfections, knots and movement should be expected in these natural and man-made materials. The area subject to wear is not the wood, but the paint and caulk.

No absolute schedule for repainting can be established, because weather, wind and sun exposure affect building surfaces differently. If you decide to repaint the exterior of your home, your best choice is a qualified painting contractor who is an expert in surface preparation and applications.

### Care and Maintenance

- *Surfaces that receive direct sun require more frequent repainting. Inspect the surfaces every three months. Any touch-ups may not match exactly.*
- *The exterior surface of your home may have exposed wood. You can maintain its appearance by hosing the surfaces clean with a low-pressure stream of water.*
- *New wood will require repainting more frequently than expected, because it absorbs more paint than older wood. Being a natural material, wood trim will expand and contract with temperature and humidity changes, so caulking requires periodic repair and replacement as needed.*
- *Caulking should be inspected periodically and replaced or repaired as necessary. A separation even a fingernail in thickness will allow water to penetrate, which can cause wood to rot within six months.*

## Other

### *Expansion and Contraction*

All building materials are subject to expansion and contraction caused by changes in temperature and humidity. Different 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 is in fact very normal, especially in Michigan, which is known for common 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 process. 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.

### *Gas Shut Off*

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 identified during homeowner walkthrough. If you suspect a gas leak, leave the home and call the gas company immediately for emergency service.

### *Mold Growth Prevention*

Since microscopic mold spores exist naturally everywhere in our environment, mold cannot be prevented or removed entirely. It is impossible for a home to be completely free of mold spores. Mold can grow on almost anything, and the only way to prevent it is to eliminate excess moisture in your home. Visible mold must be removed immediately.

We are not responsible for mold issues. Currently there are no standards that establish permissible limits for exposure to mold. You must take positive steps to eliminate excess moisture in your home to help prevent mold growth and the possible adverse effects caused by mold growth. These steps are listed below:

#### **Don't Bring Mold Home:**

Before bringing items into your home, check for signs of mold. Potted plants, furnishings, or stored clothing and bedding material, as well as other household items, could contain mold growth.

<p><b>Keep it Clean:</b></p>	<p>Regular vacuuming and cleaning will help reduce mold levels. After cleaning carpets, make sure they are completely dry before replacing furniture. Do not close closet doors or otherwise enclose spaces until the carpets have completely dried out.</p>
<p><b>Reduce Humidity:</b></p>	<p>Keep the humidity in your home low by using the exhaust fans in your bathrooms and kitchen, and by running the air conditioning, which helps remove excess moisture from the air.</p> <p>Periodically ventilate enclosed spaces such as closets. Avoid propping large pieces of furniture against wall surfaces.</p>
<p><b>Promptly Correct Leaks, Moisture, and Water Damage:</b></p>	<p>Since mold will generally grow only in areas that have been exposed to moisture for more than 24 hours, it is critical that water leaks are repaired immediately. Contact a licensed professional upon discovery so the situation can be addressed as quickly as possible. Thoroughly dry any wet surfaces or materials. Do not let water pool or stand in your home. Also, promptly clean spills, condensation, and other sources of moisture.</p>

**Care and Maintenance**

- *Regularly maintain your home by caulking the windows, faucets, drains, tubs and showers.*
- *Heating, ventilation and air conditioning systems should have filters replaced monthly.*
- *Perform routine visual inspections for mold growth and signs of leaks, moisture, or water damage.*
- *Inspect under sinks for standing water, water stains, or mold. Take notice of musty odors and any visible signs of mold. Check for leaks at water lines (refrigerator icemaker, washing machine, dishwasher, etc.)*
- *Do not let water stand in air conditioning or refrigerator drip pans.*
- *Inspect condensation pans (refrigerators and air conditioners) for mold growth.*
- *Mold or musty odors are also a reliable indicator of the presence of mold.*
- *Look for discoloration or wet spots on ceilings, walls, floors, windowsills, etc.*

- *Maintain roofs and keep them in good repair.*
- *Ensure that sprinkler heads are not pointed toward your home. Avoid overwatering.*

**MOLD CLEANUP**

If mold is found, it must be removed, and the source of water must be eliminated immediately. The measures taken to initiate the cleanup process are dependent upon the extent of the problem. In many cases, mold can be removed with a thorough cleaning using a mild cleaning solution of one part bleach to ten parts water. If you have an extensive amount of mold, or otherwise do not think you can manage the cleanup on your own, consult a professional who is experienced in cleaning mold. Most items can be completely cleaned of mold, but care must be taken to ensure that safe cleanup methods are used. Any item that cannot be completely cleaned of mold should be discarded.

**Radon**

Radon is a gas that occurs naturally underground in some areas, and which can present a problem to some homes. Because it's a tasteless, odorless, colorless gas, there are no physical signs that will alert you to the presence of radon in a home. There are no warning symptoms that indicate you're being exposed. The only way to know whether your home has elevated levels of radon is to test it.

Any home could have a radon problem, regardless of whether the home is in an area with a high or low radon potential, or whether it's old or new, energy-efficient or drafty, built on a slab or built over a basement or crawlspace. Radon levels can vary significantly from lot to lot and home to home.

**JTB HOMES RADON AGREEMENT**

You acknowledge that you understand that radon is a naturally occurring gas and is not caused by the Builder. Builder does not claim any expertise concerning such conditions and makes no representation or warranty, express or implied, about such conditions and expressly disclaims any liability for any type of damages that such conditions might cause to the home or occupants. Purchaser may wish to contact local, state or federal environmental agencies or other sources for additional information concerning radon.

## Yard Drainage / Grading, Irrigation, Fertilizing, and Landscaping

### *Drainage and Grading*

Your home site has been engineered to standards established by local government jurisdictions to ensure adequate drainage of rain and irrigation water. All home sites have been rough-graded to move water away from the house to the drainage areas within minimum side yard setback. Typically, but not always, the grade around your home should slope 6" in the first 10', tapering to a 2% slope.

All drainage or erosion issues after taking possession will be homeowner's responsibility. **It is essential that you maintain the slopes around your home to permit water to drain away from the foundation. Failure to do so can result in major structural damage and will void warranty.**

Each adjacent property owner will be responsible for maintaining the surface drainage across his / her property.

### HOMEOWNER RESPONSIBILITIES

For any drain or drainage easement, whether improved, unimproved, public or private, you and the owner of the adjacent property have the responsibility for managing drainage. No filling, blocking, fencing, or above-surface vegetation planting is recommended in a drainage easement or swale. This includes but is not limited to gardens, swimming pools, sheds, garages, patios, decks, play structures, swing sets, or any other permanent structure or landscape feature that may interfere with surface drainage. Installation of any of the above is at the sole risk of the property owner and in many cases may require written approval from a government agency.

### BACKFILL SETTLEMENT

The foundation of your home is constructed beginning with an excavation into the earth. When the foundation is complete, the area surrounding it is backfilled. Soil in this area is not as compact and dense as undisturbed ground. Water can penetrate through the backfill area to the lower areas of your foundation. This can cause potentially severe problems such as cracks in the foundation walls and floor slab movement. Avoid this problem through proper installation of landscaping and good management of drainage patterns. Tolerance is 1" for driveways / sidewalks.

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

### CONCRETE

Maintenance of positive drainage away from the foundation as well as all concrete slabs and walks is the homeowner's responsibility.

**EROSION**

As the owner of a newly constructed home, you are responsible for controlling soil erosion on your land. In some instances, the home builder has been issued permit(s) by the county enforcing agency to assure the installation and completion of soil erosion measures. If we obtained a permit for this purpose, it will be transferred to you at closing. We are not responsible for weather damage to un-landscaped yards after the closing date. It is the homeowner's responsibility to make any necessary adjustments to the eroded areas prior to placing new sod or landscape.

**LANDSCAPING**

Landscaping can change the drainage pattern of your lot. Consult a professional landscape contractor in the event you desire to add more landscaping to your lot. Maintenance of the final grade to ensure proper drainage shall be the responsibility of the landscape contractor and the property owner.

**ROOF WATER**

If you have roof 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.

**SOD**

New sod installation and the extra watering that entails can cause temporary drainage problems.

**SWALES**

In many cases, drainage swales do not follow property boundaries. We will not alter drainage patterns to suit individual landscape plans. Typically, a lot receives water from and / or passes water to the street. For this reason, homeowner changes in grade often cause property damage. We advise against making such changes.

**TREES**

Trees within 3' to 5' of the foundation can damage the structural integrity of the foundation. 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.

**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, roll back the sod and spread top soil underneath to level the area, then replace the sod.

**WATERING**

Watering should be done in a uniform systematic manner as equally as possible 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 or dry periods, close observations should be made around the foundation to ensure adequate watering is being provided, preventing soil from separating or pulling back from the foundation.

### *Gutters and Downspouts*

*For warranty information, refer to Chapter 6, Section 6: Gutters and Downspouts in Warranty Measurables.*

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 draining of water from the roof, cause overflows, or clog the downspouts. It is the homeowner's responsibility to check gutters periodically to ensure proper functioning.

#### **DOWNSPOUTS**

Downspouts are placed to carry water to the ground and in extensions, which then direct the flow away from the foundation of the home.

These extensions 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.

#### **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 this may cause dents.

#### **LEAKS**

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

#### **OVERFLOW**

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

### *Irrigation Sprinklers*

Proper adjusting of irrigation sprinklers is your responsibility. Start by observing the timing, amount, and direction of the system. Adjust it to suit the needs of your irrigated areas. Do

not permit the sprinklers to spray on the structure, fence, or gates. Remember: overwatering is not only more expensive but can also damage your lawn.

### Care and Maintenance

- *Your sprinkler system must be winterized in the fall before freezing temperatures arrive. This process involves turning the system off and blowing the residual water out of the system. We recommend hiring a professional for this task.*

### Mowing and Fertilizing

The simple rule for a new lawn is to mow early and mow often. When the new grass has reached 2 to 3" in height, mow it for the first time to whatever your desired normal height would be. Then mow the grass as often as necessary, being careful not to remove more than one third of the grass blade. Mowing early and often will encourage the new grass to thicken and fill in more quickly. For fertilization, consult a lawn care professional.

### Landscaping

*For warranty information, refer to **Chapter 13: Landscaping in Warranty Measurables.***

Landscaping is an essential part of your home, not only because of the appeal it adds to the home and neighborhood, but also because un-landscaped land erodes and causes damage to your property or your neighbor's. It is your responsibility to prevent this damage by preventing the erosion that causes it, by putting permanent landscaping in place. Please note, plants, trees, shrubs and lawn sod or hydro mulch are not covered by any warranty and are the

homeowner's responsibility to maintain.

Prior to designing, installing, or changing landscaping, check with your local building department, Architectural Control Committee, or Homeowner's Association for regulations and recommendations for a landscaping contractor.

Some additional tips when planning landscaping are as follows:

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

**SOIL**

Provide good soil mixes with sufficient organic material. Use mulch at least 3" deep to hold soil moisture and to help prevent weeds and soil compaction.

In areas with high clay content, it is advisable to prepare the soil before installing your grass. First, cover the soil with 2" of sand and 1" of manure, which is usually treated and odorless. Rototill this into the soil to a depth of 6" (rototill parallel to the swales).

Whether you use seed or sod, this preparation helps your lawn retain moisture and requires less water. Installing a lawn over hard soil permits water to runoff with little or no penetration, and your lawn derives minimal benefit from watering or rain. Apply appropriate fertilizer, weed and pest controls etc. as needed for optimum growth.

Prior to the installation of patio additions or other improvements, review the soils and take soil conditions into consideration in the design or engineering of your addition.

**WOODCHIP OR ROCK BEDS**

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

# WARRANTY MEASURABLES

**Your home has a limited one-year warranty and limited two-year structural warranty. Refer to this section for performance guidelines, corrective measures, and discussion.**

## Site Work

**Observation:** *The ground has settled around the foundation, over utility trenches, or in other areas.*

### PERFORMANCE GUIDELINE

Settled ground around foundation walls, over utility trenches, or in other filled areas will not interfere with water drainage away from home.

### CORRECTIVE MEASURE

It is the Purchaser's responsibility to bring in fill and to replace shrubs, grass, other landscaping, pavement, sidewalks, or other improvements affected by placement of such fill.

**Observation:** *The property does not properly drain.*

### PERFORMANCE GUIDELINE

To ensure proper drainage within 10' around the home, the Builder will establish necessary grades and swales within the property if the work is included in the contract.

Standing water will not remain for extended periods (generally no more than 24 to 48 hours) within 10' of the home after a rain, except in swales that drain other areas or in areas where sump pumps receive discharge. In these areas a longer period can be anticipated (generally no more than 48 hours). Water may stand longer during periods of heavy rains, especially when heavy rains occur on successive days. No grading determination will be made while frost or snow is on the ground or while the ground is saturated.

### CORRECTIVE MEASURE

The Builder is responsible for initially establishing the proper grades and swales.

### DISCUSSION

Grass and other landscaping are integral components of the storm water management practice needed to minimize erosion from the property. It is the Purchaser's responsibility to maintain grass and other landscaping to help ensure the property drainage system functions properly. The Purchaser is responsible for maintaining such grades and swales once the Builder has properly established them.

**Observation:** *The property has soil erosion.*

### PERFORMANCE GUIDELINE

The Builder is not responsible for soil erosion.

**CORRECTIVE MEASURE**

No corrective action is required by the Builder. The Builder is not responsible for erosion due to acts of God, weather conditions, property alteration by the Purchaser, construction or adjacent properties, utility company's work, improper Purchaser maintenance, or other conditions beyond the Builder's control.

***Observation: Water from a nearby or adjacent property flows onto Purchaser's property.***

**PERFORMANCE GUIDELINE**

The Builder is responsible for providing a measurable means of draining water from rain, melting snow, or ice on the property and in the immediate area of the home, but the Builder is not responsible for water flowing from a nearby or adjacent property.

**CORRECTIVE MEASURE**

No corrective action is required by the Builder.

***Observation: Existing trees, shrubs, or other vegetation have been damaged in the course of construction.***

**PERFORMANCE GUIDELINE**

The Builder will make a reasonable and cost-effective effort to preserve existing landscaping as predetermined by the Builder and Purchaser, but the survival of existing landscaping cannot be guaranteed.

**CORRECTIVE MEASURE**

No corrective action is required by the Builder.

## Foundation

### *Concrete Slabs*

**Observation:** *A concrete slab within the structure has separated or moved at control (expansion and contraction) joints.*

#### PERFORMANCE GUIDELINE

Concrete slabs within the structure are designed to move at *control joints*.

#### CORRECTIVE MEASURE

Because this is a normal occurrence, no corrective action is required by the Builder.

#### DISCUSSION

Control joints are placed in concrete for the very purpose of encouraging cracking to take place at the joints instead of in random locations.

**Observation:** *The concrete floor or slab is uneven.*

#### PERFORMANCE GUIDELINE

Except where the floor or portion of the floor has been designed for specific drainage purposes, concrete floors in living areas will not have pits, depressions, or areas of unevenness exceeding 3/8" in 32". (See "Taking Measurements" in the Introduction for information on 32" levels.

#### CORRECTIVE MEASURE

The Builder will correct or repair the floor to meet the performance guideline.

#### DISCUSSION

A repair can be accomplished by leveling the surface with a material designed to repair uneven concrete.

***Observation: The concrete floor slab is cracked.***

**PERFORMANCE GUIDELINE**

Minor cracks in concrete floor slabs are normal. Cracks exceeding 1/4" in width or 1/4" in vertical displacement will be repaired if the slab is in conditioned space or the crack interferes with the installation of **finish flooring**.

**CORRECTIVE MEASURE**

The Builder will repair cracks that do not meet the performance guideline using a material designed to fill cracks in concrete.

### ***Concrete Block Basement and Crawlspace Walls***

***Observation: A concrete block basement or crawl space wall is cracked.***

**PERFORMANCE GUIDELINE**

Cracks in concrete block basement or crawl space walls will not exceed 1/4" in width.

**CORRECTIVE MEASURE**

The Builder will repair cracks to meet the performance guideline using a material designed to fill cracks in concrete.

**DISCUSSION**

Shrinkage cracks are common in concrete block masonry and should be expected in crawl space and basement walls. Cracks may be vertical, horizontal, or in stepped-in masonry joints.

***Observation: An exposed concrete wall has pits, surface voids, or similar imperfections in it.***

**PERFORMANCE GUIDELINE**

Surface imperfections larger than 1" in diameter or 1" in depth are considered excessive.

**CORRECTIVE MEASURE**

The Builder will repair imperfections that do not meet the performance guideline, using a material designed to fill holes in concrete.

**DISCUSSION**

Pits, surface voids, and similar imperfections are called "air surface voids" and are caused by air trapped between the concrete and concrete form interface. Air surface voids are not structurally significant. The technical term for larger voids is **honeycomb**.

***Observation: A poured concrete basement wall is bowed.***

**PERFORMANCE GUIDELINE**

Concrete walls will not bow in excess of 1" in 8' when measured from the base to the top of the wall.

**CORRECTIVE MEASURE**

The Builder will repair any deficiencies in excess of the performance guideline. If the wall is to remain unfinished according to contract and the wall meets building codes as evidenced by passed inspections, then no corrective action is required by the Builder.

***Observation: A poured concrete basement or crawl space wall is cracked.***

**PERFORMANCE GUIDELINE**

Cracks in poured walls will not exceed 1/4" in width.

**CORRECTIVE MEASURE**

The Builder will cosmetically repair any cracks to meet the performance guideline, using a material designed to fill cracks in concrete.

**DISCUSSION**

Shrinkage cracks and other cracks are common and are inherent in the drying process of poured concrete walls. They should be expected in these walls due to the nature of concrete. The only cracks considered under warranty claims are cracks that permit water penetration or horizontal cracks that cause a bow in the wall.

***Observation: A cold joint is visible on exposed poured concrete foundation walls.***

**PERFORMANCE GUIDELINE**

A cold joint is a visible joint that indicates where the pour terminated and continued. Cold joints are normal and should be expected to be visible. Cold joints should not be an actual separation or a crack that exceeds 1/4" in width.

**CORRECTIVE MEASURE**

The Builder will repair any cold joint to meet the performance guideline, using a material designed to fill cracks in concrete. The repair is not expected to match the original.

## Moisture and Water Penetration

### *Basement Walls and Floor*

**Observation:** *Dampness is evident on basement walls or the floor.*

#### **PERFORMANCE GUIDELINE**

The Builder is not responsible for dampness caused by condensation of water vapor on cool walls and floors. Dampness caused by moisture intrusion is unacceptable.

#### **CORRECTIVE MEASURE**

The contactor will repair to meet the performance guideline unless the Purchaser's action caused the dampness.

#### **DISCUSSION**

Excessive dampness may be caused by Purchaser action, such as changing the grade around the home or irrigation systems and is not the Builder's responsibility.

**Observation:** *Water has accumulated in the basement.*

#### **PERFORMANCE GUIDELINE**

Water will not accumulate in the basement.

#### **CORRECTIVE MEASURE**

The Builder will take such actions as are necessary to prevent water from accumulating in the basement unless Purchaser action caused the accumulation.

#### **DISCUSSION**

The Purchaser should maintain proper grade away from the dwelling.

### *Structural Columns, Post, or Piers*

***Observation: An exposed wood column is bowed or is out of plumb.***

#### **PERFORMANCE GUIDELINE**

Exposed wood columns will not bow or be out of plumb more than 3/4" in 8' at substantial completion of the project.

#### **CORRECTIVE MEASURE**

The Builder will repair any deficiencies in excess of the performance guideline.

#### **DISCUSSION**

Wood columns may become distorted as part of the drying process. Bows and other imperfections that develop after installation cannot be prevented or controlled by the Builder.

## Interior Floor Construction

### *Floor System*

**Observation:** *Springiness, bounce, shaking, or visible sag is present in the floor system.*

#### PERFORMANCE GUIDELINE

All **beams, joists, headers**, and other dimensional or manufactured structural members will be sized according to the manufacturers' specifications or applicable building codes (1/4" over 32").

#### CORRECTIVE MEASURE

The Builder will reinforce or modify, as necessary, any member of the floor system not meeting the performance guideline.

#### DISCUSSION

**Deflection** may indicate insufficient stiffness in the lumber or may reflect an aesthetic consideration independent of the strength and safety requirements of the lumber. Structural members are required to meet standards for both stiffness and strength.

### *Beams, Columns, and Posts*

**Observation:** *An exposed wood column, post, or beam is split.*

#### PERFORMANCE GUIDELINE

Sawn wood columns, posts, or beams will meet the grading standard for the species used.

#### CORRECTIVE MEASURE

The Builder will repair or replace any wood column, post, or beam that does not meet the performance guideline. Filling splits with appropriate filler is an acceptable method of repair.

#### DISCUSSION

Columns, posts, and beams will sometimes split as they dry after installation. Splitting is acceptable and is not a structural concern if the columns, posts, or beams have been sized according to manufacturer's specifications or applicable building codes. Some materials have inherent cracks or imperfections; these do not require repair.

## *Subfloor and Joists*

**Observation:** *The wood subfloor squeaks or appears loose.*

### **PERFORMANCE GUIDELINE**

Although a totally squeak-proof floor cannot be guaranteed, frequent, loud squeaks caused by improper installation or loose subflooring are deficiencies.

### **CORRECTIVE MEASURE**

The Builder will refasten any loose subfloor or take other corrective action to attempt to reduce squeaking to the extent possible within reasonable repair capability without removing floor or ceiling finishes.

### **DISCUSSION**

There are many possible causes of floor squeaks. One of the more common sources of squeaks is wood moving along the shank of a nail. Squeaking frequently occurs when lumber, floor *sheathing*, or boards move slightly when someone walks over them. Boards and floor sheathing may become loose due to shrinkage of the floor structure or subfloor as dries after installation or seasonal changes in temperature and humidity. Nails used to fasten metal connectors (**joist** hangers, tie-down straps, etc.) may cause squeaks. The nature of wood and construction methods makes it practically impossible to eliminate all squeaks during all seasons. Fastening loose subflooring with casing nails into carpet and counter sinking the head is an acceptable method of repair. Snap-off screws may also be used to refasten subflooring through the carpet.

**Observation:** *A wood subfloor is uneven.*

### **PERFORMANCE GUIDELINE**

Subfloors will not have more than a 1/4" ridge or depression within any 32" measurement. Measurements should not be made at imperfections that are characteristic of the material used. This guideline does not cover transition points between different materials.

### **CORRECTIVE MEASURE**

The Builder will correct or repair the subfloor to meet the performance guideline.

## Walls

### *Wall Framing*

***Observation: A framed wall is not plumb.***

#### **PERFORMANCE GUIDELINE**

The interior face of wood-framed walls will not be more than 3/8" out of plumb for any 32" in any vertical measurement.

#### **CORRECTIVE MEASURE**

The Builder will repair the wall to meet the performance guideline.

***Observation: The wall is bowed.***

#### **PERFORMANCE GUIDELINE**

Walls will not bow more than 3/8" out of line within any 32" horizontal measurement, or 3/8" out of line within any 8' vertical measurement.

#### **CORRECTIVE MEASURE**

The Builder will repair the wall to meet the performance guideline.

#### **DISCUSSION**

All interior and exterior walls have slight variances in their finished surface. On occasion, the underlying framing may warp, twist, or bow after installation.

### *Moisture Barriers and Flashing*

***Observation: Bulk water is penetrating around a window or door.***

#### **PERFORMANCE GUIDELINE**

Windows and doors will be installed and flashed in accordance with manufacturer's specifications and / or as required by prevailing building codes.

#### **CORRECTIVE MEASURE**

The Builder will correct to meet the performance guideline.

***Observation: An exterior wall leaks because of improper caulking installation or failure of the caulking material.***

**PERFORMANCE GUIDELINE**

Joints and cracks in exterior wall surfaces and around openings will be caulked to prevent the entry of water.

**CORRECTIVE MEASURE**

**One time only** during the warranty period, the Builder will repair or caulk joints and cracks in exterior wall surfaces, as necessary, to correct deficiencies.

***Discussion***

Even when properly installed, caulking eventually will shrink and crack. Maintenance of caulking is the Purchaser's responsibility.

***Windows and Glass***

***Observation: A window is difficult to open or close.***

**PERFORMANCE GUIDELINE**

Windows should require no greater operating force than that described in the manufacturer's specifications.

**CORRECTIVE MEASURE**

The Builder will correct or repair the window as required to meet the performance guideline.

***Observation: Window glass is broken, and a screen or window hardware is missing or damaged.***

**PERFORMANCE GUIDELINE**

Glass should not be broken, and screens and hardware should not be damaged or missing at the time of substantial completion of the project. Screens included in the original contract will be installed.

**CORRECTIVE MEASURE**

Broken glass, missing or damaged screens, or missing or damaged hardware reported to the Builder prior to substantial completion of the project will be installed or replaced. Broken glass, missing or damaged screens, or missing or damaged hardware reported after substantial completion of the project are the Purchaser's responsibility.

***Observation: Water is observed in the home around a window unit during or after the rain.***

**PERFORMANCE GUIDELINE**

Window installation will be performed in accordance with manufacturer's specifications so that water does not intrude beyond the drainage plane of the window during normal rain conditions. Windows will resist water intrusion as specified by the window manufacturer.

**CORRECTIVE MEASURE**

The Builder will correct any deficiencies attributed to improper installation. Any deficiencies attributed to the window unit's performance will be addressed by the window manufacturer's warranty.

**DISCUSSION**

Leakage at the glazing interface is covered under the manufacturer's warranty. Windows have a limited ability to resist excessive wind-driven rain but should perform according to manufacturer's specifications. The Purchaser is responsible for keeping *weep holes* clean of debris as they are designed to allow wind-driven rain to be diverted from the windowsill.

***Observation: Glass surfaces are scratched.***

**PERFORMANCE GUIDELINE**

Glass surfaces will not have scratches visible from 10' under normal lighting conditions at the time of substantial completion of the project.

**CORRECTIVE MEASURE**

The Builder will repair or replace any scratched glass surface that does not meet the performance guideline if noted prior to substantial completion of the project.

## Exterior Doors

**Observation: An exterior door is warped.**

### PERFORMANCE GUIDELINE

Exterior doors will not warp to the extent that they become inoperable or cease to be weather-resistant. A 1/4" tolerance as measured diagonally from corner to corner is acceptable.

### CORRECTIVE MEASURE

The Builder will correct or replace exterior doors that do not meet the performance guideline.

### DISCUSSION

Most exterior doors will warp to some degree due to the difference in temperature and humidity between inside and outside surfaces; 1/4" across the plane of the door measured diagonally from corner to corner is an acceptable tolerance. Warping may also be caused by improper or incomplete finishing of the door including sides, top, and bottom. The Builder is not responsible for warpage if painting of doors is not within the Builder's scope of work.

**Observation: A wooden door panel is split.**

### PERFORMANCE GUIDELINE

A split in a panel will not allow light to be visible through the door.

### CORRECTIVE MEASURE

**One time only** during the warranty period, the Builder will repair and paint or stain the split panel that does not meet the performance guideline. Caulking and fillers are acceptable.

### DISCUSSION

Wooden inserts are loosely fitted into the door to allow the inserts to move, which minimizes splitting of the panel or other damage to the door. On occasion, a panel may become "locked" by paint or expansion of the edges with changes in temperature and humidity and no longer "float" between the rails. This may result in the panel splitting. The repainted area may not blend with the remainder of the door or other doors on the home.

***Observation: An exterior door sticks or binds.***

**PERFORMANCE GUIDELINE**

Exterior doors will operate smoothly, except doors may stick during occasional periods of high humidity or with variations in temperature.

**CORRECTIVE MEASURE**

The Builder will adjust or replace the door to meet the performance guideline if the problem is caused by faulty workmanship or materials.

**DISCUSSION**

Exterior doors may warp or bind to some degree because of the difference in the temperature and / or humidity between inside and outside surfaces. The Builder is not responsible for warpage if any painting of doors was not within the Builder's scope of work. Any changes to originally installed door hardware, **weather stripping** or other door components that cause improper operation are not the Builder's responsibility.

***Observation: An exterior door will not close and latch.***

**PERFORMANCE GUIDELINE**

Exterior doors will close and latch.

**CORRECTIVE MEASURE**

**One time only** during the warranty period, the Builder will adjust the door or latching mechanism to meet the performance guideline.

**DISCUSSION**

Exterior doors may warp or bind to some degree because of the difference in the temperature, humidity, or both, between inside and outside surfaces. Latching also can be affected by natural settling. Subsequent adjustments may be necessary by the Purchaser. The Builder is not responsible for warpage if painting of doors was not within the Builder's scope of work.

***Observation: The plastic molding on the primary door behind the storm door melts from exposure to sunlight.***

**PERFORMANCE GUIDELINE**

It is a common occurrence for the plastic molding behind storm doors to melt.

**CORRECTIVE MEASURE**

No corrective action is required by the Builder.

**DISCUSSION**

Because of melting, we don't recommend storm doors. Plastic moldings may melt or deform if exterior door is covered by a storm door during a warm season, or if it faces the sun. This is not a defect of the door, but a problem caused by the trapping of heat between the primary door and storm door. The storm door should be removed and reinstalled by the Purchaser as part of normal seasonal maintenance (i.e., removed in the spring and reinstalled in the fall). The Purchaser is also cautioned to follow the manufacturer's recommendations on painting the moldings. Dark colors will tend to absorb more heat.

***Observation: The reveal around an exterior door edge, doorjamb, and / or threshold is uneven.***

**PERFORMANCE GUIDELINE**

Gaps between adjacent components will not vary by more than 1/4" along each side of the door.

**CORRECTIVE MEASURE**

The Builder will repair existing unit to meet performance guideline.

**DISCUSSION**

Doors must have gaps at their perimeter to accommodate expansion / contraction due to variations in temperature and / or humidity and to enable the door to operate over a wide range of environmental conditions.

***Observation: Air movement or light is observed around a closed exterior door.***

**PERFORMANCE GUIDELINE**

Weather stripping will be installed and sized properly to seal the exterior door when closed in order to prevent excessive air infiltration.

**CORRECTIVE MEASURE**

The Builder will adjust exterior door unit or weather stripping to meet performance guideline.

**DISCUSSION**

Doors must have gaps at their perimeter to accommodate expansion / contraction due to variations in temperature and / or humidity and to enable the door to operate over a wide range of environmental conditions. Weather stripping seals the gaps required for proper operations to prevent excessive air filtration. At times of high wind or temperature differentials inside of home and outside, there may be noticeable air movement around a

closed door's perimeter. A small glimmer of light seen at the corners of the door unit is normal. Weather stripping should be kept cleaned and maintained by the Purchaser.

***Observation: A sliding patio door or screen will not stay on track.***

**PERFORMANCE GUIDELINE**

Sliding patio doors and screens will slide properly on their tracks at the time of substantial completion of the project. The cleaning and maintenance necessary to preserve proper operation are Purchaser responsibilities.

**CORRECTIVE MEASURE**

**One time only** during the warranty period, the Builder will adjust the door or screen.

**DISCUSSION**

Proper operation should be verified by the Purchaser and the Builder at the time of substantial completion of the project.

***Observation: A sliding patio door does not roll smoothly.***

**PERFORMANCE GUIDELINE**

Sliding patio doors will roll smoothly at the time of substantial completion of the project. The cleaning and maintenance necessary to preserve proper operation are Purchaser responsibilities.

**CORRECTIVE MEASURE**

**One time only** during the warranty period, the Builder will adjust the door.

**DISCUSSION**

Proper operation should be verified by the Purchaser and the Builder at the time of substantial completion of the project.

***Observation: A doorknob, deadbolt, or lockset does not operate smoothly.***

**PERFORMANCE GUIDELINE**

A doorknob, deadbolt, or lockset should not stick or bind during operation.

**CORRECTIVE MEASURE**

The Builder will adjust, repair, or replace knobs that are not damaged by the Purchaser.

**DISCUSSION**

Locksets may feel heavy or stiff but are operating as intended by the manufacturer.

## Exterior Finish

### *Wood and Wood Composite Siding*

***Observation: An edge or gap is visible between adjacent pieces of siding or siding panels and other materials.***

#### **PERFORMANCE GUIDELINE**

Gaps wider than 1/4" are considered excessive, unless the siding is installed as prescribed by the manufacturer's instructions.

#### **CORRECTIVE MEASURE**

The Builder will repair gaps that do not meet the performance guideline.

#### **DISCUSSION**

Proper repair can be completed by providing joint covers or by caulking the gap. This is important if the gaps were unintentionally made for expansion joints. If the siding is painted, the Builder will paint the new caulking to match the existing siding as closely as practical, but an exact match cannot be achieved.

***Observation: Siding is not parallel with the course above or below.***

#### **PERFORMANCE GUIDELINE**

A piece of siding may not be more than 1/2" off parallel with contiguous courses in any 20' measurement.

#### **CORRECTIVE MEASURE**

The Builder will reinstall siding to meet the performance guideline for straightness and will replace with new siding any siding damaged during removal.

***Observation: Face nails have been driven below the surface of wood composite siding.***

#### **PERFORMANCE GUIDELINE**

Siding nails will be driven in accordance with the manufacturer's installation instructions.

#### **CORRECTIVE MEASURE**

The Builder will repair as necessary to meet the performance guideline by filling with appropriate filler. Touch-up paint may not match the surrounding area.

***Observation: Siding boards have buckled, warped, or cupped.***

**PERFORMANCE GUIDELINE**

Boards that project more than 1/4" in 5 1/2" are considered excessive. Corrective Measure: The Builder will repair or replace any boards that do not meet the performance guideline.

**DISCUSSION**

Buckling, warping, or cupping is caused by wood expanding as a result of increased temperature, relative humidity, or both.

***Observation: Siding boards have split.***

**PERFORMANCE GUIDELINE**

Splits wider than 1/8" and longer than 1" are considered excessive.

**CORRECTIVE MEASURE**

The Builder will repair siding boards that do not meet the performance guideline by filling with appropriate filler. Touch-up paint may not match the surrounding area.

***Observation: Wood siding, shakes, or shingles have bled through paint or stain applied by the Builder.***

**PERFORMANCE GUIDELINE**

Resins and extractives **bleeding** through paint or stain, or blackening of siding, shakes, or shingles is considered normal, and is especially noticeable if natural weathering, white paint, or semitransparent stain is specified for the project.

**CORRECTIVE MEASURE**

No corrective action is required by the Builder.

***Observation: Siding has delaminated.***

**PERFORMANCE GUIDELINE**

Siding should not delaminate.

**CORRECTIVE MEASURE**

Delaminating of siding is covered under the manufacturer's warranty, unless the delaminating was caused by the Purchaser's actions or negligence. The Purchaser should contact the manufacturer for warranty coverage.

***Observation: Nail stains are visible on siding or ceiling boards.***

**PERFORMANCE GUIDELINE**

Stains exceeding 1/2" from the nail which are readily visible from a distance of more than 20' are considered excessive.

**CORRECTIVE MEASURE**

The Builder will remove stains that do not meet the performance guideline.

**DISCUSSION**

Stains can be caused by oxidation of nails or leaching of extractives from the wood. Use of galvanized nails (even double hot dipped) will not necessarily prevent staining.

### *Aluminum or Vinyl Siding*

***Observation: Aluminum or vinyl siding is bowed or wavy.***

**PERFORMANCE GUIDELINE**

Some waviness in aluminum or vinyl siding is expected. Waves or similar distortions in aluminum or vinyl lap siding are considered excessive only if they exceed 1/2" in 32".

**CORRECTIVE MEASURE**

The Builder will correct any waves or distortions to comply with the performance guideline by reinstalling or replacing siding as necessary.

***Observation: Siding is faded.***

**PERFORMANCE GUIDELINE**

Any color siding, when exposed to the ultraviolet rays of the sun, will fade. Fading cannot be prevented by the Builder. However, panels installed on the same wall and under the same conditions will fade at the same rate.

**CORRECTIVE MEASURE**

No corrective action is required by the Builder. The Purchaser should contact the siding manufacturer for issues with inconsistent fading.

**DISCUSSION**

Color warranties are provided by the siding manufacturer. The Purchaser should contact the manufacturer with questions or claims regarding changes in color of vinyl or aluminum siding. Color and fade imperfections beyond an expected degree may be covered by the manufacturer's warranty, except where siding is shaded differently from the rest of the wall, such as under shutters or behind vegetation.

***Observation: Aluminum or vinyl siding trim is loose.***

**PERFORMANCE GUIDELINE**

Any piece of aluminum or vinyl siding more than 1/2" off parallel in 20' with a break such as an **eave** or wall opening is considered excessive.

**CORRECTIVE MEASURE**

The Builder will reinstall siding to comply with the performance guideline and will replace with new siding any siding damaged during removal.

***Observation: Nail heads show in aluminum or vinyl siding.***

**PERFORMANCE GUIDELINE**

No nail heads in the field of the siding will be exposed.

**CORRECTIVE MEASURE**

The Builder will install trim as necessary to cover the nails and will install proper trim accessories to avoid face nailing.

**DISCUSSION**

Vinyl siding generally should not be face nailed. However, there are appropriate and typical occasions when a single face nail may be needed to reinforce a joint or fasten the siding to the wall when it is cut to fit around window frames, doors, roofs, or other obstructions on the wall.

In most cases (the only exception would be the top piece on a gable end), vinyl siding should not be face nailed when proper accessory products are used. For example, under a window application the Builder can use the J-channel trim and utility trim, and snap punch the top of the vinyl siding. If face nailing is the only option, the Builder should predrill a 1/8" diameter hole to allow for expansion and contraction.

***Observation: Aluminum or vinyl siding trim accessory is loose from caulking at windows or other wall openings during the warranty period.***

**PERFORMANCE GUIDELINE**

Siding trim accessories will not separate from caulking at windows or other wall openings during the warranty period.

**CORRECTIVE MEASURE**

**One time only** during the warranty period, the Builder will repair or re-caulk, as necessary, to eliminate separation.

***Observation: Aluminum or vinyl siding is cut unevenly.***

**PERFORMANCE GUIDELINE**

Gaps will comply with the manufacturer's guidelines.

**CORRECTIVE MEASURE**

The Builder will ensure that the appropriate trim / accessory is installed to eliminate potentially revealing site cuts. If cuts in siding panels are so uneven that they are not concealed by trim, the panel will be replaced.

**DISCUSSION**

Cut edges of vinyl siding should never be visible when proper trim and accessories are used.

***Observation: Aluminum or vinyl siding is not correctly spaced from the moldings.***

**PERFORMANCE GUIDELINE**

Prescribed spacing between siding and accessory trim is typically 1/4" or should comply with the manufacturer's installed instructions.

**CORRECTIVE MEASURE**

The Builder will correct the spacing to meet the performance guideline.

## *Masonry and Veneer*

***Observation: A masonry or veneer wall or mortar joint is cracked.***

### **PERFORMANCE GUIDELINE**

Cracks visible from distances in excess of 20' or larger than 1/4" in width are not acceptable.

### **CORRECTIVE MEASURE**

The Builder will repair cracks in excess of the performance guideline by tuck pointing, patching, or painting, as deemed most appropriate by the Builder. The Builder will not be responsible for color variation between the original and new mortar or between the brick or stone and the pointing material.

### **DISCUSSION**

Hairline cracks resulting from shrinkage and cracks due to minor settlement are common in masonry or veneer walls and mortar joints and do not necessarily represent a defect.

***Observation: Cut bricks below openings in masonry walls are of different thickness.***

### **PERFORMANCE GUIDELINE**

Cut bricks used in the course directly below an opening will not vary from one another in thickness by more than 1/4". The smallest dimension of a cut brick should be greater than 1".

### **CORRECTIVE MEASURE**

The Builder will repair the wall to meet the performance guideline.

### **DISCUSSION**

Bricks are cut to achieve required dimensions at openings and ends of walls when it is not possible match unit / mortar coursing. An exact match of brick and mortar after a repair cannot be guaranteed.

***Observation: Brick course is not straight.***

**PERFORMANCE GUIDELINE**

No point along the bottom of any course will be more than 1/4" higher or lower than any other point within 10' along the bottom of the same course, or 1/2" in any length.

**CORRECTIVE MEASURE**

The Builder will rebuild the wall as necessary to meet the performance guideline.

**DISCUSSION**

Dimensional variations of the courses depend upon the variations in the brick selected. An exact match of brick and mortar after a repair cannot be guaranteed.

***Observation: Brick veneer is spalling.***

**PERFORMANCE GUIDELINE**

Spalling of newly manufactured brick should not occur and is considered excessive.

**CORRECTIVE MEASURE**

Defective brick is covered by the manufacturer's warranty. No corrective action is required by the Builder.

***Observation: Mortar stains are observed on exterior brick or stone.***

**PERFORMANCE GUIDELINE**

Exterior brick and stone will be free from mortar stains detracting from the appearance of the finished wall when viewed from a distance of 20'.

**CORRECTIVE MEASURE**

The Builder will clean the mortar stains to meet the performance guideline.

***Observation: Efflorescence is present on the surface of masonry or mortar.***

**PERFORMANCE GUIDELINE**

This is a common condition caused by moisture reacting with the soluble salts in the mortar.

**CORRECTIVE MEASURE**

No corrective action is required by the Builder.

**DISCUSSION**

Efflorescence is evidenced by the presence of a white film on the surface of masonry or mortar. It is a particularly common occurrence where masonry or concrete are in contact with high moisture levels because masonry products absorb and retain moisture.

***Observation: There is water damage to interior walls as a result of a leak in the exterior brick or stone.***

**PERFORMANCE GUIDELINE**

Exterior brick and stone walls should be constructed and flashed according to the prevailing building code to prevent water penetration to the interior of the structure under normal weather conditions.

**CORRECTIVE MEASURE**

The Builder will repair the wall to meet the guideline, unless the water damage resulted from factors beyond the Builder's control.

**DISCUSSION**

Water penetration resulting from external factors such as extreme weather conditions of sprinkler systems are not the Builder's responsibility.

### ***Exterior Trim***

***Observation: Gaps show in exterior trim.***

**PERFORMANCE GUIDELINE**

Joints between exterior trim elements, including siding and masonry, will not be wider than 1/4". In all cases, the exterior trim will perform its function of excluding the elements.

**CORRECTIVE MEASURE**

The Builder will repair open joints that do not meet the performance guideline. Caulking is an acceptable repair.

***Observation: Exterior trim board is split.*****PERFORMANCE GUIDELINE**

Splits wider than 1/8" and longer than 1" are considered excessive.

**CORRECTIVE MEASURE**

The Builder will repair splits by filling with durable filler. Touch-up painting may not match the surrounding area.

***Observation: Exterior trim board is bowed or twisted.*****PERFORMANCE GUIDELINE**

Bows and twists exceeding 3/8" in 8' are considered excessive.

**CORRECTIVE MEASURE**

The Builder will repair defects that do not meet the performance guideline by refastening or replacing deformed boards. Touch-up painting may not match the surrounding area.

***Observation: Exterior trim board is cupped.*****PERFORMANCE GUIDELINE**

Cups exceeding 1/4" in 5 1/2" are considered excessive.

**CORRECTIVE MEASURE**

The Builder will repair defects that do not meet the performance guideline by refastening or replacing cupped boards. Touch-up painting may not match the surrounding area.

## *Paint, Stain, and Varnish*

***Observation: Exterior painting, staining, or refinishing required because of Builder repair work does not match existing exterior finish.***

### **PERFORMANCE GUIDELINE**

Repairs required under these performance guidelines **will be finished to match the immediate surrounding areas as closely as practical** when viewed under normal lighting conditions from a **distance of 20'**.

### **DISCUSSION**

Touch-up painting, staining, or refinishing may not match the surrounding area exactly in color or sheen because the original coating may have been exposed to sunlight, pollution, weather, and other conditions over a period of time.

***Observation: Exterior paint or stain has peeled or flaked.***

### **PERFORMANCE GUIDELINE**

Exterior paints and stains will not peel or flake during the first year.

### **CORRECTIVE MEASURE**

If exterior paint or stain has peeled, developed an alligator pattern, or blistered, the Builder will properly prepare and refinish the affected areas and match their color as closely as practical. Where deterioration of the finish affects more than 50% of the piece of trim or wall area, the Builder will refinish the affected component.

***Observation: Exterior paint or stain has faded.***

### **PERFORMANCE GUIDELINE**

Fading of exterior paints and stains is common. The degree of fading depends on environmental conditions.

### **CORRECTIVE MEASURE**

Because fading is a common occurrence in paint and stains, no corrective action is required by the Builder.

***Observation: There is paint or stain overspray on surfaces not intended for paint or stain.***

**PERFORMANCE GUIDELINE**

Paint or stain overspray on surfaces not intended for paint or stain that is visible at a distance of 6' under normal natural lighting conditions is not acceptable.

**CORRECTIVE MEASURE**

The Builder will clean the affected surfaces without damaging the surface

## Roof

### *Roof Structure*

***Observation: A rafter or ceiling joist bows (up or down).***

#### **PERFORMANCE GUIDELINE**

Bows greater than 1" in 8' are excessive.

#### **CORRECTIVE MEASURE**

The Builder will repair the affected rafters or joists that bow in excess of the performance guideline.

***Observation: Roof trusses have deflected.***

#### **PERFORMANCE GUIDELINE**

All roof trusses and other manufactured structural roof components in the roof system will be sized according to the manufacturer's specifications and prevailing business codes.

#### **CORRECTIVE MEASURE**

The Builder will reinforce or modify as necessary any roof truss or other manufactured structural roof components in the roof system that do not meet the performance guideline.

#### **DISCUSSION**

Deflection is a normal condition that is considered as part of the engineering design of the roof trusses and other manufactured structural roof components. Deflection may be an aesthetic consideration independent of the strength and safety requirements of the product.

***Observation: Roof trusses have lifted from the adjoining interior walls.***

**PERFORMANCE GUIDELINE**

Moisture differences between the upper chord and lower chord (unheated versus adjacent interior heated spaces) may cause the lower chords to move. Deflection is a normal condition that is considered as part of the engineering design of the roof trusses.

**CORRECTIVE MEASURE**

No corrective action is required by the Builder.

**DISCUSSION**

Truss uplift (deflection) is an aesthetic consideration and is independent of the strength and safety requirements of the truss. This situation will be more prevalent in the winter due to greater variance in moisture, temperature and snow load in some regions.

### ***Roof Sheathing***

***Observation: Roof sheathing is wavy or appears bowed.***

**PERFORMANCE GUIDELINE**

Roof sheathing will not bow more than 1/2" in 2'.

**CORRECTIVE MEASURE**

The Builder will straighten bowed roof sheathing as necessary to meet the performance guideline.

**DISCUSSION**

In rare instances, the Builder may install *blocking* between the framing members to straighten the sheathing. Under certain viewing conditions and light, minor irregularities in the roof may be observed. This may be particularly apparent on truss framing with **asphalt** shingles.

***Observation: Nails or staples are visible through sheathing at overhangs.***

**PERFORMANCE GUIDELINE**

The length of nails and staples used to secure roofing materials is determined by the manufacturer's installation instructions.

**CORRECTIVE MEASURE**

No corrective action is required by the Builder.

**DISCUSSION**

Nails and staples may protrude through sheathing at overhangs. Their appearance is only an aesthetic concern.

### *Roof Vents*

***Observation: An attic vent or louver leaks.***

**PERFORMANCE GUIDELINES**

Attic vents and louvers should not leak. Infiltration of wind-driven rain and snow are not considered leaks and are beyond the Builder's control.

**CORRECTIVE MEASURE**

The Builder will repair or replace the roof vents as necessary to meet the performance guideline.

***Observation: Attic ventilation is insufficient.***

**PERFORMANCE GUIDELINE**

The total roof vent area will meet the requirements of the prevailing building codes.

**CORRECTIVE MEASURE**

The Builder will correct roof ventilation as necessary to meet the performance guideline.

**DISCUSSION**

Attic ventilation can be provided in a variety of ways and proper ventilation is a calculation of total ventilation that may be obtained through ridge vents, soffit vents, gable vents, attic fans or any combination thereof. Some attics are sealed or finished as conditioned space and do not require outside ventilation. It is the Purchaser's responsibility to keep the vent locations free from obstructions.

## Roof Coverings

**NOTE:** *There are many kinds of roofing products. For the purpose of the following performance guidelines, regardless of the actual material used, the term “shingle” will be used to refer to all types of roof coverings.*

**Observation:** *The roof or flashing leaks.*

### PERFORMANCE GUIDELINE

Roofs and flashing will not leak under normal conditions.

### CORRECTIVE MEASURE

The Builder will repair any verified roof or flashing leaks not caused by ice buildup, leaves, debris, abnormal weather conditions, or the Purchaser’s actions or negligence.

### DISCUSSION

It is the Purchaser’s responsibility to keep the roof drains, gutters, and **downspouts** free of ice and debris.

**Observation:** *Ice builds up on the roof.*

### PERFORMANCE GUIDELINE

During prolonged cold spells ice is likely to build up on a roof, especially at the eaves. This condition can occur naturally when snow and ice accumulate.

### CORRECTIVE MEASURE

No corrective action is required by the Builder.

### DISCUSSION

Prevention of ice buildup on the roof is a Purchaser maintenance item.

***Observation: Shingles have blown off.*****PERFORMANCE GUIDELINE**

Shingles will be installed according to the manufacturer's installation instructions and perform in accordance with the manufacturer's warranty.

**CORRECTIVE MEASURE**

If shingles were not installed per manufacturer's installation instructions, the Builder will repair or replace shingles in the damaged area.

**DISCUSSION**

Correctly installed shingles are covered by the manufacturer's warranty. Shingles may blow off during wind events in excess of the manufacturer's design and installation instructions. Replacement shingles may not match existing shingles.

***Observation: Shingles are not horizontally aligned.*****PERFORMANCE GUIDELINE**

Shingles should be installed according to the manufacturer's instructions.

**CORRECTIVE MEASURE**

The Builder will remove shingles that do not meet the performance guideline and will repair or replace them with new shingles that are properly aligned.

**DISCUSSION**

The bottom edge of dimensional shingles may be irregular; the irregularity is an inherent part of the design. Replacement shingles may not match existing shingles.

***Observation: Asphalt shingle edges or corners are curled or cupped.*****PERFORMANCE GUIDELINE**

Asphalt shingle edges and corners will not curl or cup. These conditions are a manufacturer's warranty issue.

**CORRECTIVE MEASURE**

No corrective action is required by the Builder. Excessive curling or cupping is covered under the manufacturer's warranty.

***Observation: Asphalt shingles do not overhang the edges of the roof, or they hang too far over the edges of the roof.***

**PERFORMANCE GUIDELINE**

Asphalt shingles will overhang roof edges by not less than 1/4" and not more than 3/4" unless the manufacturer's instructions indicate otherwise.

**CORRECTIVE MEASURE**

The Builder will reposition or replace shingles as necessary to meet the performance guideline.

***Observation: Shading or a shadowing pattern is observed on a new shingle roof.***

**PERFORMANCE GUIDELINE**

Shading or shadowing differences may occur on a new roof.

**CORRECTIVE MEASURE**

No corrective action is required by the Builder.

***Observation: Asphalt shingles have developed surface buckling.***

**PERFORMANCE GUIDELINE**

Asphalt shingle surfaces need not be perfectly flat. However, buckling higher than 1/4" is considered excessive.

**CORRECTIVE MEASURE**

Builder will repair / replace affected shingles to meet performance guideline.

**DISCUSSION**

Replacement shingles may not match existing shingles.

***Observation: Sheathing nails have loosened from framing and raised the shingles.***

**PERFORMANCE GUIDELINE**

Nails will not loosen from roof sheathing enough to raise shingles from surface.

**CORRECTIVE MEASURE**

The Builder will repair all areas as necessary to meet the performance guideline.

**DISCUSSION**

It is not uncommon for nails to withdraw from the framing because of temperature variations. The Builder can re-drive or remove and replace fasteners that withdraw from the framing. Any resulting holes should be sealed, or the shingle should be replaced. Purchaser is advised that replacement shingles may not match existing shingles.

***Observation: Roofing nails or fasteners are exposed at the ridge or hip of a roof.***

**PERFORMANCE GUIDELINE**

Nails and fasteners will not be exposed.

**CORRECTIVE MEASURE**

The Builder will seal and / or repair areas to meet the performance guideline.

***Observation: Holes from construction activities are found on the roof surface.***

**PERFORMANCE GUIDELINE**

Holes from construction activities will be flashed or sealed to prevent leaks.

**CORRECTIVE MEASURE**

The Builder will repair or replace the affected shingles to meet the performance guideline.

## *Chimney*

***Observation: New chimney flashing leaks.***

### **PERFORMANCE GUIDELINE**

New chimney flashing will not leak under normal conditions.

### **CORRECTIVE MEASURE**

The Builder will repair leaks in new chimney flashing that are not caused by ice buildup or by the Purchaser's actions or negligence.

### **DISCUSSION**

The accumulation of ice and snow on the roof is a natural occurrence and cannot be prevented by the Builder.

***Observation: The gutter overflows during a heavy rain.***

### **PERFORMANCE GUIDELINE**

Gutters can overflow during a heavy rain.

### **CORRECTIVE MEASURE**

The Builder will repair the gutter if it overflows during normal rains.

### **DISCUSSION**

Gutters may overflow during a heavy rain. The Purchaser is responsible for keeping gutters and downspouts free from debris that could cause overflow.

***Observation: Water remains in the gutter after a rain.***

### **PERFORMANCE GUIDELINE**

The water level will not exceed 1/2" in depth if the gutter is unobstructed by ice, snow, or debris.

### **CORRECTIVE MEASURE**

The Builder will repair the gutter to meet the performance guideline.

### **DISCUSSION**

The Purchaser is responsible for maintaining gutters and downspouts and keeping them unobstructed. Contractors install residential gutters with minimal slop in order to maintain an attractive appearance. Installing gutters with 1/32" drop in 1' generally will prevent water from standing in the gutters. Even so, small amounts of water may remain in some sections

of the gutter for a time after a rain. In areas with heavy rainfall and / or ice buildup, a steeper **pitch** or additional downspouts may be desirable.

### *Skylights*

***Observation: A skylight leaks.***

#### **PERFORMANCE GUIDELINE**

Skylights will be installed in accordance with the manufacturer's instructions. Leaks resulting from improper installation are considered excessive.

#### **CORRECTIVE MEASURE**

The Builder will repair any improperly installed skylight to meet the performance guideline.

#### **DISCUSSION**

Condensation on interior surfaces is not a leak.

# Plumbing

## *Water Supply System*

**Observation:** *A pipe, valve or fitting leaks.*

### PERFORMANCE GUIDELINE

No leaks of any kind should exist in any water pipe, valve, or fitting.

### CORRECTIVE MEASURE

The plumbing contractor will make repairs to eliminate leakage.

**Observation:** *Condensation is observed on pipes, fixtures, and plumbing supply lines.*

### PERFORMANCE GUIDELINE

Condensation on pipes, fixtures, and plumbing supply lines may occur at certain temperatures and indoor humidity levels.

### CORRECTIVE MEASURE

The Purchaser is responsible for controlling humidity in the house. No corrective action is required by the Builder.

### DISCUSSION

The Purchaser may insulate pipes and supply lines.

**Observation:** *Water in a plumbing pipe freezes and the pipe bursts.*

### PERFORMANCE GUIDELINE

Drain, waste, vent, and water pipes will be adequately protected to reduce the possibility of freezing at the design temperatures and based on the prevailing building or plumbing code.

### CORRECTIVE MEASURE

The Builder will correct situations not meeting the applicable code.

### DISCUSSION

The Purchaser is responsible for draining or otherwise protecting pipes and exterior faucets exposed to freezing temperatures.

***Observation: A water pipe is noisy.***

**PERFORMANCE GUIDELINE**

Because of the flow of water and pipe expansion / contraction, the water piping system will emit some noise. However, the pipes should not make the pounding noise called **water hammer**.

**CORRECTIVE MEASURE**

The Builder cannot eliminate all noises caused by water flow and pipe expansion / contraction. However, the Builder will provide the water hammer protection required by the prevailing plumbing code.

***Plumbing Fixtures***

***Observation: Faucet leaks.***

**PERFORMANCE GUIDELINE**

A faucet will not leak as a result of defects in the material or workmanship.

**CORRECTIVE MEASURE**

The Builder will repair or replace the leaking faucet if the Builder provided the fixture. If the problem is the result of a manufacturing defect, the manufacturer's warranty is in effect.

***Observation: The bathtub or shower leaks.***

**PERFORMANCE GUIDELINE**

Bathtubs and showers should not leak.

**CORRECTIVE MEASURE**

The Builder will repair bathtub or shower leaks as necessary to meet the performance guideline.

**DISCUSSION**

Proper repair can be achieved by sealing areas around bathtubs and showers. The Purchaser is responsible for maintaining caulk seals after the point of substantial completion of the project.

***Observation: A plumbing fixture, appliance, or trim fitting is defective.***

**PERFORMANCE GUIDELINE**

Plumbing fixtures, appliances, and trim fittings will not be defective at the time of substantial completion of the project.

**CORRECTIVE MEASURE**

Defective trim fittings, appliances, and fixtures are covered under the manufacturer's warranty. No corrective action is required by the Builder.

***Observation: The surface of a plumbing fixture is cracked or chipped.***

**PERFORMANCE GUIDELINE**

Cracks and chips in surfaces of showers, bathtubs, and sinks are considered excessive if they are visible from 3' in normal lighting conditions at the time of substantial completion of the project.

**CORRECTIVE MEASURE**

The Builder will inspect and, if necessary, repair any fixture that does not meet the performance guideline. The Builder is not responsible for repairs unless the damage is reported to the Builder prior to substantial completion of the project. If the problem is the result of a manufacturing defect, the manufacturer's warranty is in effect.

***Observation: A vanity top with an integrated sink is cracked.***

**PERFORMANCE GUIDELINE**

Vanity tops should not have cracks.

**CORRECTIVE MEASURE**

The Builder will repair or replace the vanity top to meet the performance guideline. Cracks must be noted prior to substantial completion of the project.

***Observation: A plumbing fixture does not deliver hot water.***

**PERFORMANCE GUIDELINE**

The plumbing lines and fixtures should be correctly installed and operating to allow fixtures to deliver hot water at a temperature that is similar to the temperature as it leaves the hot water source, given the normal heat loss from delivery from the source to the fixture.

**CORRECTIVE MEASURE**

The Builder will correct the plumbing lines and / or adjust fixtures to meet the performance guideline.

**DISCUSSION**

Hot water tanks or tankless water heaters are sometimes set at low temperatures to conserve energy and prevent young children from burning themselves. Likewise, some fixtures include safety devices to prevent scalding and may restrict the fixtures' ability to deliver water as hot as some Purchasers may desire. The timing of delivery can also be affected by the distance of a fixture from the hot water source.

***Sanitary Sewer or Septic System***

***Observation: Wastewater fixtures and pipes are clogged, frequently clog, or drain slowly.***

**PERFORMANCE GUIDELINE**

Sewers, fixtures, and drains will drain as designed.

**CORRECTIVE MEASURE**

If a problem occurs, the Purchaser should consult the Builder for corrective action. The Builder will correct problems caused by improper installation. If Purchaser action or negligence caused the problem, the Purchaser is responsible for the necessary repairs.

***Observation: The septic system does not operate as designed.***

**PERFORMANCE GUIDELINE**

The septic system will function as designed and specified by the local authority.

**CORRECTIVE MEASURE**

If a problem occurs, the Purchaser should consult the Builder for corrective action. The Builder will correct problems caused by improper installation. If Purchaser action or negligence is the cause, the Purchaser is responsible for correcting the problem.

**DISCUSSION**

Purchaser actions for which the Purchaser is responsible under this performance guideline include but are not limited to the following:

6. Connection of sump pump, roof drains, or backwash from a water conditioner into the system.
7. Placement of non-biodegradable items into the system.
8. Use of a food waste disposer not supplied or approved by the Builder.
9. Placement of surfaces not permeable to water over the disposal area of the system.
10. Allowing vehicles to drive or park over the disposal area of the system.
11. Failure to pump out the septic tank periodically, as required.
12. Use that exceeds the system's design standards.
13. Lack of vegetation maintenance over drain fields.
14. Allowing water to pond over the disposal area.
15. Use of flushable wipes.

## Electrical

### *Fuses and Circuit Breakers*

***Observation: A ground fault circuit interrupter (GFCI) or arc fault circuit interrupter (AFCI) trips frequently.***

#### **PERFORMANCE GUIDELINE**

GFCIs and AFCIs should perform as intended and will be installed in accordance with applicable electrical codes.

#### **CORRECTIVE MEASURES**

The Builder will install ground fault and arc fault circuit interrupters in accordance with the prevailing electrical codes. Tripping is to be expected; however, the Builder will repair or replace components that frequently trip due to component failure or incorrect installation.

#### **DISCUSSION**

AFCIs are installed to protect bedroom **circuits** and some other habitable areas of a residence. GFCIs protect outlets in wet areas (e.g., bathrooms, kitchens, garages, exterior, etc.). Because outlets protected by GFCIs may be connected in a series, it may not be readily apparent that an inoperative convenience outlet is the result of a tripped GFCI in another room (not necessarily in the electrical panel). Both ground fault and arc fault circuit interrupters are very sensitive devices and Purchasers occasionally will experience nuisance tripping. The most common causes of nuisance tripping by AFCIs are damaged cords or plugs on Purchasers' lamps, small appliances, or other devices. Some newer vacuum cleaners and exercise equipment will not work on an AFCI-protected circuit. Static electricity also may cause nuisance tripping of circuit interrupters.

***Observation: A fuse blows, or a circuit breaker trips (non-GFCI or AFCI breakers).***

**PERFORMANCE GUIDELINES**

Fuses and circuit breakers will not be tripped by normal usage.

**CORRECTIVE MEASURE**

The Builder will check wiring, circuits, and components for conformity with applicable electrical code requirements. The Builder will correct noncompliant elements.

**DISCUSSION**

Blown fuses and tripped breakers are symptoms of a problem in some part of the home's electrical system or a Purchaser product connected to the system. Although components may be defective, Purchaser-owned fixtures and appliances usually are responsible for electrical malfunctions and nuisance tripping. The Purchaser should unplug or disconnect fixtures and appliances on the circuit and then replace the fuse or reset the breaker. If the problem recurs, the Purchaser should notify the Builder.

### *Outlets and Fixtures*

***Observation: Electrical outlets, switches, or fixtures malfunction.***

**PERFORMANCE GUIDELINE**

All electrical outlets, switches, and fixtures should operate as designed.

**CORRECTIVE MEASURE**

The Builder will repair or replace malfunctioning electrical outlets, switches, and fixtures if they were supplied and installed by the Builder.

***Observation: A light fixture is tarnished.***

**PERFORMANCE GUIDELINE**

Finishes on light fixtures may be covered under the manufacturer's warranty.

**CORRECTIVE MEASURE**

No corrective action is required by the Builder. The Purchaser should contact the manufacturer.

***Observation: Receptacle or switch covers protrude from the wall.***

**PERFORMANCE GUIDELINE**

Receptacle or switch covers should not protrude more than 1/16" from the wall.

**CORRECTIVE MEASURE**

The Builder will adjust the covers to meet the performance guideline.

**DISCUSSION**

Some textured wall finishes may not allow a cover to be installed flush.

***Observation: The Purchaser's 220-volt appliance plug does not fit the outlet provided by the Builder.***

**PERFORMANCE GUIDELINE**

The Builder will install electrical outlets required by the prevailing electrical code.

**CORRECTIVE MEASURE**

No corrective action is required by the Builder.

**DISCUSSION**

The Purchaser is responsible for obtaining an appliance plug that fits the outlets the Builder is required to provide.

***Observation: Low-voltage lighting should operate as desired.***

**CORRECTIVE MEASURE**

The Builder will repair or replace malfunctioning low-voltage fixtures if they were supplied and installed by the Builder.

**DISCUSSION**

Low-voltage transformers are sized according to the fixtures that are installed on a circuit. The transformers must have sufficient ventilation around them. Purchasers who add fixtures or change the wattage in fixtures after the circuit is designed and installed may cause the transformer to be undersized for a particular application.

***Observation: Ceiling fan vibrates excessively and / or is noisy.***

**PERFORMANCE GUIDELINE**

The Builder will install ceiling fans in accordance with the manufacturer's instructions (including blade balances).

**CORRECTIVE MEASURE**

The Builder will correct any fan installation not in accordance with the performance guideline if the fan was supplied and installed by the Builder.

**DISCUSSION**

There are varying levels of performance for ceiling fans and some noise or vibration may be inherent in the specific fan installed.

***Observation: A smoke or carbon monoxide detector chirps or otherwise malfunctions.***

**PERFORMANCE GUIDELINE**

Detectors should operate as designed at substantial completion of the project.

**CORRECTIVE MEASURE**

The Builder will repair or replace the smoke or carbon monoxide detector. If chirping is caused by low batteries, it is the Purchaser's responsibility to replace the detector's batteries.

**DISCUSSION**

Most smoke or carbon monoxide detectors are powered by both the electrical power and a backup battery. Chirping may indicate that the battery is weak or is not installed. If the chirping occurs on a new detector, the Builder will check the battery, verify that the detector is wired correctly, and replace the device if necessary. Safety officials recommend that Purchasers change the batteries in detectors semiannually when daylight-saving time begins and ends.

## Interior Climate Control

### *Air Infiltration and Drafts*

**Observation:** *Air infiltrates around exterior doors or windows.*

#### PERFORMANCE GUIDELINE

Some infiltration is usually noticeable around doors and windows. Weather stripping will be installed and sized properly to seal the exterior door when closed. Windows will be installed per the manufacturer's instructions.

#### CORRECTIVE MEASURE

The Builder will correct to meet the performance guideline.

#### DISCUSSION

At times of high wind or temperature differentials inside the home and outside, there may be noticeable air movement around a closed door's perimeter or window. In high-wind areas, the Purchaser may elect to have storm windows and doors installed to further reduce drafts. Doors must have gaps at their perimeter to accommodate expansion and contraction due to variations in temperature and / or humidity and to enable the door to operate over a wide range of environmental conditions. Weather stripping seals the gap required for proper operations to prevent excessive air infiltration. A small glimmer of light seen at the corners of the door unit is normal. Weather stripping should be kept clean and maintained by the Purchaser.

**Observation:** *A draft comes through an electrical outlet.*

#### PERFORMANCE GUIDELINE

Electrical outlets and switch boxes on exterior walls may allow cold air to flow through or around an outlet into a room.

#### CORRECTIVE MEASURE

No corrective action is required by the Builder.

#### DISCUSSION

The Purchaser may elect to install foam insulation pads under switch and outlet plates to help decrease drafts.

## *Humidity Control and Condensation*

**Observation:** *Water, ice, or frost is observed on the interior frame or glass surface of a window.*

### PERFORMANCE GUIDELINE

Windows will be installed in accordance with the manufacturer's instructions and the prevailing building codes.

### CORRECTIVE MEASURE

No corrective action is required by the Builder unless the water, ice, or frost is directly attributed to faulty installation.

### DISCUSSION

Condensation usually results from conditions beyond the Builder's control. Moisture in the air can condense into water and collect on cold surfaces, particularly in the winter months when the outside temperature is low. Blinds and drapes can prevent air within the home from moving across the cold surface and picking up moisture. Occasional condensation (water) in the kitchen, bath, or laundry area is common. It is the Purchaser's responsibility to maintain proper humidity by properly operating heating and cooling systems' exhaust fans and allowing moving air within the house to flow over the interior surface of windows.

## *Ducts and Airflow*

**Observation:** *The ductwork makes noises.*

### PERFORMANCE GUIDELINE

Ductwork will be constructed and installed in accordance with applicable mechanical code requirements.

### CORRECTIVE MEASURE

No corrective action is required by the Builder unless the **duct** does not comply with the prevailing building code.

### DISCUSSION

Metal expands when it is heated and contracts when it cools. The ticking or crackling sounds caused by the metal's movement are common.

***Observation: The ductwork produces excessively loud noises commonly known as “oil canning”.***

**PERFORMANCE GUIDELINE**

The stiffening of the ductwork and the thickness of the metal used will be such that ducts do not “oil can”. The booming noise caused by oil canning is considered excessive.

**CORRECTIVE MEASURE**

The Builder will correct the ductwork to eliminate oil canning.

***Observation: There is airflow noise at a register.***

**PERFORMANCE GUIDELINE**

The register should be correctly installed according to the manufacturer’s instructions.

**CORRECTIVE MEASURE**

No corrective action is required by the Builder, unless registers are not installed according to the manufacturer’s instructions.

**DISCUSSION**

Under certain conditions, there will be some noise with the normal flow of air even when registers are installed correctly.

***Observation: The ductwork is separated or detached.***

**PERFORMANCE GUIDELINE**

Ductwork will remain intact and securely fastened.

**CORRECTIVE MEASURE**

The Builder will reattach and secure all separated or unattached ductwork.

***Observation: There is insufficient air flow to registers.***

**PERFORMANCE GUIDELINE**

The ductwork should be correctly installed according to manufacturer's instructions and the applicable mechanical code.

**CORRECTIVE MEASURE**

The Builder will correct ductwork to meet the performance guideline. If the air flow is adequate to properly condition the room, no corrective action is required of the Builder.

**DISCUSSION**

The adequacy of air flow may be subjective. See below regarding the adequacy of the cooling system.

### *Heating and Cooling Systems*

***Observation: The cooling of rooms is inadequate.***

**PERFORMANCE GUIDELINE**

If air conditioning is installed by the Builder, the cooling system will be capable of maintaining a temperature of 78° Fahrenheit, as measured in the center of each room at a height of 5' above the floor under local outdoor summer design conditions. In the case of outside temperatures exceeding 95° Fahrenheit, the system will keep the inside temperature 15° Fahrenheit cooler than the outside temperature. National, state, or local codes will supersede this guideline where such codes have been adopted. Work should be done in accordance with the prevailing building codes.

**CORRECTIVE MEASURE**

The Builder will correct the cooling system to provide the required temperature in accordance with the applicable code requirements.

**DISCUSSION**

Closed interior doors, closed registers and dirty filters can restrict air flow and may affect the system's performance.

***Observation: The air handler or furnace vibrates.***

**PERFORMANCE GUIDELINE**

The units will be installed in accordance with the manufacturer's instructions and the prevailing building codes.

**CORRECTIVE MEASURE**

If installed incorrectly, the Builder will correct the items according to the manufacturer's instructions and code requirements.

**DISCUSSION**

Under certain conditions, some vibration may occur with the normal flow of air when air handlers and furnaces are installed correctly. Debris in the furnace or air handler could cause the unit to become out of balance and vibrate. It is the Purchaser's responsibility to keep units clear of debris.

***Observation: A condensate line is clogged.***

**PERFORMANCE GUIDELINE**

Condensate lines will be free of all clogs at the time of substantial completion of the project.

**CORRECTIVE MEASURE**

If a clog occurs after substantial completion of the project, no corrective action is required of the Builder.

**DISCUSSION**

Condensate lines will eventually clog under normal use. The Purchaser is responsible for checking and maintaining clear lines.

***Observation: Refrigerant lines leak.***

**PERFORMANCE GUIDELINE**

Refrigerant lines and fittings should not leak.

**CORRECTIVE MEASURE**

The Builder will repair leaking refrigerant lines and recharge the air-conditioning unit, unless the damage was caused by the Purchaser's actions or negligence.

***Observation: There is condensation on the outside of air handlers, refrigerant lines or ducts.***

**PERFORMANCE GUIDELINE**

Moisture may condense on the exterior surface of air handlers, lines, and ducts when the air temperature is different from the surface temperature.

**CORRECTIVE MEASURE**

No corrective action is required by the Builder, unless the condensation is directly attributed to faulty installation.

**DISCUSSION**

Condensation is most likely to occur when air handlers, refrigerant lines, or ducts are located in unconditioned locations such as a crawl space, basement, attic, or in exterior locations. Condensation usually results from conditions beyond the Builder's control. Moisture in the air can condense to form water and collect on cold duct surfaces, particularly in the summer months when humidity is high.

***Ventilation***

***Observation: Kitchen or bath fans allow air infiltration.***

**PERFORMANCE GUIDELINE**

Bath and kitchen fans will be installed in accordance with the manufacturer's instructions and applicable code requirements and perform in accordance with the manufacturer's specifications.

**CORRECTIVE MEASURE**

No corrective action is required by the Builder if the fan installation meets the performance guideline.

**DISCUSSION**

It is possible for outside air to enter the home through a ventilation fan. The dampers in most fans do not seal tightly. It is possible for the damper to be lodged open due to animal activity (including nesting in the outside opening), or the accumulation of grease, lint, and other debris.

Maintenance of ventilating fans is the Purchaser's responsibility.

***Observation: HVAC vent or register covers protrude from a smooth wall or ceiling surface.***

**PERFORMANCE GUIDELINE**

Registers should not protrude more than 1/16" from a smooth wall or ceiling surface at the time of substantial completion of the project.

**CORRECTIVE MEASURE**

The Builder will correct to meet the performance guideline.

**DISCUSSION**

Registers and grills may deflect over time. This can result in gaps occurring between the grill or register and the wall or ceiling. As long as the vent or register is securely attached, this is not a warranty item. Some textured wall finishes may not allow a register to be installed flush.

***Observation: Exhaust fan discharges into attic or crawl space.***

**PERFORMANCE GUIDELINE**

Fans will vent to the outside in accordance with the prevailing codes.

**CORRECTIVE MEASURE**

The Builder will correct to meet the performance guideline.

## Interior Finish

### *Interior Doors*

**Observation:** *An interior door is warped.*

#### PERFORMANCE GUIDELINE

Interior doors will not warp to the extent that they become inoperable. A 1/4" tolerance, as measured diagonally from corner to corner, is acceptable.

#### CORRECTIVE MEASURE

The Builder will correct or replace and refinish defective doors to match existing doors as closely as practical.

#### DISCUSSION

In bathroom or utility areas, exhaust fans or an open window must be used to minimize moisture to prevent warpage of door units. The Builder is not responsible for refinishing if doors were finished by the Purchaser.

**Observation:** *Bifold and bypass doors come off their tracks during normal operation.*

#### PERFORMANCE GUIDELINE

At the time of substantial completion of the project, bifold and bypass doors will slide properly on their tracks.

#### CORRECTIVE MEASURE

**One time only** during the warranty period, the Builder will adjust any bifold and bypass door that will not stay on its track during normal operation.

#### DISCUSSION

Proper operation should be verified by the Purchaser and the Builder at time of substantial completion of the project. **Purchasers should be aware that bifold and bypass doors are inherently more sensitive than swing doors and need to be treated accordingly.** The Purchaser is responsible for cleaning and maintenance necessary to preserve proper operation.

***Observation: A pocket door rubs in its pocket during normal operation.***

**PERFORMANCE GUIDELINE**

Pocket doors will operate smoothly during normal operation.

**CORRECTIVE MEASURE**

**One time only** during the warranty period, the Builder will adjust the pocket door to meet the performance guideline.

**DISCUSSION**

Pocket doors commonly rub, stick, or derail because of the inherent nature of the product. It is common for the door to also rub against the guides provided by the manufacturer.

***Observation: A door rubs on jambs or Builder-installed floor covering.***

**PERFORMANCE GUIDELINE**

When the Builder installs the door frame and door, the door edge will be within 3/16" of parallel to the door jamb.

**CORRECTIVE MEASURE**

**One time only** during the warranty period, the Builder will adjust the door as necessary to meet the performance guideline.

***Observation: A door swings open or closed from the force of gravity.***

**PERFORMANCE GUIDELINE**

Doors will not swing open or closed from the force of gravity alone.

**CORRECTIVE MEASURE**

**One time only** during the warranty period, the Builder will adjust the door as necessary to meet the performance guideline.

***Observation: A door hinge squeaks.***

**PERFORMANCE GUIDELINE**

Door hinges should not squeak.

**CORRECTIVE MEASURE**

**One time only** during the warranty period, the Builder will adjust the door as necessary to meet the performance guideline.

***Observation: Interior doors do not operate smoothly.***

**PERFORMANCE GUIDELINE**

Doors will move smoothly with limited resistance.

**CORRECTIVE MEASURE**

**One time only** during the warranty period, the Builder will adjust the door to meet the performance guideline.

***Observation: A doorknob or latch does not operate smoothly.***

**PERFORMANCE GUIDELINE**

A doorknob or latch should not stick or bind during operation.

**CORRECTIVE MEASURE**

**One time only** during the warranty period, the Builder will adjust, repair, or replace knobs or latches that are not operating smoothly.

**DISCUSSION**

Because locksets are rather complex mechanical devices, some may have a heavy or stiff feel to them but are operating as intended by the manufacturer. This can be true for locksets of all price ranges. Slamming doors or hanging items on the doorknob will affect knob or latch operation; it is not the Builder's responsibility to adjust or repair problems caused by such conditions.

## ***Interior Stairs***

***Observation: An interior stair tread deflects.***

**PERFORMANCE GUIDELINE**

The maximum vertical deflection of an interior stair tread will not exceed 1/8" at 200 pounds of force.

**CORRECTIVE MEASURE**

The Builder will repair the stair to meet the performance guideline.

***Observation: A stair riser or tread squeaks.***

**PERFORMANCE GUIDELINE**

Loud squeaks caused by a loose stair riser or tread are considered excessive; however, totally squeak-proof stair risers or treads cannot be guaranteed.

**CORRECTIVE MEASURE**

The Builder will refasten any loose risers or treads or take other reasonable and cost-effective corrective action to eliminate squeaking without removing treads or ceiling finishes.

**DISCUSSION**

Squeaks in risers or treads may occur when a riser has come loose from the tread, deflects from the weight of a person and rubs against the nails that hold it in place. Movement may occur between the riser and the tread or other stairway members when one tread is deflected while the other members remain stationary. Using trim screws to fasten the tread to the riser from above sometimes will reduce squeaking. If there is no ceiling below, gluing or re-nailing the riser to the tread or shimming will reduce squeaks, but completely eliminating squeaks is not always possible.

***Observation: Gaps exist between interior stair railing parts.***

**PERFORMANCE GUIDELINE**

Gaps between interior stair railing parts will not exceed 1/8" in width.

**CORRECTIVE MEASURE**

The Builder will ensure that individual parts of the railing are securely mounted. Any remaining gaps will be filled, or parts replaced to meet performance guideline.

***Observation: An interior stair railing lacks rigidity.***

**PERFORMANCE GUIDELINE**

Interior stair railings will be installed according to applicable building codes.

**CORRECTIVE MEASURE**

The Builder will secure, as necessary, any stair railing parts that loosen with normal use, to meet the performance guideline.

**DISCUSSION**

Stair railings are designed to protect an individual while stepping up and down a stairwell. Pulling, swinging, hanging, or sliding on railings may loosen the rail system and are not covered under the Builder's warranty.

***Trim and Moldings***

***Observation: There are gaps at non-mitered trim and molding joints.***

**PERFORMANCE GUIDELINE**

At the time of substantial completion of the project, openings at joints in trim and moldings, and at joints between moldings and adjacent surfaces, will not exceed 1/8" in width.

**CORRECTIVE MEASURE**

The Builder will repair joints to meet the performance guideline.

**DISCUSSION**

Failing to control indoor relative humidity may cause separation of trim and moldings in excess of the performance guideline. Joints that separate under these conditions are not considered defective. The Purchaser is responsible for controlling temperature and humidity in the house.

***Observation: Nails are not properly set, or nail holes are not properly filled.***

**PERFORMANCE GUIDELINE**

**Setting** nails and filling nail holes are considered part of painting and finishing. After finishing, nails and nail holes will not be readily visible from a standing position facing the surface at a distance of 6' under normal lighting conditions. After painting or staining, putty colors will not exactly match variations in wood color.

**CORRECTIVE MEASURE**

Where the Builder is responsible for painting, the Builder will take action necessary to meet the performance guideline. Puttying of nail holes in base and trim molding installed in unfinished rooms and areas not exposed to view (such as inside of closets) is not included in this guideline.

***Observation: An inside corner is not coped or mitered.***

**PERFORMANCE GUIDELINE**

Trim and molding edges at inside corners will be coped or mitered. However, square-edge trim and molding may be butted.

**CORRECTIVE MEASURE**

The Builder will finish inside corners to meet the performance guideline.

***Observation: Trim or molding mitered edges do not meet.***

**CORRECTIVE MEASURE**

The Builder will repair gaps that do not meet the performance guideline. Caulking or puttying with materials compatible with the finish is acceptable.

**DISCUSSION**

Separation of trim and moldings in excess of the performance guideline may be caused by lack of control of indoor relative humidity. Joints that separate under these conditions are not considered defective. It is the Purchaser's responsibility to control temperature and humidity in the house.

***Observation: Interior trim is split.***

**PERFORMANCE GUIDELINE**

Splits, cracks, and **checking** greater than 1/8" in width are considered excessive.

**CORRECTIVE MEASURE**

**One time only** during the warranty period, the Builder will repair the affected area to meet the performance guideline. Refinished or replaced areas may not match surrounding surfaces exactly.

***Observation: Hammer marks are visible on interior trim.***

**PERFORMANCE GUIDELINE**

Hammer marks on interior trim will not be readily visible from a standing position facing the surface at a distance of 6' under normal lighting conditions.

**CORRECTIVE MEASURE**

The Builder will fill hammer marks and refinish or replace affected trim to meet the performance guideline. Refinished or replaced areas may not match surrounding surfaces exactly.

**DISCUSSION**

Dents and marks on trim due to Purchaser's actions are not the Builder's responsibility

***Observation: Wood trim appearance is uneven.***

**PERFORMANCE GUIDELINE**

Variations in natural wood trim are uncommon.

**CORRECTIVE MEASURE**

No corrective action is required by the Builder.

## ***Cabinets***

***Observation: Cabinets do not meet the ceiling or walls.***

**PERFORMANCE GUIDELINE**

Gaps greater than 1/4" in width are considered excessive.

**CORRECTIVE MEASURE**

The Builder will repair the gap with caulk, putty, scribe molding, or will reposition / reinstall cabinets to meet the performance guideline.

***Observation: Cabinets do not line up with each other.***

**PERFORMANCE GUIDELINE**

Cabinet faces more than 1/8" out of line, and cabinet corners more than 1/4" out of line are considered excessive.

**CORRECTIVE MEASURE**

The Builder will make necessary adjustments to meet the performance guideline.

***Observation: A cabinet door or drawer front is warped.***

**PERFORMANCE GUIDELINE**

Door or drawer warpage will not exceed 1/4" as measured from the face frame to the point of furthest warpage, with the door or drawer front in closed position.

**CORRECTIVE MEASURE**

The Builder will correct or replace doors and drawer fronts as necessary to meet the performance guideline.

**DISCUSSION**

Failing to control indoor relative humidity may cause warpage that exceeds the performance guideline. Doors or drawers that warp under these conditions are not considered defective. It is the Purchaser's responsibility to control temperature and humidity in the house.

***Observation: A cabinet door or drawer binds.***

**PERFORMANCE GUIDELINE**

Cabinet doors and drawers will open and close with reasonable ease.

**CORRECTIVE MEASURE**

The Builder will adjust or replace cabinet door hinges and / or drawer hardware as necessary to meet the performance guideline.

***Observation: Cabinet doors or drawer fronts are cracked.***

**PERFORMANCE GUIDELINE**

Cabinet doors and drawer fronts should not crack.

**CORRECTIVE MEASURE**

The Builder will replace, or repair cracked panels and drawer fronts. No corrective actions are required by the Builder if the cracked drawer fronts or panels result from the Purchaser's abuse.

**DISCUSSION**

Paint or stain on the repaired or replaced door or drawer front may not match the stain on the existing panels or drawer fronts. Grain patterns or intensity cannot be matched perfectly. The Builder will only be required to match the same species of wood, matching the grain pattern as close as possible. Some species of wood will age and darken over time. An exact match may not be possible. Use of manufacturer-provided touch-up kits is acceptable to address minor imperfections in the cabinet finish.

***Observation: Cabinet units are not level.***

**PERFORMANCE GUIDELINE**

Individual cabinets should not have a deviation of more than 1/4" out of level.

**CORRECTIVE MEASURE**

The Builder will level cabinets to meet the performance guideline.

**DISCUSSION**

**Remodeling Specific Guideline:** In remodeling projects, many times the room are out of square, walls are not plumb, and floors are not level. Cabinets and countertops may have to be shimmed or otherwise adjusted to make the cabinets and countertops fit together properly. Cabinets may not fit flush against the walls on the ends or bottoms and may not fit flat against the floor.

***Observation: A cabinet frame is out of square.***

**PERFORMANCE GUIDELINE**

A cabinet frame, when measured diagonally from corner to corner, will not exceed a difference of more than 1/4".

**CORRECTIVE MEASURE**

The Builder will repair or replace the cabinet to meet the performance guideline.

***Observation: Cabinet doors do not align when closed.***

**PERFORMANCE GUIDELINE**

Gaps between doors should not deviate more than 1/8" from top to bottom.

**CORRECTIVE MEASURE**

The Builder will repair or replace delaminated coverings, unless the **delamination** was caused by the Purchaser's misuse or negligence.

### *Countertops*

***Observation: High-pressure laminate on a countertop is delaminated.***

**PERFORMANCE GUIDELINE**

Countertops fabricated with high-pressure laminate coverings will not delaminate.

**CORRECTIVE MEASURE**

The Builder will repair or replace delaminated coverings, unless the **delamination** was caused by the Purchaser's misuse or negligence.

**DISCUSSION**

Purchasers should refrain from leaving any liquids near the countertop seams or allowing the surface to become excessively hot.

***Observation: The surface of high-pressure laminate on a countertop is cracked or chipped.***

**PERFORMANCE GUIDELINE**

At the time of a substantial completion of the project, cracks or chips greater than 1/16" are considered excessive.

**CORRECTIVE MEASURE**

The Builder will repair or replace cracked or chipped countertops to meet the performance guideline only if they are reported at the time of substantial completion of the project.

***Observation: Countertops are visibly scratched.***

**PERFORMANCE GUIDELINE**

At the time of substantial completion of the project, countertops will be free of scratches visible from 6' under normal lighting conditions.

**CORRECTIVE MEASURE**

The Builder will repair scratches in the countertop to meet the performance guideline.

**DISCUSSION**

Minor imperfections and scratches will be more visible in dark, glossy tops.

***Observation: A countertop is not level.***

**PERFORMANCE GUIDELINE**

Countertops will be no more than 3/8" in 10' out of parallel with the floor.

**CORRECTIVE MEASURE**

The Builder will make necessary adjustments to meet the performance guideline.

***Observation: A granite, marble, stone, or solid-surface countertop is cracked.***

**PERFORMANCE GUIDELINE**

At the time of substantial completion of the project, cracks greater than 1/32" in width are considered excessive.

**CORRECTIVE MEASURE**

If the crack is found to be a result of faulty installation or product, the Builder will repair or replace the countertop. Patching is an acceptable repair.

***Observation: A granite, marble, stone, or solid-surface countertop has texture or color variations.***

**PERFORMANCE GUIDELINE**

Color variations in natural-surface products are acceptable. Solid-surface variations in texture and colors are covered by the manufacturer's warranty.

**CORRECTIVE MEASURE**

No corrective action is required by the Builder.

***Observation: A granite, marble, stone, or solid-surface countertop is chipped.***

**PERFORMANCE GUIDELINE**

At the time of substantial completion of the project, chips greater than 1/32" in width are considered excessive.

**CORRECTIVE MEASURE**

The Builder will repair or replace affected areas to meet the performance guidelines. The use of an appropriate filler is acceptable repair.

***Observation: A granite, marble, stone, or solid-surface countertop has visible seams.***

**PERFORMANCE GUIDELINE**

Seams may be visible and especially noticeable with certain countertop materials and darker finishes.

**CORRECTIVE MEASURE**

No corrective action is required by the Builder.

***Observation: A solid-surface or laminate countertop has a bubble, burn, stain, or other damage.***

**PERFORMANCE GUIDELINE**

At the time of substantial completion of the project, solid-surface or laminate countertops will be free of bubbles, burns, or stains.

**CORRECTIVE MEASURE**

The Builder will repair or replace the countertop to meet the performance guideline.

**DISCUSSION**

Solid-surface and laminate products may be subject to damage by hot surfaces placed on or near the product. The Purchaser is responsible for maintaining the countertop and protecting it from damage.

***Observation: Manmade cultured marble top has hairline cracking around or near the drain.***

**PERFORMANCE GUIDELINE**

At the time of substantial completion of the project, no visible cracks should be apparent to the naked eye. Top should withstand water temperature of 130° Fahrenheit without cracking.

**CORRECTIVE MEASURE**

The Builder will repair or replace the countertop to meet the performance guideline.

**DISCUSSION**

Cultured marble tops are sensitive to rapid temperature changes and may become thermally shocked. This process will cause cracking of the gel coat finish at or near the point of the temperature change. Water heater should be set at or below 130° Fahrenheit. Thermal shocking is not covered by warranty.

## Interior Wall Finish

### *Paint, Stain, and Varnish*

**Observation:** *Interior paint does not cover the underlying surface.*

#### PERFORMANCE GUIDELINE

The surface being painted will not show through new paint when viewed from a standing position facing the surface at a distance of 6' under normal lighting conditions.

#### CORRECTIVE MEASURE

The Builder will recoat affected areas as necessary to meet the performance guideline as closely as practical.

#### DISCUSSION

The amount and direction of sunlight can have a significant effect on how a surface appears. It is not unusual for the underlying surface to be visible in direct sunlight; no corrective action is required of the Builder in such instances.

**Observation:** *An interior surface is spattered with paint.*

#### PERFORMANCE GUIDELINE

Paint spatters will not be readily visible on walls, woodwork, floors, or other interior surfaces when viewed from a standing position facing the surface at a distance of 6' under normal lighting conditions.

#### CORRECTIVE MEASURE

The Builder will remove paint spatters to meet the performance guideline.

**Observation:** *Brush and roller marks show on interior painted surface.*

#### PERFORMANCE GUIDELINE

Brush marks will not be readily visible on interior painted surfaces when viewed from a standing position facing the surface at a distance of 6' under normal lighting conditions.

#### CORRECTIVE MEASURE

The Builder will refinish as necessary to meet the performance guideline and match affected areas as closely as practical.

***Observation: Lap marks show on interior painted or stained areas.***

**PERFORMANCE GUIDELINE**

Lap marks will not be readily visible on interior painted surfaces when viewed from a standing position facing the surface at a distance of 6' under normal lighting conditions.

**CORRECTIVE MEASURE**

The Builder will refinish as necessary to meet the performance guideline and match affected areas as closely as practical.

***Observation: Interior painting, staining, or refinishing of repair work does not match.***

**PERFORMANCE GUIDELINE**

A perfect match between original and new paint cannot be expected. Repairs required under the performance guideline will be finished to match the immediate surrounding areas as closely as practical.

**CORRECTIVE MEASURE**

No corrective action is required by the Builder.

**DISCUSSION**

Where the majority of the wall or ceiling area is affected, the area will be painted from **break line** to break line. The Builder is not required to paint an entire room.

***Observation: Resin has bled through the paint on interior trim.***

**PERFORMANCE GUIDELINE**

This is a common condition that can be expected to occur with natural materials such as wood.

**CORRECTIVE MEASURE**

No corrective action is required by the Builder.

### *Gypsum Wallboard or Drywall*

**Observation:** *A nail pop, blister, or other blemish is visible on a finished wall or ceiling.*

#### **PERFORMANCE GUIDELINE**

Any such blemishes that are readily visible from a standing position facing the surface at distance of 6' under normal lighting conditions are considered excessive.

#### **CORRECTIVE MEASURE**

**One time only** during the warranty period, the Builder will repair such blemishes. The Builder will NOT touch up paint on repaired areas. Builder will leave what paint is leftover for touchups under the stairs. A perfect match between original and new paint cannot be expected, and the Builder is not required to paint an entire wall or room. The Builder is not required to repair defects that are covered by wallpaper and that, therefore, are not visible.

#### **DISCUSSION**

When **drywall** has been placed on lumber surfaces subject to shrinkage and warpage and which are not perfectly level and plumb, problems may often occur through stress and strain placed on drywall during the stabilization of the lumber, which is inherent in the construction of the house. Due to the initial stabilization problem that exists with the new home, it is impossible to correct each defect as it occurs, and it is essentially useless to do so. The entire home will tend to stabilize itself. Correcting the drywall near the end of the warranty period provides the Purchaser with the best possible solution.

**Observation:** *Cracked corner bead, excess joint compound, trowel marks, or blisters in tape joints are observed on the drywall surface.*

#### **PERFORMANCE GUIDELINE**

Defects resulting in cracked corner bead, trowel marks, excess joint compound or blisters in tape are considered excessive.

#### **CORRECTIVE MEASURE**

**One time only** during the warranty period, the Builder will repair the affected area of the wall to meet the performance guideline. No painting will be provided.

**Observation:** *Joints protrude from the surface.*

#### **PERFORMANCE GUIDELINE**

Any joints that are visible from a standing position facing the surface at a distance of 6' under normal lighting conditions are considered excessive.

**CORRECTIVE MEASURE**

**One time only** during the warranty period, the Builder will repair affected areas. No painting will be provided.

**DISCUSSION**

Visible joints often occur in long walls, stairwells, ceilings, and areas of two-story homes where framing members have shrunk and caused the drywall to protrude.

**Observation: Angular gypsum wallboard joints are uneven.**

**PERFORMANCE GUIDELINE**

This is a common condition that occurs with randomly applied materials.

**CORRECTIVE MEASURE**

No corrective action is required by the Builder.

**Observation: The texture of gypsum wallboard does not match.**

**PERFORMANCE GUIDELINE**

Any variations that are readily visible from a standing position facing the surface at a distance of 6' under normal lighting conditions are considered excessive.

**CORRECTIVE MEASURE**

The Builder will repair the affected area to meet the performance guideline.

**Observation: Drywall is cracked.**

**PERFORMANCE GUIDELINE**

Drywall cracks greater than 1/16" in width are considered excessive.

**CORRECTIVE MEASURE**

**One time only** during the warranty period, the Builder will repair cracks. No painting will be provided.

***Observation: Sprayed or textured ceilings have uneven textures.***

**PERFORMANCE GUIDELINE**

This is a common condition that occurs with randomly applied materials.

**CORRECTIVE MEASURE**

No corrective action is required by the Builder.

## Flooring

### *Carpeting*

***Observation: Carpet does not meet at the seams.***

#### **PERFORMANCE GUIDELINE**

Visible gaps at the backing of the carpet exceeding 1/8" are considered excessive.

#### **CORRECTIVE MEASURE**

It is not unusual for carpet seams to be visible from a standing position. If the carpet was installed by the Builder, the Builder will correct visible gaps at carpet seams.

***Observation: Carpet is stretched or loose.***

#### **PERFORMANCE GUIDELINE**

When stretched and secured properly, wall-to-wall carpeting will not unfasten, loosen, or separate from the points of attachment.

#### **CORRECTIVE MEASURE**

If the carpeting was installed by the Builder, the Builder will re-stretch or resecure the carpeting as necessary to meet the performance guideline.

***Observation: Carpet is faded or discolored.***

#### **PERFORMANCE GUIDELINE**

Fading or discoloration of carpet is a manufacturer's responsibility.

#### **CORRECTIVE MEASURE**

No corrective action is required by the Builder.

#### **DISCUSSION**

Fading or discoloration may result from the Purchaser spilling liquids on the carpet, from an exposure to sunlight, or from the Purchaser's failure to properly maintain the carpet.

***Observation: Carpet appears to be different colors.***

**PERFORMANCE GUIDELINE**

Carpet for a room will be ordered and installed from a single manufacturer's dye lot. Carpet shade variance is the manufacturer's responsibility.

**CORRECTIVE MEASURE**

No corrective action is required by the Builder.

**DISCUSSION**

When viewed under normal lighting conditions, carpet may have the appearance of color variations. These differences may result from the direction of the carpet nap or from fibers being crushed on the roll. Over time, vacuuming will make the appearance more uniform.

***Observation: Dead spots or voids are observed in padding areas below the carpet surface.***

**PERFORMANCE GUIDELINE**

Carpeted areas will not have dead spots or voids.

**CORRECTIVE MEASURE**

The Builder will repair or replace padding in the affected areas to meet the performance guideline.

**DISCUSSION**

Since carpet padding comprises a number of materials of various densities and feel, there may be an inconsistent feel even with adequate coverage.

## ***Vinyl Flooring***

***Observation: Nail pops are observed on the surface of vinyl flooring.***

**PERFORMANCE GUIDELINE**

Visible nail pops on floor coverings are considered excessive.

**CORRECTIVE MEASURE**

The Builder will repair the nail pops that are visible.

**DISCUSSION**

At the Builder's option, the Builder will repair or replace the floor covering in the affected areas with similar materials and in accordance with manufacturer's recommendations. The

Builder is not responsible for discontinued patterns or color variations when replacing the floor covering.

***Observation: Depressions or ridges are observed in flooring because of subfloor irregularities.***

**PERFORMANCE GUIDELINE**

Readily apparent depressions or ridges exceeding 1/8" will be repaired. The ridge or depression measurement is taken at the end of a 6" straightedge centered over the depression or ridge with 3" of the straightedge held tightly to the floor on one side of the affected area. Measure under the straightedge to determine the depth of the depression or height of the ridge.

**CORRECTIVE MEASURE**

The Builder will take the necessary corrective action to meet the performance guideline. The Builder will not be responsible for discontinued patterns or color variations when replacing the floor covering.

***Observation: Vinyl flooring has lost adhesion.***

**PERFORMANCE GUIDELINE**

Floor covering will be securely attached to the substrate or underlayment.

**CORRECTIVE MEASURE**

If flooring becomes detached due to improper installation by the Builder, the Builder will repair or replace the affected flooring as necessary. The Builder is not responsible for discontinued patterns or color variations when replacing the floor covering.

**DISCUSSION**

The performance guideline does not apply to perimeter-attached vinyl floors.

***Observation: Seams or shrinkage gaps show at vinyl flooring joints.***

**PERFORMANCE GUIDELINE**

Gaps at joints / seams in vinyl flooring will not exceed 1/16" in width. Where dissimilar materials abut, the gaps will not exceed 1/16".

**CORRECTIVE MEASURE**

The Builder will repair or replace the flooring as necessary to meet the performance guideline. The Builder will not be responsible for discontinued patterns or color variations when replacing the floor covering.

**DISCUSSION**

Proper repair can be accomplished by sealing the gap with seam sealer.

***Observation: Bubbles are observed in vinyl flooring.***

**PERFORMANCE GUIDELINE**

Bubbles resulting from trapped air and that protrude higher than 1/16" from the floor are considered excessive.

**CORRECTIVE MEASURE**

The Builder will repair the floor to meet the performance guideline in accordance with manufacturer's recommendations.

**DISCUSSION**

The performance guideline does not apply to perimeter-attached vinyl floors.

***Observation: The patterns on vinyl flooring are misaligned.***

**PERFORMANCE GUIDELINE**

Patterns at seams between adjoining pieces will be aligned to within 1/8".

**CORRECTIVE MEASURE**

The Builder will correct the flooring to meet the performance guideline.

***Observation: Yellowing is observed on the surface of vinyl floor covering.***

**PERFORMANCE GUIDELINE**

The Builder will install vinyl flooring in according with the manufacturer's instructions.

**CORRECTIVE MEASURE**

If the yellowing resulted from improper installation by the Builder, the Builder will repair or replace the flooring. Yellowing resulting from a manufacturer's defect or from the Purchaser's misuse or lack of maintenance is not covered by the Builder.

**DISCUSSION**

Some chemical compounds, such as the tar residue from a recently paved asphalt driveway, may cause a chemical reaction with the flooring material and result in permanent damage to the floor. The Purchaser is responsible for the proper use and maintenance of the floor. Yellowing caused by the Purchaser's improper use of, or inadequate maintenance of the floor is not the Builder's or the manufacturer's responsibility.

***Observation: A resilient floor tile is loose.***

**PERFORMANCE GUIDELINE**

Resilient floor tiles will be securely attached to the substrate.

**CORRECTIVE MEASURE**

The Builder will attach loose resilient floor tiles securely to the substrate. The old adhesive will be removed if necessary to resecure the tiles.

***Observation: The corners or patterns of resilient floor tiles are misaligned.***

**PERFORMANCE GUIDELINE**

The corners of adjoining resilient floor tiles will be aligned to within 1/8". Misaligned patterns are not covered unless they result from improper orientation of the floor tiles.

**CORRECTIVE MEASURE**

The Builder will correct resilient floor tiles with misaligned corners to meet the performance guideline.

### *Hardwood Flooring*

***Observation: Gaps exist between hardwood floorboards.***

**PERFORMANCE GUIDELINE**

At the time of substantial completion of the project, gaps between hardwood floorboards will not exceed 1/8" in width.

**CORRECTIVE MEASURE**

The Builder will repair gaps that do not meet the performance guideline.

**DISCUSSION**

Gaps appearing after installation may be caused by fluctuations in the relative humidity in the house. This is a common seasonal phenomenon in some climates and certain areas of the

house that experience significant shifts of humidity. The Purchaser is responsible for maintaining proper humidity levels in the house.

***Observation: Hardwood floorboards are cupping or crowning.***

**PERFORMANCE GUIDELINE**

Cupping or crowning in hardwood floorboards will not exceed 1/16" in height in a 3" maximum span measured perpendicular to the long axis of the board. Cupping or crowning appearing after installation may result from fluctuations in the moisture conditions in the house, causing a noticeable curvature in the face of the floorboards. Cupping or crowning caused by exposure to moisture beyond the Builder's control is not the Builder's responsibility.

**CORRECTIVE MEASURE**

The Builder will correct or repair boards to meet the performance guideline if the cupping or crowning was caused by factors within the Builder's control.

**DISCUSSION**

The Purchaser is responsible for proper maintenance of the floor and for maintaining proper humidity levels and moisture conditions in the house, crawl space, or basement.

***Observation: Excessive lippage is observed along the joints of prefinished wood flooring products.***

**PERFORMANCE GUIDELINE**

Lippage greater than 1/8" is considered excessive.

**CORRECTIVE MEASURE**

The Builder will repair lippage in the affected areas to meet the performance guideline if the lippage was caused by elements within the Builder's control.

***Observation: A wood floor is out of square.***

**PERFORMANCE GUIDELINE**

The diagonal of a triangle with sides of 12' and 16' along the edges of the floor will be no more than 1/2" more or less than 20'.

**CORRECTIVE MEASURE**

The Builder will make the necessary modifications in the most practical manner to any floor that does not comply with the performance guidelines for squareness. The modification will produce a satisfactory appearance and may be either structural or cosmetic.

**DISCUSSION**

Squareness is primarily an aesthetic consideration. Regularly repeated geometric patterns in floor and ceiling coverings show a gradually increasing or decreasing pattern along an out-of-square wall. The performance guideline tolerance of plus or minus 1/2" in the diagonal allows a maximum increasing or decreasing portion of about 3/8" in a 12' wall of a 12' x 16' room.

***Observation: Voids or skips are observed in the floor finish.***

**PERFORMANCE GUIDELINE**

Voids that are readily visible from a standing position under normal lighting conditions are considered excessive.

**CORRECTIVE MEASURE**

The Builder will repair the floor finish in the affected area(s) to meet the performance guideline.

***Observation: The top coating on hardwood flooring has peeled.***

**PERFORMANCE GUIDELINE**

Field-applied coating will not peel during normal usage. Prefinished coatings are the manufacturer's responsibility.

**CORRECTIVE MEASURE**

The Builder will refinish any field-applied finishes that have peeled.

**DISCUSSION**

The Purchaser should contact the manufacturer regarding factory-applied finishes that have peeled.

***Observation: Hardwood flooring has buckled.***

**PERFORMANCE GUIDELINE**

Under normal conditions and usage, hardwood flooring should not buckle.

**CORRECTIVE MEASURE**

The Builder will repair the affected area to meet the performance guideline if buckling was caused by elements within the Builder's control.

**DISCUSSION**

Wood floors are naturally susceptible to high levels of moisture. Buckling results from water or high levels of moisture coming in contact with the floor. Controlling excess water during cleaning or from other sources is the Purchaser's responsibility.

***Observation: Hardwood flooring has released from the substrate.***

**PERFORMANCE GUIDELINE**

Under normal conditions and usage, hardwood flooring should not lift from the substrate.

**CORRECTIVE MEASURE**

To meet the performance guideline, the Builder will repair the affected area if the lifting was caused by factors within the Builder's control.

***Observation: Excessive knots and color variations are observed in hardwood flooring.***

**PERFORMANCE GUIDELINE**

The Builder will install the grade of hardwood specified for the project. All wood should be consistent with the grade or quality specified.

**CORRECTIVE MEASURE**

The Builder will replace any improper grade or quality of wood.

**DISCUSSION**

Hardwood flooring is a natural product and consequently can be expected to exhibit variations in color, grain, and stain acceptance.

***Observation: Hardwood flooring has visible scratches and dents.***

**PERFORMANCE GUIDELINE**

At the time of substantial completion of the project, hardwood flooring will not have scratches, dents, splinters, or splinters visible from a standing position.

**CORRECTIVE MEASURE**

Builder will repair flooring in affected areas to meet performance guideline.

**DISCUSSION**

The wide varieties of hardwood flooring available to Purchasers have varying hardness and wear resistance. The Builder is not responsible for the choice of a softer material that may be more susceptible to damage during or after construction. High-heeled shoes, pets, and heavy foot traffic will create scratches and dents in most hardwood floors.

***Observation: Sticker burn is observed on the surface of strip flooring.***

**PERFORMANCE GUIDELINE**

Discoloration from stacking strips on hardwood flooring is considered excessive in certain grades of flooring but is allowable in others.

**CORRECTIVE MEASURE**

The Builder will repair or replace areas with sticker burn if they are not permitted in the grade of wood specified for the project.

### ***Tile, Brick, Marble, and Stone Flooring***

***Observation: Tile, brick, marble, or stone flooring is broken or loosened.***

**PERFORMANCE GUIDELINE**

Tile, brick, marble, or stone flooring should not be broken or loose.

**CORRECTIVE MEASURE**

The Builder will replace broken tiles, bricks, marble, or stone flooring, and resecure loose tiles, bricks, marble, or stone, unless the flooring was damaged by the Purchaser's actions or negligence. The Builder is not responsible for discontinued patterns or color variations when replacing tile, brick, marble, or stone flooring.

***Observation: Cracks are seen in tile grout or at junctures with other materials, such as a bathtub.***

#### PERFORMANCE GUIDELINE

Cracks in grouting of tile joints commonly result from normal shrinkage conditions. Cracks that result in loose tiles or gaps in excess of 1/16" are considered excessive.

#### CORRECTIVE MEASURE

**One time only** during the warranty period, Builder will repair grout to meet performance guideline. The Builder is not responsible for color variations or discontinued colored grout. The Purchaser is responsible for regrouting these joints after the Builder's one-time repair.

#### DISCUSSION

The use of an elastic substance, grout caulk, at junctures between tile and other materials is often more effective than grout and is considered an acceptable method of repair.

***Observation: There is lippage of adjoining marble or ceramic tile.***

#### PERFORMANCE GUIDELINE

Lippage greater than 1/16" is considered excessive, except where the materials are designed with an irregular height such as handmade tile or tile larger than 13" x 13".

#### CORRECTIVE MEASURE

The Builder will repair lippage in the affected areas to meet the performance guideline.

***Observation: A grout or mortar joint is not a uniform color.***

#### PERFORMANCE GUIDELINE

After the grout or mortar has cured, any color variation that is readily visible from a standing position facing the surface at a distance of 6' under normal lighting conditions is considered excessive.

#### CORRECTIVE MEASURE

**One time only** during the warranty period, the Builder will repair the joint to meet the performance guideline.

#### DISCUSSION

Grout or mortar cannot be expected to match exactly in repaired areas.

## Miscellaneous

### *Fireplace and Wood Stove*

***Observation: The firebox paint is cracked or discolored by a fire in the fireplace.***

#### PERFORMANCE GUIDELINE

Cracking and discoloration are common occurrences.

#### CORRECTIVE MEASURE

No corrective action is required by the Builder.

#### DISCUSSION

The Purchaser should obtain the recommended paint from the manufacturer if he or she chooses to touch up the interior of the firebox for aesthetic reasons.

***Observation: A firebrick or mortar joint is cracked.***

#### PERFORMANCE GUIDELINE

Heat and flames from normal fires can cause cracking.

#### CORRECTIVE MEASURE

No corrective action is required by the Builder.

***Observation: A simulated firebrick panel is cracked.***

#### PERFORMANCE GUIDELINE

This is a common condition.

#### CORRECTIVE MEASURE

No corrective action is required by the homeowner.

***Observation: Rust is observed on the fireplace damper.***

#### PERFORMANCE GUIDELINE

This is a common condition.

#### CORRECTIVE MEASURE

No corrective action is required by the Builder.

### *Concrete Stoops and Steps*

***Observation: Stoops or steps have settled, heaved, or separated from the house structure.***

#### **PERFORMANCE GUIDELINE**

Stoops and steps will not settle, heave, or separate in excess of 1" from the house structure.

#### **CORRECTIVE MEASURE**

The Builder will make a reasonable and cost-effective effort to meet the performance guideline.

***Observation: Water remains on stoops or steps after rain has stopped.***

#### **PERFORMANCE GUIDELINE**

Water will drain off outdoor stoops and steps. Minor amounts of water can be expected to remain on stoops and steps for up to 24 hours after rain.

#### **CORRECTIVE MEASURE**

The Builder will take corrective action to ensure proper drainage of stoops and steps.

### *Garage*

***Observation: The garage floor slab is cracked.***

#### **PERFORMANCE GUIDELINE**

Cracks in a concrete garage floor greater than 3/16" in width or 3/16" in vertical displacement are considered excessive.

#### **CORRECTIVE MEASURE**

The Builder will repair cracks in the slab using a material designed to fill cracks in concrete.

#### **DISCUSSION**

The repaired area may not match the existing floor in color and texture.

***Observation: A garage concrete floor has settled, heaved, or separated.***

**PERFORMANCE GUIDELINE**

The garage floor will not settle, heave, or separate in excess of 1" from the structure.

**CORRECTIVE MEASURE**

The Builder will make a reasonable and cost-effective effort to meet the performance guideline.

**DISCUSSION**

The repaired area may not match the existing floor in color and texture.

***Observation: Garage doors fail to operate properly under normal use.***

**PERFORMANCE GUIDELINE**

Garage doors should operate as designed.

**CORRECTIVE MEASURE**

The Builder will correct or adjust garage doors as required, unless the Purchaser's actions or negligence caused the problem.

**DISCUSSION**

The safety sensors can be easily knocked and misaligned to that the doors will not operate properly. The Purchaser should avoid storing items near the sensors. Direct sunlight can also cause the sensors to indicate that something is blocking the opening and preventing the doors from shutting.

***Observation: Garage doors allow the entry of snow or water.***

**PERFORMANCE GUIDELINE**

Garage doors will be installed as recommended by the manufacturer. Some snow or water can be expected to enter under normal conditions.

**CORRECTIVE MEASURE**

The Builder will adjust or correct the garage doors to meet the manufacturer's installation instructions.

## *Driveways and Sidewalks*

***Observation: An asphalt driveway has cracked.***

### **PERFORMANCE GUIDELINE**

Longitudinal or transverse cracks greater than 1/16" in width or vertical displacement are considered excessive.

### **CORRECTIVE MEASURE**

The Builder will repair the affected area to meet the performance guideline using a material designed to fill cracks in asphalt.

***Observation: Standing water is observed on an asphalt pavement surface.***

### **PERFORMANCE GUIDELINE**

Standing water greater than 3/8" in depth will not remain on the surface 24 hours after a rain.

### **CORRECTIVE MEASURE**

The Builder will repair the affected area to meet the performance guideline.

### **DISCUSSION**

Patched asphalt surfaces due to repairs may not match existing surface in color or texture.

***Observation: The aggregate of asphalt pavement is coming loose.***

### **PERFORMANCE GUIDELINE**

Asphalt pavement aggregate will not come loose.

### **CORRECTIVE MEASURE**

The Builder will repair the affected area to meet the performance guideline, using a material designed to repair asphalt surfaces.

### **DISCUSSION**

Patched asphalt surfaces due to repairs may not match existing surface color or texture.

***Observation: A concrete driveway or sidewalk is cracked.***

**PERFORMANCE GUIDELINE**

Cracks (outside of control joints) that exceed 1/4" in width or 1/4" in vertical displacement will be repaired.

**CORRECTIVE MEASURE**

The Builder will repair affected areas to eliminate cracks that exceed the performance guidelines using a material designed to fill cracks in concrete.

**DISCUSSION**

Minor concrete cracking is normal and to be expected. Control joints are placed in the concrete to help control cracks and provide a less visible area for them to occur. Cracking can be caused by elements outside of the Builder's control. The repaired area may not match the existing area in color and texture.

***Observation: Adjoining exterior concrete flatwork sections deviate in height from one section to another.***

**PERFORMANCE GUIDELINE**

Adjoining concrete sections will not deviate in height by more than 1/2" unless the deviation is intentional at specific locations such as at garage door openings.

**CORRECTIVE MEASURE**

The Builder will repair deviations to meet the performance guideline.

**DISCUSSION**

Some areas of the country experience lift or settlement at the junction of the garage floor and the driveway, which occurs because of seasonal fluctuations in moisture and temperature. Repairs will only be made after the effects of the current seasonal fluctuations have subsided and the true determination of repair can be made. The repaired area may not match the existing area in color and texture.

***Observation: A sidewalk and other exterior concrete flatwork has settled.***

**PERFORMANCE GUIDELINE**

Adjoining concrete sections will not deviate in height by more than 1/2".

**CORRECTIVE MEASURE**

The Builder will repair deviations to meet the performance guideline.

**DISCUSSION**

Some areas of the country experience lift or settlement at the junction which occurs due to seasonal fluctuations in moisture and temperature. Repairs will only be made after the effects of the current seasonal fluctuations have subsided and a true determination of repair can be made. The repaired area may not match the existing area in color and texture.

***Observation: Water collects or ponds on the sidewalk.***

**PERFORMANCE GUIDELINE**

At time of substantial completion, standing water that is 3/8" deep on a sidewalk 24 hours after the end of a rain is considered excessive.

**CORRECTIVE MEASURE**

The Builder will repair or replace the affected area to meet the performance guideline.

**DISCUSSION**

The repaired area may not match the existing area in color and texture.

***Observation: Areas of pitting and spalling in concrete.***

**PERFORMANCE GUIDELINE**

Concrete will have less than 30% pitting or spalling in an area between control joints.

**CORRECTIVE MEASURE**

The Builder will repair or replace the affected area to meet the performance guideline.

**DISCUSSION**

The repaired area may not match the existing area in color and texture.

### *Wood and Composite Decks*

***Observation: A wood deck is springy or shaky.***

**PERFORMANCE GUIDELINE**

All structural members in a wood deck will be sized, and fasteners spaced, according to the prevailing building codes and manufacturer's instructions.

**CORRECTIVE MEASURE**

The Builder will reinforce or modify, as necessary, any wood deck not meeting the performance guideline.

**DISCUSSION**

Deflection may indicate insufficient stiffness in the lumber or may reflect an aesthetic consideration independent of the strength and safety requirements of the lumber. Structural members are required to meet standards for both stiffness and strength. When a Purchaser's preference is made known before construction, the Builder and the Purchaser may agree upon a higher standard.

***Observation: The spaces between decking boards are not uniform.***

**PERFORMANCE GUIDELINE**

At the time of substantial completion of the project, the spaces on opposite sides of individual deck boards will not differ in average width by more than 3/16" unless otherwise agreed upon by the Purchaser and the Builder.

**CORRECTIVE MEASURE**

The Builder will realign or replace decking boards to meet the performance guideline.

**DISCUSSION**

The spaces will naturally tend to change over time because of shrinkage and expansion of individual boards. The Builder is only responsible for correct spacing at the time of substantial completion of the project.

***Observation: The railings on wood decking contain slivers in exposed areas.***

**PERFORMANCE GUIDELINE**

Railings on wood decks will not contain slivers longer than 1/8" in exposed areas.

**CORRECTIVE MEASURE**

**One time only** during the warranty period, the Builder will repair railings as necessary to remove slivers prior to substantial completion of the project. Repair of slivers after that time is a Purchaser maintenance responsibility.

**DISCUSSION**

Slivers can develop when unprotected wood weathers.

***Observation: A wood deck is out of level.***

**PERFORMANCE GUIDELINE**

No point on the deck surface will be more than 1/2" higher or lower than any other deck surface point within 10' on a line parallel to the home, or in proportional multiples of the preceding dimensions (unless a slope is incorporated in the design).

**CORRECTIVE MEASURE**

The Builder will repair the deck as necessary to meet the performance guideline.

**DISCUSSION**

A slope of approximately 1/8" per foot is desirable in the perpendicular direction to shed water and prevent ice buildup.

***Observation: Wood decking boards, railings, and / or pickets are split, warped, or cupped.***

**PERFORMANCE GUIDELINE**

At the time of substantial completion of the project, splits, warps, and cups in wood decking boards, railings, and / or pickets will not exceed the allowances established by the official grading rules issued by the agency responsible for the lumber species specified for the deck boards.

**CORRECTIVE MEASURE**

The Builder will replace decking boards, railings and / or pickets as necessary to meet the performance guideline.

***Observation: A wood deck has applied stain color variations.***

**PERFORMANCE GUIDELINE**

Stain color variations are not acceptable if they result from improper stain application or failure to mix the stain properly. Stain color variations resulting from other causes – such as weathering or natural variations in the wood used to build the deck – are common and are not covered by this guideline.

**CORRECTIVE MEASURE**

If the Builder stained the deck, the Builder will re-stain the affected area to meet the performance guideline.

***Observation: A fastener protrudes from a decking board.***

**PERFORMANCE GUIDELINE**

Fasteners will not protrude from the floor of the deck.

**CORRECTIVE MEASURE**

**One time only** during the warranty period, the Builder will reinstall fasteners that protrude from the floor of the deck so that the heads are flush with the surface.

**DISCUSSION**

Fasteners should be driven or screwed flush when the deck is installed, but they may pop from a wood deck over time as the wood shrinks and expands.

***Observation: Fasteners on a wood deck are bleeding.***

**PERFORMANCE GUIDELINE**

Stains extending more than 1/2" from the fastener and readily visible from a distance of 10' are not acceptable.

**CORRECTIVE MEASURE**

The Builder will eliminate fastener stains to meet the performance guideline.

**DISCUSSION**

The repaired area may not match the existing deck area in color and texture. This guideline does not apply if natural weathering or semitransparent stains are specified.

***Observation: A deck railing lacks rigidity.***

**PERFORMANCE GUIDELINE**

Deck railings will be attached to structural members in accordance with the prevailing building codes.

**CORRECTIVE MEASURE**

The Builder will repair deck railings as necessary to meet the performance guideline.

## Landscaping

*Observation: Tree stumps are left in a disturbed area of the property.*

### PERFORMANCE GUIDELINE

The Builder is responsible for removing stumps from trees that were on the property in the disturbed area prior to the substantial completion of the project, unless stumps are located within the septic drain field areas or stumps were present prior to the Builder beginning construction.

### CORRECTIVE MEASURE

The Builder will remove the stumps from the disturbed area.

*Observation: Sod, shrubs, plants, or trees that were planted as part of the contract are dead.*

### PERFORMANCE GUIDELINE

At the time of substantial completion of the project, any shrub, plant, tree, or sod planted by the Builder as part of the contract will be alive.

### CORRECTIVE MEASURE

Any shrub, plant, tree, or sod planted by the Builder as part of the contract will be replaced to meet the performance guideline.

### DISCUSSION

After installation, proper lawn and landscape care are the Purchaser's responsibility. New landscaping requires frequent watering until roots of plantings have become established. Watering is the Purchaser's responsibility.

***Observation: Grass seed does not germinate.***

**PERFORMANCE GUIDELINE**

Germination is dependent on certain climatic conditions, which are beyond the Builder's control.

**CORRECTIVE MEASURE**

The Builder is only responsible for seeding per the manufacturer's instructions. No corrective action is required by the Builder.

**DISCUSSION**

After installation, proper lawn and landscape care are the Purchaser's responsibility. New landscaping requires frequent watering until roots of plantings have become established. Watering is the Purchaser's responsibility.

# GLOSSARY

<b>Arc Fault Circuit Interrupter (AFCI):</b>	A type of circuit breaker that detects unwanted arcing in the wiring of the branch circuit and opens the circuit before excessive heat buildup can cause a fire.
<b>Asphalt:</b>	A brownish-black solid or semisolid mixture of bitumen's used in paving, roofing, and waterproofing.
<b>Beam:</b>	A structural member that transversely supports a load.
<b>Bifold Doors:</b>	Doors that are hinged at the center and guided by an overhead track.
<b>Bleed:</b>	Discoloration of the materials around fasteners caused by weathering.
<b>Blocking:</b>	A solid, tight closure used between framing members.
<b>Break Line:</b>	A dividing point between two or more surfaces.
<b>Brick Veneer:</b>	A non-structural outer covering of brick.
<b>Bypass Doors:</b>	Doors that hang on an overhead track and slide side to side.
<b>Cantilever:</b>	Construction that is unsupported at one end and that projects outward from the site of the structure to carry loads from above or below.
<b>Ceiling Joist:</b>	The horizontal structural members to which the ceiling is fastened. Some members may support a floor above.
<b>Checking:</b>	Cracks in wood.
<b>Chimney Cap:</b>	A metal or masonry surface that covers the top portion of a chimney and prevents the penetration of water.
<b>Circuit:</b>	The complete path of electricity away from and back to its source.

<b>Circuit Breaker:</b>	A device that automatically interrupts an electrical circuit when it becomes overloaded.
<b>Cold Joint:</b>	A joint in poured concrete that indicates where the pour terminated and continued.
<b>Concrete Flatwork:</b>	Horizontal poured concrete surface.
<b>Control Joint:</b>	A joint that is molded or cut in concrete to allow for expansion and contraction and to attempt to control random cracking.
<b>Copied:</b>	A piece of trim material that is hand cut to fit together with another piece of trim.
<b>Corner Bead:</b>	A strip of metal, plastic, or vinyl placed on corners before plastering to reinforce and protect them. Crawl space: An area under a home that is not a basement or cellar and is not considered livable space.
<b>Crowning:</b>	A condition occurring when the center of a board is higher than its outside edges. Cupped: A condition wherein the center of a board is lower than its outside edges.
<b>Damper:</b>	A device used to regulate airflow.
<b>Dead Spot:</b>	Areas below a carpeted surface where padding seems to be missing or improperly installed.
<b>Deflection:</b>	The bend of a truss or beam under a load.
<b>Delamination:</b>	Split or separation of a laminated product into layers.
<b>Dew Point:</b>	The temperature at which moisture in the air condenses into liquid.
<b>Disturbed Area:</b>	Any area adjacent to a dwelling where original vegetation has been altered or removed.
<b>Downspout:</b>	A pipe that carries rainwater from the roof to the ground or to a groundwater management system.

<b>Drywall:</b>	Gypsum board.
<b>Duct:</b>	A round or rectangular pipe used to transmit and distribute warm or cool air from a central heating or cooling unit, or a pipe connected to a bath or kitchen exhaust fan to transmit air to the exterior of the home.
<b>Ductwork:</b>	A system of ducts, dampers, plenums, and fans that creates a continuous passageway for the transmission of air.
<b>Eave:</b>	The lower or outer edge of a roof that projects over the side walls of a structure.
<b>Efflorescence:</b>	White powder that appears on the surface of masonry walls. It is usually caused by moisture reacting with the soluble salts in crete and forming harmless carbonate compounds.
<b>Finish Flooring:</b>	The top flooring material that covers the subflooring surface, such as carpeting, hardwood, tile or vinyl.
<b>Firebox:</b>	An enclosure for a fire in a fireplace.
<b>Firebrick:</b>	A brick that can withstand very high temperatures that is used in a fireplace.
<b>Flashing:</b>	Strips of metal or plastic used to prevent moisture from entering roofs, walls, windows, doors, and foundations.
<b>Floor Joist:</b>	A horizontal framing member to which flooring is attached.
<b>Footing:</b>	The system at the base of a foundation wall that supports and distributes loads from the foundation to the ground.
<b>Foundation:</b>	That part of a building which is below the surface of the ground and upon which the superstructure rests.
<b>Grids, Grilles, and Muntins:</b>	Strips of wood, metal, or plastic installed within two pieces of glass or on the inside and exterior surface of the glass that divide a window into panes.

<b>Ground Fault Circuit Interrupter:</b>	A type of circuit breaker that is extremely sensitive to moisture and changes in resistance to an electrical current flow. A GFCI protects against electrical shock or damage.
<b>Gypsum:</b>	Hydrous calcium sulphate mineral rock used to make wallboards.
<b>Hardwood:</b>	A term used to designate wood that is from deciduous trees, which lose their leaves annually.
<b>Header:</b>	A structural member placed across the top of an opening to support loads above.
<b>Hip:</b>	The external angle formed by the juncture of two sloping sides of a roof.
<b>Honeycomb:</b>	Pits, surface voids, and similar imperfections caused by air entrapped at the concrete and concrete form interface.
<b>HVAC:</b>	Heating, ventilation, and air conditioning.
<b>Jamb:</b>	The side framing or finish material of a window, door, or other opening.
<b>Joist:</b>	An on-edge horizontal lumber member, such as a 2x6, 2x8, 2x10, 2x12, I-beam, truss, or other material which spans from wall to wall or beam to provide main support for flooring, ceiling, or roofing systems.
<b>Lath:</b>	Any material used as a base for plastering or stucco surfacing.
<b>Lippage:</b>	The difference in surface alignment between two materials, such as tile or stone slabs.
<b>Louver:</b>	An opening with horizontal slats that allows for the passage of air, but not rain, light, or vision.
<b>Manufacturer's Warranty:</b>	The warranty provided by a manufacturer on a specific product.

<b>Masonry:</b>	Brick, stone, concrete block, and other similar building materials bonded together with mortar.
<b>Membrane Roofing:</b>	A type of roofing system for buildings with flat or nearly flat roofs designed to prevent leaks and move water off the roof.
<b>Mitered:</b>	Two pieces of trim beveled at 45-degree angles to form (when joined) a 90-degree corner.
<b>Mortar:</b>	An adhesive and leveling material used in brickwork, stone, block, and similar masonry construction. Also, to set exterior and interior tile.
<b>Nail Pop:</b>	The protrusion of a nail or screw in a panel of drywall usually attributed to the shrinkage of or curing of wood framing.
<b>Parging:</b>	A rough coat of mortar applied over a masonry wall.
<b>Picket:</b>	A post in a railing system used to create a full barrier.
<b>Pitch:</b>	The degree of incline in a sloped roof or structure.
<b>Pitting:</b>	Small cavities in a concrete surface.
<b>Plumb:</b>	A measurement of true vertical.
<b>Pocket Door:</b>	A door that slides into a wall into a pocket-style hardware system.
<b>Radiant Floor:</b>	A floor that is heated, usually by a forced hot water system with pipes placed in the floor, wall, or ceiling.
<b>Rafter:</b>	Structural members that shape and form the support for the roof deck and the roof covering.
<b>Register:</b>	A louvered device that allows air travel from the ducts into a room.
<b>Reveal:</b>	The space between two adjacent components.

<b>Ridge:</b>	The horizontal line at the junction of the top edges of two sloping roof surfaces.
<b>Riser (Stairway):</b>	A vertical stair member that supports a tread.
<b>Roof Ridge:</b>	The apex of a roof system.
<b>Roof Sheathing:</b>	Boards or sheet materials nailed to the top edges of trusses or rafters to tie a roof together and support the roofing material.
<b>Rust Marks:</b>	Stains caused by the oxidation of metallic components.
<b>Setting:</b>	The driving of a fastener flush or below the surface of a material.
<b>Shakes:</b>	Split wooden shingles that are random in thickness.
<b>Sheathing:</b>	The application of panels to the face of framing members. Also known as “decking”.
<b>Shim:</b>	A thin, tapered piece of material (usually wood) that is used to adjust or provide support or alignment.
<b>Skip:</b>	A natural depression below the surface of a planned board.
<b>Skirt:</b>	In a stair system, the board that runs along the ends of each step.
<b>Slab:</b>	A concrete floor or surface.
<b>Soffit:</b>	The enclosed undersurface of an eave which may be vented or non-vented.
<b>Spalling:</b>	The breaking away of a small piece of concrete.
<b>Sticker Burn:</b>	The discoloration from stacking strips which occurs during the drying and storage of hardwood boards.

<b>Stucco:</b>	An exterior finish product composed of sand, lime, and cement installed over a concrete wall or lath system.
<b>Subfloor:</b>	A floor decking material installed on top of the floor joists over which a finish floor is to be laid.
<b>Substantial Completion of the Project:</b>	The point in a project when areas of the residence are functional for their intended use as defined by the contract.
<b>Sump Pump:</b>	A pump installed in a crawl space, basement, or other low area to discharge water that might collect.
<b>Swale:</b>	A shallow depression in the ground that is used to drain water.
<b>Telegraphing:</b>	A condition of a subsurface projecting through the finish material, as with existing shingles through a new layer of shingles.
<b>Tread:</b>	A horizontal stair member. The surface one steps upon when walking up or down stairs.
<b>Trowel Marks:</b>	Impressions in dried joint compound made by a trowel or other drywall finishing tool.
<b>Truss:</b>	An engineered assembly of wood or metal components that is generally used to support roofs or floors.
<b>Warranty Period:</b>	The duration of the applicable warranty agreed upon by the Builder and the Purchaser in a contract.
<b>Water Hammer:</b>	A hammering or stuttering sound in a pipeline that sometimes accompanies a sudden and significant change in the flow rate of the fluid through the pipeline.
<b>Weather Stripping:</b>	Material placed around doors, windows, and other openings to prevent the infiltration of air, dust, rain, or other elements.
<b>Weep Hole:</b>	A small hole in a wall or windowsill that allows water to drain.



**616-916-8895**