

**Burckart Construction, Inc.**

**One (1)-Year Expressed**

**Warranty Handbook**

**&**

**Documents**

**IT IS IMPORTANT THAT THIS ENTIRE HANDBOOK BE READ.  
PLEASE CONTACT OUR OFFICE FOR QUESTIONS OR CONCERNS (479) 273-1881**

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## **Burckart Construction, Inc. One-Year Expressed Warranty**

- ♦ **Burckart Construction, Inc. Expressed warranty** is for one (1) year only from your closing date, or Temp C/O, and all warranty items are listed in this handbook. No other warranties implied or expressed are given.
- ♦ Burckart's expressed warranty is also limited to the terms of the Certificate of Acceptance.
- ♦ Burckart Construction, Inc. must have an opportunity to perform its warranty responsibilities and repairs.
- ♦ Burckart Construction, Inc. will not be responsible for any fees, damage or cost if unable or unaware of warranty issues.
- ♦ This home has passed all City or governing bodies inspections and has received a certificate of occupancy.
- ♦ No warranties of any natural products due to shrinkage or swelling will be preformed.
- ♦ Burckart Construction, Inc. will have access to your home to complete warranty items.
- ♦ Each contractor will be provided with one warranty request.
- ♦ It is the responsibility of the homeowner to have utilities put in their name upon possession of home.
- ♦ Pending the nature of your call, there may be a service call charge for which the homeowner is responsible.
- ♦ Homeowner will be billed accordingly and service may be disconnected if failure to do so.

# **1 SITE WORK**

**1-0-1 Observation:** The ground has settled around the foundation, over utility trenches, or in other areas.

**Performance Guideline:** Settling of ground around foundation walls, over utility trenches, or in other filled areas shall not interfere with water drainage away from the home.

**Corrective Measure:** If the contractor has provided final grading, upon request by the owner, the contractor will fill settled areas affecting proper drainage in excess of 6 inches, one time only during the warranty period. The owner will be responsible for removal and replacement of shrubs and other landscaping affected by placement of such fill.

**1-0-2 Observation:** The site does not drain properly.

**Performance Guideline:** The necessary grades and swales shall have been established by the contractor to ensure proper drainage away from the home. Standing or ponding water shall not remain for extended periods in the immediate area of the house after a rain (generally no more than 24 hours), except in swales that drain other areas or in areas where sump pumps discharge. In these areas a longer period can be anticipated (generally no more than 48 hours). The owner should anticipate the possibility of standing water after an unusually heavy rainfall. No grading determination shall be made while frost or snow is on the ground or while the ground is saturated.

**Corrective Measure:** The contractor is responsible only for initially establishing the proper grades and swales. The owner is responsible for maintaining such grades and swales once the contractor has properly established them.

**1-0-3 Observation:** The site has soil erosion.

**Performance Guideline:** Contractor is not responsible for soil erosion due to acts of God, or other conditions beyond the contractor's control.

**Corrective Measure:** No action required.

**1-0-4 Observation:** Water from nearby or adjacent property flows onto the consumer's lot.

**Performance Guideline:** The contractor is not responsible for water flowing from a nearby or adjacent property or on which no dwelling has been erected other than providing proper slopes around the newly erected dwelling.

**Corrective Measure:** It is the contractor's responsibility to control water only in the immediate area of the new dwelling.

**1-0-5 Observation:** Existing trees, shrubs or other vegetation may be damaged in the course of construction.

**Performance Guideline:** The contractor will review the existing condition of the landscape with the consumer. The contractor will make a reasonable and cost-effective effort to preserve existing landscaping. The survival of existing landscaping cannot be guaranteed.

**Corrective Measure:** No contractor action is needed.

## **2 FOUNDATION**

### **General**

**2-1-1 Observation:** The foundation is out of square at slab inspection.

**Performance Guideline:** As measured at the top of the foundation wall, the diagonal of a triangle with sides of 12 feet and 16 feet shall be no more than 1.25 inch more or less than 20 feet, unless the owner and contractor agree to intentionally build an addition to an existing structure out of square in order to match or compensate for inaccuracies in the existing structure.

**Corrective Measure:** The contractor will make necessary modifications to any foundation not complying with the performance guidelines for squareness to provide a satisfactory appearance. The contractor may square the first floor deck by cantilevering over the foundation where out of square.

**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 guideline tolerance of plus or minus 1 inch in the diagonal allows a maximum increasing or decreasing portion of about 3/8-inch in a 12-foot wall of a 12x16-foot room. However, a contractor and client may agree to build an addition out of square in order to keep a new exterior wall on line with an existing wall of an out of square house. The corrective measure emphasizes the primarily aesthetic nature of squareness and makes the criteria for correction "a satisfactory appearance." This criterion allows the contractor to make either a structural change, if the defect is discovered in time, or some cosmetic change to hide the defect, if the construction is in the finishing stages when the defect is discovered.

**2-1-2 Observation:** The foundation is not level at slab inspection.

**Performance Guideline:** As measured at the top of the foundation wall, no point shall be more than 3/4 inch higher or lower than any point within 20 feet, unless the owner and contractor agree to intentionally build an addition to an existing structure out of level in order to match or compensate for inaccuracies in the existing structure.

**Corrective Measure:** The contractor will make necessary modifications to any foundation not complying with the performance guidelines for levelness to comply with the performance guideline. This can be affected by leveling the sills with shims, mortar or appropriate fillers.

**2-1-3 Observation:** Crack in concrete footing.

**Performance Guideline:** Cracks greater than 1/4-inch in width are considered excessive.

**Corrective Measure:** The contractor shall repair any cracks in excess of the performance guideline.

## Concrete Slab

**2-2-1 Observation:** A concrete slab within the structure has separated or moved at expansion and contraction joints.

**Performance Guideline:** Concrete slabs within the structure are designed to move at expansion and contraction joints.

**Corrective Measure:** None.

**2-2-2 Observation:** Efflorescence is present on surface of basement floor

**Performance Guideline:** This is a normal condition.

**Corrective Measure:** None

**2-2-3 Observation:** Concrete floor or slab is uneven at substantial completion.

**Performance Guideline:** Except for basement floors or where a floor or portion of floor has been designed for specific drainage purposes, concrete floors in rooms designed for habitability shall not have pits, depressions or areas of unevenness exceeding 3/8-inch in 32 inches.

**Corrective Measure:** The contractor will correct or repair the floor to meet the performance guideline.

**Discussion:** Proper repair can be affected by thoroughly cleaning, filling, and troweling the surface level using a latex-fortified cement mixture or other materials designed to fill cracks and bond concrete.

**2-2-4 Observation:** The concrete floor slab is cracked.

**Performance Guideline:** Minor cracks in concrete basement floors are normal. Cracks exceeding 1/4 -inch in width or 1/4-inch in vertical displacement shall be repaired if the slab is in conditioned space.

**Corrective Measure:** The contractor will repair cracks that do not meet the performance guideline.



**Discussion:** Proper repair can be affected by thoroughly cleaning, filling, and troweling the surface using a latex-fortified cement mixture designed to fill cracks and bond concrete.

**2-2-5 Observation:** Interior concrete work is pitting, scaling, or spalling.

**Performance Guideline:** Interior concrete surfaces shall not disintegrate. Aggregate pops are normal; minor scaling is not controllable at all. Exterior surfaces are not warranted.

**Corrective Measure:** None

### Basement and Crawl Space Concrete Block Walls

**2-3-1 Observation:** A concrete block basement or crawl space wall is cracked.

**Performance Guideline:** Cracks in concrete block basement or crawl space walls shall not exceed 1/4-inch in width.

**Corrective Measure:** The contractor will repair cracks to meet the performance guideline.

**Discussion:** Shrinkage cracks are common in concrete block masonry and should be expected in crawl space and basement walls. Proper repair by owner can be affected by thoroughly cleaning, filling, and troweling the surface using a latex-fortified cement mixture designed to fill cracks and bond concrete.

**2-3-2 Observation:** A concrete block basement wall is out of plumb at substantial completion.

**Performance Guideline:** Block concrete walls shall not be out of plumb greater than 1 1/4 inch in 8 feet when measured from the base to the top of the wall.

**Corrective Measure:** The contractor shall repair any deficiencies in excess of the performance guideline. If the wall is to remain unfinished per contract, and the wall meets building codes as evidenced by passed inspections, then no corrective action is required.

### Basement and Crawl Space Poured Walls

**2-4-1 Observation:** Poured concrete basement wall is out of plumb at slab inspection.

**Performance Guideline:** Concrete walls shall not be out of plumb greater than 1 1/4 inch in 8 feet when measured from the base to the top of the wall.

**Corrective Measure:** The contractor shall repair any deficiencies in excess of the performance guideline. If the wall is to remain unfinished per contract, and the wall meets building codes as evidenced by passed inspections, then no corrective action is required.

**2-4-2 Observation:** Exposed concrete wall has pits, surface voids or similar imperfections in it.

**Performance Guideline:** Holes larger than 1 inch in diameter or 1 inch in depth are unacceptable.

**Corrective Measure:** The contractor will repair holes that do not meet the performance guideline.

**Discussion:** Proper repair can be affected by thoroughly filling the hole. The repaired area will not match the color of the surrounding concrete.

**2-4-3 Observation:** The basement wall is cracked (horizontal or vertical separation).

**Performance Guideline:** Cracks in basement walls shall not allow exterior water to leak into the basement.

**Corrective Measure:** The contractor will repair cracks that do not meet the performance guideline when leaks are present.

**Discussion:** Shrinkage cracks are not unusual and are inherent in the drying process. They should be expected in basement walls due to the nature of masonry block and concrete. Cracks may be vertical, diagonal, horizontal, or stepped in masonry joints. The only cracks considered under warranty claims are cracks that permit water penetration.

# Moisture and Leaks

## Basement Floor and Walls

**2-5-1 Observation:** Dampness is evident on basement wall or floor.

**Performance Guideline:** Dampness caused by wicking through the basement walls or floor and condensation of water vapor on cool walls and floor are not the responsibility of the contractor.

**Corrective Measure:** None. Dampness prevention is the responsibility of the owner.

**Discussion:** The owner's failure to maintain a proper grade away from the house can contribute to dampness. Condensation also contributes to dampness.

**2-5-2 Observation:** The basement leaks.

**Performance Guideline:** Leaks resulting in actual trickling of water shall be repaired. Leaks caused by landscaping improperly installed by the owner, or by the failure of the owner to maintain proper grades, are not the contractor's responsibility. Walls and floors of new construction may become damp as concrete, mortar, and other materials dry, and dampness alone is not considered a deficiency.

**Corrective Measure:** The contractor will take such action as necessary to correct basement leaks, except where the cause is determined to result from the owner's actions or negligence.

## Crawl Space

**2-5-3 Observation:** Water accumulates in the interior crawl space.

**Performance Guideline:** Crawl spaces should be graded and drained properly to prevent water from accumulating deeper than 1 inch and larger than 36 inch in diameter in the crawl space area.

**Corrective Measure:** The contractor will take the necessary corrective measures to meet the performance guideline. The contractor is not responsible if the client provided the exterior grading or the client failed to maintain grades established by the contractor.

**2-5-4 Observation:** Condensation is evident on the crawl space surface.

**Performance Guideline:** Condensation in the crawl space shall not result from lack of adequate ventilations as required by code. Condensation resulting from other causes is not the responsibility of the contractor.

**Corrective Measure:** The contractor will ensure that ventilation meets the appropriate code requirements. Further reduction of condensation is an owner maintenance responsibility.

**Discussion:** Temporary conditions may cause condensation that cannot be eliminated by ventilation and a vapor barrier because:

- If condensation must be reduced substantially, the consumer can do so by sealing and dehumidifying or heating the crawl space or by heating and dehumidifying the house.

## Columns

**2-6-1 Observation:** An exposed concrete column is installed bowed or out of plumb.

**Performance Guideline:** Exposed concrete columns shall not be installed with a bow in excess of 1 inch in 8 feet. They should not be installed out of plumb in excess of 1 inch in 8 feet.

**Corrective Measure:** The contractor shall repair any deficiencies in excess of the performance guideline.

**2-6-2 Observation:** A masonry column is out of plumb.

**Performance Guideline:** Masonry columns should not be constructed out of plumb in excess of 1 inch in 8 feet.

**Corrective Measure:** The contractor shall repair any deficiencies in excess of the performance guideline.



### 3 WOOD FLOOR FRAMING

#### Floor System

**3-1-1 Observation:** Springiness, bounce, shaking or visible sag is present in the floor system at substantial completion.

**Performance Guideline:** All beams, joists, headers and other structural members shall be sized according to the manufacturers' specifications or local building codes. All members have passed inspections.

**Corrective Measure:** The contractor will reinforce or modify, as necessary, any member of the floor system not meeting the performance guideline.

#### Beams, Columns and Posts

**3-2-1 Observation:** An exposed wood column or post is split.

**Performance Guideline:** Sawn wood columns or posts shall meet the grading standard for the species used.

**Corrective Measure:** None

**Discussion:** Columns and posts will sometimes split as they dry after installation. Splitting is acceptable and is not a structural concern if columns or posts have been sized according to manufacturers' specifications or local building codes. Splitting is primarily an aesthetic rather than a structural concern.

**3-2-2 Observation:** An exposed wood beam is split.

**Performance Guideline:** Sawn wood beams shall meet the grading standard for the species used.

**Corrective Measure:** none

**Discussion:** Beams 2 ½ inches or greater in thickness (which normally are not kiln dried) will sometimes split as they dry after installation. Splitting is acceptable and is not a structural concern if the sawn lumber beams have been sized according to manufacturers' specifications or local building codes. Splitting is primarily an aesthetic rather than a structural concern.

**3-2-3 Observation:** An exposed wood beam or post is twisted or bowed.

**Performance Guideline:** Exposed wood posts and beams shall meet the grading standard for the species used.

**Corrective Measure:** None.

**Discussion:** Beams and posts, especially those 3 ½ inches or greater in thickness (which normally are not kiln dried) will sometimes twist or bow as they dry after milling or installation. Twisting or bowing is usually not a structural concern if posts and beams have been sized according to manufacturers' specifications or local building codes.

#### Plywood and Joists

**3-3-1 Observation:** The wood floor squeaks or the sub floor appears loose.

**Performance Guideline:** Totally squeak-proof floors cannot be guaranteed.

**Corrective Measure:** The contractor will refasten any loose sub floor 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, plywood or boards move slightly when someone walks over them. Boards and plywood may become loose due to shrinkage of the floor structure or sub floor as it 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. Because of the nature of wood and construction methods, it is practically impossible to eliminate all squeaks during all seasons. Clearly, some squeaks are more objectionable than others.

**3-3-2 Observation:** A wood sub floor is uneven.

**Performance Guideline:** Sub floors shall not have more than a ¼-inch ridge or depression within any 32-inch measurement. Measurements should not be made at imperfections that are characteristic of the code-approved material used. This guideline does not cover transition points between different materials.

**Corrective Measure:** The contractor will correct or repair the sub floor to meet the performance guideline.

**3-3-3 Observation:** A wood floor is out of level.

**Performance Guideline:** The floor should not slope more than ½-inch in 20 feet. Crowns and other lumber characteristics that meet the standards of the applicable grading organization for the grade and species used are not defects. Deflections due to overloading by the consumer are not the contractor's responsibility.

**Corrective Measure:** The contractor will make a reasonable and cost-effective effort to modify the floor that does not comply with the performance guideline.

**Discussion:** Sloped floors have both an aesthetic and functional consideration. Measurements for slope should be made across the room, not in a small area.

**3-3-4 Observation:** Deflection is observed in a floor system constructed of wood I-joists, floor trusses or similar products.

**Performance Guideline:** All wood I-joists and other manufactured structural components in the floor system shall be sized and installed as provided in the manufacturers' instructions and code requirements.

**Corrective Measure:** The contractor will reinforce or modify as necessary any floor component not meeting the performance guideline.

**Discussion:** Deflection will be measured across the room and not in a small area. Deflections may indicate an aesthetic consideration independent of the strength and safety requirements of the product. When a consumer's preference is made known before construction, the contractor and the consumer may agree upon, in writing, a higher standard.

## 4 WALLS

### Wall Framing

**4-1-1 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 shall be caulked to prevent the entry of water.

**Corrective Measure:** One time only, the contractor will repair or caulk joints and cracks in exterior wall surfaces as required correcting deficiencies.

**Discussion:** Even when properly installed, caulking eventually will shrink and crack. Maintenance of caulking is the **consumer's responsibility**.

### Wall Insulation

**4-2-1 Observation:** Wall insulation is insufficient.

**Performance Guideline:** The contractor shall install insulation according to R-values designated in the contract documents or local code, as applicable. Insulation shall be installed according to locally accepted practices.

**Corrective Measure:** The contractor will install insulation to meet the performance guideline.

### Windows

**4-3-1 Observation:** Window glass is broken and/or a screen is missing or damaged.

**Performance Guideline:** Glass should not be broken and screens should not be damaged at the time of substantial completion of the project. Screens required by the contract shall be installed.



**Corrective Measure:** Broken glass and/or missing or damaged screens reported to the contractor before closing will be installed or replaced. Broken glass and/or screens not reported prior to substantial completion of the project are the consumer's responsibility.

**4-3-2 Observation:** Mirror or glass surfaces are scratched.

**Performance Guideline:** Glass or mirror surfaces shall not have scratches visible from 10 feet under normal lighting conditions at the time of substantial completion of the project.

**Corrective Measure:** The consumer should examine glass and mirror surfaces prior to closing.

The contractor shall replace any scratched glass or mirror surface not within performance guidelines if noted prior to close.

**4-3-4 Observation:** During rains, water is observed on the interior corner of a glazed window unit.

**Performance Guideline:** Water leakage from improper installation is considered excessive. Leakage due to the manufacturer's design specifications is acceptable.

**Corrective Measure:** The contractor shall repair any deficiencies attributable to improper installation.

**Discussion:** Leakage at the glazing interface is covered under the manufacturer's warranty.

**4-3-5 Observation:** Window grids (muntins) fall or become out of level.

**Performance Guideline:** Window grids shall not disconnect, fall or become out of level.

**Corrective Measure:** Window grids will be repaired or replaced at the contractor's discretion one time only.

**4-3-6 Observation:** Mirror backing is deteriorating.

**Performance Guideline:** While looking at the mirror, there should be no noticeable imperfections in the mirror as a result of damage to the mirror backing at the time of substantial completion of the project.

**Corrective Measure:** The contractor will replace or repair the mirror.

## Exterior Doors

**4-4-1 Observation:** An exterior door is warped.

**Performance Guideline:** Exterior doors shall not warp to the extent that they become inoperable or cease to be weather-resistant. A ¼-inch tolerance as measured diagonally from corner to corner is acceptable.

**Corrective Measure:** The contractor 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 the temperature and humidity between inside and outside surfaces; ¼-inch across the plane of the door measured diagonally from corner to corner is an acceptable tolerance. Improper or incomplete finishing of the door including sides, top and bottom may also cause warping. The contractor is not responsible for warpage if painting of doors is not within the contractor's scope of work.

**4-4-2 Observation:** Raw wood shows at the edges of an inset panel inserted into a wood exterior door during the manufacturing process.

**Performance Guideline:** This is a common occurrence in wood doors with panels.

**Corrective Measure:** No correction is required.

**Discussion:** Wood products expand and contract with changes in temperature and humidity. Wooden inserts are often loosely fitted into the rails to allow inserts to move; this minimizes splitting of the panel or other damage to the door. The consumer is responsible for controlling temperature and humidity in the home to minimize these occurrences.

**4-4-3 Observation:** A wooden door panel is split.

**Performance Guideline:** A split in a panel shall not allow light to be visible through the door.

**Corrective Measure:** One time only, the contractor will repair, paint or stain the split panel that does not meet the performance guideline. Caulking and fillers are acceptable. The repainted area may not match the remainder of the door or other doors on the house.



**Discussion:** Wooden inserts are loosely fitted into the door to allow the inserts to move; this 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.

**4-4-4 Observation:** An exterior door sticks.

**Performance Guideline:** Exterior doors shall operate smoothly, except doors that may stick during occasional periods of high humidity or with variations in temperature.

**Corrective Measure:** The contractor will adjust or replace the door to meet the performance guideline.

**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 contractor is not responsible for warpage if painting of doors is not within the contractor’s scope of work.

**4-4-5 Observation:** An exterior door will not shut completely.

**Performance Guideline:** Exterior doors shall shut completely.

**Corrective Measure:** The contractor will adjust or replace the door to meet the performance guideline.

**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 contractor is not responsible for warpage if painting of doors is not within the contractor’s scope of work.

**4-4-6 Observation:** The plastic molding on the primary door behind the storm door melts from exposure to sunlight.

**Performance Guideline:** The plastic moldings behind storm doors should not melt if the storm panel is removed and reinstalled by the consumer as a part of normal seasonal maintenance operations.

**Corrective Measure:** None

**Discussion:** Plastic moldings may melt or deform if the exterior door is covered by a storm door panel 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 storm panel and the door. The consumer is cautioned to follow the manufacturer’s recommendations on painting the moldings with a dark color, with or without the use of a storm panel. Dark colors should be avoided.

**4-4-7 Observation:** Caulking or glazing on the primary door behind the storm door cracks or peels.

**Performance Guideline:** Glazing or caulking behind storm doors should not crack or peel if the storm panel is removed and installed by consumer as part of seasonal maintenance operations.

**Corrective Measure:** None.

**Discussion:** High temperatures may cause glazing and caulking to harden and/or fall prematurely if a storm panel covers the door during a warm season or if it faces the sun. This is not a defect of the door, caulking or glazing but a problem caused by the trapping of heat between the door and the storm panel. The consumer is reminded that dark colors tend to accumulate heat and are more likely to cause problems.

**4-4-8 Observation:** A door swings open or closed by the force of gravity.

**Performance Guideline:** Exterior doors shall not swing open or closed by the force of gravity alone.

**Corrective Measure:** The contractor will adjust the door to prevent it from swinging open or closed by the force of gravity.

**4-4-9 Observation:** Gaps are visible around an exterior door edge, doorjamb and/or threshold.

**Performance Guideline:** Gaps between adjacent components shall not vary by more than 3/16-inch.

**Corrective Measure:** The contractor 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.

**4-4-10 Observation:** Exterior door hardware or kick plate has tarnished.

**Performance Guideline:** Finishes on door hardware or kick plates installed by the contractor are covered by the manufacturer's warranty.

**Corrective Measure:** The consumer should contact the manufacturer.

**4-4-11 Observation:** A sliding patio door or screen will not stay on track. A sliding patio door does not roll smoothly.

**Performance Guideline:** Sliding patio doors and screens shall slide properly on their tracks at the time of substantial completion of the project. The cleaning and maintenance necessary to preserve proper operation are consumer responsibilities.

**Corrective Measure:** The contractor shall repair the door or screen one time only.

**Discussion:** The consumer and the contractor should verify proper operation at the time of substantial completion of the project.

**4-4-12 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:** One time only, the contractor will adjust, repair or replace knobs noted prior to closing.

## EXTERIOR FINISH

### Wood and Hardboard Siding

**4-5-1 Observation:** Siding is bowed at substantial completion.

**Performance Guideline:** Bows exceeding 5/8-inch in 32 inches are considered excessive.

**Corrective measure:** The contractor will replace any wood lap siding with bows that does not meet the performance guideline and will finish the replacement siding to match the existing siding as closely as practical.

**Discussion:** If nails driven into studs fasten the siding, expansion caused by changing relative temperatures and/or humidity may cause bulges or waves. Even with proper installation, siding will tend to bow inward and outward in adjacent stud spaces.

**4-5-2 Observation:** An edge or gap is visible between adjacent pieces of siding or siding panels and other materials at substantial completion.

**Performance Guideline:** Gaps wider than 3/16-inch are considered excessive. This guideline does not apply to adjacent pieces or panels that have shiplap or similar joints.

**Corrective Measure:** The contractor will repair gaps that do not meet the performance guideline.

**Discussion:** Proper repair can be affected by providing joint covers or by caulking the gap. This is important if the gaps were intentionally made for expansion joints. If the siding is painted, the contractor will paint the new caulking to match the existing caulking as closely as practical. An exact match cannot be ensured.

**Observation:** Lap siding is not parallel with the course above or below at substantial completion.

**Performance Guideline:** A piece of lap siding may not be more than 1/2-inch off parallel with contiguous courses in any 20-foot measurement, unless the consumer and the contractor have previously agreed to disregard the performance guideline to match a pre-existing condition.



**Corrective Measure:** The contractor will reinstall siding to meet the performance guideline for straightness and will replace with new siding any siding damaged during removal.

**4-5-3 Observation:** Siding boards have buckled at substantial completion.

**Performance Guideline:** Boards that project more than 3/16-inch from the face of adjacent boards are considered excessive.

**Corrective Measure:** The contractor will repair or replace any boards that don't meet the performance guideline.

**Discussion:** Buckling is caused by wood expanding as a result of increased temperature and/or relative humidity. It can be minimized by leaving space between the tongues and grooves to allow room for expansion and by storing the product outside for a few days to allow it to adjust to the ambient conditions prior to installation.

**4-5-4 Observation:** Joints between sidings have separated.

**Performance Guideline:** Joint separations exceeding 3/16-inch are considered excessive.

**Corrective Measure:** The contractor will caulk or repair siding as necessary to fill the joint. The repaired area may not match the original siding precisely.

**Discussion:** Plywood siding, like all wood products, will expand and contract with changes in temperature and/or humidity.

**4-5-4 Observation:** Siding is bowed.

**Performance Guideline:** Some waviness in siding is to be expected because of bows in studs. Bows exceeding 5/8-inch in 32 inches are considered excessive.

**Corrective Measure:** The contractor will repair or replace the siding to meet the guideline.

**Discussion:** Additional nails or screws may be installed to remove the bow.

### Aluminum or Vinyl Lap Siding

**4-5-5 Observation:** Aluminum or vinyl siding is bowed or wavy.

**Performance Guideline:** some waviness in aluminum or vinyl lap siding are considered excessive if they exceed 1/2-inch in 32 inches.

**Corrective Measure:** The contractor will correct any waves or distortions to comply with the performance guideline by reinstalling or replacing siding as necessary.

**4-5-6 Observation:** Siding is faded.

**Performance Guideline:** Any color siding, when exposed to the ultra-violet rays of the sun, will fade. Fading cannot be prevented by the contractor. However, panels installed on the same wall and under the same conditions should fade at the same rate.

**Corrective Measure:** None. Consumer should contact the manufacturer.

**Discussion:** The siding manufacturer provides color warranties. Color & fade imperfections beyond an expected degree may be covered by the manufacturer's warranty.

**4-5-7 Observation:** Aluminum or vinyl lap siding trim is loose.

**Performance Guideline:** Trim shall not separate from the house by more than 1/4-inch.

**Corrective Measure:** The contractor will reinstall trim as necessary to comply with the performance guideline.

**Discussion:** Vinyl siding and accessories should not be caulked in most circumstances, as it could impact the product's contraction and expansion characteristics.

**4-5-8 Observation:** Aluminum or vinyl lap siding courses are not parallel with eaves or wall openings.

**Performance Guideline:** Any piece of aluminum or vinyl lap siding more than ½-inch off parallel in 20 feet with a break such as an eave or wall opening is considered excessive.

**Corrective Measure:** The contractor will reinstall siding to comply with the performance guideline and will replace with new siding any siding damaged during removal.

## **Cement Board Siding**

**4-5-9 Observation:** Cement board siding is cracked or chipped.

**Performance Guideline:** A cement product, this siding is susceptible to the same characteristic limitations as other cement products. Cracks more than 2 inches in length and 1/8-inch in width are considered excessive. Chips or dents not reported at time of substantial completion of the project are not covered.

**Corrective Measure:** Cracked or chipped cement board will be repaired or replaced as necessary, as determined by the contractor.

## Masonry and Veneer

**4-5-10 Observation:** A masonry or veneer wall is cracked.

**Performance Guideline:** Cracks visible from distances in excess of 20 feet or larger than ¼-inch in width are not acceptable.

**Corrective Measure:** The contractor will repair cracks in excess of the performance guideline by tuck pointing, patching or painting. The contractor will not be responsible for color variation between the original and new mortar.

**Discussion:** Hairline cracks resulting from shrinkage and cracks due to minor settlement are common in masonry or veneer and do not necessarily represent a defect.

**4-5-11 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:** None

**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 as may be found in basements.

## Stucco

**4-5-12 Observation:** An exterior stucco wall surface is cracked.

**Performance Guideline:** Cracks in exterior stucco wall surfaces shall not exceed 1/8-inch in width.

**Corrective Measure:** One time only, the contractor will repair cracks exceeding 1/8-inch in width. Caulking and touch-up painting are acceptable. An exact color or texture match may not be attainable.

**Discussion:** "Stucco" includes cementitious coatings and similar synthetically based finishes.

**4-5-13 Observation:** The colors and textures of exterior stucco walls do not match.

**Performance Guideline:** The colors and textures of new exterior stucco walls may not be an exact match when material is applied on different days or under differing environmental conditions. Because of the unique nature of stucco, exact match of color and texture may not be possible.

**Corrective Measure:** No corrective measure is required.

**4-5-14 Observation:** Coating has separated from the base on an exterior stucco wall.

**Performance Guideline:** The coating shall not separate from the base on an exterior stucco wall during the warranty period.

**Corrective Measure:** The contractor will repair areas where the coating has separated from the base.

**Discussion:** It is impractical to achieve a color match between stucco coatings applied at different times.

**4-5-15 Observation:** Lath is visible through stucco.



**Performance Guideline:** Lath should not be visible through stucco, nor should the lath protrude through any portion of the stucco surface.

**Corrective measure:** The contractor will make necessary corrections so that lath is not visible. The finish colors may not match.

**4-5-16 Observation:** Rust marks are observed on the stucco finish coat.

**Performance Guideline:** Rust marks on the stucco surface are considered excessive if more than 5 marks measuring more than 1-inch long occur per 100 square feet.

**Corrective Measure:** The contractor may repair or replace affected subsurface components, or seal the rusted areas and recolor the wall.

**4-5-17 Observation:** There is water damage to interior walls as a result of a leak in the stucco wall system

**Performance Guideline:** Stucco walls should be constructed and flashed to prevent water penetration to the interior of the structure under normal weather and water conditions. Damage to the stucco system caused by external factors out of the contractor's control that result in water penetration are not the contractor's responsibility.

**Corrective Measure:** If water penetration is the result of a system failure and doesn't result from external factors, the contractor will make necessary repairs to prevent water penetration through the stucco wall system.

**Discussion:** A Water penetration resulting from external factors such as windblown moisture or sprinkler systems are not the contractor's responsibility nor is failing to maintain proper maintenance of home.

## Exterior Trim

**4-6-1 Observation:** Gaps show in exterior trim at substantial completion.

**Performance Guideline:** Joints between exterior trim elements including siding and masonry, shall not result in joints opened wider than ¼-inch. In all cases, the exterior trim shall perform its function of excluding the elements.

**Corrective Measure:** The contractor will repair open joints that do not meet the performance guideline. Caulking is acceptable.

**4-6-2 Observation:** Exterior trim board is split at substantial completion.

**Performance Guideline:** Splits wider than 1/8-inch are considered excessive.

**Corrective Measure:** The contractor will repair splits by filling with a durable filler. Touch-up painting may not match the surrounding area.

**4-6-3 Observation:** Exterior trim board is bowed or twisted at substantial completion.

**Performance Guideline:** Bows and twists exceeding 3/8-inch in 8 feet are considered excessive.

**Corrective Measure:** The contractor 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.

**4-6-4 Observation:** Exterior trim board is cupped at substantial completion.

**Performance Guideline:** Cups exceeding 3/16-inch in 5 ½ inches are considered excessive.

**Corrective Measure:** The contractor 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.

## Paint, Stain and Varnish

**4-7-1 Observation:** Exterior painting, staining or refinishing is required because of repair work.

**Performance guideline:** Repairs required under these performance guidelines shall be finished to match the immediate surrounding areas as closely as practical.

**Corrective Measure:** The contractor will finish repaired areas as indicated.

**Discussion:** Touch-up painting, staining or refinishing may not match the surrounding area.

**4-7-2 Observation:** Exterior paint or stain has peeled, flaked or physically deteriorated.

**Performance Guideline:** Exterior paints and stains shall not fail during warranty period.

**Corrective Measure:** If exterior paint or stain has peeled, developed an alligator pattern or blistered, the contractor will properly prepare and refinish affected areas and match the color as closely as practical.

**4-7-3 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 paints and stains, no corrective action is required.

**4-7-4 Observation:** Varnish or lacquer finishes have deteriorated.

**Performance Guideline:** Clear finishes used on exterior surfaces may deteriorate rapidly. This is beyond the contractor's control.

**Corrective Measure:** Heat and sunlight can cause rapid deterioration of clear finishes. Maintenance is the consumer's responsibility. No corrective action is required of the contractor.

**4-7-5 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 feet under normal natural lighting conditions must be shown prior to close.

**Corrective Measure:** The contractor shall clean affected surfaces without damaging the surface.

**4-7-6 Observation:** Cabinet stain is uneven. Cabinet paint is not uniform or is mismatched.

**Performance Guideline:** Uneven stain color on wood cabinets is considered acceptable and is a result of the natural wood grain. Painted cabinets should appear uniform under normal lighting conditions as a distance of 6 feet.

**Corrective Measure:** The contractor will stain or paint the area as required to meet the performance guideline.

## **5 ROOFS**

### **Roof Structure**

**5-1-1 Observation:** The roof ridge beam has deflected.

**Performance Guideline:** Roof ridge beam deflection greater than 1 1/4 inch in 8 feet is considered excessive.

**Corrective Measure:** The contractor shall repair affected ridge beams that do not meet the performance guideline.

**5-1-2 Observation:** A rafter or ceiling joist bows (up or down).

**Performance Guideline:** Bows greater than 1 1/4 inch in 8 feet are excessive.

**Corrective Measure:** The contractor shall repair affected rafters or joists that bow in excess of the performance guideline.

### **Roof Sheathing**

**5-2-1 Observation:** Roof sheathing is wavy or appears bowed at framing inspection.

**Performance Guideline:** Roof sheathing shall not bow more than 1/2-inch in 2 feet.

**Corrective measure:** The contractor will straighten bowed roof sheathing as necessary to meet the performance guideline.



**Discussion:** In rare instances, the contractor might have to install blocking between the framing members to straighten the sheathing.

## Roof Vents

**5-3-1 Observation:** An attic vent or louver leaks.

**Performance Guideline:** Attic vents and louvers shall not leak. However, infiltration of wind-driven rain and snow are not considered leaks and are beyond the control of the contractor.

**Corrective Measure:** The contractor shall repair or replace the roof vents as necessary to meet the performance guideline.

## Roof Installation and Leaks

### Asphalt Shingles

**5-4-1 Observation:** The roof or flashing leaks.

**Performance Guideline:** Roofs and flashing shall not leak under normal conditions.

**Corrective Measure:** The contractor will repair any verified roof or flashing leaks not caused by ice build-up, leaves, debris, abnormal conditions or the consumer's actions or negligence.

**Discussion:** It is the consumer's responsibility to keep the roof drains, gutters and downspouts free of ice and debris.

**5-4-2 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 naturally can occur when snow and ice accumulates.

**Corrective Measure:** No action is required of the contractor. Prevention of ice build-up on the roof is a consumer maintenance item.

**5-4-3 Observation:** Shingles slide off the roof.

**Performance Guideline:** The contractor shall ensure that shingles are installed in accordance with the manufacturer's instructions.

**Corrective Measure:** The contractor shall evaluate and replace shingles that slide off the roof.

**Discussion:** Correctly installed shingles are covered by the manufacturer's warranty.

**5-4-4 Observation:** Holes from construction activities are found in asphalt shingles.

**Performance Guideline:** Holes from construction activities shall be flashed or sealed below the asphalt shingle tab to prevent leakage. If the patch is visible from the ground, the shingle should be replaced.

**Corrective Measure:** The contractor will repair or replace the affected shingles to meet the performance guideline.

### Roll Roofing

**5-4-6 Observation:** Water is trapped under roll roofing.

**Performance Guideline:** Water shall not become trapped under roll roofing.

**Corrective Measure:** If water becomes trapped under roll roofing during the warranty period, the contractor will repair or replace the roofing as necessary to meet the performance guideline.

**5-4-7 Observation:** Roofing is blistered but does not leak.

**Performance Guideline:** Surface blistering of roll roofing is caused by unusual conditions of heat and humidity acting on the asphalt and is a common occurrence.

**Corrective Measure:** Because this is a common occurrence, no action is required.

**5-4-8 Observation:** Water is standing on a flat roof.

**Performance Guideline:** Water shall drain from a flat roof except for minor ponding within 24 hours of a rainfall. Minor ponding shall not exceed 3/8-inch in depth.

**Corrective Measure:** The contractor will take corrective action to ensure proper drainage of the roof.

## Chimney

**5-5-1 Observation:** A crack in a masonry chimney cap or crown causes leakage.

**Performance Guideline:** It is common for caps to crack due to expansion and contraction. As a result, leaks may occur.

**Corrective Measure:** The contractor will repair leaks in new chimney flashing that are not caused by ice buildup, other common occurrences or by the consumer's actions or negligence.

**Discussion:** The accumulation of ice and snow on the roof is a natural occurrence and cannot be prevented by the contractor.

## Gutters and Downspouts

**5-6-1 Observation:** The gutter or downspout leaks.

**Performance Guideline:** Gutters and downspouts shall not leak.

**Corrective Measure:** The contractor will repair leaks in gutters and downspouts. Sealants are acceptable.

**5-6-2 Observation:** Gutters overflow.

**Performance Guideline:** Gutters should not overflow during normal rains. **This Contractor did not size gutters or downspouts and is not responsible for overflows.**

**Corrective Measure:** None **Discussion:** Gutters may overflow during heavy rains and cannot be prevented by the contractor. The consumer is responsible for keeping gutters and downspouts free from debris that could cause overflow.

## Skylights

**5-7-1 Observation:** A skylight leaks.

**Performance Guideline:** Skylights shall be installed in accordance with the manufacturer's instructions. Leaks resulting from improper installation are considered excessive. Condensation on interior surfaces is not a leak and is not considered a defect.

**Corrective Measure:** The contractor will repair any improperly installed skylight to meet the performance guideline.

**Discussion:** Condensation on interior surfaces is not a leak.

# 6 PLUMBING

## Water Supply System

**6-1-1 Observation:** A pipe or fitting leaks

**Performance Guideline:** No leaks of any kind shall exist in any water pipe or fitting during warranty period.

**Corrective Measure:** The contractor will make repairs to eliminate leakage.

**6-1-2 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 combinations of temperature and indoor humidity.

**Corrective measure:** The consumer is responsible for controlling humidity in the home and may insulate pipes and supply lines.

**6-1-3 Observation:** A faucet or valve leaks.

**Performance Guideline:** No faucet or valve shall leak as a result of defects in material or workmanship.



**Corrective Measure:** The contractor will repair or replace the leaking faucet or valve.

**6-1-4 Observation:** Water in a plumbing pipe freezes and the pipe bursts.

**Performance Guideline:** Drain, waste, vent and water pipes shall be adequately protected to reduce the possibility of freezing at the design temperatures and based on the applicable building or plumbing code.

**Corrective Measure:** The contractor will correct situations not meeting the applicable code. The consumer is responsible for draining or otherwise protecting pipes and exterior faucets exposed to freezing temperatures.

**6-1-5 Observation:** The water supply system fails to deliver water.

**Performance Guideline:** All on-site service connections to the municipal water main or private water supply are the responsibility of the contractor.

**Corrective Measure:** The contractor will repair the water supply system if the failure results from improper installation or failure of materials and if the connections are a part of the construction agreement. Conditions beyond the control of the contractor that disrupt or eliminate the water supply are not covered.

**6-1-6 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 contractor cannot eliminate all noises caused by water flow and pipe expansion/contraction. However, the contractor will provide "water hammer" protection required by the applicable plumbing code.

## Plumbing Fixtures

**6-2-1 Observation:** The bathtub or shower leaks.

**Performance Guideline:** Bathtubs and showers shall not leak.

**Corrective Measure:** The contractor will repair bathtub or shower leaks as necessary to meet the performance guideline.

**Discussion:** Proper repair can be effected by sealing areas around tubs and showers. The consumer is responsible for maintaining caulk seals from occupancy onward.

**6-2-2 Observation:** A plumbing fixtures, appliances or trim fitting is defective.

**Performance Guideline:** Plumbing fixtures, appliances and trim fittings shall not be damaged at the time of substantial completion of the project.

**Corrective Measure:** No action is required of the contractor. Defective trim fittings, appliances and fixtures are covered under the manufacturer's warranty.

**6-2-3 Observation:** The surface of a plumbing fixture is cracked or chipped.

**Performance Guideline:** Cracks and chips in surfaces of bathtubs and sinks are considered excessive if they are visible from 3 feet in normal lighting conditions.

**Corrective Measure:** The contractor is not responsible for repairs unless the damage is reported to the contractor prior to substantial completion of the project. If the problem is the result of a manufacturing defect, the manufacturer's warranty is in effect.

**6-2-4 Observation:** A vanity top is cracked.

**Performance Guideline:** Vanity tops shall not have cracks when installed with proper sealants.

**Corrective Measure:** The contractor shall repair or replace the vanity top to meet the performance guidelines. Cracks must be noted prior to substantial completion of the project.

**6-2-5 Observation:** A towel bar or paper holder is loose from wall.

**Performance Guideline:** Towel bars and paper holders shall be secure to wall during pre-closing walk-thru.

**Corrective Measure:** The contractor shall secure loose towel bars and paper holder noted during walk-thru. No warranty exists on these items after closing.

## Sanitary Sewer System

**6-3-1 Observation:** A sewer, fixture or drain is clogged.

**Performance Guideline:** Sewers fixtures and drains shall drain.

**Corrective Measure:** The contractor is not responsible for sewers, fixtures and drains that are clogged because of the consumer's actions or negligence. If a problem occurs, the consumer should consult the contractor for corrective action. If defective installation is the cause, the contractor is responsible for correcting the problem. If the consumer's actions or negligence is the cause, the consumer is responsible for correcting the problem.

# 7 ELECTRICAL

## Fuses and Circuit Breakers

**7-1-1 Observation:** A fuse blows or a circuit breaker trips.

**Corrective Measure:** The contractor will check wiring circuits and components for conformity with applicable electrical code requirements. The contractor will correct noncompliant elements.

**Discussion:** Most electrical malfunctions are caused by consumer-owned fixtures and appliances. The consumer should unplug or disconnect fixtures and appliances on the circuit and then replace the fuse or reset the breaker. If the problem recurs, the contractor should be notified.

**7-1-2 Observation:** A ground fault circuit interrupter (GFCI) or arc fault circuit interrupter (AFCI) trips frequently.

**Performance Guideline:** Ground fault and arc fault circuit interrupters shall perform as designed.

**Corrective Measure:** The contractor will install ground fault and arc fault circuit interrupters in accordance with applicable electrical codes. Tripping is to be expected and is not covered unless it is caused by a component failure or incorrect installation.

**Discussion:** Interrupters are very sensitive devices and are easily tripped.

## Outlets and Lights

**7-2-1 Observation:** Electrical outlets, switches or fixtures malfunction.

**Performance Guideline:** All electrical outlets, switches and fixtures shall operate as designed.

**Corrective Measure:** The contractor will repair or replace malfunctioning electrical outlets, switches and fixtures.

**7-7-2 Observation:** Wiring fails to carry its designed load.

**Performance Guideline:** Wiring shall be capable of carrying the designed load for normal residential use.

**Corrective Measure:** The contractor will verify that wiring conforms to applicable electrical code requirements. The contractor will repair wiring not conforming to code.

**7-2-3 Observation:** A light fixture is tarnished.

**Performance Guideline:** Finishes on light fixtures are covered under the manufacturer's warranty.

**Corrective measure:** No action is required of the contractor. Consumer should contact manufacturer.

**7-2-4 Observation:** Receptacle or switch covers protrude from the wall



**Performance Guideline:** Receptacle or switch covers should not be more than 1/16-inch from the adjoining wall surface.

**Corrective Measure:** The contractor will adjust the covers to meet performance guidelines.

**7-2-5 Observation:** Consumer's 220-volt appliance cord does not fit the outlet provided by the contractor.

**Performance Guideline:** The contractor shall install electrical outlets required by applicable electrical code.

**Corrective Measure:** No action is required of the contractor. The consumer is responsible for obtaining cords that fit the outlets provided by the contractor.

## Fans

**7-3-1 Observation:** A ceiling fan vibrates excessively and/or is noisy.

**Performance Guideline:** The contractor shall install ceiling fans in accordance with the manufacturer's instructions.

**Corrective Measure:** The contractor shall correct any fan installation not in accordance with the performance guideline if the fan supplied and installed by the contractor.

**7-3-2 Observation:** An exhaust fan discharges into attic or crawl space.

**Performance Guideline:** Fans shall discharge as required by applicable codes.

**Corrective Measure:** The contractor shall repair to meet performance guidelines.

## Smoke Detectors

**7-4-1 Observation:** A smoke detector "chirps."

**Performance Guideline:** A smoke detector should not "chirp" at substantial completion of the project.

**Corrective Measure:** The contractor will repair or replace the smoke detector to eliminate chirping.

**Discussion:** Chirping is an indication that the battery is weak or is not installed. If the chirping occurs on a new smoke detector, the contractor will check the battery, verify that the detector is wired correctly and replace the device if necessary.

# **8 INTERIOR CLIMATE CONTROL**

## Air Infiltration and Drafts

**8-1-1 Observation:** Air infiltrates around exterior doors or windows.

**Performance Guideline:** Some infiltration is usually noticeable around doors and windows, especially during high winds. No daylight shall be visible around the frame when the window or door is closed.

**Corrective Measure:** The contractor shall repair to meet the performance guideline.

**8-1-2 Observation:** A draft comes through an electrical outlet.

**Performance Guideline:** Electrical outlets and switch boxes on exterior walls may allow cold air to flow though or around an outlet into a room.

**Corrective Measure:** No action is required of the contractor.

## Humidity Control and Condensation

**8-2-1 Observation:** Water, ice or frost is observed on a window.

**Performance Guideline:** Windows will be installed in accordance with the manufacturer's instructions and applicable building codes.

**Corrective Measure:** No action is required of the contractor unless the water, ice or frost is directly attributed to faulty installation.

**8-2-2 Observation:** The ductwork makes noises.

**Performance Guideline:** Ductwork will be constructed and installed in accordance with applicable mechanical code requirements.

**Corrective Measure:** Unless the duct is not in compliance with the local code, no corrective action is required.

**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.

**8-2-3 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 shall be such that ducts do not "oil can." The booming noise caused by oil canning is considered excessive.

**Corrective Measure:** The contractor will correct the ductwork to eliminate noise caused by oil canning.

**8-2-4 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 action is required unless registers are not installed in accordance with manufacturer's instructions.

**Discussion:** Under certain conditions some noise may be experienced with the normal flow of air.

**8-2-5 Observation:** The air handler or furnace vibrates.

**Performance Guideline:** These items shall be installed in accordance with the manufacturer's instructions and applicable codes.

**Corrective Measure:** No action is required unless not installed in accordance with manufacturer's instructions and code requirements.

**Discussion:** Under certain conditions some vibrating may be experienced with the normal flow of air.

**8-2-6 Observation:** The ductwork is separated or detached.

**Performance Guideline:** Ductwork shall remain intact and securely fastened.

**Corrective Measure:** The contractor will reattach and secure all separated or unattached ductwork.

## Heating System

**8-3-1 Observation:** The heating system is inadequate.

**Performance Guideline:** The heating system shall be capable of producing an inside temperature of 70 degrees Fahrenheit, as measured in the center of each room at a height of 5 feet above the floor under local, outdoor winter design conditions. National, state or local energy codes shall supersede this performance guideline where such codes have been locally adopted. Temperature may vary between different levels or rooms of the home.

**Corrective Measure:** The contractor will correct the heating system to provide the required temperature in accordance with the performance guideline or applicable codes. However, the consumer will be responsible for balancing dampers and registers and for making other necessary minor adjustments.

## Central Air-Conditioning System

**8-4-1 Observation:** The cooling of rooms is inadequate.

**Performance Guideline:** The cooling system shall be capable of maintaining a temperature of 78 degrees Fahrenheit, as measured in the center of each room at a height of 5 feet above the floor under local outdoor summer design conditions. In the case of outside temperatures exceeding 95 degrees Fahrenheit, the system shall keep the inside temperature 15 degrees Fahrenheit cooler than the outside temperature. National, state or local codes shall supersede this guideline where such codes have been locally adopted. Temperature may vary between different levels or rooms of the home.



**Corrective Measure:** The contractor will correct the cooling system to provide the required temperature in accordance with the applicable codes.

**8-4-2 Observation:** A condensate line is clogged.

**Performance Guideline:** Condensate lines must be free of all clogs to operate properly.

**Corrective Measure:** Condensate lines will eventually clog under normal use. The contractor will provide unobstructed condensate lines at the time of substantial completion of the project. The consumer is responsible for maintaining them in that condition.

**8-4-3 Observation:** There is a refrigerant leak.

**Performance Guideline:** Refrigerant lines and fittings shall not leak during normal operation.

**Corrective Measure:** The contractor will repair leaking refrigerant lines and recharge the air-conditioning unit unless the damage was caused by the consumer's actions or negligence.

**8-4-4 Observation:** There is condensation on the outside of air handlers and ducts.

**Performance Guideline:** Moisture may condense on the exterior surfaces of air handlers and ducts under some temperature differences and high humidity levels.

**Corrective Measure:** No action is required of the contractor, unless the condensation is directly attributed to faulty installation.

**8-4-5 Observation:** Kitchen or bath fans allow air infiltration.

**Performance Guideline:** Bath and kitchen fans shall be installed in accordance with the manufacturer's instructions and code requirements.

**Corrective Measure:** No action is required of the contractor if fans meet the guidelines.

**Discussion:** It is possible for the damper to be lodged open due to animal nesting or the accumulation of grease, lint or other debris. Maintenance of ventilation fans is the consumer's responsibility.

**8-4-6 Observation:** HVAC vent or register covers protrude more than 1/8-inch from a smooth wall or ceiling surface.

**Performance Guideline:** Registers shall not protrude more than 1/8-inch from the wall surface at the time of substantial completion of the project.

**Corrective Measure:** The contractor shall comply with the performance guideline.

## 9 INTERIOR

### Interior Doors

**9-1-1 Observation:** An interior door is warped

**Performance Guideline:** Interior doors shall not warp in excess of 1/4 -inch

**Corrective Measure:** The contractor will correct or replace and refinish defective doors to match existing doors as nearly as practical prior to close.

**Discussion:** Warping of doors after substantial completion is out of the contractor's control.

**9-1-2 Observation:** Bi-fold doors come off their tracks during normal operation.

**Performance Guideline:** Bi-fold doors shall slide properly on their tracks and verified by the consumer and contractor at the time of substantial completion.

**Corrective Measure:** One time only, the contractor will repair any bi-fold door that will not stay on its tract during normal operation. Cleaning and maintenance necessary to preserve proper operation are consumer responsibilities.

**9-1-3 Observation:** A pocket door rubs in its pocket during normal operation.

**Performance Guideline:** Pocked doors shall not rub in their pockets during normal operation.

**Corrective action:** One time only, the contractor will repair the pocked door to meet the performance guideline. Cleaning and maintenance necessary to preserve proper operation are consumer responsibilities.

**9-1-4 Observation:** A wooden door panel has shrunk or split.

**Performance Guideline:** Wooden door panels shall not split to the point that light is visible through the door.

**Corrective Measure:** One time only, the contractor will fill splits in the door panel with wood filler and will match the paint or stain as closely as practical.

**9-1-5 Observation:** A door rubs on jambs or floor covering.

**Performance Guideline:** Doors shall operate smoothly.

**Corrective Measure:** One time only, the contractor will repair the door as necessary to meet the performance guideline.

**9-1-6 Observation:** A door edge is not parallel to the doorjamb.

**Performance Guideline:** When the contractor installs the doorframe and door, the door edge shall be within 3/16-inch of parallel to the doorjamb.

**Corrective Measure:** One time only, the contractor will adjust the door as necessary to meet the guideline.

**9-1-7 Observation:** A door swings open or closed by the force of gravity.

**Performance Guideline:** Doors shall not swing open or closed by the force of gravity alone.

**Corrective Measure:** The contractor will adjust the door as necessary to meet the guideline one time.

**9-1-9 Observation:** A doorknob or latch does not operate smoothly.

**Performance Guideline:** A doorknob or latch should not stick or bind during operation.

**Corrective Measure:** The contractor will adjust, repair or replace knobs or latches that are not damaged by abuse one time.

## Interior Stairs

**9-2-1 Observation:** An interior stair tread deflects too much.

**Performance Guideline:** The maximum vertical deflection of an interior stair tread shall not exceed 1/8-inch at 200 pounds of force.

**Corrective Measure:** The contractor will repair the stair to meet the performance guideline.

**9-2-2 Observation:** Gaps exist between interior stair risers, treads and/or skirts.

**Performance Guideline:** Gaps between adjoining parts that are designed to meet flush shall not exceed 1/8-inch in width.

**Corrective Measure:** The contractor will repair the gap with filler or will replace the parts as necessary to meet the performance guideline.

**9-2-3 Observation:** A stair rise or tread squeaks.

**Performance Guideline:** Totally squeak-proof stair risers or treads cannot be guaranteed.

**Corrective Measure:** The contractor will refasten any loose riser or treads or take other reasonable and cost-effective corrective action to eliminate squeaking without removing treads or ceiling finishes

**Discussion:** 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 the complete elimination of squeaks is practically impossible.



**9-2-4 Observation:** Gaps exist between interior stair railing parts.

**Performance Guideline:** Gaps between interior stair railing parts shall not exceed 1/8-inch in width.

**Corrective Measure:** The contractor will ensure that individual parts of the railing are securely mounted. Any remaining gaps will be filled or the parts will be replaced to meet the performance guideline.

**9-2-5 Observation:** An interior stair railing lacks rigidity.

**Performance Guideline:** Interior stair railings shall be attached to structural members in accordance with applicable building codes.

**Corrective Measure:** The contractor will repair any stair railings as necessary to comply with applicable building codes.

## Trim and Moldings

**9-3-1 Observation:** There are gaps at non-mitered trim and molding joints.

**Performance Guideline:** Openings at joints in trim and moldings and at joints between moldings and adjacent surfaces shall not exceed 1/8-inch in width at the time of installation.

**Corrective Measure:** The contractor will repair joints to meet the performance guideline prior to close of the home.

**Discussion:** Separation of trim and moldings in excess of the performance guidelines may be caused by lack of control of indoor relative humidity. Joints that separate under these conditions are not considered defective. It is the consumer's responsibility to control temperature and humidity in the home.

**9-3-2 Observation:** Nails are not properly set or, where puttied, 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 shall not be readily visible from a distance of 6 feet under normal lighting conditions. After painting or staining, putty colors will not exactly match variations in wood color.

**Corrective Measure:** Where the contractor is responsible for painting, the contractor shall take action necessary to meet the performance guideline prior to close.

**Discussion:** Puttying of nail holes in unfinished rooms and areas not exposed to view (such as inside of closets) are not included in this guideline.

**9-3-4 Observation:** Trim or molding mitered edges does not meet.

**Performance Guideline:** Gaps between mitered edges in trim and molding shall not exceed 1/8-inch at the time of installation.

**Corrective Measure:** The contractor will repair gaps that do not meet the performance guideline. Caulking or puttying with materials compatible to the finish is acceptable.

**9-3-5 Observation:** Interior trim is split.

**Performance Guideline:** Splits, cracks and checking greater than 1/8-inch in width are considered excessive.

**Corrective Measure:** One time only, the contractor will repair the affected area to meet the guideline.

**9-3-6 Observation:** Hammer marks are visible on interior trim.

**Performance Guideline:** Hammer marks on interior trim shall not be readily visible from a distance of 6 feet under normal lighting conditions, found at substantial completion.

**Corrective Measure:** The contractor 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.

## Cabinets

**9-4-1 Observation:** Cabinets do not meet the ceiling or walls at substantial completion.

**Performance Guideline:** Gaps greater than 1/4-inch in width are considered excessive.

**Corrective Measure:** The contractor will repair the gap with caulk, putty or scribe molding or will reposition/reinstall cabinets to meet the performance guideline.

**9-4-2 Observation:** Cabinets do not line up with each other at substantial completion

**Performance Guideline:** Cabinet faces more than 1/8-inch out of line and cabinet corners more than 3/6-inch out of line, are considered excessive, unless the consumer and contractor agree to disregard the guideline in order to match or otherwise compensate for pre-existing conditions.

**Corrective Measure:** The contractor will make necessary adjustments to meet the performance guideline.

**9-4-3 Observation:** A cabinet is warped at substantial completion.

**Performance Guideline:** Cabinet warpage shall not exceed 1/4-inch as measured from the face frame to the point of furthest warpage, with the door or drawer front in closed position.

**Corrective measure:** The contractor will correct or replace doors and drawer fronts as necessary to meet the performance guideline.

**9-4-4 Observation:** A cabinet door or drawer binds at substantial completion.

**Performance Guideline:** Cabinet doors and drawers shall open and close with reasonable ease.

**Corrective Measure:** The contractor will adjust or replace cabinet doors and drawers as necessary to meet the performance guideline.

**9-4-5 Observation:** A cabinet door will not stay closed at substantial completion.

**Performance Guideline:** The catches or closing hardware for cabinet doors shall be adequate to hold the doors in a closed position.

**Corrective Measure:** The contractor will adjust or replace the door catches or closing hardware as necessary to meet the performance guideline.

**9-4-6 Observation:** Cabinet doors or drawers are cracked at substantial completion.

**Performance Guideline:** Panels and drawer fronts shall not crack.

**Corrective Measure:** The contractor may replace or repair cracked panels and drawer fronts. No contractor action is required if the cracked drawer fronts or panels result from the consumer's abuse.

**Discussion:** Paint or stain on the repaired or replaced panel or drawer front may not match the stain on the existing panels or drawer fronts.

**9-4-7 Observation:** Cabinet units are not level at substantial completion.

**Performance Guideline:** Individual cabinets should not have a deviation of more than 3/6-inch out of level.

**Corrective Measure:** The contractor will level cabinets to meet the performance guideline.

**9-4-8 Observation:** A cabinet door is warped at substantial completion.

**Performance Guideline:** Cabinet door warpage shall not exceed 1/8-inch as measured diagonally from corner to corner.

**Corrective Measure:** The contractor may replace or repair warped doors to meet the performance guideline.

## Countertops

**9-5-1 Observation:** High-pressure laminate on a countertop is delaminated.

**Performance Guideline:** Countertops fabricated with high-pressure laminate coverings shall not delaminate.

**Corrective Measure:** The contractor will repair or replace delaminated coverings, unless the delaminating was caused by the consumer's misuse or negligence.

**Discussion:** Consumers should refrain from leaving any liquids near the countertop seams or allowing the surface to become excessively hot.

**9-5-2 Observation:** The surface of high-pressure laminate on a countertop is cracked or chipped.

**Performance Guideline:** Cracks or chips greater than 1/16-inch in width are considered excessive.



**Corrective Measure:** The contractor 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.

**9-5-3 Observation:** Solid surface countertops are visibly scratched.

**Performance Guideline:** At the time of substantial completion of the home, solid surface countertops shall be free of scratches visible from 6 feet under normal lighting conditions.

**Corrective Measure:** The contractor shall repair scratches in the countertop to meet performance guidelines.

**9-5-4 Observation:** A countertop is not level

**Performance Guideline:** Countertop shall be no more than 3/8-inch in 10 feet out of parallel with the floor.

**Corrective Measure:** The contractor will make necessary adjustments to meet the performance guideline.

**9-5-5 Observation:** A tile countertop has uneven grout lines.

**Performance Guideline:** Grout lines should not vary more than 1/16-inch from the widest to the narrowest.

**Corrective Measure:** The contractor shall make corrections as necessary to bring the grout lines into compliance with the performance guideline.

**Discussion:** Different tiles require different widths of grout lines. Some tiles are designed to have varied-width grout lines.

**9-5-6 Observation:** Tile countertop grout lines are cracked.

**Performance Guideline:** Tile grout is a cement product and is subject to cracking. Cracks that result in loose tiles or gaps in excess of 1/16-inch shall be repaired.

**Corrective Measure:** The contractor will repair the grout lines by adding grout, caulking or replacing grout one time. Color may not match exactly.

**9-5-7 Observation:** A granite, marble, stone or solid surface countertop is cracked at the time of substantial completion of the home.

**Performance Guideline:** Cracks greater than 1/32-inch in width are considered excessive.

**Corrective Measure:** If the crack is caused as a result of faulty installation or product, the contractor will repair or replace the countertop. Patching is an acceptable repair.

**9-5-8 Observation:** granite, marble, stone or solid surface countertop has texture or color variations.

**Performance Guideline:** Color variations are acceptable. The contractor has no responsibility for countertop texture or color variations when the consumer selects the material or accepts material at time of substantial completion.

**Corrective Measure:** No action is required of the contractor.

**9-5-9 Observation:** A granite, marble, stone or solid surface countertop is chipped at the time of substantial completion of the home.

**Performance Guideline:** Chips greater than 1/32-inch in width are considered excessive.

**Corrective Measure:** The contractor will repair or replace affected areas to meet the performance guidelines.

**9-5-10 Observation:** The surface of countertop tile has excessive lippage of adjoining tile at substantial completion.

**Performance Guideline:** Lippage greater than 1/16-inch is considered excessive, except for materials that are designed with an irregular height (such as hand-made tile).

**Corrective Measure:** The contractor will repair or replace the tile to meet the performance guideline.

**9-5-11 Observation:** A solid surface or laminate countertop has a bubble, burn, stain or other damage.

**Performance Guideline:** solid surface or laminate countertops shall be free of bubbles, burns or stains at the time of substantial completion of the home.

**Corrective Measure:** The contractor 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 consumer is responsible for maintaining the countertop and protecting it from damage.

## Interior Wall Finish

### Lath and Plaster

**9-6-1 Observation:** Cracks are visible on a finished wall or ceiling at substantial completion.

**Performance Guideline:** Cracks shall not exceed 1/16-inch in width.

**Corrective Measure:** One time only, the contractor will repair cracks exceeding 1/16-inch in width. The contractor will touch up paint on areas. A perfect match between original and new paint cannot be expected and the contractor is not required to paint an entire wall or room.

### Gypsum Wallboard

**9-6-2 Observation:** A nail pop, blister or other blemish is visible on a finished wall or ceiling at substantial completion.

**Performance Guideline:** Any such blemishes that are readily visible from a distance of 6 feet under normal lighting conditions are considered excessive.

**Corrective Measure:** One time only, the contractor will repair such blemishes. The contractor will touch up paint on repaired areas if the contractor was responsible for the original interior painting. A perfect match between original and new paint cannot be expected. The contractor is not required to paint an entire wall or room. The contractor is not required to repair defects that are covered by wallpaper and, therefore, are not visible.

**9-6-3 Observation:** Cracked corner bead, excess joint compound, trowel marks or blisters in tape joints are observed on drywall surface.

**Performance Guideline:** Defects resulting in cracked corner bead, trowel marks, excess joint compound or blisters in tape are considered excessive.

**Corrective Measure:** The contractor shall repair the affected area of the wall to meet the performance guideline one time within the warranty period.

**9-6-4 Observation:** The texture of gypsum wallboard does not match at substantial completion.

**Performance Guideline:** Any variations that are readily visible from a distance of 6 feet under normal lighting conditions are considered excessive.

**Corrective Measure:** The contractor will repair the affected area to meet the guideline.

**9-6-5 Observation:** Angular gypsum wallboard joints are uneven at substantial completion.

**Performance Guideline:** This is a natural condition that occurs with randomly applied materials.

**Corrective Measure:** No action is required of the contractor. This is a common condition.

**9-6-6 Observation:** Drywall is cracked.

**Performance Guideline:** Drywall cracks greater than 1/16-inch in width are considered excessive.

**Corrective Measure:** One time within the warranty period, the contractor will repair cracks and touch up paint in affected areas. The texture and paint color may not exactly match the existing texture and paint color.

**9-6-7 Observation:** Blown or textured ceilings have uneven textures.

**Performance Guideline:** This is a common condition that occurs with randomly applied materials.

**Corrective Measure:** No action is required of the contractor. This is a common condition.



## Paint, Stain and Varnish

**9-6-8 Observation:** Interior paint does not “cover” the underlying surface at substantial completion.

**Performance Guideline:** The surface being painted shall not show through new paint when viewed from a distance of 6 feet under normal lighting conditions.

**Corrective Measure:** The contractor will recoat affected areas as necessary to meet the guidelines as closely as practical.

**9-6-9 Observation:** An interior surface is spattered with paint at substantial completion.

**Performance Guideline:** Paint spatters shall not be readily visible on walls, woodwork, floors or other interior surfaces when viewed from a distance of 6 feet under normal lighting conditions.

**Corrective Measure:** The contractor will remove paint spatters to meet the performance guideline.

**9-6-10 Observation:** Brush marks show on interior painted surface at substantial completion.

**Performance Guideline:** Brush marks shall not be readily visible on interior painted surfaces when viewed from a distance of 6 feet under normal lighting conditions.

**Corrective Measure:** The contractor will refinish as necessary to meet the performance guideline and match affected areas as closely as practical.

**9-6-11 Observation:** Lap marks show on interior painted or stained areas at substantial completion.

**Performance Guideline:** Lap marks shall not be readily visible on interior painted surfaces when viewed from a distance of 6 feet under normal lighting conditions.

**Corrective Measure:** The contractor will refinish as necessary to meet the performance guideline and match affected areas as closely as practical.

**9-6-12 Observation:** Interior painting, staining or refinishing is required because of repair work.

**Performance Guideline:** A perfect match between original and new paint cannot be expected. Repairs required under these performance guidelines shall be finished to match the immediate surrounding areas as closely as practical.

**Corrective Measure:** Where the majority of the wall or ceiling area is affected, the area will be painted from break line to break line. The contractor is not required to paint an entire room.

**9-6-13 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 action is required of the contractor. This is a common condition.

## Wallpaper and Vinyl Wall Coverings

**9-6-14 Observation:** The wall covering has peeled.

**Performance Guideline:** The wall covering shall not peel off the walls.

**Corrective Measure:** The contractor will reattach or replace the loose wall covering if the contractor installed the covering.

**Discussion:** Wallpaper applied in high moisture areas is exempted from this guideline because the problem results from conditions beyond the contractor's control.

**9-6-15 Observation:** Patterns in wall covering are mismatched at substantial completion.

**Performance Guideline:** Patterns in wall coverings shall match. Irregularities in the patterns themselves are the manufacturer's responsibility.

**Corrective Measure:** The contractor shall correct the wall covering to meet the performance guidelines.

## 9 FLOOR FINISHES

### Carpeting

**10-1-1 Observation:** Carpet does not meet at the seams at substantial completion.

**Performance Guideline:** It is not unusual for carpet seams to show. However, a visible gap at the seams is considered excessive.

**Corrective Measure:** The contractor will eliminate visible gaps at carpet seams.

**10-1-2 Observation:** Carpeting stretches or loosens.

**Performance Guideline:** When stretched and secured properly, wall-to-wall carpeting installed as the primary floor covering shall not come up, loosen, or separate from the points of attachment.

**Corrective Measure:** The contractor will re-stretch or re-secure the carpeting as necessary to meet the guideline.

**10-1-3 Observation:** Carpeting is faded or discolored.

**Performance Guideline:** Fading or discoloration of carpet is a manufacturer's responsibility.

**Corrective Measure:** No action is required of the contractor. Homeowner should contact the carpet supplier direct.

**10-1-4 Observation:** Dead spot are observed in padding areas below the carpet surface.

**Performance Guideline:** Carpeted areas shall have full coverage of padding consistently throughout the flooring area.

**Corrective Measure:** The contractor will repair/replace padding in the affected areas to meet the performance guidelines.

### Roll Vinyl and Resilient Tile Flooring

**10-2-1 Observation:** Nail pops are observed on the surface of resilient flooring at substantial completion.

**Performance Guideline:** Readily visible nail pops on resilient flooring are considered excessive.

**Corrective Measure:** The contractor will repair the nail pops that are readily visible.

**Discussion:** The contractor will repair or replace, at the contractor's option, the resilient floor covering in the affected areas with similar materials. The contractor is not responsible for discontinued patterns or color variations when replacing the floor covering.

**10-2-2 Observation:** Depressions or ridges are observed in resilient flooring because of sub floor irregularities.

**Performance Guideline:** Readily apparent depressions or ridges exceeding 1/8-inch shall be repaired. The ridge or depression measurement is taken at the end of a 6-inch straightedge centered over the depression or ridge with 3 inches 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 contractor will take corrective action as necessary to bring the affected area within the acceptable tolerance so that the depression or ridge is not readily visible and is not more than 1/8-inch. The contractor will not be responsible for discontinued patterns or color variations when replacing the floor covering.

**10-2-3 Observation:** Resilient flooring has lost adhesion.

**Performance Guideline:** Resilient flooring shall not lift, bubble or detach.

**Corrective Measure:** At the contractor's option, the contractor will repair or replace the affected resilient flooring as necessary. The contractor is not responsible for discontinued patterns or color variations when replacing the floor covering.

**10-2-4 Observation:** Seams or shrinkage gaps show at vinyl flooring joints.



**Performance Guideline:** Gaps at joints/seams in vinyl flooring shall not exceed 1/32-inch in width. Where dissimilar materials abut, the gaps shall not exceed 1/16-inch.

**Corrective Measure:** At the contractor's option, the contractor will repair by sealing the gap with seam sealer or replace the vinyl flooring as necessary to meet the performance guideline. The contractor will not be responsible for discontinued patterns or color variations when replacing the floor covering.

**10-2-5 Observation:** Bubbles are observed on roll vinyl flooring at substantial completion.

**Performance Guideline:** Bubbles resulting from trapped air and that protrude higher than 1/16-inch from the floor are considered excessive.

**Corrective Measure:** The contractor will repair the floor to meet the guideline.

**Discussion:** The performance guideline does not apply to perimeter attached vinyl floors.

**10-2-6 Observation:** The patterns on roll vinyl flooring are misaligned at substantial completion.

**Performance Guideline:** Patterns at seams between adjoining pieces shall be aligned to within 1/8-inch.

**Corrective Measure:** The contractor will correct the flooring to meet the performance guideline.

**10-2-7 Observation:** A resilient floor tile is loose.

**Performance Guideline:** Resilient floor tiles shall be securely attached to the floor.

**Corrective Measure:** The contractor will attach loose resilient floor tiles securely to the floor. The old adhesive will be removed if necessary to re-secure the tiles.

**10-2-8 Observation:** The corners or patterns of resilient floor tiles are misaligned.

**Performance Guideline:** The corners of adjoining resilient floor tiles shall be aligned to within 1/8-inch. Misaligned patterns are not covered unless they result from improper orientation of the floor tiles.

**Corrective Measure:** The contractor will correct resilient floor tiles with misaligned corners to meet the performance guideline.

**10-2-9 Observation:** Yellowing is observed on the surface of vinyl sheet goods.

**Performance Guideline:** The contractor shall install vinyl flooring per the manufacturer's instructions.

**Corrective Measure:** The contractor does not cover yellowing resulting from a manufacturer's defect or from the consumer's misuse or lack of maintenance.

## Wood Flooring

**10-3-1 Observation:** Gaps exist between strip hardwood floorboards at substantial completion.

**Performance Guideline:** Gaps between strip hardwood floorboards shall not exceed 1/8-inch in width at the time of installation.

**Corrective Measure:** The contractor will repair gaps that do not meet the performance guideline.

**Discussion:** Proper repair can be affected by filling the gap. Relative humidity in the home can cause noticeable fluctuations in gaps between floorboards. This is a common phenomenon in climates and areas of the home that experience significant shifts in humidity. The consumer is responsible for maintaining proper humidity levels in the home.

**10-3-2 Observation:** Strip hardwood floorboards are cupped.

**Performance Guideline:** Cups in strip hardwood floorboards shall not exceed 1/16-inch in height in a 3-inch maximum span measured perpendicular to the long axis of the board. Cupping caused by exposure to moisture beyond the contractor's control is not covered.

**Corrective Measure:** The contractor will correct or repair cupped boards to meet the performance guideline.

**Discussion:** The consumer is responsible for proper maintenance of the floor and for maintaining proper humidity levels in the home.

**10-3-3 Observation:** Excessive lippage is observed at the junction of pre-finished wood flooring products at substantial completion.

**Performance Guideline:** Lippage greater than 1/16-inch is considered excessive.

**Corrective Measure:** The contractor will repair lippage in the affected areas to meet the performance guideline.

**10-3-4 Observation:** Voids ("holidays") are observed in the floor finish.

**Performance Guideline:** Voids that are readily visible from a distance of 6 feet under normal lighting conditions are considered excessive.

**Corrective Measure:** The contractor will repair the floor finish in the affected area(s) to meet the performance guideline.

**10-3-5 Observation:** The top coating on hardwood flooring has peeled.

**Performance Guideline:** Field-applied coating shall not peel during normal usage. Pre-finished coatings are the manufacturer's responsibility.

**Corrective Measure:** The contractor shall refinish any field-applied finishes that have peeled. The consumer should contact the manufacturer regarding factory-applied finishes that have peeled.

**10-3-6 Observation:** Strip flooring has crowned.

**Performance Guideline:** Crowning in strip flooring shall not exceed 1/16-inch in depth in a 3-inch maximum span when measured perpendicular to the long axis of the board.

**Corrective Measure:** The contractor will repair the affected area to meet the performance guideline.

**10-3-7 Observation:** Hardwood flooring has buckled from the substrate.

**Performance Guideline:** Hardwood flooring should not become loose from the substrate.

**Corrective Measure:** The contractor will repair the affected area to meet the performance guideline.

**10-3-8 Observation:** Excessive knots and color variations are observed in strip hardwood flooring.

**Performance Guideline:** The contractor will install the grade of hardwood specified for the project. All wood should be consistent with the grading stamp as specified.

**Corrective Measure:** The contractor shall replace any improperly graded wood.

**Discussion:** Hardwood is a natural product and consequently can be expected to exhibit variations in color, grain and stain acceptance.

**10-3-9 Observation:** Splinters are observed in strip flooring at substantial completion.

**Performance Guideline:** Splinters or splinters that occur during installation can be shaved and the area filled prior to sanding and finishing.

**10-3-10 Observation:** "Sticker burn" is observed on the surface of strip flooring at substantial completion.

**Performance Guideline:** Discoloration from stacking strips in hardwood flooring is considered excessive in certain grades of flooring.

**Corrective Measure:** The contractor shall 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

**10-4-1 Observation:** Tile, brick, marble or stone flooring is broken or loosened.

**Performance Guideline:** Tile, brick, marble and stone flooring shall not be broken or loose.

**Corrective Measure:** The contractor will replace broken tiles, bricks, marble and stone flooring and re-secure loose tiles, brick, marble and stone, unless the flooring was damaged by the consumer's actions or negligence. The contractor is not responsible for discontinued patterns or color variations when replacing tile, brick, marble or stone flooring.



**10-4-2 Observation:** Cracks are observed in the grouting of tile joints or at the junctures with other materials, such as a bathtub.

**Performance Guideline:** Cracks in grouting of ceramic tile joints commonly result from normal shrinkage conditions. Cracks that result in loose tiles or gaps in excess of 1/16-inch shall be repaired.

**Corrective Measure:** The contractor will repair grouting, if necessary, one time only. The contractor is not responsible for color variations or discontinued colored grout. The consumer is responsible for re-grouting these joints after the contractor's one-time repair.

**Discussion:** The use of an elastic substance at junctures between tile and other materials is often more effective than grout.

**10-4-3 Observation:** There is excessive lippage of adjoining marble or ceramic tile.

**Performance Guideline:** Lippage greater than 1/16-inch is considered excessive, except where the materials are designed with an irregular height (such as hand-made tile).

**Corrective Measure:** The contractor will repair lippage in the affected areas to meet the performance guideline.

## 11 MISCELLANEOUS

**11-1-1 Observation:** A fireplace or chimney does not consistently draw properly.

**Performance Guideline:** A properly designed and constructed fireplace and chimney shall function correctly. Some homes that have been constructed to meet stringent energy criteria may need to have a nearby window opened slightly to create an effective draft.

**Corrective Measure:** One time only, the contractor shall repair the chimney, based on the manufacture's specifications or the design specifications, to draw correctly.

**Discussion:** High winds can cause temporary negative or down drafts. Negative drafts can also be caused by obstructions such as tree branches, steep hillsides, adjoining homes and interior furnaces.

**11-1-2 Observation:** The chimney is separated from the structure.

**Performance Guideline:** Newly built fireplaces will often incur slight amounts of separation. The amount of separation from the main structure shall not exceed 1/2-inch in any 10-foot vertical measurement.

**Corrective Measure:** The contractor will repair gaps that do not meet the performance guideline.

**Discussion:** Proper repair can be affected by caulking unless the cause of the separation is due to a structural failure of the chimney foundation itself. In that case, caulking is unacceptable.

**11-1-3 Observation:** A fire in the fireplace damages the firebox paint.

**Performance Guideline:** Heat and discoloration is a common occurrence.

**Corrective Measure:** No action is required of the contractor. The consumer should obtain the proper paint from the manufacturer if he or she chooses to touch up the interior of the firebox for aesthetic reasons.

**11-1-4 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 of the contractor.

**11-1-5 Observation:** A simulated firebrick panel has cracked.

**Performance Guideline:** This is a common condition.

**Corrective Measure:** No corrective action is required of the contractor.

**11-1-6 Observation:** Rust is observed on the fireplace damper.

**Performance Guideline:** This is a common condition.

**Corrective Measure:** No corrective action is required of the contractor.

**11-2-1 Observation:** Stoops or steps have settled, heaved or separated from the house structure.

**Performance Guideline:** Stoops and steps shall not settle, heave or separate in excess of 1 inch from the house structure.

**Corrective Measure:** The contractor will make a reasonable and cost-effective effort to meet the performance guideline.

**11-2-2 Observation:** Water remains on stoops or steps after rain has stopped.

**Performance Guideline:** Water shall 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 contractor will take corrective action to ensure proper drainage of stoops and steps.

## Garage

**11-3-1 Observation:** The garage floor slab is cracked.

**Performance Guideline:** Cracks in a concrete garage floor greater than 3/16-inch in width or 3/16-inch in vertical displacement are considered excessive.

**Corrective Measure:** The contractor shall repair cracks in the slab to meet the performance guideline.

**Discussion:** The repaired area may not match the existing floor in color and texture.

**11-3-2 Observation:** A garage concrete floor has settled, heaved or separated.

**Performance Guideline:** The garage floor shall not settle, heave or separate in excess of 1 inch from the structure.

**Corrective Measure:** The contractor 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.

**11-3-3 Observation:** Garage doors fail to operate properly under normal use at substantial completion.

**Performance Guideline:** Garage doors shall operate as designed.

**Corrective Measure:** The contractor will correct or adjust garage doors as required, unless the consumer's actions or negligence caused the problem.

**11-3-4 Observation:** Garage doors allow the entry of snow or water.

**Performance Guideline:** Garage doors shall be installed as recommended by the manufacturer. Some snow or water can be expected to enter under normal conditions.

**Corrective Measure:** The contractor will adjust or correct the garage doors to meet the manufacturer's installation instructions.

## Driveways and Sidewalks

**11-4-1 Observation:** An asphalt driveway has cracked.

**Performance Guideline:** Longitudinal or transverse cracks greater than 1/16-inch in width or vertical displacement are considered excessive.

**Corrective Measure:** The contractor shall repair the affected area to meet the guideline.

**Discussion:** If commercial-grade filler is chosen for repair, cracks should be routed to a minimum depth of 1/4-inch.

**11-4-2 Observation:** Standing water is observed on an asphalt pavement surface.

**Performance Guideline:** Standing water greater than 1/8-inch in depth shall not remain on the surface 24 hours after a rain.

**Corrective Measure:** The contractor shall repair or replace the affected area to meet the guideline.



**11-4-3 Observation:** The aggregate of asphalt pavement is raveling.

**Performance Guideline:** Asphalt pavement shall not ravel.

**Corrective Measure:** The contractor shall repair or replace the affected area to meet the guideline.

**11-4-4 Observation:** A concrete driveway or sidewalk is cracked.

**Performance Guideline:** Cracks (outside of control joints) that exceed ¼-inch in width or ¼-inch in vertical displacement shall be repaired.

**Corrective Measure:** The contractor shall repair/replace-affected areas to eliminate crack that exceed the performance guidelines.

**Discussion:** Concrete products normally have some cracking and shrinkage. Minor cracking is normal. Cracking can be caused by elements outside of the contractor's control. Control joints are placed in the concrete to help control cracks and provide a less visible area for them to occur. The repaired area may not match the existing area in color and texture.

**11-4-5 Observation:** Adjoining exterior concrete flatwork sections deviate in height from one section to another.

**Performance Guideline:** Adjoining concrete sections shall not differ in height by more than ½-inch.

**Corrective Measure:** The contractor shall repair deviations to meet the performance guidelines.

**Discussion:** Some areas of the country experience lift or settlement at the junction of the garage floor and the driveway. The repaired area may not match the existing area in color and texture.

**11-4-6 Observation:** A sidewalk and other exterior concrete flatwork have settled.

**Performance Guideline:** Adjoining concrete sections shall not differ in height by more than ½-inch.

**Corrective Measure:** The contractor shall repair the affected areas 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. The repaired area may not match the existing area in color and texture.

**11-4-7 Observation:** Water collects (ponds) on the sidewalk.

**Performance Guideline:** Standing water that is 3/8-inch deep on a sidewalk 24 hours after the end of a rain is considered excessive.

**Corrective Measure:** The contractor shall repair or replace the affected area to meet the performance guideline.

## Wood Decks

**11-5-1 Observation:** A wood deck is springy or shaky.

**Performance Guideline:** All structural members in a wood deck shall be sized, and fasteners spaced, according to appropriate building codes and manufacturers instructions at substantial completion.

**Corrective Measure:** The contractor will reinforce or modify, as necessary, any wood deck not meeting the performance guidelines.

**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 consumer's preference is made known before construction, the contractor and the consumer may agree upon a higher standard.

**11-5-2 Observation:** The spaces between decking boards are not uniform at substantial completion.

**Performance Guideline:** The spaces on opposite sides of individual deck boards shall not differ in average width by more than 3/16-inch at the time of substantial completion of the project, unless otherwise agreed upon by the consumer and the contractor.

**Corrective Measure:** One time only, the contractor 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 contractor is only responsible for correct spacing at the time of substantial completion of the project.

**11-5-3 Observation:** The railings on wood decking contain slivers in exposed area at substantial completions.

**Performance Guideline:** Railings on wood decks shall not contain slivers longer than 1/8-inch in exposed areas at the time of substantial completion of the project.

**Corrective Measure:** One time only, the contractor will repair railings as necessary to remove slivers prior to substantial completion of the project. Repair of slivers after that time is a consumer maintenance responsibility.

**Discussion:** Slivers can develop when unprotected wood weathers. The proper finishing of wood surfaces helps prevent slivers from forming.

**11-5-4 Observation:** A wood deck is out of level at substantial completion.

**Performance Guideline:** No point on the deck surface shall be more than 1/2-inch higher or lower than any other deck surface point within 10 feet on a line parallel to the house, or in proportional multiples of the preceding dimensions (unless a slope is incorporated in the design).

**Corrective Measure:** The contractor will repair the deck as necessary to meet the performance guideline.

**Discussion:** A slope of approximately 1/8-inch per foot is desirable in the perpendicular direction to shed water and prevent ice build-up.

**11-5-5 Observation:** Wood decking boards are split, warped or cupped.

**Performance Guideline:** At the time of substantial completion of the project, splits, warps and cups in wood decking boards shall 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 contractor will replace decking boards as necessary to meet the performance guidelines.

**11-5-6 Observation:** A wood deck has 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 varying porosity of the wood used to build the deck – are common and are not covered by this guideline.

**Corrective Measure:** The contractor will re-stain the affected area to meet the performance guideline.

**11-5-7 Observation:** A nail head protrudes from a wood decking board.

**Performance Guideline:** Nail heads shall not protrude from the floor of the wood deck at the time of substantial completion of the project.

**Corrective Measure:** The contractor will refasten nails whose heads protrude from the floor of the deck so that the heads are flush with the surface.

**Discussion:** Nails should be driven flush when the deck is installed. They may pop from the deck over time as the wood shrinks and expands.

**11-5-8 Observation:** Nails on a wood deck are “bleeding.”

**Performance Guideline:** Nail stains extending more than 1/2-inch from the nail and readily visible from a distance of more than 3 feet are not acceptable.

**Corrective Measure:** The contractor will eliminate nail stains to meet the performance guideline.

**Discussion:** This guideline does not apply if “natural weathering” or semi-transparent stains are specified.



**11-5-9 Observation:** A wood deck railing lacks rigidity.

**Performance Guideline:** Wood deck railings shall be attached to structural members in accordance with applicable building codes.

**Corrective Measure:** The contractor will repair wood deck railings as necessary to comply with applicable building codes.

## **12 LANDSCAPING**

**12-0-1 Observation:** Tree stumps have been left in a disturbed area of the property.

**Performance Guideline:** If tree stumps were on the property in the disturbed area prior to the substantial completion of the project, the contractor is responsible for their removal.

**Corrective Measure:** The contractor will remove the stumps from that area.

**12-0-2 Observation:** Sod, shrubs, plants or trees that have been planted in a disturbed area of the property as part of the contract have died.

**Performance Guideline:** Any shrub, plant, tree or sod planted by the contractor as part of the contract are to be alive at the time of substantial completion of the project.

**Corrective Measure:** Any shrub, plant, tree or sod planted by the contractor as part of the contract shall be replaced to meet the performance guideline.

**12-0-3 Observation:** Grass seed does not germinate.

**Performance Guideline:** Germination is dependent on certain climatic conditions, which are beyond the contractor's control.

**Corrective Measure:** The contractor is only responsible for seeding per the manufacturer's instructions.

**Discussion:** After installation, proper lawn and landscape care are the consumer's responsibility.

**12-0-4 Observation:** Outdoor plants moved during work die after substantial completion of the project.

**Performance Guideline:** Plants that must be physically transported during the work shall be moved, maintained and replanted by the consumer.

**Corrective Measure:** No action is required of the contractor.

**Discussion:** The contractor shall not be responsible for delays in the schedule when the consumer moves plants.

**THE FOLLOWING PORTION TO BE RETAINED**

**BY BURCKART CONSTRUCTION, INC.**

**RECEIVED The Burckart Construction, Inc. 1-Year Expressed Warranty**

## HOME BUYERS:

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Print

## HOME BUYERS:

DATE \_\_\_\_\_

**Signature**

**BUILDER:**

**BURCKART CONSTRUCTION,**

**BUILDER:**

DATE \_\_\_\_\_

Signature